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Study on Pilotage Exemption Certificates

Final Report

18 September 2012

Submitted to:
European Commission
Directorate-General for
Mobility and Transport

Version: 1.3

Prepared by PwC in
partnership with:

pwc

Disclaimer

PwC[1] and Panteia[2] present a study on "Pilotage Exemption Certificates".

As part of this process, PwC and Panteia contacted the national administrations of European Member States, Croatia and Norway, ports, pilotage service providers, shipping lines and Masters as relevant stakeholders, asking them some questions about legal and procedural aspects of pilotage services, cost and dues of pilotage, Pilotage Exemption Certificates (PECs) and shore-based pilotage.

This study presents an overview of pilotage systems across the European Union (EU), Croatia and Norway, based on data and statistics collected during the survey and in-depth interviews.

Filename and Document version	PEC Final Report v1.3 18Sept2012.doc
Document Release Date	18 September 2012
Corrected version	Amended[3] on 5 November 2012

[1] Diego Artuso, Naomi Coleman, Capt. Tom Drennan, Federica Fotino, Valerio Gori, Anne McGregor.

[2] Menno Langeveld, Iliyana Lilova.

[3] The sentence "42% of responding ports expressed this view" on page 238 has been amended with "58% of responding ports expressed this view", which corresponds with the survey results and with the linked Figure 44.
On page 12 and 117, Lithunia does not require vessels to be registered in that country or flying the national flag in order to be exempted from pilotage.

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List of abbreviation

ABP	Associated British Ports Southampton
AIS	Automatic Identification System
AMPI	Association of Marine Pilots Ireland
ANAVE	Asociación de Navieros Españoles
ARPA	Automatic Radar Plotting Aid
BMPA	Bulgarian Maritime Pilots Association
CHA	Competent Harbour Authorities
DfT	Department for Transport (UK)
DDTM	Department Director of the Territories and the Sea
DGPS	Differential Global Positioning System
DIRM	Inter Regional Directions of the Sea
DML	Directions of the Sea and Coastline
DWT	Dead Weight Tonnage
EAMA	Executive Agency Maritime Administration
ECASBA	European Community Association of Ship Brokers and Agents
ECDIS	Electronic Chart Display and Information System
ECSA	European Community Ship-owners Association
EEA	European Environment Agency
EMPA	European Maritime Pilots Association
FFMP	French Federation of Maritime Pilots
FSA	Finnish Shipowners Association
FTE	Full Time Equivalent
GGP	Guide to Good Practice
GT	Gross Tonnage
IALA	International Association of Marine Aid
ICT	Information, Communication and Technology

IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
IMPA	International Maritime Pilots Association
INF	Internal Nuclear Fuels
INS	Information Service
INPP	The Nacional de Pilotagem e Portos
IPTM	Instituto Portuário e dos Transportes Marítimos
IS	Information Services
ISM	International Safety Management
ISPO	International Standard for Maritime Pilot Organisation
ISPS	International Ship and Port Facility Security
KPI	Key Performance Indicator
LMSA	Lithuanian Maritime Safety Administration
LOA	Length Overall
MCA	Maritime and Coastguard Agency
MITC	Ministry for Infrastructure, Transport and Communication
MSN	Maritime Safety Administration
NAS	Navigational Assistance Service
NCA	Norwegian Coastal Administration
NLc	Nederlands Loodsencorporatie
NT	Net Tonnage
PEC	Pilot Exemption Certificate
PMSC	Port Marine Safety Code
PPU	Portable Pilot Unit
R&D	Research and Development
RNA	Romanian Naval Authority
RoRIS	Vessel Traffic Management and Information System on Romanian Danube
RoRo	Roll on Roll off Vessel
STCW	Standards of Training, Certification and Watchkeeping

SWATH	Small Waterplane Area Twin Hull
SI	Size Indicator
SMA	Slovenian Maritime Administration
SMCP	Standard Marine Communication Phrases
SOLAS	Safety of Life at Sea
STA	Swedish Transport Agency
TOS	Traffic Organization Service
UKC	Under Keel Clearance
VHF	Very High Frequency
VTMIS	Vessel Traffic Management Information System
VTS	Vessel Traffic Service

Executive Summary

Study objectives

The main objective of this study is to provide a comprehensive picture of the procedures and legal requirements for issuing PECs across the EU, Croatia and Norway. In addition, information and opinions were gathered from a range of stakeholders and a comparative analysis of accidents was undertaken, to better understand the impacts associated with PECs.

The study was intended to provide a baseline of information and data that can be further used to assess the need for a EU policy initiative on PECs.

The data gathered during this Study has enabled the compilation of a comprehensive picture of what is happening across the EU, Croatia and Norway with regard to the issuance and usage of PECs.

In addition, a wealth of opinion has been gathered from a considerable cross-section of stakeholders, which is invaluable in terms of understanding how PECs are perceived and how their presence impacts on stakeholders.

Data collection programme

A detailed questionnaire was circulated to national administrations across the 22 coastal Member States, Croatia and Norway via the EU Permanent Representatives for each country. An excellent response was obtained, with only one country indicating that they did not have sufficient time to prepare a response. Information on processes, procedures and statistics was obtained through this aspect of the data collection programme.

An on-line survey was conducted with the aim of gathering opinions on PEC impacts from other stakeholders, namely Port Authorities, pilots, shipping companies and ships' Masters, as well as relevant industry representative organizations. The survey was strengthened by contributions from the European Tug-owners Association, the European Maritime Pilots Association (EMPA) and the European Community Ship-owners Association (ECSA). ECSA received 20 completed questionnaires from individual national ship-owners' associations which represent more than 200 shipping companies. A total of 34 port authorities and 36 pilots completed a questionnaire on-line.

The data gathered during this Study has enabled a comprehensive picture of what is happening across the EU, Croatia and Norway with regard to the issuance and usage of PECs.

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Pilotage legislation

Over the last 15 years there have been major amendments to pilotage legislation, mostly concerning the way in which pilotage is organized, rules on pilotage, exemptions policy and PEC procedures. In countries that have recently joined or will join the EU changes have concerned alignment of policies with international and/or EU requirements.

Further changes to legislation are planned in thirteen countries. In some countries there are key changes planned with regard to the way pilotage and PECs are organized and processed:

- In Poland, future changes involve increasing homogeneity between regions;
- Denmark is proposing to make the requirement for obtaining a PEC less stringent;

- In the Netherlands consideration is to be given to the possibility of new PEC categories; and
- In Estonia there are plans to revise the pilotage exemption examination requirements, and to include English as an alternative to the national language.

The definition of pilotage in national legislation varies considerably

From the discussions held with stakeholders and responses obtained through the survey, it is clear that there are many areas where perceptions and definitions vary between countries.

Pilotage is defined in national legislations in many different ways: in some cases the definition is fairly general applying to all types of pilotage, while in others it is specifically defined and/or categorized. In most instances pilotage is defined as either 'port' or 'harbour' pilotage. However, it is the case that the nature of pilotage varies between countries and local circumstances – and therefore not all types of pilotage exist in one country.

The definition and perception of shore-based pilotage can also vary between countries – in some countries advice from a pilot on board another vessel or pilot boat is classed as shore-based pilotage, while in others it is not.

The pilot advises the Master and the Master generally has legal authority on board

Generally the pilot acts as advisor to the Master or Captain regarding the route into (or out of) the port, berthing and un-berthing, drawing on his experience and knowledge of the local maritime area.

In many countries the requirements of the pilot while on board are set out in the pilotage rules or regulations regarding the advice that he can give, the relationship between the pilot and Master and his duties with regard to reporting of the pilotage mission.

In Norway, the pilot can be authorized to give orders with regard to pilotage, rather than advice only – while this may be the case in other countries it was only stated in the response from Norway.

At the time of pilotage the Master generally has legal authority on board. Responses suggest that only in Greece and Poland does the pilot have legal authority on board. There are also several instances where other entities, such as the State agency or department can board the ship during pilotage and have legal authority.

Liabilities reflect national judicial traditions

The divergent liability regimes applicable in the countries examined demonstrate that liability reflects the different national judicial and cultural traditions inherent in each society. For the current study, the most important cross-comparison is the one between the liabilities of pilots and the liabilities of Masters exempted from pilotage.

In most cases pilots can incur civil and/or criminal liability, contractual liability accounting for less than half of the responses reviewed. With regard to criminal liability, fines can vary significantly from €26 (for providing erroneous advice to the Master/Captain or for violating safety of shipping in Belgium) up to €30,000 (for conduct contravening the Maritime Code in Slovenia). Imprisonment can vary from one year (as in Denmark) to seven years (as is the case in Romania for knowingly providing erroneous advice to the Captain/Master).

In most of the cases, PEC holders can incur only civil and/or criminal liability. With regard to civil liability, a heavier compensatory burden is sometimes applicable to PEC holders who do not enjoy limitations on their liability, as contrasted to the limitations applicable to pilots.

The pilot can refuse or abort a mission on safety grounds

In terms of service level requirements there is a range of indicators and parameters across countries.

There are a number of defined service level agreements in place, as in some UK and Irish ports (even where the port provides pilotage internally), Belgium (as part of a concession contract), France (set of service obligations) and in Malta (Service Level Agreement setting out level of service given by pilots and Cooperative Society).

In many countries the service level comprises a set notice period and/or maximum ship waiting time. Notice periods range considerably, from 1.5 hours to 24 hours.

According to the information collated, there are no service level requirements present in Bulgaria, Denmark, Estonia, Greece, Poland, Slovenia and Spain. There are no service level requirements in the UK at national level, though there are service level requirements stipulated at some CHAs.

Not all pilotage services are provided against a service level requirement

In terms of service level requirements there is a range of indicators and parameters across countries.

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There is variance in pilotage dues for different vessel types

Generally Government departments/agencies or Port Authorities play a key role in either stipulating the criteria that underpin the level of pilotage dues and/or setting the actual level of dues.

Private pilotage providers in some instances have the power to set the criteria and level of pilotage dues (in Denmark, Estonia and Slovenia). In Estonia the Maritime Safety Act sets out the framework for pilotage dues, which stipulates that the calculation of dues must be transparent and public, and that they should ensure a 'reasonable profit'.

In Norway the principles for setting pilotage dues is based on the user pays principle, that costs should be distributed between vessels according to the expenses that they incur.

Looking at pilotage dues charged for three specified vessel types there are clear variances.

Dues are generally high on average in northern Europe (particularly in the Netherlands, Norway and Belgium): in contrast pilotage dues are significantly lower than the average in southern European countries, particularly Croatia, Cyprus, Malta, Bulgaria and Italy for example.

However, it should be considered that the fairways are typically shorter in the Mediterranean ports than in the northern ports: this is likely to justify the observed lower pilotage dues in southern Europe.

The questionnaire did not explore in detail the rationale and assumptions used to define the tariffs. From the responses gathered, however, it is clear that there are different approaches, which reflect the nature of the pilotage service provision, in terms of whether it is a public service or provided by a private company.

Compulsory pilotage criteria are specific to local requirements

The criteria governing compulsory pilotage varies between and within countries. Generally pilotage is compulsory for vessel entering, exiting or manoeuvring within a port, taking into account the dimensions of that vessel and the type of cargo. With regard to vessel dimensions, the main criterion is generally either gross tonnage or overall length (LOA). In some countries draft or width criteria are also stipulated.

The most common criteria for compulsory pilotage is >500 GT or >70 metres LOA. However, it is the case that there are often many variables from port to port or even within a single port. Vessels carrying dangerous goods are almost always subject to compulsory pilotage without exemption.

In eleven out of 24 countries the criteria for compulsory pilotage are set centrally at national level. In two countries there is only one main port. In the remaining eleven countries – most of which are in northern Europe – criteria vary according to local specificities.

A considerable number of ports and pilots who responded to the on-line survey highlighted the need to have specific conditions (e.g. vessel type, specific geographical criteria, etc.) for pilotage to be mandatory. On the contrary, shipping lines and Masters mostly recognize the importance of pilotage for specific, uneasy situations, but doubt if having it compulsory without regard to the context is necessary and justified.

Vessel exemptions are generally homogenous, though there appear to be some requirements for national flags/registration

Generally vessels that are smaller, performing maintenance or services within the port, Government-owned, military in nature, recreational and fishing vessels and some passenger ferry vessels, can obtain an exemption from pilotage.

In a number of countries there are exemptions that require vessels to be registered in that country or flying the national flag (Bulgaria, Croatia, Greece, Poland and Portugal).

There is a greater presence of PECs in northern Europe compared with the south

There were in excess of 8,500 PECs in circulation across the EU, Croatia and Norway in 2011. All but four countries (Cyprus, Greece, Italy and Romania) have adopted a PEC system. There are also no PECs issued in Croatia or Slovenia, and only a small number issued in Portugal, Malta and Bulgaria.

Finland, Germany, Norway, and Sweden have the highest number of PECs based on information available (857, 1,267, 2,800 and 1,200 respectively).

It is clear that there is a much higher prevalence of PECs in northern Europe compared with southern Europe.

In some countries a PEC can be applied to more than one vessel

One criterion, which varies between countries, is whether a PEC is issued for a specific vessel or not. In some countries a PEC is only applicable to a designated vessel that is operating within a defined pilotage area – if a Master wishes to use another vessel he must apply for a separate PEC.

In some countries, such as Denmark, Germany, Lithuania and Sweden, a PEC can be granted for multiple vessels, if the vessels are similar in nature – for example a 'sister ship'. In Sweden a supplementary PEC can be extended to include other vessels. An evaluation is undertaken to understand if the vessel applied for has the same dimensions: if it does not then an additional practical exam must be passed.

Most stakeholders agree with the approach of having a PEC valid only for one vessel, justifying it with increased safety. Oppositely, shipping companies are concerned that it might be used as a means to discourage applications for PECs.

Requirements for obtaining a PEC

Across all countries a PEC applicant is generally required to hold a **Master's license or certificate**. There are some variances regarding terminology however: for example in Bulgaria a valid 'Certificate of Competence' is required, and in Norway a 'valid navigator's certificate, any class' is required. With regard to nationality, in Bulgaria the Certificate of Competence must be issued or recognized by the Executive Agency Maritime Administration (EAMA), while in France, the Master must have a license issued in France or recognized by

France.

In five countries (Bulgaria, Latvia, Lithuania, Malta and Portugal) a Chief Officer is not able to obtain a PEC. One port in the UK indicated this also, which suggests that there may be other CHAs in the UK where this is also the case.

While a **medical certificate** is a specified requirement in many countries, it is not required in others (Finland, Latvia, Malta, Norway, Portugal and Spain). However it is the case that a medical certificate is a requirement of, for example, the Navigator's Certificate in Norway – which in itself is a requirement of the PEC application. Similarly in Denmark, the applicant must have a valid Certificate of Competence, which requires a medical certificate – the respondent from Denmark therefore stated that there is an indirect requirement for a medical certificate as part of the PEC application.

In some countries the specification is detailed: in Bulgaria it must be issued by an authorized facility, while one port in the UK stipulates that the certification must come from a registered practice in the UK. In France, the certificate must be issued within the preceding three months.

With regard to **frequency of manoeuvre** the requirement is often a specified number of 'passages' or 'calls' incorporating movements into and out of a specific port, within a specified time frame. The number of passages required varies considerably – the highest requirement is in Belgium where 25 in/25 out manoeuvres are required per year in the port of Antwerp (right bank). Even within Antwerp, the requirements vary as fewer manoeuvres are required on the left bank. There are also high requirements in France and Spain, based on the information obtained in the survey. For some areas in Denmark there is a high requirement, but not in all: in Denmark there are four categories of area, for which different levels of frequency are required, based on the degree of navigation requirements – e.g. the most complex to navigate requires a higher frequency of manoeuvre as part of the application (Area A requires 20 calls per year, which is 40 pilotage manoeuvres).

Generally the requirement varies between 10 and 20 manoeuvres, while the specified time periods vary from three months to two years. In some instances national administrations indicated that a pilot must be on board at the time of these manoeuvres.

In Sweden there is no set requirement in terms of frequency of manoeuvre – instead it is up to the applicant to decide how many passages he requires to make in order to have a chance of passing the exam.

Some **form of exam** occurs in each country, although the format varies considerably – while a written exam takes place in around ten countries, there is often an oral exam only, or a combination of written and oral. The requirements of this vary between countries also – in Belgium an applicant must undertake three trial trips with an accompanying pilot and possibly an examiner, with the results presented to a committee.

The level of knowledge required for these exams varies between countries. While only limited information was gathered on the actual contents of the exam it is clear that in some countries the focus is on the practical ability of the applicant, while in others the applicant must have a detailed knowledge of regulatory, administrative and environmental aspects, as well as navigation, for example.

In Sweden, the applicant is presented with an empty chart of the pilotage area and must complete it with the correct information (for example, details of channels, locations of buoys, etc.).

In eight countries there is a requirement for a level of **understanding of the national language and/or English** (Bulgaria, Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden). In Estonia the respondent indicated Estonian 'and' English, which suggests that both languages are required – there are however current plans to enable English as an alternative to Estonian. In other instances respondents indicated national language OR English, suggesting that one or the other suffices. In Latvia, the applicant must have competency in Latvian OR 'one of the international maritime languages, which is either English or Russian – thus the applicant does not necessarily require to have any English competency at all.

According to the survey responses there is only a requirement for the national language and not English in four countries – Croatia, France, Portugal and Spain.

Under the Revised Scheldt Rules in Belgium basic concepts of Dutch are required, while 'maritime English' is required under the Pilotage Decree.

Norway and Malta are the only countries other than the UK and Ireland to state that English is the only language requirement.

Duration of PEC varies even in countries with high volumes

The duration of a PEC is generally one year or five years:

- One year (Belgium, Germany, Ireland, Latvia, Lithuania, Poland, Portugal, Spain, UK);
- Two years (Croatia, France);
- Three years (Netherlands, Norway, Sweden);
- Four years (Malta); and
- Five years (Bulgaria, Denmark, Estonia, Finland, Malta).

It is interesting to note that a number of countries where a high number of PECs are in circulation have longer renewal periods (e.g. Finland, Denmark, Sweden and Norway, for example). It is the case however, that some countries with high numbers of PECs also have short duration periods (e.g. Germany and the UK, where the duration of a PEC is one year).

Renewing a PEC involves generally meeting the criteria set for its original issue

The renewal process varies with regard to requirements, being stricter in some countries compared with others. For example in Belgium the applicant must provide a list of dates and times at six month intervals as evidence of manoeuvres.

In many cases the same criteria for the original application must be met – particularly in terms of frequency of manoeuvres during the preceding year. In France there is no requirement for re-examination, provided that all other conditions are met (these are the same for renewal as for initial PEC issue).

In Bulgaria the PEC only becomes invalid with the holder has not made the required number of manoeuvres in a three month period.

In Lithuania, all that is required is that there have been no accidents or remarks from VTS/pilots in the preceding year.

Withdrawal of PECs is homogenous

Generally PECs are withdrawn based on key criteria such as non-compliance with PEC requirements, non-completion of manoeuvres in the past year, failure to pass the exam, etc. In addition, a PEC can generally be withdrawn if the PEC holder has acted negligently.

Cost to Government for issuing PEC

Taking into account the number of active PECs in 2011 it is possible to calculate an illustrative 'administrative cost per PEC' for those countries where data were made available. The cost ranges from €60 per PEC in Poland to €462 per PEC in Sweden. The cost per PEC in the UK, Norway and Finland is between €200 and €300.

Several countries were not able to provide an estimate as the costs are not separated from other public sector costs within the relevant department, while in the UK and Ireland, for example there were no costs to Government at all. In the UK, however, there are costs at a local level, information about which was obtained from a number of CHAs.

Cost associated with obtaining a PEC

Information was gathered on the fees charged for a PEC exam, the issue of a PEC and PEC renewal. It is the case that responses varied considerably, not only terms of the magnitude of cost, but also in terms of how those costs are structured: in some cases a cost was given for the exam only, in others for the exam plus issuance of the PEC, or separate costs for different types of exam. There are also many variants in a number of countries, depending on the number of persons sitting an exam, or whether the individual is national or from overseas, for example.

The cost of taking a PEC exam varies considerably between countries. It was reported that the cost of taking the PEC exam is free of charge in France, Latvia, Lithuania, Malta and Portugal while the cost is very small in Bulgaria (€25 for the exam), Estonia (€30), Germany (€37) and Poland (€30).

The cost of sitting the exam is in excess of €500 in seven countries, and above €2,000 in Finland, the Netherlands, Norway and Sweden – it is the case however that the PEC is valid for five years in Finland, three years in the Netherlands, Norway and Sweden. In the Netherlands one category of PEC is valid indefinitely.

The cost of a PEC exam can vary within a country, such as in Ireland and the UK – even within a port there can be different levels of PEC.

The renewal cost is generally much lower than the initial PEC exam cost.

Fees charged to ships with PEC holders

Shipping lines are in many countries charged a significantly lower fee when a Master holds a PEC compared to the fee charged for a standard pilotage mission. This is logical, in that a much lesser service is provided with regard to pilotage (e.g. there is no requirement for a pilot to physically board the vessel and advise the Captain).

Responses from nineteen countries provided an indication of the level of reduction which mostly ranges from 50% to 100% when compared with standard pilotage fees: in eleven countries there are no pilotage fees charged if the Master holds a PEC (Bulgaria, Denmark, Estonia, Finland, Lithuania, Malta, Netherlands, Poland, Portugal, Spain and Sweden), while in France there is roughly a 95% reduction when compared to standard pilotage fees. In Germany there are not reductions for vessels with a PEC holder which are charged the full pilotage rate.

Information on the rationale for these charges was not obtained from the survey responses. One possible explanation is that all vessels must contribute towards the cost of maintaining a pilotage service, as pilotage may be required at any time, depending on the local circumstances or force majeure situations, for example.

In Norway, the fee structure is explanatory: vessels with PEC holders on board must pay what is called a 'pilotage readiness fee'. This fee is paid by all vessels subject to compulsory pilotage regardless of whether a state pilot is used or not. Thereafter vessels without a PEC holder must pay an additional *pilotage service fee*.

There is evidence that fees for shore-based pilotage, like PEC holders, are either the same or lower than standard pilotage dues.

No trends with regard to accidents with and without a pilot on board

Information was gathered on the nature of accidents occurring, with a pilot on board or without a pilot on board. For accidents occurring in the period 2009 – 2011, it seems that the split of accidents by their nature is relatively similar, with or without a pilot on board. Around one-third of accidents comprise either a collision, grounding or hitting a pier or other element of port infrastructure, although a collision or grounding occurs slightly less when there is no pilot on board. Hitting a pier or other element of port infrastructure occurs more frequently when there is no pilot on board.

In terms of the involvement of the pilot in the accidents where a pilot was on board, the data supplied through the questionnaire was not sufficient in order to draw any conclusions as to the role of pilots in accident prevalence and outcomes.

In 362 of 384 accidents the actual responsibility of the pilot was not established or not known. In twelve cases the pilot was not responsible for the accident. Of the remaining cases, the data reported suggests that communication problems (one record), the pilot went over board (three records) and pilot steering (two records) were to blame, while erroneous instructions were to blame in three cases.

What impact do PECs have on safety?

From the analysis of accidents undertaken there is no evidence that PECs have negative effects on safety. Indeed, according to the analysis conducted regarding seven countries and two ports, it appears that on average the frequency of accidents of vessels with PEC holders on board is similar to the frequency of accidents when a pilot was on board: generally 0.18 accidents per 1,000 exempted missions. This frequency is slightly lower compared to a frequency of 0.24 per 1,000 pilotage missions when a pilot was on board.

The extent to which PECs impact on safety is a topic which attracts a range of opinions across stakeholder categories: safety is used as a justification for and against the use of PECs.

National administrations generally consider that there are no major impacts on safety through the use of PECs, but many stress that PECs must be organized according to strict rules in order to ensure safety. This point is echoed by ECASBA and EMPA, with both organizations commenting on the need for transparency and objectivity with regard to the approach to PECs and the need for an efficient monitoring process.

It is clear that views are divided geographically: national authorities from the Mediterranean area are more reluctant to use PECs due to the view that PECs have a negative impact on safety of navigation.

Pilots are more of the opinion that PECs have a negative impact on safety (60% of pilots who responded to the on-line survey stated this). This contrasts with the Port Authorities which are mostly of the view that PECs do not have an impact on safety at all (59% of respondents). Shipping companies expressed a more positive view on the impact of PECs on safety. Indeed, they claim that exemption certificates are granted only when a certain level of experience has been gained by Masters, who therefore are much less likely to be involved in accidents, and more able to avoid risks, as a result of their knowledge of specificities and limitations of their ships.

Shore-based pilotage

Shore-based pilotage generally occurs only in exceptional circumstances, such as bad weather or for reasons of safety, when the pilot is not able to board a vessel.

In France, the view of the national administration is that the only satisfactory situation is when a pilot is on board as any other location contradicts the law. It is the case however that the VTS systems in France are used to provide nautical assistance to vessels and some ports reported the usage of shore-based pilotage in bad weather (nonetheless the official national position is that shore-based pilotage is not used).

In ten countries advice from a pilot can be given from another pilot boat or from another vessel. In some countries this is the only advice a pilot can give other than being on board the vessel being piloted (Estonia, Norway and Romania). Interestingly, the response from Estonia is that shore-based pilotage is not carried out, while in Norway the respondent stated that shore-based pilotage does exist – highlighting a fundamental difference in perception. Similarly in Finland, Slovenia, Sweden and the UK, advice from a pilot boat or other vessel is not interpreted as constituting shore-based pilotage.

In Latvia shore-based pilotage is used for around one third of ships entering or leaving a port – in Riga it is provided as *additional advice* to ships, while in Germany, Lithuania and the Netherlands it was also stated that shore-based pilotage is offered as a complementary service to the pilot on board.

Stakeholders' opinion on shore-based pilotage is split between those who do not consider it as an alternative to on board pilotage (ports, pilots and Masters), and those who consider that, if shore-based pilotage can substitute on board pilotage in unfavourable situations, it should with greater reason do it in ordinary situations.

This is actually the case of Italy where shore-based pilotage is used as an alternative to on board pilotage. It is provided via radio (VHF) from pilots of the same corporation. This type of service is provided on more than 30% of pilotage missions, although only for ferry and RoRo vessels that frequently call at the same port and whose Master has applied for a Shore-Based Pilotage Certificate. According to the Italian experience this pilotage service is time and cost effective (the fee is roughly one third of the full rate) and safe, since no accidents have been reported in the last three years.

Technical innovation is viewed as a positive development that will improve and support pilotage activities

All stakeholders that provided a response agree on the potential for technical innovations to improve and support pilotage activities. The majority of stakeholders welcome and appreciate innovative tools and provide comment on their potential to increase safety and efficiency.

Many stakeholders made the point that technology should always be considered as a complementary instrument that assists the pilot (or the Master) and that it is not a substitute. From the on-line survey 39% of respondents highlighted this point, with ports having a more sceptical view about technological developments and also stressing the importance of human skills: traditional methods and visual navigation are considered the basis of pilotage, and therefore, essential and not replaceable by modern methods. They also emphasize the need for technical skills and the importance of training in order to make use of these innovative instruments in an appropriate and safer manner without endangering the pilotage activities.

Portable Pilot Units (PPUs) are seen as a very useful tool that provides an independent source of data to the pilot. Indeed just over 60% of pilots that responded to the survey are of the view that technological innovations are very useful: only around 30% of Port Authorities responding to the survey were of the same view.

1 Introduction

1.1 Recap of study objectives

As initially set out in the Terms of Reference and later discussed at the Kick-off Meeting held in December 2011, this study aims to meet the following general objectives:

- To provide a comprehensive picture of the present framework in Member States, Croatia and Norway: procedures and legal requirements for issuing PECs;
- To obtain actual and reliable information concerning the impacts associated with PECs;
- To compare voyages of vessels with and without pilots, with a view to better understanding the impacts of exemptions in relation to different factors (environment, safety, etc.); and
- To provide a baseline of information and data that can assist in assessing the need for a common EU legislative framework on PECs.

1.2 Structure of this report

The remainder of this Report is structured as follows:

- Chapter 2: description and analysis of pilotage systems within the European maritime market;
- Chapter 3: national administrations: views and opinions;
- Chapter 4: on-line stakeholder survey;
- Chapter 5: concluding remarks and recommendations;
- Appendix A national administration survey questionnaire;
- Appendix B other stakeholder survey questionnaires; and
- Appendix C pilot and pilotage mission statistics.

2 Description and analysis of pilotage systems within the European maritime market

2.1 Introduction

This Chapter sets out a synthesis of information gathered during the survey of national administrations, covering:

- Survey of national administrations and methodological approach;
- Legislative aspects of pilotage;
- Legal authority of the pilot on board;
- Liabilities;
- Service level and waiting time for pilotage service;
- Pilotage dues;
- Compulsory pilotage, exemptions and PECs;
- Accident trends; and
- Shore-based pilotage.

2.2 Survey of national administrations and methodological approach

A detailed questionnaire (attached at Appendix A) was circulated to national administrations across the 22 coastal Member States, Croatia and Norway via the EU Permanent Representative for each Member State.

The detailed questionnaire was then circulated to those departments that have responsibility and competence for pilotage services at national level. In most cases these were ministerial departments related to transport and/or maritime transport.

In the case of the UK and Ireland, where port companies and local port authorities are the Competent Harbour Authorities (CHAs), information was also obtained from a selection of CHAs, in addition to that obtained from the national administration.

Once contact had been made with the relevant person within the national administration responsible for completion of the survey, a dialogue took place, whereby clarification on responses was requested as required.

Only one national administration, in Portugal[4], was unable to provide a response.

Table 1 presents a summary of responses obtained from national administrations, along with details of the responding organization.

[4] Information for Portugal was extracted from the applicable national legislations mentioned in Table 2.

Table 1 – National administrations: questionnaire responses

Country	Questionnaire completed?	Respondents
Belgium	✓	Flemish Government Mobility Department.
Bulgaria	✓	Maritime Administration Executive Agency.
Croatia	✓	Ministry of Maritime Affairs, Transport and Infrastructure – Directorate for Safety of Navigation, Marine and Inland Waters Environment Protection Safety of Navigation and Marine Environment Protection Sector.
Cyprus	✓	Cyprus Port Authority.
Denmark	✓	Danish Maritime Authority.
Estonia	✓	Estonian Maritime Administration – Maritime Safety Division.
Finland	✓	Ministry of Transport and Communications – Transport Policy Department.
France	✓	French authorities.
Germany	✓	Bundesministerium für Verkehr (Ministry for Transport).
Greece	✓	Ministry of Development, Competitiveness and Shipping – General Secretary of Ports and Port Policy-Pilotage Direction.
Ireland	✓	Association of Marine Pilots Ireland (AMPI). Department of Transport, Tourism and Sport.
Italy	✓	Ministry of Infrastructure and Transport – DG Ports, Division 3.
Latvia	✓	Ministry of Transport – Maritime Department.
Lithuania	✓	Klaipeda State Seaport Authority Harbour Master's Office.
Malta	✓	Authority for Transport in Malta – Ports and Yachting Directorate.
Norway	✓	Norwegian Coastal Administration.
Netherlands	✓	Ministry of Infrastructure– Directorate of Maritime Affairs.
Poland	✓	Ministry of Transport, Construction and Maritime Economy – Maritime Transport and Shipping Safety Department.
Portugal	X	Cabinete Praneamento – Estrategia & Relacors Internationales.
Romania	✓	Romanian Naval Authority – Safety of Navigation Department.
Slovenia	✓	Ministry of Infrastructure and Spatial Planning – Maritime Directorate and Slovenian Maritime Administration.
Spain	✓	Dirección General de la Marina Mercante.
Sweden	✓	Swedish Transport Agency.
UK	✓	Department for Transport, plus Belfast, Dover, Forth, Humber, Milford Haven, Southampton and Tees (CHAs).

Drawing upon the detailed responses received, the data were collated in a manner to enable comparison and analysis. Where data were not available from the national administration it was sought through other means, such as publicly available information or other stakeholders.

In order to allow data comparability, all monetary values expressed in local currencies have been converted into Euros according to the exchange rate of 6 June 2012.

2.3 Legislative aspects of pilotage

2.3.1 General legislation governing pilotage

All countries report having some form of primary and secondary legislation that cover pilotage in some respect, with rules to varying degrees.

A number of countries have established a specific Pilotage Act, while in many other countries pilotage is covered within a broader maritime or port-related Act or Decree.

With regard to secondary legislation, there is a mixture of practice: some countries have further approved legislation in the form of Orders or Ordinances, while in others pilotage is regulated through regulations or directions that are in place at a more local level, for example at port level as in the UK and Greece.

Table 2 – Current legislation governing pilotage

Country	Primary Legislation (e.g. Law, Act)	Secondary legislation by which pilotage is regulated
Belgium	Decree (Apr 1995) concerning the organization and operation of the pilotage services of the Flemish Region (Pilotage). Scheldt Rules. Treaty between Belgium, the Flemish Region and the Netherlands to revise regulations regarding pilotage and the joint supervision. The Pilotage Decree is applicable in the Flemish Region, with the exception of the Scheldt and the Ghent-Terneuzen canal, governed by the Scheldt Rules.	Under the Pilotage Decree: - Decision (1999) to determine areas where pilots, shore-based pilotage and traffic control are provided; - Decision (2002) on the enhanced pilotage for vessels in the Belgian territorial sea and navigable waters under the jurisdiction of the Flemish Region; - Ministerial Decree (2005) on the granting of PECs; and - Decision (2011) on fixing rates of pilotage and other fees/charges for pilotage operations in the Belgian pilot channel. Under the Scheldt Rules there are a number of Decisions concerning pilotage exemptions and the rules governing PEC requirements and issue.
Bulgaria	Bulgarian Merchant Shipping Code, published in the 'State Gazette' Issue Nos. 55 and 56, 1970. Rectification in No. 58/1970, amendment and rectification No. 55/1975, No. 10/1987, No. 30/1990 and No. 85/1998, supplemented in No. 12/2000, amendment in No. 41/2001, amendment in No. 113/2002, last amendment No. 92/2011. Section IV – Pilotage.	Ordinance No. 1 of 31.01.2001 for the procedures for implementation of pilot activities in Bulgaria, issued by the Minister of Transport and Communications, State Gazette issue No. 12 of 09.02.2001.
Croatia	Maritime Code (Official Gazette 181/04, 76/07, 146/08, 61/11.	Pilotage Regulations (Official Gazette 116/10).
Cyprus	Cyprus Ports Authority Law (Law 38/73).	Cyprus Ports Authority (operation of port precincts) Regulations of 1976 (P.I. 8/76).
Denmark	The Danish Pilotage Act No. 567 of 9 June 2006. The rules and regulation regarding pilotage before 2006 were issued by the Danish Maritime Safety Administration. These rules were: - Danish Pilotage Act No. 529 of 04 August 1989; and - Danish Pilotage Act No. 116 of 21 March 1979.	IMO recommendation A.960 (23) is the basis for all pilotage legislation in Denmark and is fully implemented in Executive Order Nos. 1199 and 1201 mentioned below: - Executive Order No. 1199 (Dec 2006) on activities of pilotage service providers and the obligations of pilots; - Executive Order No. 1201 (Dec 2006) on the issuing of pilot certificates and PECs (with various

Country	Primary Legislation (e.g. Law, Act)	Secondary legislation by which pilotage is regulated
		amendments); - Executive Order No. 378 (May 2008) on use of pilot; - Executive Order No. 295 (Mar 2010) on payment for the Danish Pilotage Authority's services; - Executive Order No. 1142 (Nov 2006) on ordering of pilot. Issued by the Ministry of Defence; and - Executive Order No. 1050 (Nov 2011) on rates for pilotage services provided. Issued by the Ministry for Business and Growth.
Estonia	Maritime Safety Act.	Issued by the Minister of Economic Affairs and Communications: - Decree 28.11.2002 No. 15; - Decree 23.09.2011 No. 93; and - Decree 11.01.2012 No 4.
Finland	Pilotage Act.	Government Decree on Pilotage, decisions of Transport Safety Agency.
France	Articles L. 5341-1 to L. 5341-18 of the Code of Transport (Section V: maritime transport and navigation – Part III: Seaports – Title IV: Port services – Chapter 1: Pilotage).	Decrees (national level): - Decree (14 Dec 1929) – general rules of pilotage, last amended by Decree of 13 Feb 2010; - Decree No. 69-515 (19 May 1969) (amended): system of control in maritime waters; - Decree No. 69-679 (19 Jun 1969): arms and maritime sales (Articles 21-32); and - Decree No. 2009-136 (5 Nov 2009): license of owner-pilot through which ships may be exempted from taking a marine pilot in sea-river waters. Ministerial Orders specifying the Decrees: - Order (12 Oct 1976) amending charging base of pilotage; - Order (18 Apr 1986): powers and composition of the local board and procedures for fixing the Captain pilot licenses; - Order (26 Sep 1990): organization and pilotage competitions programme; - Order (8 Apr 1991): physical conditions of pilot and Captain pilot functions, amended by Order (12 Dec 2011); - Order (5 Jun 2000): organization and operation of assemblées commerciales; - Implementation circulars (complementary national legislation); and - Orders by the regional prefects (local) – inter alia, define the compulsory pilotage areas.

Country	Primary Legislation (e.g. Law, Act)	Secondary legislation by which pilotage is regulated
Germany	German Maritime Pilotage Act. Additional legislation in Bremen/Bremerhaven: authorized by the Bremen Harbour Operational Act 21.11.2000, last amendment 31.01.2012 (Brem.GBI. S. 10). Additional legislation in Hamburg: Hamburg Pilot Act 19.01.1981, last amendment 18.07.2001 (HmbGVBI. S. 251, 257).	Ordinance on training and examination of maritime pilots. Ordinance on physical examination of maritime pilots. Ordinance on specific basic pilotage instruction for pilots aspirants of Kiel Canal district. Ordinance on tariffs of pilotage fees and pilotage dues. Ordinance on deep-sea pilotage. River pilotage ordinances (e.g. compulsory pilotage/PEC). There are a number of specific ordinances and other legislative documents at port level as each Bundeslaend has its own laws for the ports and the national law is not applicable. Bremen/Bremerhaven: Ordinance on harbour operation; and Ordinance on harbour dues (incl. pilotage dues). Bremerhaven: Ordinance on Bremerhaven Harbour Pilotage. Bremen: contract between Ministry of Economy, Labour and Ports and Federal Ministry of Transport, Building and Urban Development and Brotherhood Weser I regarding pilotage in the ports of Bremen. Hamburg: Ordinances on harbour pilotage, tariffs of pilotage fees and pilotage dues and training and examination of harbour pilots.
Greece	Act 3142/1955 for Pilotage Services in Greece. Code of Public Marine Law which includes decrees for pilotage. Act 3528/2007 refers to all public servants and legal entities which are occupied by the State. There are other decrees such as 118/07, 394/96 and 2286/95 that refer to Procurement of public suppliers.	Piraeus port regulations and internal regulations service of Piraeus pilot station.
Ireland	Harbours Act 1996 (as amended) – Part IV. Merchant Shipping Act 1894 and 1993 as amended. Other Acts affect pilotage such as legislation dealing with the prevention of pollution and employment law.	By-laws adopted by port companies pursuant to Section 71 of The Harbours Act or local regulations set by the Port Authority or Harbour Master. Fishery Harbours are not governed by the Harbours Act may also have Bye-Laws and regulations.
Italy	Navigation Code (Decree 30/3/1942 n. 327) – Articles 86-96. Law N. 84/94 – Article 14.	National Regulation to give effect to the Navigation Code (DPR 15/2/1952 n. 328) – Articles 98-137.
Latvia	Maritime Administration and Marine Safety Law (adopted on 31 Oct 2002, as amended, Article 34 'Pilots and Operators of Vessel Traffic Services'). Law on Ports (Section 2 'Port Authority') adopted on 12 July 1994.	Cabinet Regulations No 102 'Regulations on pilots' (adopted on 7 Feb 2006). Relevant port regulations.

Country	Primary Legislation (e.g. Law, Act)	Secondary legislation by which pilotage is regulated
Lithuania	Law of the Republic of Lithuania on Maritime Safety (Chapter VI -Pilotage).	Order No. 3-327, 3-246, 3-249, 48, V-19, V-197. Klaipėda State Seaport Shipping Rules (Sep 2008). Rules on Klaipėda State Seaport Dues, Order No. 3-246. Rules on PEC form, issuance and extension, Order No. 3-249. Rules on certification of enterprises providing services related to maritime safety, Order No. 48.
Malta	The primary legislation regulating pilotage in Malta is the Authority for Transport in Malta Act (Cap. 499) and the Ports and Shipping Act (Cap. 352).	Maritime Pilotage Regulations (LN96/2003, Subsidiary Legislation 499.26) are the secondary legislation regulating pilotage in Malta.
Norway	16.6.1989 No. 59 Act of Pilotage.	There are 14 Regulations issued pursuant to the Pilotage Act (http://www.lovdata.no/for/sf/sf-19890616-059.html). The Regulations govern compulsory pilotage, PECs, fees and matters relevant to the operation of pilotage services such as training, qualification and health requirements for pilots. Only one of these is translated into English, the Regulation on compulsory pilotage.
Netherlands	Shipping Traffic Act/Scheepvaartverkeerswet (Stb., 1988, 352). Pilotage Act/Loodsenwet (Stb., 1988, 353). Scheldt Regulation/Scheldereglement (Trb, 1995, 48).	Compulsory Pilotage Decree/Loodsplichtbesluit 1995 (Stb., 1995, 395). Certified Pilots Decree/Besluit Certificaatloodsen (Stb., 1990, 507). Decree PEC Shipping Traffic Act/Besluit verklaringhouders Scheepvaartverkeerswet (Stb, 1995, 396). Decree PEC Scheldt Regulations/Besluit vrijstelling loodsplicht Scheldereglement (Stcrt. 2002, 165).
Poland	Act (18 Sep 2001) Maritime Code. Act (21 Mar 1991) on sea areas of the Republic of Poland and Maritime Administration. Act (18 Aug) on Maritime Safety.	Regulation of Minister of Infrastructure of 23.01.2003 on qualifications of sea pilots: - Order No. 5 (19 April 2006, Maritime Office in Gdynia); - Order No. 1 (4 March 2011, Maritime Office in Słupsk); - Order No. 2 (11 July 2007, Maritime Office in Słupsk); and - Order No. 4 (17 September 2002, Maritime Office in Szczecin).
Portugal	Decree-Law No. 149/2000. Decree-Law No. 48/2002.	Ordinance No. 46/2000. Ordinance No. 434/2002. Ordinance No. 435/2002.
Romania	Government Ordinance 42/1997, section 4, Articles 110 – 117. Belgrade Convention 1948 (Pilotage on the Danube).	Government Decree 245/2003, section 9, Articles 121 – 125. Ministry of Transport Decree 635/2010, Articles 1 – 10. Navigation Rules on the Danube.

Country	Primary Legislation (e.g. Law, Act)	Secondary legislation by which pilotage is regulated
Slovenia	Maritime Code (Official Gazette RS, No. 120/06 – official consolidated text, 88/10, 59/11).	Rules on sea pilotage (Official gazette RS, No. 115/06).
Spain	Royal Legislative Decree 2/2011 of 5 September, which approves the revised text of Law on State Ports and Merchant Marine).	Royal Decree 393/1996 of 1 March, approving the General Pilotage Regulations in accordance with the provisions of the Law on State Ports and Merchant Marine. (B.O.E. of March 16, 1996). Law on State Ports and Merchant Marine. Order FOM/1621/2002 of 20 June, regulating the conditions for granting exemptions to pilotage port service. (B.O.E. of June 29, 2002).
Sweden	Ship Safety Act (2003:364).	Ordinance: Government Ordinance (1982:569) on pilotage, etc. Swedish Transport Agency's Regulations and General Advice (TSFS 2009:123) on Pilotage.
UK	The 1987 Pilotage Act.	Not applicable at national level, except for the amending Regulations. There are also some regulations that govern the equipment required on ships to permit pilotage to take place; these do not however affect the regulation of pilotage. Non-statutory guidance for port operations, including pilotage, has been developed in partnership with industry and trade unions by means of the Port Marine Safety Code (PMSC) and its accompanying Guide to Good Practice (GGP). Ports, acting as Competent Harbour Authorities (CHAs) each have their own set of Pilotage Directions, which in effect acts as Secondary Legislation.

There have been major amendments to pilotage legislation in the last 15 years in most countries. Only national administrations from Bulgaria, Cyprus, Greece and Romania indicated that there had not been any major changes.

In most cases changes to legislation have concerned the way in which pilotage is organized, rules on pilotage and exemptions policy and amendments to PEC procedures.

In Croatia, Latvia, Lithuania and Poland changes have concerned alignment of policies with international and/or EU requirements and Directives.

Other amendments have focused on HR aspects and qualifications – for example in France changes were made regarding the visual capability required by candidate pilots. In Italy, Regulations on retirement and severance pay were harmonized. In Germany, the requirement of two years of practice as a Captain has been substituted for an additional form of education known as 'specific basic pilotage instruction.'

In the UK and Germany pilot requirements in terms of qualifications and experience were amended.

Not all amendments cited have major impacts on the regulation of pilotage.

In thirteen countries there are likely to be further changes to legislation in the future, covering a wide range of areas, such as organizational aspects, PEC and exemption procedures and processes, for example.

In Greece and Norway special committees have been established to undertake a review of the current situation

with regard to pilotage and PECs. In Norway, the remit of the review is broad, in that it is a review of the pilotage service in general, though the administration of PECs will be covered in this review, which is due to report in 2013. In Greece, a special committee was appointed to review the need for institutional reform as well as day-to-day functioning. The outcome of this review is not known as yet.

In the UK and Ireland amendments to the local rules on pilotage can be actioned – either through the Bye-Laws in Ireland or to the Pilotage Directions developed by each of the CHAs in the UK. One CHA in the UK is looking at changing the way in which PECs are currently granted.

In some countries there are key changes planned with regard to the way pilotage and PECs are organized and processed:

- In Poland, future changes involve increasing homogeneity between regions;
- Denmark is proposing to make the requirement for obtaining a PEC less stringent;
- In the Netherlands consideration is to be given to the possibility of new PEC categories;
- In Estonia there are plans to revise the pilotage exemption examination requirements, and to include English as an alternative to the national language; and
- In Spain a draft Law on Navigation has been prepared.

Table 3 – Past and future changes to pilotage legislation

Country	Major amendments in last 15 years	Plans to change legislation in near future
Belgium	Yes – in line with technical advancement and safety aspects. The legislation is continuously subject to specific events that might trigger an amendment: scaling, technical development/advancement, safety and the competence issue (federal-Flemish), customer surveys. Adjustments are made on the basis of insight through experience.	Yes – pilotage exemptions and PEC procedures. The Pilotage Decree itself and the underlying instruments, including the PEC procedures, are currently being adjusted. For the Scheldt Rules the PEC system is under review. This is to bring the legislation in line with the changing view on the ships exempted from compulsory pilotage.
Bulgaria	No. There have not been any changes.	There are no plans for changes at this time.
Croatia	Yes – alignment with international/EU requirements. In order to align with EU legislation regarding safety of navigation, and based on acquired national and international experience.	Yes – as needed.
Cyprus	No.	No.
Denmark	Yes – organizational aspects and PEC procedures. The Danish Pilotage Act No. 567 entered into force to improve competition opportunities by objective supervision of all pilotage service providers – private and governmental**.** An EU initiative regarding equal conditions of competition was one of the contributing factors to this change. As a consequence, the Danish Pilotage Authority [now a section of The Danish Maritime Authority] was established in order to ensure an objective evaluation of all pilotage service providers, both private and	Yes – PEC procedures. The primary law will be changed to reflect the movement of the Danish Pilotage Authority and the Danish Maritime Safety Authority from the Defence Ministry to the Ministry of Business and Growth, and of the Danish Pilotage Authority as a subsection of the Danish Maritime Authority. Changes to all Executive Orders have been commenced in order to increase safety at sea, and at the same time give more flexible solutions for pilotage service providers, pilots and PEC holders: frequency of calls requirement and several harbour areas will be eased by

Country	Major amendments in last 15 years	Plans to change legislation in near future
	governmental. The Executive Orders have been amended in order to correspond with the changing need of pilots in different sailing areas, the changing demands for becoming either a pilot or obtaining PEC, economic changes, etc.	50% in five years' time to provide more flexibility for pilotage service providers.
Estonia	Yes. There have been a number of changes as it was decided that all duties, responsibilities and rights can only be contained within the Maritime Safety Act and not in the Decrees issued by the Minister. As a result relevant parts within the Decrees were transferred into the Maritime Safety Act. As a result, revised versions of the Decrees were issued.	Yes – PEC procedures. Amendments will focus on the examination due before obtaining an exemption certificate, as well as on introducing English language as alternative to Estonian.
Finland	Yes – PEC procedures. In 1998 a major change, comprising several amendments due to the changes in administration and pilotage organization and in PEC rules.	There are no major changes planned.
France	Yes – organizational aspects and qualifications. Regular updates, including: - Consolidation within the transportation code provisions applicable to seaports – creating a single code of transport. This new code has integrated all legislative provisions affecting seaports including pilotage (Order No. 2010-1307); - Regulatory changes: adapting the composition of assemblées commerciales and the local board of pilots to changes in governance and administration of ports. This was due to the port reform conducted in 2008 (via Decrees of 5 Jun 2000/18 Apr 1986; and - Conditions and capabilities of pilots: change concerned conditions relating to visual capabilities required for candidate pilots.	No substantive changes in the legal framework are expected.
Germany	Yes – qualifications and experience recognition. Primary law was amended significantly in 2008. An alternative, additional form of education ("specific basic pilotage instruction") for pilot applicants was introduced, that can replace the requirement of two years' practical experience as Captain. This specific education has been practised in the Kiel Canal district since 2008. Good practices with this new form have been observed since that time.	No. Not in the next 2-3 years.
Greece	No.	Yes – establishment of special committee to review. Ministry has appointed a special committee composed by representatives of the State pilots and personnel representatives, to recommend institutional reforms plus functional day-to-day reform. This committee is expected to conclude by summer 2012 with changes

Country	Major amendments in last 15 years	Plans to change legislation in near future
		expected to take place in 2012. The Committee will discuss different aspects of the maritime legislation in Greece, including pilotage services and PEC. It is not possible to comment on the possible outcomes of the review.
Ireland	Yes – HR aspects. Harbour (Amendment) Act of 2009 incorporated legal and operational feedback since the introduction of the original act. Merchant Shipping Act 2010 removed the compulsory retirement of pilots at the age of 60 – a requirement of medical fitness was introduced. Major amendments in 1996: legislative provisions for employment of pilots by port companies.	No. Although Bye-Laws and notices to mariners can be amended at any time.
Italy	Yes – HR aspects. Articles 118 to 123 of the National Regulation to give effect to the Navigation Code were changed by the DPR No. 104/2009, in order to harmonize such Regulation with the national general rules on retirement and severance pay.	No.
Latvia	Yes – alignment with international/EU requirements. Regular update to align with regional and/or international measures.	Yes. To update national legislative acts with reference to IMO resolutions.
Lithuania	Yes – alignment with international/EU requirements. Most of the legislation has been adopted during the last 15 years, after Lithuania became an independent state in 1990, when it commenced development of its maritime safety legal and administrative framework. This process was additionally boosted by Lithuania's entrance into the EU in 2004, as maritime legal acts needed to be aligned with EU requirements.	No significant changes anticipated.
Malta	Yes – organizational aspects and PEC procedures. As far as primary legislation is concerned, Authority for Transport in Malta Act has been amended as to reflect the amalgamation of the three transport entities (maritime, land and air) into one. The Ports and Shipping Act has also been amended to, inter alia, empower the Minister responsible for shipping to make regulations on any aspect relating to the use of radio communications equipment by merchant ships. Secondary legislation has also been amended, following the structural changes. Maritime Pilotage Regulations now allow a non–Maltese national to become a pilot, where there is no Maltese national eligible for that position. Additionally, a definition on 'pilotage service'	No.

Country	Major amendments in last 15 years	Plans to change legislation in near future
	has been added. Furthermore, aspects such as procedure for granting PECs, circumstances of PEC withdrawal, limitations on civil liability for pilots, liability of Masters and ship-owners etc. have all been amended.	
Netherlands	Yes – organizational aspects and exemptions policy. For the purpose of adapting the pilotage exemption rules to local safety requirements, technological and market developments, while at the same time broadening exemption possibilities and decentralizing decision-making in relation to granting exemptions.	Yes, as of 2014/15, for the purpose of further adapting the pilotage exemption rules to local safety requirements, technological and market developments, introducing new PEC categories, and adapting related decision-making.
Norway	Yes – organizational aspects and PEC procedures. Regulation on compulsory pilotage within Norwegian waters, the rationale for which was: - To renew the practice of issuing PECs in line with today's safety requirements, thus increasing control of risks associated with ships sailing through the Norwegian Inner Lead; - To increase safety of navigation within national waters, within fjords, coastal fairways and within harbours; - To improve handling of PEC applications within the public services of NCA; and - To better inform the shipping industry regarding the practice of practical examinations on board vessels in the areas their PEC application relates to.	No – establishment of special committee to post-review. There are no immediate plans to change the regulations on compulsory pilotage. However, a Public Committee has been appointed by the Government to review the pilotage service. The mandate of the Committee is broad and PEC may also be subject to the scrutiny of the Committee. Parallel to the work of the Committee the Pilotage Act will be reviewed. Since the governing act is under review, it may also be that changes have to be made to the secondary legislation. The Public Committee is to deliver the report in April 2013.
Poland	Yes – alignment with international/EU requirements. Legislation has been amended as a result of Poland's obligation to implement EU Directives.	Yes – PEC procedures. It is planned to change legislation regarding PEC procedures in order to unify this legislation across the three regional Maritime Offices in Gdynia, Słupsk and Szczecin.
Portugal	Yes. Legislation regarding the regulation of compulsory pilotage and pilotage exemptions, and transfer of powers and responsibilities for pilot ports to the Government of the Autonomous Region.	No information provided.
Romania	No.	No.
Slovenia	Yes – organizational aspects. Both the Maritime Code and Rules on sea pilotage were adopted replacing previous legislation, which was in force in the Former Socialist Republic of Yugoslavia. Modifications of Chapter V of the Maritime Code concerning sea pilotage were amended in 2006 and 2011 in order to improve maritime safety. For example: - The Slovenian Maritime Administration can order a ship to use pilotage services if that is	Yes – organizational aspects. Amendments to the Rules on sea pilotage are to be adopted in the second half of 2012, addressing predominantly organizational issues.

Country	Major amendments in last 15 years	Plans to change legislation in near future
	essential for ensuring maritime safety; and - Ships providing pilotage services need to be equipped with AIS transponders. The amendments of the Maritime Code modified the provisions for non-compulsory pilotage and enabled the option for establishment of a public commercial service for pilotage.	
Spain	Yes – organizational aspects. The Law on State Ports and Merchant Marine, amended to establish a new economic system and a system for provision of port services.	Yes – draft Law on Navigation.
Sweden	Yes – PEC procedures. Legislation has been amended several times during the last 15 years. For instance, in 2005 the Regulations (TSFS 2009:123) had a major review to clarify the procedures for obtaining PECs. The procedure for issuance of PEC had until 2005 been handled locally and was now centralised.	No. The work on a Pilot Act was commenced a few years ago, but the work is no longer prioritized. As of now there is no dedicated Act/Law on pilotage.
UK	Yes – qualifications and experience recognition. The Pilotage (Recognition of Qualifications and Experience) Regulations 2003 has amended the 1987 Act in respect of the recognition of EEA qualifications and experience in relation to pilotage in inland waters. Other than the amending Regulations, there have been no changes to this legislation (References to other acts that have been amended have been updated but this has not changed the legislation's practical effects).	No. A draft Marine Navigation Bill including some clauses on pilotage was published by the last administration, but the Government has no immediate plan to take forward any of those clauses. It is the case that at a local level CHAs constantly update pilotage directions, often based on internal risk assessments and changing environments within which pilotage is required.
UK – Belfast	No. (References to other acts that have been amended have been updated but this has not changed the legislation's practical effects).	Yes. Pilotage Directions are under review and consideration is being given to changing the arrangements for the granting of PECs currently in force.
UK – Forth	Yes. Pilotage Directions are reviewed and amended as required by the Port Marine Safety Code and following risk assessments. Forth Ports Pilotage Direction No. 6 is presently in force and was introduced in June 2011 replacing Pilotage Direction No. 5 which came into force in January 2009.	Yes, possibly. Pilotage Direction No. 6 is due for review in June 2014. Changes will only be made if review and risk assessment require a change to the Direction.
UK – Tees	Yes. Number of pilots required for vessels in excess of 100,000 DWT was two. Vessels were using different DWT tonnages which made rules unsafe. Changed to 'Size Indicator' (SI) as a measurement.	No.

Country	Major amendments in last 15 years	Plans to change legislation in near future
UK – Southampton	No.	No. But would amend Pilotage Directions if required in accordance with best industry practice and in accordance with a risk based approach recommended in the Port Marine Safety Code.
UK – Humber	Yes. General review of Pilotage Directions.	Yes. Next general review scheduled for 2015.

2.3.2 *Definition of pilotage within the legislation*

Pilotage can be defined in a number of ways, normally relating to the nature of the pilotage act. For example 'harbour' or 'port' pilotage might refer to pilotage that involves guiding a vessel into or out of a port. This can also be known as 'sea' pilotage. 'Coastal-based pilotage' is understood in some countries to be where a vessel is guided by pilot along the coast and not necessarily into or out of a port or harbour in that country.

Deep-sea pilotage is pilotage that takes place in the North Sea, the English Channel and the Baltic Sea, and is subject to the requirements of IMO Resolutions A.480 and A.486. The EMPA Charter states that deep-sea pilots must be recruited, examined and certified in accordance with the national competent authorities. In some cases this is defined as being outside the national territorial waters, and can have specific requirements, as set out in the national legislation or requirements.

Shore-based pilotage, which is dealt with later in this Report, is not always defined in national legislations as a form of pilotage; where it is, this relates to advice given by a pilot from ashore rather than on board. The EMPA definition is that '*shore-based pilotage is an act of pilotage carried out in a designated area by a pilot licensed for that area from a position other than on board the vessel concerned to conduct the safe navigation of that vessel*'.

In seven countries the definition of pilotage within the legislation is general, in that it applies to various types of pilotage, or in terms of distinguishing on board pilotage from shore-based pilotage. In Cyprus there is no special name given, while in Poland and Portugal the information provided does not make any reference to a particular type of pilotage. In Belgium, Italy and the Netherlands the distinction is made between 'on-board' (or general) pilotage and 'shore-based' pilotage, while it is defined as on-board pilotage in Romania.

In the majority of countries (sixteen) pilotage is defined as either 'port or 'harbour' pilotage, while only a few respondents indicated that there is specifically defined inland waterway (e.g. river or canal) pilotage (Belgium, Bulgaria and France). It is also the case that in those countries where pilotage is defined generally, for example as 'on board' pilotage, that it is almost certainly referring to port or harbour pilotage – given that pilotage is almost always concerning the guidance of a vessel in and out of a port or harbour. Other forms of pilotage could also be included within this definition also.

Five countries (Bulgaria, Estonia, Finland, Greece and Lithuania) stated that pilotage is defined as 'sea' pilotage in the legislation – though it is evident that this is interpreted as including port or harbour pilotage (as in the case of Bulgaria, where sea pilotage is defined as inland waterways, harbours and docking. In Finland sea pilotage is defined as 'in territorial waters and ports'.

With regard to coastal-based pilotage this is defined in the legislation of six countries (Belgium, Croatia, Germany, Latvia, Norway and Slovenia. This is defined, for example as:

- Piloting in a part of the internal waters and the territorial sea up to the limit of port pilotage (Croatia); and
- In Norway, pilots board cruise ships sailing along the Norwegian coast and fjords.

In Denmark, the term 'transit' pilotage is used to describe pilotage that is not deep-sea or regional pilotage.

Similarly, Germany uses a unique term 'long distance pilotage', by virtue of which pilots provide their service between the German North Sea pilotage districts and in the Baltic Sea.

Ten countries have deep-sea pilotage defined in the legislation. Deep-sea pilotage also takes place in Finland and Spain: in Finland there are separate rules governing deep-sea pilotage and in Spain it can be used in the event of an emergency.

It is interesting to note that there are variations in the level of detail within the definitions across Europe.

Table 4 presents a summary of pilotage definitions in the legislation as reported by the national administrations, by type of pilotage, while Table 5 provides the definitions in detail.

Table 4 – Summary of pilotage definitions in the legislation by country

Country	General/ on board	Port/ harbour/ fairway	Rivers/ canal	Sea	Coastal	Deep-sea	Transit
Belgium	✓	✓	✓		✓	✓	
Bulgaria		✓	✓	✓			
Croatia		✓			✓		
Cyprus	✓						
Denmark		✓				✓	✓
Estonia		✓		✓		✓	
Finland				✓		✓	
France		✓	✓			✓	
Germany		✓			✓	✓	
Greece		✓		✓			
Italy	✓						
Ireland		✓					
Latvia		✓			✓	✓	
Lithuania				✓		✓	
Malta		✓					
Netherlands	✓						
Norway		✓			✓		
Poland	✓					✓	
Portugal	✓						
Romania	✓						
Slovenia		✓			✓		
Spain		✓				✓	
Sweden		✓				✓	
UK		✓				✓	

Table 5 – Definition of pilotage within the legislation

Country	Definition of pilotage in legislation
Belgium	Pilots that are part of the pilotage of the Flemish region conduct ordinary pilotage and shore-based pilotage for vessels in designated waters. There are four pilot corporations – deep-sea pilots, coast pilots, river pilots and canal pilots. Pilots that belong to a licensed harbour pilot service are employed in the decentralized controlled ports and channels conduct licensed harbour pilotage. Deep-sea pilots conduct deep-sea pilotage in the North Sea and English channel.
Bulgaria	Sea pilotage – inland waterways, harbours and docking pilotage.
Croatia	Port pilotage – piloting of a vessel within the area of a port up to a certain limit. Coastal pilotage – piloting in a part of the internal waters and the territorial sea of the Republic of Croatia up to the limit of port pilotage. Pursuant to provisions of the Maritime Code some elements of coastal-based pilotage are envisaged through the IS (Information Services) to be provided by the national VTS service.
Cyprus	No special name given (just piloting vessels in port areas).
Denmark	Regional pilotage: pilotage of a journey or a part of a journey that starts or finishes in a Danish port, regardless of whether there is a change of pilot during the journey. Deep-sea pilotage: pilotage outside a country's territorial waters. Transit pilotage: pilotage that is not deep-sea pilotage or regional pilotage. Shore-based pilotage: pilotage performed by means of communication from the shore. Coastal pilotage is not included in the legislation and is therefore not defined. Section 4, subsection 1 in The Danish Pilotage Act states that ships carrying certain cargos are obligated to use a pilot in internal and external territorial waters. Therefore it irrelevant, in regards to the use of pilot, whether the ships sails near the coast or not. If the ship is sailing in Danish territorial waters, it is required to use a pilot in accordance with Section 4, subsection 1 in The Danish Pilotage Act. The Danish Pilotage Authority would however like to point out, that the entire west coast of Denmark (Jutland) is exempt from this obligation when the ship's distance to the base line is greater than three nautical miles, as stated in section 17, subsection 1 in Executive Order No. 449 regarding the use of pilots.
Estonia	Harbour pilotage: pilotage of ships within the water area of the harbour. Sea pilotage: pilotage of ships within the pilotage area. Chief sea pilotage: pilotage of ships within the pilotage area without restrictions. Deep-sea pilotage: pilotage of ships outside the pilotage area within the Baltic Sea.
Finland	Sea pilotage in territorial waters and ports.
France	Maritime pilotage – provide "assistance" to the Master by personnel commissioned by the State, for the conduct of vessels entering and leaving harbours, ports, estuaries and maritime waters of estuaries, rivers and canals mentioned in Article L.5000-1 [that is to say, estuaries and rivers downstream of the first obstruction to navigation of ships] of the Code of transport.
Germany	Harbour pilotage. Coastal Pilotage on-board the vessel. Long distance pilotage – besides the regular coastal pilotage, which is established by diverse River Pilotage Ordinances, the so called "Long-distance pilotage" provides that members of the Pilots' Brotherhood may render their services beyond the boundaries of their own pilotage district between the seaward stations of the German North Sea pilotage districts (e.g. the positions of the pilot vessels in question) and in the Baltic Sea. Shore-based pilotage. Deep-sea pilotage.

Country	Definition of pilotage in legislation
Greece	All forms of pilotage are included in the legislation except deep-sea, river and shore-based pilotage.
Italy	There are two different forms of pilotage included in the legislation: pilotage on board and shore-based pilotage using VHF.
Ireland	Harbour pilotage – harbour based pilotage; the legal limits of each pilotage district is defined by the Harbour Act 1996 (s57 and Part II of the Third Schedule).
Latvia	There are provisions in the legislation for deep-sea pilotage, harbour pilotage and coastal based pilotage. According to the Marine Administration and Marine Safety Law pilots may provide pilot services in waters outside the port.
Lithuania	The legislation is for sea pilotage and deep-sea pilotage, although pilots only carry out sea pilotage in practice (e.g. pilot buoy – berth – pilot buoy).
Malta	The definition of "pilotage service" is found in Regulation 3 of the Maritime Pilotage Regulations stating it is "the act carried out by a licensed pilot of assisting the Master of a ship in navigation and manoeuvring when entering, leaving or shifting in a port or approaches thereto, and includes the provision of the pilot launch". Also includes provisions for shore-based pilotage. Legislation does not contain any provisions for deep-sea pilotage or coastal pilotage.
Netherlands	The definition of pilotage is according to Article 2 of the Pilotage Act on pilots' activities and essentially constitutes advice to the Captain or navigator on the course to be taken. With the consent of the Captain, pilotage may constitute navigation per se. There is no distinction in terms of pilotage except for shore-based pilotage. In certain specific circumstances this service can be delivered from the shore (shore-based pilotage).
Norway	Compulsory pilotage – covers vessels of 70 metres and more LOA; applies to both vessels calling on ports only, and vessels sailing along the coast. Pilotage to/from open waters to/from port. Coastal pilotage (e.g. several pilots on board a cruise ship sailing the Norwegian coast and fjords). Installation movement – pilots on board an offshore installation being moved inshore. Norway has no deep-sea pilots and the subject is not covered in the legislation.
Poland	Pilotage is a service of providing information and advice to the Master in the conduct of the vessel due to water navigation conditions[5]. Compulsory pilotage and PECs are defined in the legislation.
Portugal	The activity is the public service which consists of technical assistance to commanders of vessels in navigation and manoeuvring motions in waters under national sovereignty and jurisdiction, to provide that they are carried out safety.
Romania	On board pilotage only: pilotage is compulsory for all maritime vessels.
Slovenia	The Maritime Code defines two types of pilotage in Article 80. Sea pilotage is divided into coastal and port pilotage: - Coastal pilotage means on board pilotage in parts of the territorial sea outside the scope of port pilotage; and - Port pilotage means on board pilotage within port areas.
Spain	Port pilotage: the mission of pilotage is to advise Captains of vessels and floating structures to facilitate their entry and exit to ports and nautical manoeuvres within it and within the geographical limits of the pilotage area.

[5] Maritime Code, Article 220.

Country	Definition of pilotage in legislation
	Compulsory pilotage – carried on board in all ports where pilotage is made mandatory. Voluntary pilotage – counselling service at the request of the Captain. Deep-sea pilotage is not in the legislation, but provided in cases of emergency for safety reasons.
Sweden	According to the Swedish Transport Agency's Regulations and General Advice (TSFS 2009:123) on Pilotage: pilotage = measures for navigating and manoeuvring that a pilot indicates in a designated pilotage fairway and that are required for the safe passage of the ship. Deep-sea pilotage is the nautical advice and guidance for navigating outside Swedish internal waters and territorial sea provided by Swedish pilots.
UK	Pilotage in harbours (pilotage in the areas of CHAs). Deep sea pilotage (pilotage in sea falling outside the area of any CHA).

When asked to describe in detail how deep-sea pilotage is accounted for in the legislation responses indicated that in most cases there are provisions regarding the requirements for deep-sea pilotage in terms of Master qualification and certification. In Finland and Spain deep-sea pilotage is not covered by the legislation, rather there are separate rules governing deep-sea pilotage.

Table 6 – Legislative provision for deep-sea pilotage per country

Country	Provision in legislation for deep-sea pilotage
Belgium	The legislation provides for the examination of deep-sea pilots[6] – they must have a North Sea pilot certificate for pilotage of vessels in the North Sea and English Channel, recognized by a known deep-sea pilotage organization. These pilots operate in a specific area.
Denmark	It is stated in The Danish Pilotage Act that a holder of a deep-sea certificate issued by a foreign authority may exchange the certificate for a corresponding Danish certificate (Section 12, subsection 4). It is forbidden to assign anyone to perform deep-sea pilotage other than pilots who are in possession of a deep-sea certificate issued by a coastal state of the waters in question in accordance with the recommendations of the IMO (Section 13, subsection 3).
Estonia	Only a person qualified as a chief sea pilot, and has worked as a Master or Chief Mate on a ship of gross tonnage >3000 for a minimum of six months can apply. He shall pass an examination organized by the Estonian Maritime Administration. The issued Pilot Identity card is valid for five years.
Finland	Not provided for under the legislation. Separate rules exist for deep-sea pilotage.
France	A pilot, whose assistance has been requested within the Channel or the North Sea, must hold the certificate of deep-sea pilot in accordance with the Decree No. 79-354 of 2 May 1979.
Germany	Deep-sea pilotage is provided in the Baltic and the North Sea (special ordinance). There are provisions on how deep-sea pilots have to be trained and under what requirements they can be admitted (the latter provided under the Maritime Pilotage Act).
Latvia	Provisions for deep-sea pilotage are set out in the Riga Port Regulations. Orders for deep-sea pilotage must be made 48 hours in advance of arrival, while passage from Riga must be ordered 24 hours in advance.
Lithuania	By Law, the Lithuanian Maritime Safety Administration (LMSA) is empowered to establish types of ship and areas in the territorial sea and the exclusive economic zone of the Republic of Lithuania where sailing with a pilot on board is mandatory (deep-sea pilotage). However, LMSA found establishment areas for mandatory pilotage unnecessary/unjustified, so in practice there are only sea/ port pilotage activities.

[6] The exercise of deep-sea pilotage is situated outside the scope of the Flemish Region.

Country	Provision in legislation for deep-sea pilotage
Poland	Requirements are set out by the Minister of Infrastructure, 23.01.2003 regarding qualifications: - Master mariner certificate; - 36 months of experience in position of Master on merchant vessels >3,000 GT on international voyages, including minimum 12 months on vessels with a LOA of more than 180 metres; - Practice as an assisting sea-pilot supervised by a qualified sea pilot during three voyages on the Baltic Sea; - Completion of a manoeuvring course on models of large vessels at the Training Centre in Ilawa; and - Passing the qualification exam. As defined in the regulation: a deep-sea pilot certificate allows its owner to pilot on the territorial sea of Poland and outside of other national territorial sea regions in the Baltic Sea. The certificate is issued by the Director of Maritime Office in Gdynia or by the Director of Maritime Office in Szczecin.
Spain	Not covered in legislation but can be provided in emergency.
Sweden	Per Ordinance (1982:569), deep-sea pilotage is provided by the Swedish Maritime Administration. The Regulation (TSFS 2009:123), provides details on deep-sea pilots and pilotage. Certified deep-sea pilots from other states around the Baltic Sea and North Sea may pilot vessels on Swedish territorial waters to the nearest pilot boarding position. Certain restrictions apply in certain areas.
UK	The 1987 Pilotage Act authorizes the Secretary of State to authorize competent bodies to issue deep-sea pilotage certificates (section 23).

2.3.3 *Legal structure of pilotage*

In most countries responsibility for pilotage is vested with the national Government, which is either the national Maritime Administration itself, or the respective Ministry with delegated mandates to bodies such as the Maritime Administration. In the UK and Cyprus, responsibility for pilotage is directly vested with the Port Authorities.

Provision of pilotage services is generally carried out by public providers[7] (as indicated by eleven national administrations). In seven countries pilotage is provided by private pilotage organizations[8]. Additionally in four countries[9] a mixture of public and private organizations exists, while in two countries (Cyprus and Portugal) pilotage service providers are quasi-public.

Table 7 –Legal structure of pilotage – competent authority and service provider(s)

Country	Nature of competent authority		Service provider (public, private or quasi-public)	
Belgium	National Government.	Flemish Government – Flemish Minister for Mobility and Public Works. Permanent Committee for Supervision of the Scheldt Navigation, etc.	Mainly public + some private.	Pilotage Services of the Flemish Region (public). Pilotage Services of the Flemish Region (public) together with the Dutch Pilotage (private) Service under the Scheldt Rules.

[7] Public pilotage exists in Estonia, Finland, France, Germany, Greece, Ireland, Italy, Lithuania, the Netherlands, Norway and Sweden.

[8] Private pilotage exists in Bulgaria, Croatia, Malta, Poland, Romania, Slovenia and Spain.

[9] Public plus private pilotage is provided in Belgium , Denmark, Latvia and the United Kingdom,

Country	Nature of competent authority		Service provider (public, private or quasi-public)	
Bulgaria	National Government.	Ministry of Transport, Information Technology and Communications. Bulgarian Maritime Administration, Executive Agency.	Private.	Pilotage services are carried out by private entities. Private sector pilotage organizations are procured by the competent authority to carry out pilotage services for three years.
Croatia	National Government.	Ministry of Maritime Affairs, Transport and Infrastructure – Safety of Navigation Directorate. Harbour Master's Office.	Private.	Companies authorized by the Ministry.
Cyprus	Port Authority.	Cyprus Ports Authority.	Quasi-public.	Cyprus Ports Authority (semi-governmental) employs the pilots.
Denmark	National Government.	Danish Maritime Authority.	Public + Private.	DanPilot, public provider. Other private service providers.
Estonia	National Government.	Estonian Maritime Administration.	Public.	Eesti Loots AS (Estonian Pilot Plc.) a public body, the shares of which are owned by the Republic of Estonia and are managed by the Estonian Ministry of Economic Affairs and Communication.
Finland	National Government.	Ministry of Transport and Transport Safety Agency	Public.	FinPilot Ltd (state-owned).
France	National Government.	Ministry of Transport. Prefects: - At regional level, supported by the inter-regional directions of the sea (DIRM); and - At departmental level, supported by the directions of the sea and coastline (DML).	Public.	- Pilotage stations; - The community of pilots (owns the property of the station); and - The pilots' union (once appointed by the State after a competition, pilots are required to join the trade union of the station to which they are attached. The union is the employer of the station).
Germany	National Government.	Federal Ministry of Transport together with Waterways and Shipping Directorate North, Kiel, and Waterways and Shipping Directorate Northwest, Aurich, as regional competent authorities for Federal Waterways (excluding harbours). Harbours: Ministry of the respective country and Port Authorities of Hamburg and Bremerhaven.	Public.	Local pilotage organizations – brotherhoods.

Country	Nature of competent authority		Service provider (public, private or quasi-public)	
Greece	National Government.	Ministry of Development, Competitiveness and Shipping assigns responsibilities to the General Secretariat of Ports and Port Policy.	Public.	Pilotage organized by the Ministry of Development, Competitiveness and Shipping. Pilots.
Ireland	National Government.	Department for Transport, Tourism and Sport.	Public.	State-owned commercial port companies for seven legally defined pilotage districts.
Italy	National Government.	Ministry for Infrastructure and Transport – General Directorate for Ports.	Public.	Public corporation.
Latvia	National Government.	Cabinet of Ministers, Ministry of Transport and Maritime Administration of Latvia.	Public + Private.	Port Authorities – public and private.
Lithuania	National Government.	Ministry of Transport and Communications with delegated Acts adopted by the Director of Lithuanian Maritime Safety Administration (MSA).	Public.	Public sector pilots employed by Klaipėda State Seaport Authority.
Malta	National Government	Authority for Transport under the Ministry for Infrastructure, Transport and Communications (MITC).	Private.	Maritime Pilots Cooperative Society Limited (corporation).
Netherlands	National Government.	Ministry for Infrastructure and Environment.	Public.	Self-employed pilots organized in a public body for the profession, plus regional corporations.
Norway	National Government.	The Ministry of Fisheries and Coastal Affairs – regulatory powers. Norwegian Coastal Administration (NCA) – drafting of new and amended regulations, delegated supervision power from the Ministry.	Public.	NCA responsible, no private pilotage.
Poland	National and Regional Government.	Ministry of Transport, Construction and Maritime Economy + Regional Maritime Offices.	Private.	Private pilots.
Portugal	National Government.	Port and Maritime Transport Institute (IPTM).	Quasi-Public.	Civil servants employed by Port Authority or through concession agreement.

Country	Nature of competent authority		Service provider (public, private or quasi-public)	
Romania	National Government.	The Ministry of Transport and Infrastructure with responsibilities delegated to the Romanian Naval Authority, Maritime Ports Administration, Maritime Danube Ports Administration, Lower Danube River Administration and Administration of the Navigable Canals.	Private.	Private pilotage companies.
Slovenia	National Government.	Slovenian Maritime Administration (SMA).	Private.	Single private provider – Piloti Koper.
Spain	National Government + Port Authorities.	Maritime Administration + Port Authorities.	Private.	National Professional Association of Pilots in Ports (private organization). National Federation of Pilots in Port (private organization). Corporations at port level.
Sweden	National Government.	Swedish Transport Agency (STA).	Public.	Single public provider – STA.
UK	Port Authorities.	Competent Harbour Authorities (CHAs).	Public + Private.	Competent Harbour Authorities (CHAs).

2.3.3.1 Legal structure of pilotage in Belgium

Competent authority

The Flemish Government together with the Flemish Minister for Mobility and Works represent the competent authority for the Flemish Region. For the Flemish Scheldt ports, the Flemish-Dutch Joint Nautical Authority and the Flemish-Dutch Permanent Committee for Supervision of the Scheldt Navigation are the competent authorities.

In terms of overall responsibilities the Flemish Government has (according to the Pilotage Decree) the power to determine areas for compulsory pilotage, determine exemptions, both relating to vessels and PECs, decide on pilotage charges, decide on the conditions for obtaining certification and set out rules regarding the organization entrusted with the examination of Masters and officers. Furthermore, the Flemish Minister competent for pilotage determines the pilotage dues, pilotage fees and the standards thereof, and specifies the rules for the application. He informs the commissioners of his decisions.

The Committee can set rules for a range of specific activities associated with pilotage including the following: rules regarding the organization entrusted with the examination of the Masters and officers who apply for exemptions from compulsory pilotage: granting exemptions from compulsory pilotage, determining under what circumstances advice by a pilot of another ship or shore should be used, determining the time of departure from a port or anchorage or berth required for a Captain to be able to be provided with a pilot, rules on the pilot's communication and navigation, for example.

Pilotage service provider(s)

For the Flemish region, the pilotage services constitute an exclusively public service provided by Government-approved organizations, as part of an internal autonomous Agency for Maritime and Coastal Services .The Agency

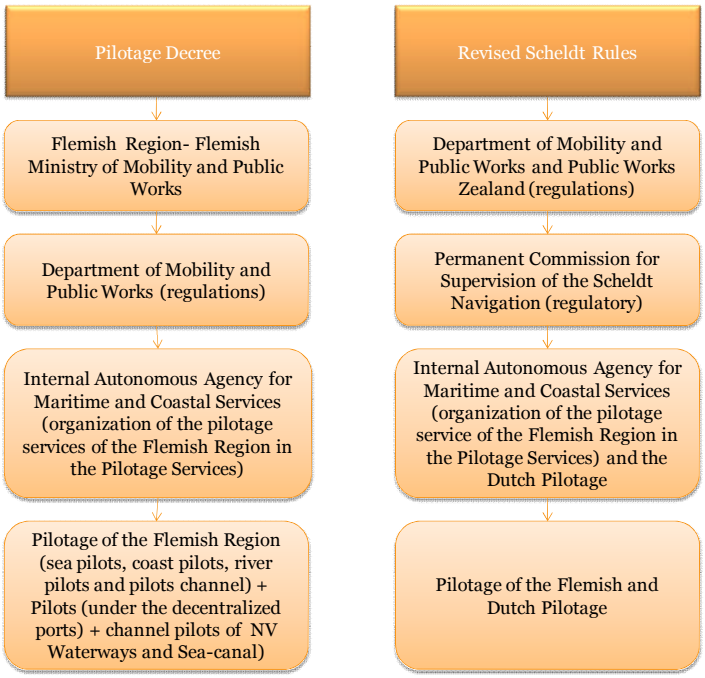
is the de facto pilotage service provider. The pilots and the deep-sea pilots belong to these Government-approved organizations within its structure.

Under the Revised Scheldt Rules, however, there is co-operation between the pilotage services of the Flemish Region that is a Government organization, with the private Dutch Pilotage.

Within the harbour, pilotage is provided by private organizations (e.g. in Antwerp by cvba Brabo, in Zeebrugge by cvba Breydel and in the port of Ostend by the Municipal Port Authority and for the Brussels – Scheldt canal, the Waterways and Sea Ltd. Company, subcontracted to cvba Brabo.

Vessels, subject to the Revised Scheldt rules must rely on pilots of the Flemish Region or of the Dutch Pilotage.

Figure 1 – Legal structure of pilotage in Belgium



2.3.3.2 Legal structure of pilotage in Bulgaria

Competent authority

The competent authority is the Ministry of Transport, Information Technology and Communications, with powers delegated to the Bulgarian Maritime Administration, Executive Agency.

The Bulgarian Maritime Administration, Executive Agency regulates and monitors the activities of pilot organizations.

Pilotage service provider(s)

The pilotage services in Bulgaria are carried out by private entities. There are two Pilotage Regions – the Varna Region and the Burgas Region. These are served by 'Varna Pilot Station – P' Ltd. and 'Burgas Pilot Station' Ltd. respectively. These are companies registered under Bulgarian company law with the only purpose being the provision of pilotage services. They fully comply with all regulations for pilotage as set by the Ministry of Transport.

Varna Pilot Station – P is owned by the Pilot Station Varna Cooperation, which consists of a Chairman and Members – the pilots who perform the service. Pilots conclude private contracts with the companies for the services that they provide. The companies also have contracts with other service providers with regard to tug provision, longshoremen and VTS. The pilot companies only conduct pilotage services in the Varna and Burgas

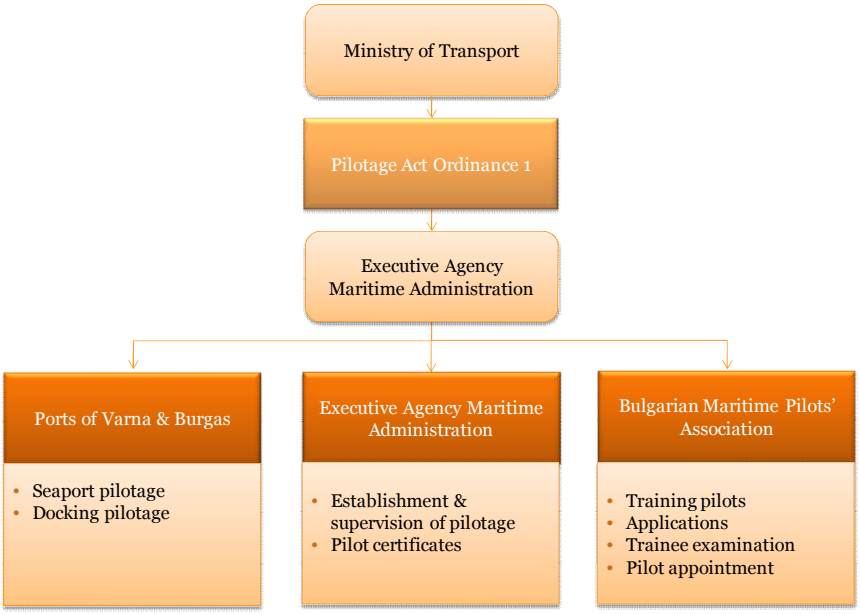
Regions.

The Bulgarian Maritime Administration oversees a procurement process which involves an open competition for the selection of a candidate to provide pilotage services. This is conducted every three years. In addition audits of the pilotage organizations are carried out by the Maritime Administration to ensure quality of service.

Each pilot organization has a certified quality assurance system to the standard EN ISO 9001:2008 QMS (Lloyd's Register Quality Assurance). The 'Varna Pilot Station – P' Ltd. is also certified under the ISPO compliance requirements.

The pilot companies are independent from the port operators. Each company has a dispatcher unit which deals with the operational organization and duty pilots who provide the pilotage services to vessels.

Figure 2 – Legal structure of pilotage in Bulgaria



2.3.3.3 Legal structure of pilotage in Croatia

Competent authority

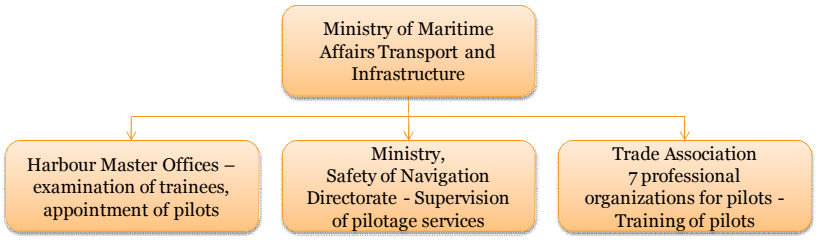
The Croatian competent authority is the Ministry of Maritime Affairs, Transport and Infrastructure – Safety of Navigation Directorate. It has legislative and administrative powers. It is in charge of issuing PECs and has inspection powers and oversight functions.

The Harbour Master Offices are situated within the Directorate. They establish compulsory pilotage, its limits, the times of embarkation and disembarkation of pilot for port pilotage, etc. Coastal pilotage is established by the Minister.

Pilotage service provider(s)

Pilotage services in Croatia are provided by pilotage companies authorized by the Ministry. They are part of seven professional organizations for pilots and work in close collaboration with the Harbour Master Offices.

Figure 3 – Legal structure of pilotage in Croatia



2.3.3.4 Legal structure of pilotage in Cyprus

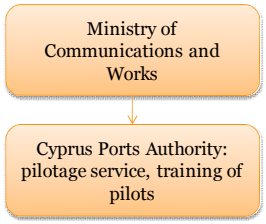
Competent authority

Cyprus Ports Authority is the competent authority and collects charges for pilotage services. It has the power to regulate ship traffic in port areas and supply pilots.

Pilotage service provider(s)

Cyprus Ports Authority is the only authority to supply pilotage in port areas and the only body to train and use its own pilots in port areas. It constitutes a semi-governmental structure and is responsible for the supply of pilotage services as well as tug assistance to ships. Pilots work under the rules and regulations of Cyprus Ports Authority law.

Figure 4 – Legal structure of pilotage in Cyprus



2.3.3.5 Legal structure of pilotage in Denmark

Competent authority

The Danish Maritime Authority is the competent authority for pilotage under the Ministry of Business and Growth and makes rules and regulations for:

- Issuing pilot certificates and PECs;
- Activities of pilotage service providers and the obligations of pilots;
- Supervision of the pilotage service providers;
- Performing aptitude tests of pilot and PEC applicants;
- Payment for the Danish Pilotage Authority's services; and
- The use of pilots in Danish waters.

As the Danish Maritime Authority is an authority under the Danish Ministry of Business and Growth, they can accept or reject the rules and regulations suggested by the Danish Maritime Authority.

IMO recommendation A.960 (23) has been implemented in Executive Order No. 1201 on the issuing of pilot certificates and PECs, to ensure that pilots with a Danish pilot certificate meet both national and international demands on pilot training, education and local knowledge.

The Danish Maritime Authority, in collaboration with the Danish Police, identifies and prosecutes ships (ship-owners and Captains) that fail to follow rules and regulations regarding the use of pilot.

Pilotage service provider(s)

Pilots are employed by private pilot service providers and by the Government pilot service provider.

The private pilotage service providers can choose which company form they wish. Many choose company forms with limited liability as stock or share companies. The Pilotage Act of 2006 enabled private pilotage service providers to perform pilotage to and from Danish harbours/regional pilotage.

The Government-owned pilotage service provider DanPilot is under the authority of the Danish Ministry of Business and Growth. The rationale behind its existence is twofold. First of all, the Danish Pilotage Act provides that only the Government-owned Danish pilot service provider DanPilot can perform transit pilotage, as stated in section 13, subsection 1, in the Danish Pilotage Act. This aims at increasing safety of navigation and at protecting the environment, as it can be difficult and dangerous to sail through the straits without having sufficient local knowledge aboard the ship. Secondly, Denmark has an obligation to provide pilots for all ships that require it – compulsory or voluntary. Maintaining DanPilot is thus a way for the State to comply with the obligations incumbent on it.

Some harbour pilotage service providers are partly owned and financed by the municipality in which the harbour is located.

It is important to note is that foreign pilotage service providers can establish themselves in Denmark, if they come from a country that is a member of the EU or the European Economic Area.

Figure 5 – Legal structure of pilotage in Denmark

Pilotage service providers		
DanPilot	Govt pilotage service provider	All pilotage areas and ports in Denmark
Danish Pilot Service	Private pilotage service provider	All pilotage areas & Federicia, Kalundborg, Aabenraa & Aarhus Harbour, all ports in Limfjorden & Lillbaelt
Frederikshavn Pilot Service	Private pilotage service provider	Frederikshavn Harbour
Hirtshals Harbour Pilots	Partly municipal-owned company	Hirtshals Harbour
Aarhus Harbour	Partly municipal-owned company	Aarhus Harbour
Rønne Harbour	Partly municipal-owned company	Rønne Harbour
Hanstholm Harbour	Partly municipal-owned company	Hanstholm Harbour
Skagen Pilot Service	Private pilotage service provider	Skagen Harbour

2.3.3.6 Legal structure of pilotage in Estonia

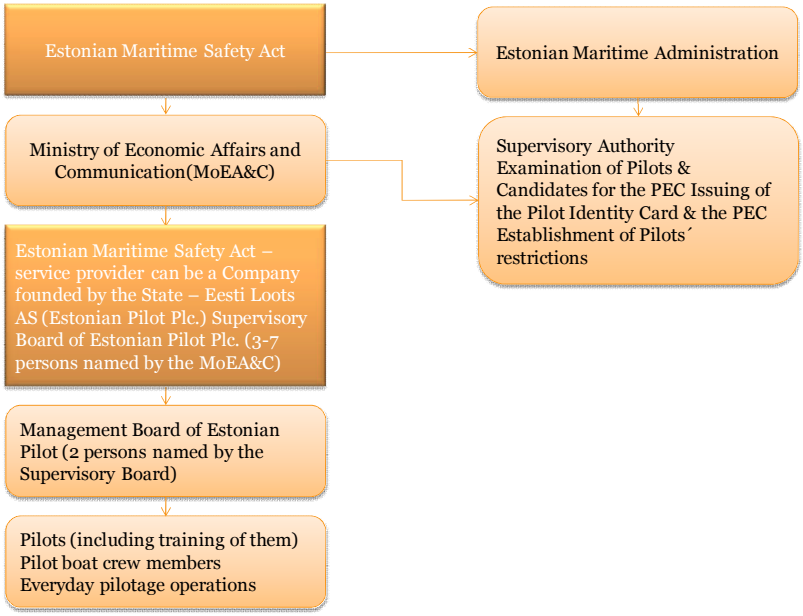
Competent authority

The competent authority is the Estonian Maritime Administration. It supervises pilotage activities, in particular with regard to safety matters.

Pilotage service provider(s)

The general service provider is the public limited company Esti Loots AS (the Republic of Estonia owns the shares, and the Ministry of Economic Affairs and Communications manages them). Within a port the Port Authority may provide pilotage services in the water area of that port for shifting or docking a ship.

Figure 6 – Legal structure of pilotage in Estonia



2.3.3.7 Legal structure of pilotage in Finland

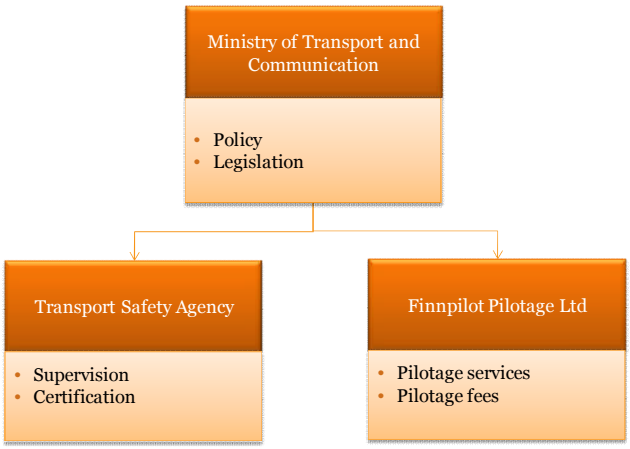
Competent authority

The Ministry of Transport has overall responsibility on policy and legislation while the Transport Safety Agency is the supervising authority and the one that grants certificates to pilots and PECs.

Pilotage service provider(s)

The State-owned company Finnpilot Pilotage Ltd. has responsibility for provision of pilotage services in Finland. The company has powers to decide on the pilotage fee on the basis of criteria set out in the Pilotage Act.

Figure 7 – Legal structure of pilotage in Finland



2.3.3.8 Legal structure of pilotage in France

Competent authority

At national level, the Ministry of Transport is the competent authority. It defines and develops legislation and national regulations with regard to the organization of pilotage. It is responsible for implementation, monitoring compliance with standards and qualifications. At a local level the competent authorities are 'Prefects' (senior officials) who are responsible for setting local rules, while at the same time ensuring compliance with national regulations.

Regional Prefects are supported by Inter-Regional Directions of the Sea (DIRM) to perform their missions. Departmental Prefects also have some powers with regard to pilotage. To execute them, they rely on the competences of the Directions of the Sea and Coastline (DML). The State does not finance the pilotage service, rather it provides the framework within which it is organized and administered.

Pilotage service provider(s)

The pilotage service consists of three entities: pilotage stations, community of pilots and the pilots' union.

Pilotage stations: pilotage stations have no legal personality but are the basic territorial division of the French organization of pilotage. There are 31 pilotage stations, each covering one or more ports: 22 stations in the city, eight overseas and a cooperative of deep-sea pilots. Each station is governed by a local regulation, issued by the Regional Prefect (senior official representing the State, ensuring coordination of Government-devolved services at regional level). This regulation is fundamental because it defines the system of control for each station. This regulation sets:

- The territorial area within which the pilotage is required;
- Human resources (the number of pilots) and equipment required for the station;
- Tariffs (in the Annex of the Regulation);
- The specific knowledge required under the pilotage exam; and
- The local requirements to hold a license of pilot-Master.

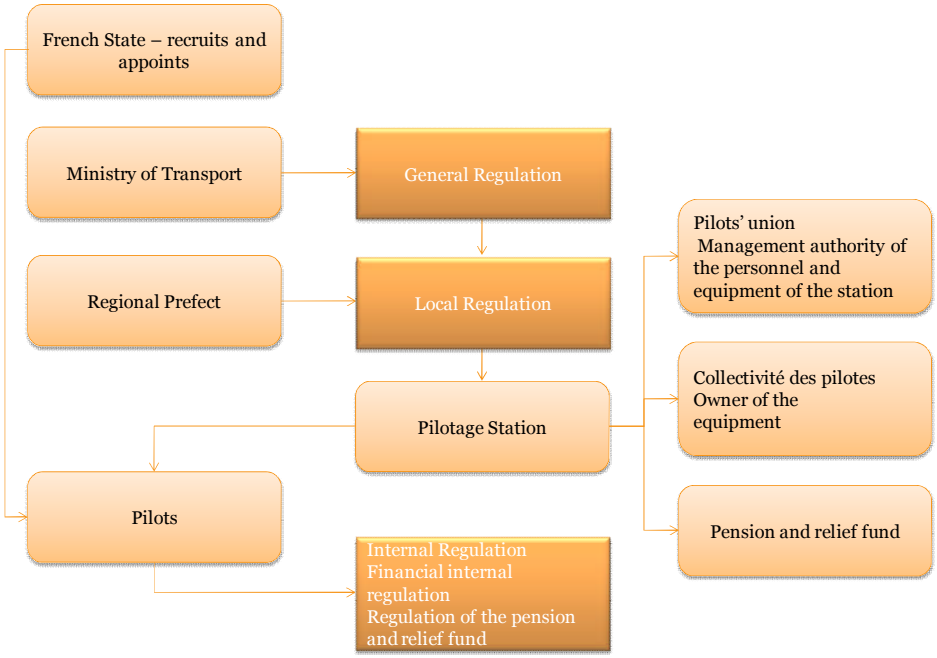
The 'community of pilots' owns the property of the station.

The pilots' union: once appointed by the State after a competition, pilots are required to join the trade union of the station to which they are attached. The union is the 'employer' of the station and fulfils the obligations of any

employer, even if the pilots are not legally bound to it by an employment contract. The union is responsible for allocating revenues among the pilots of the station.

As pilots are agents of private law and are neither employees nor agents of the State, their services are not subject to public subsidies or provision of equipment or human resources from the State.

Figure 8 – Legal structure of pilotage in France



2.3.3.9 Legal structure of pilotage in Germany

Competent authority

The competent authorities for pilotage in Germany are divided in federal waterways and harbours.

For the federal waterways the central authority is the Federal Ministry of Transport. Waterways are responsible for the legislative process, enacting provisions relating to pilotage services, regional pilot districts, setting pilot tariffs and supervision of the administration and the Bundeslotsenkammer (federal chamber of pilots). It is assisted by the Shipping Directorate North, Kiel, and Waterways and Shipping Directorate Northwest, Aurich, as regional competent authorities. These regional competent authorities give authorization to the individual freelance pilot and enact local provisions of compulsory pilotage or PECs. They are responsible for a number of other activities, such as the administration of fees, and functional supervision of the pilot transfer companies such as Lotsbetriebsvereine V or other private contractual partners.

The Waterways and Shipping Directorate North supervises the following pilotage organizations (or brotherhoods as they are commonly known): Wismar, Rostock, Stralsund, NOK I, NOK II and Elbe brotherhoods. The Waterways and Shipping Directorate Northwest supervises the Weser I, Weser II, Jade and Ems brotherhoods.

For the harbours, the competent authority is the Ministry of the respective country and Port Authorities of Hamburg and Bremerhaven: the Hamburg Port Authority supervises the Harbour Pilot brotherhood and the Hansestadt Bremisches hafenamt – Harbour Master at the Port Authority – supervises the Harbour Pilot Association Bremerhaven.

Pilotage service provider(s)

Provision of pilotage services, as already noted is carried out by brotherhoods of pilots. These are public self-governed bodies. The following brotherhoods – Weser I, Weser II, Jade, Ems, Wismar, Rostock, Stralsund, NOK I, NOK II and Elbe – make up the federal chamber of pilots (Bundeslotsenkammer). Freelance pilots are compulsorily members of the brotherhoods. They are supervised by the regional competent authorities.

Brotherhoods carry out pilotage for regional/local/port matters. This is regularly laid down in public agreements between the State and the federal Governments. They supervise and record pilots' profession, education and training. They are responsible for the retirement arrangements and committed to the support and advice from the supervising authorities.

The federal chamber of pilots takes care of general questions between brotherhoods, carries out mediation and represents brotherhoods (except the harbour pilot brotherhoods), at administrative and especially ministerial matters. Furthermore it holds contract to the central pilot transfer logistic company called "Lotsbetriebsverein e.V."

2.3.3.10 Legal structure of pilotage in Germany

Competent authority

The competent authorities for pilotage in Germany are divided in federal waterways and harbours.

For the federal waterways the central authority is the Federal Ministry of Transport. Waterways are responsible for the legislative process, enacting provisions relating to pilotage services, regional pilot districts, setting pilot tariffs and supervision of the administration and the Bundeslotsenkammer (federal chamber of pilots). It is assisted by the Shipping Directorate North, Kiel, and Waterways and Shipping Directorate Northwest, Aurich, as regional competent authorities. These regional competent authorities give authorization to the individual freelance pilot and enact local provisions of compulsory pilotage or PECs. They are responsible for a number of other activities, such as the administration of fees, and functional supervision of the pilot transfer companies such as Lotsbetriebsvereine V or other private contractual partners.

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For the harbours, the competent authority is the Ministry of the respective region (Land) with the exception of Hamburg and Bremer/Bremerhaven. In Hamburg and Bremer/Bremerhaven the Port Authorities supervises the pilot service providers, respectively the Hamburg pilot brotherhood and the Harbour pilot association of Bremerhaven.

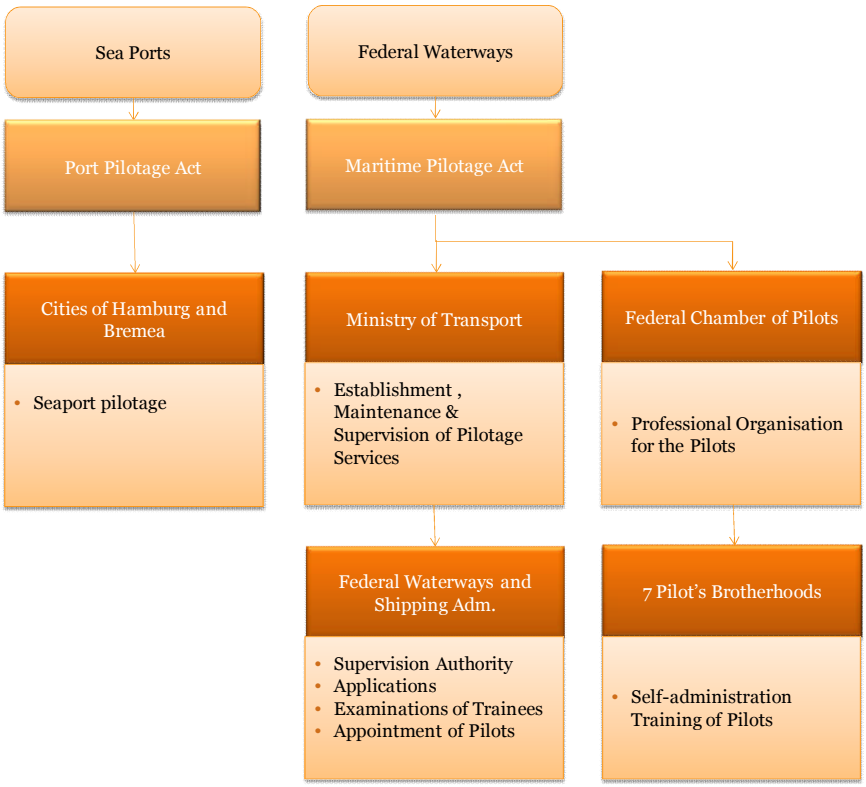
Pilotage service provider(s)

Provision of pilotage services, as already noted is carried out by brotherhoods of pilots. These are public self-governed bodies. The following brotherhoods - Weser I, Weser II, Jade, Ems, Wismar, Rostock, Stralsund, NOK I, NOK II and Elbe – make up the federal chamber of pilots (Bundeslotsenkammer). Freelance pilots are compulsorily members of the brotherhoods. They are supervised by the regional competent authorities.

Brotherhoods carry out pilotage for regional/local/port matters. This is regularly laid down in public agreements between the State and the federal Governments. They supervise and record pilots' profession, education and training. They are responsible for the retirement arrangements and committed to the support and advice from the supervising authorities.

The federal chamber of pilots takes care of general questions between brotherhoods, carries out mediation and represents brotherhoods at administrative and especially ministerial matters. Furthermore it holds contract to the central pilot transfer logistic company called "Lotsbetriebsverein e.V."

Figure 9 – Legal structure of pilotage in Germany



2.3.3.11 Legal structure of pilotage in Greece

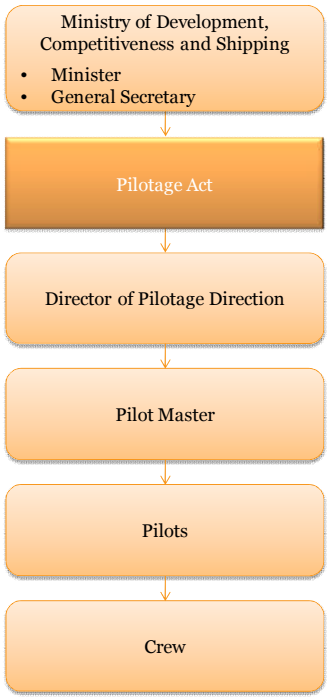
Competent authority

The Ministry of Development, Competitiveness and Shipping is the competent authority, responsible for pilotage at a national level, while also maintaining monitoring power over the entire activities of pilotage. Responsibilities are assigned to the General Secretariat of Ports and Port Policy which monitors both budget and personnel issues.

Pilotage service provider(s)

Pilotage is organized by the Ministry of Development, Competitiveness and Shipping. Pilots are public servants employed directly by the Ministry as and when the pilot stations need new pilots. The Ministry advertises the vacancies. If the candidates want to take part in the examinations they are obliged to have certain qualifications.

Figure 10 – Legal structure of pilotage in Greece



2.3.3.12 *Legal structure of pilotage in Ireland*

Competent authority

The competent authority in Ireland with overall legislative and safety responsibility for pilotage is the Department of Transport, Tourism and Sport. This Department is responsible for preparation of new legislation regarding pilotage. Where technical matters are concerned the Chief Marine Surveyor of the Marine Survey Office advises the Minister and Department.

Port companies and harbour authorities have the right to make Bye-Laws under the relevant Harbour Acts.

The Fishery Harbour Centres may have Bye-Laws, though these harbours fall within the remit of a different department within the administration, the Department of Agriculture and Fisheries.

Many coastal areas (now used by passenger ships), bays, berths and small ports are not covered by the legislation.

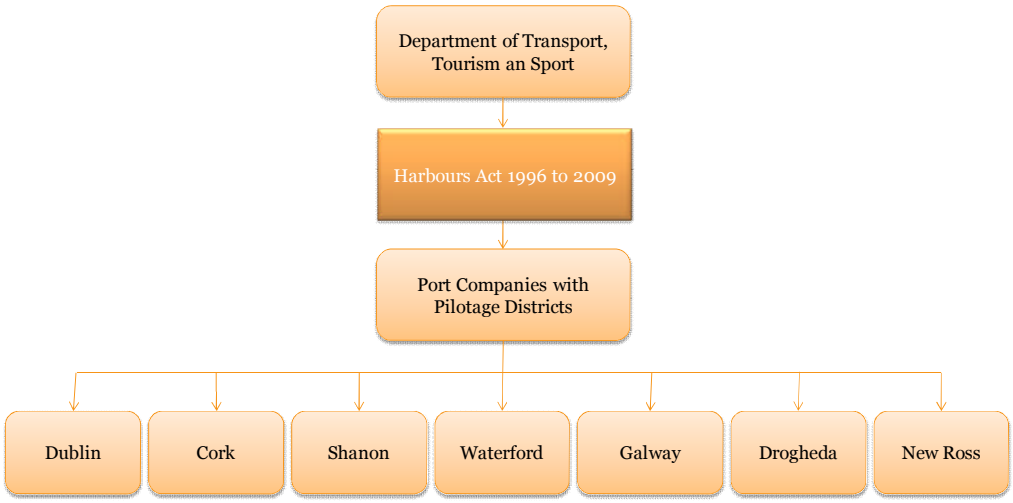
Pilotage service provider(s)

Operational responsibility for pilotage lies with the relevant State-owned commercial port company with responsibility for one of the seven legally defined pilotage districts. Currently these companies are Dublin, Cork, Shannon Foynes, Waterford, Galway, Drogheda and New Ross. S56 of the Act obliges the companies to either employ pilots or license pilots for their respective pilotage districts.

County Councils who are Port Authorities for smaller ports are also the pilotage authorities. In very small ports which do not fall within the legislation affecting ports pilotage may be arranged in an ad-hoc manner.

Fishery Harbour Centres are administered by the Department of Agriculture and Fisheries.

Figure 11 – Legal structure of pilotage in Ireland



2.3.3.13 Legal structure of pilotage in Italy

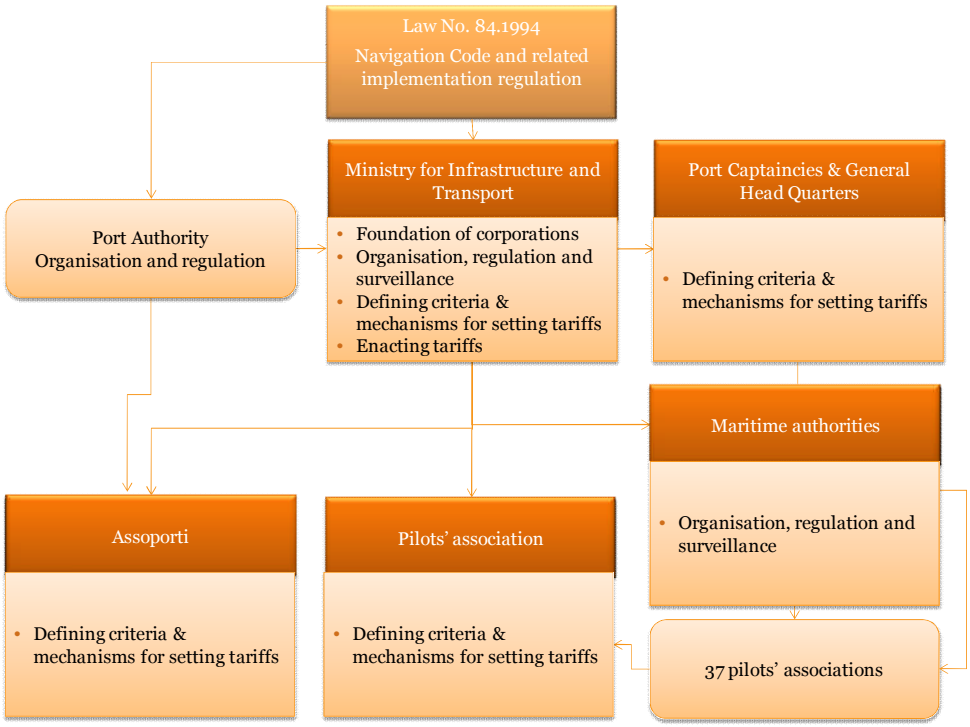
Competent authority

The competent authority is the Ministry for Infrastructure and Transport – General Directorate for Ports. The Ministry for Infrastructure and Transport holds the power to make pilotage mandatory in each national port, based on information on safety provided by the maritime local authority. Furthermore the Ministry holds the power to specifically regulate pilotage services provided in each national port, and to decide tariff conditions. In addition, the Ministry can exercise disciplinary authority on pilots. Relevant legislation comprises Article 91 of the Navigation Code and Article 14 law 84/1994.

Pilotage service provider(s)

In every port, pilotage is provided by a corporation (pilots' association) that is established by the Ministry. The maritime local authority monitors the corporation. These corporations organize the provision of the service, as indicated in the measures that regulate it, manage the accounts and administration of the association and, following indications of the maritime authority, organize the provision of services (for example, setting up work shifts). Relevant legislation comprises Article 86 of the Navigation Code and Articles 102 – 115 of the National Regulation.

Figure 12 – Legal structure of pilotage in Italy



2.3.3.14 Legal structure of pilotage in Latvia- Competent authority

The competent authorities are the Cabinet of Ministers, the Ministry of Transport and the Maritime Administration, each responsible for their own part.

The Cabinet of Ministers determines the areas where pilot services are available, taking into account the requirements of international regulations, and defines the procedures regarding how pilots are utilized on board, training, certification, qualifications and examination of pilots.

The Ministry of Transport is responsible for drafting relevant legislation on pilotage.

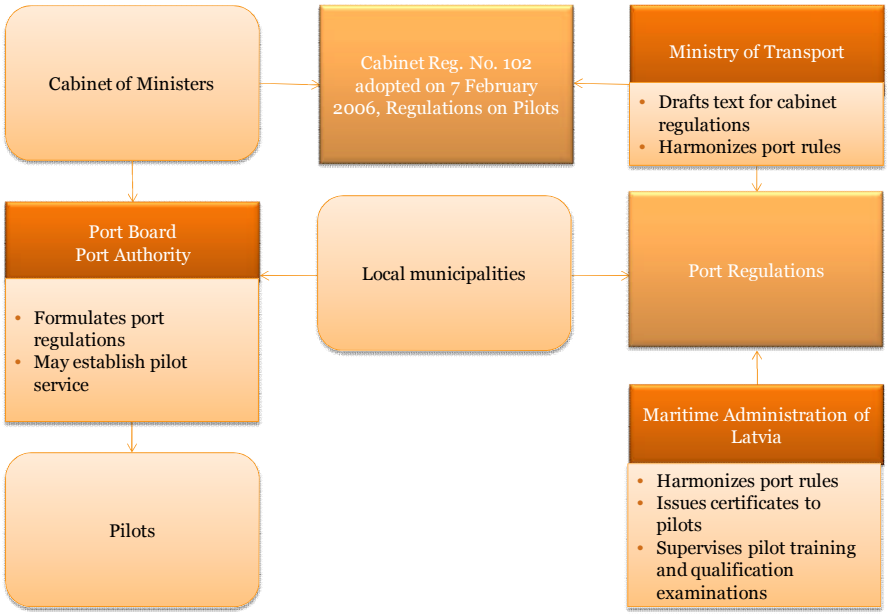
The Maritime Administration of Latvia is responsible for the issue and extension of PECs, supervision of pilot training and approval of qualifications required for pilot examinations.

Additionally, the Harbour Master oversees the provision of pilotage services. Acting as an official of the Port Authority he, in accordance with IMO regulations and the Helsinki Convention, organizes and controls ship traffic in a port and the service routes of the port, and performs the functions of navigation safety control in relation to ship traffic in ports, the port area, shipping routes, berths and terminals.

Pilotage service provider(s)

The Port Authorities may establish services that are required for the provision of navigation safety, managed by the Harbour Master, for example VTS, pilotage services and other port services. Thus Port Authorities are responsible for the provision of pilotage services. Pilots are employed by the Port Authority – the Port Authority sets out the job descriptions, work schedules and payments. The Port Authorities are either private or public entities.

Figure 13 – Legal structure of pilotage in Latvia



2.3.3.15 Legal structure of pilotage in Lithuania

Competent authority

The Ministry of Transport and Communications is the main standard setting body. Some delegated Acts are adopted by the Director of Lithuanian Maritime Safety Administration (MSA).

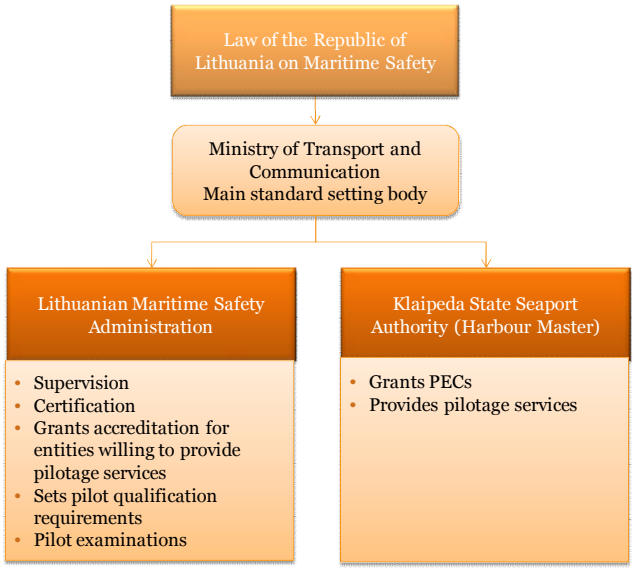
The MSA grants accreditation for entities willing to provide pilotage services, sets qualification requirements for pilots, performs examination of pilots and is empowered to establish types of ships and areas in the territorial sea and the exclusive economic zone of the Republic of Lithuania where sailing with a pilot on board is mandatory.

For the port of Klaipeda, Klaipeda State Seaport Authority (Harbour Master) is responsible for pilotage services and granting PECs.

Pilotage service provider(s)

Klaipėda State Seaport Authority (Harbour Master) has its own pilots (division within Harbour Master's office) for pilotage in the port. Some ship repair yards in the port have also been accredited to provide some pilotage services within their yard berths. The Harbour Master is responsible for pilotage, VTS monitoring and management.

Figure 14 – Legal structure of pilotage in Lithuania



2.3.3.16 Legal structure of pilotage in Malta

Competent authority

The Authority for Transport in Malta is the competent authority for pilotage (and Port Authority) and has the overall responsibility for the provision of pilotage services in Malta. This authority falls under the responsibility of the Ministry for Infrastructure, Transport and Communications (MITC). The powers of the authority for Transport in Malta are:

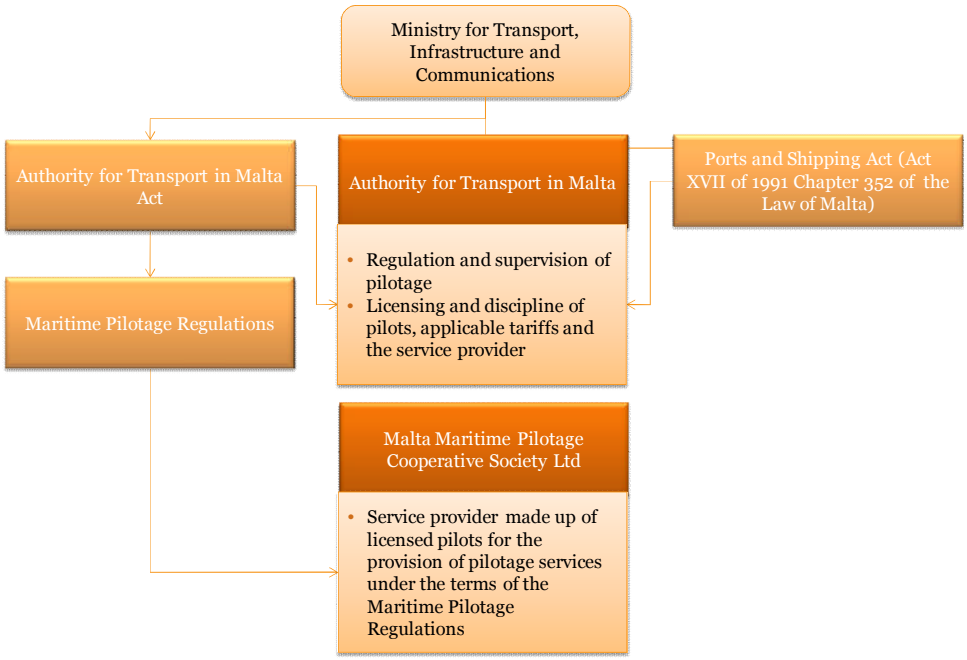
- To provide and ensure the provision of the appropriate pilotage services to ships according to Article 8(c) of the Authority for Transport in Malta Act; and

- To make regulations for levying dues, charges or fees upon any ship with respect to the provision of pilotage services according to Article 27(1)(a)(iii) of the Ports and Shipping Act.

Pilotage service provider(s)

In Malta, there is one organization, the Malta Maritime Pilots Cooperative Society Ltd., which provides pilotage services for all ports. This entity is responsible for all aspects of pilotage service provision.

Figure 15 – Legal structure of pilotage in Malta



2.3.3.17 Legal structure of pilotage in the Netherlands

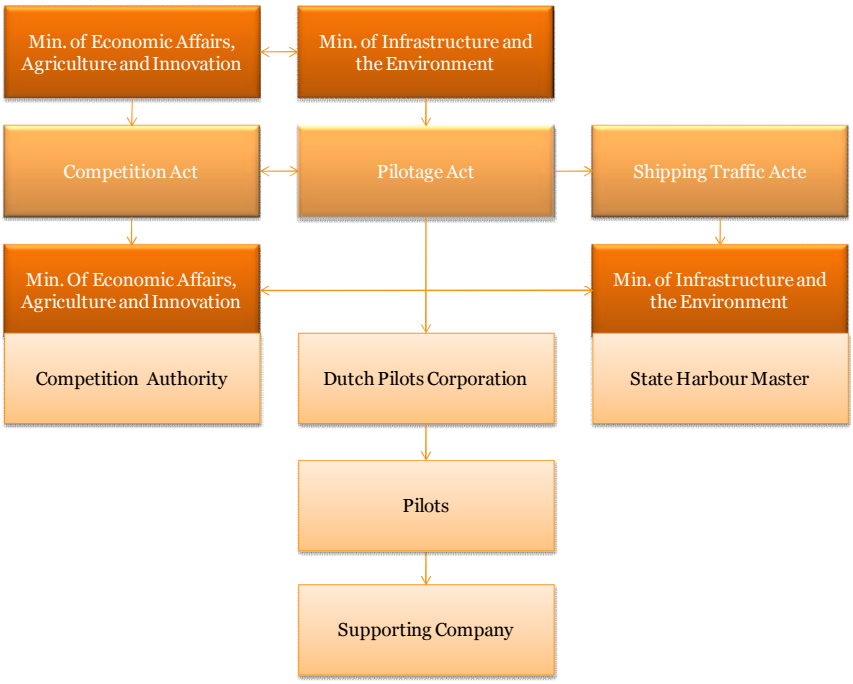
Competent authority

The Ministry for Infrastructure and Environment is the competent authority, assisted by the state Harbour Masters for the four sea port regions in the Netherlands – the Scheldt region, the Rotterdam Rijnmond region, the IJmond region (Amsterdam) and the Northern region. They ensure the safe and expedient shipping at national and regional level, respectively. Pilotage is crucial for discharging this task and is therefore monitored by the Government.

Pilotage service provider(s)

Pilotage is provided by self-employed pilots that are registered and organized in a public body for the profession: Nederlandse Loodsencorporatie (NLc). Next to the NLc are the four regional corporations located in the afore-mentioned sea port regions. The NLc is responsible for maintaining and improving the quality of the profession. The supporting company, Nederlands Loodswezen B.V. (private), provides general support to the pilots and their profession. The primary tasks are the collection of pilotage charges and transportation of the registered pilots to and from the sea-going vessels. The State Harbour cooperates with the pilots on an operational level and acts in a supervisory role.

Figure 16 – Legal structure of pilotage in the Netherlands



2.3.3.18 Legal structure of pilotage in Norway

Competent authority

The Ministry of Fisheries and Coastal Affairs is responsible for coastal affairs, including pilotage and holds regulatory powers according to the Pilotage Act, while the Norwegian Coastal Administration (NCA) as national competent authority carries out the drafting of new and amended regulations. Principal responsibility of organization, supervision and control rests with the Ministry but has been delegated to the NCA.

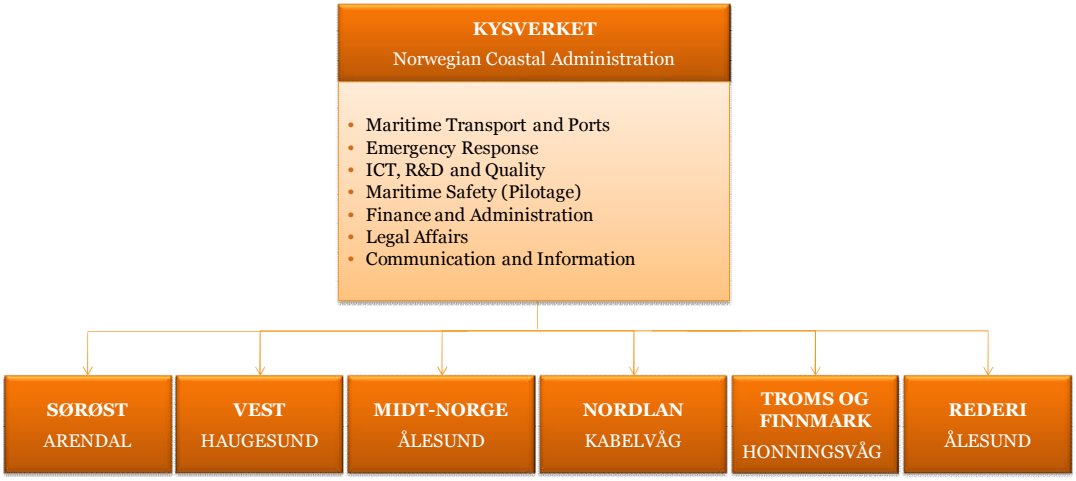
The NCA is subordinate to the Ministry of Fisheries and Coastal Affairs. The NCA is headed by the Director General, and the head office is the agency's highest governing body. The NCA is divided into five regions: South Eastern Coastal Administration, Western Coastal Administration, Central Norway Coastal Administration, Coastal Administration in Nordland and Coastal Administration in Troms and Finnmark. The regions organize and perform operative tasks, including pilotage, pilot dispatch services, operation of pilot vessels and issuing PECs, on behalf of the Director General.

All operational aspects of pilotage including pilots (assignment, training, certification), pilot dispatch services, operation of pilot vessels, PEC issue, supervision and control, are the responsibility of the NCA. In addition to powers delegated from the Ministry, the NCA has executive powers according to the Regulations covering pilotage and PECs.

Pilotage service provider(s)

The NCA is responsible for pilotage and PECs in terms of supervision, control and operation. There are no private pilotage services in Norway.

Figure 17 – Legal structure of pilotage in Norway



2.3.3.19 Legal structure of pilotage in Poland

Competent authority

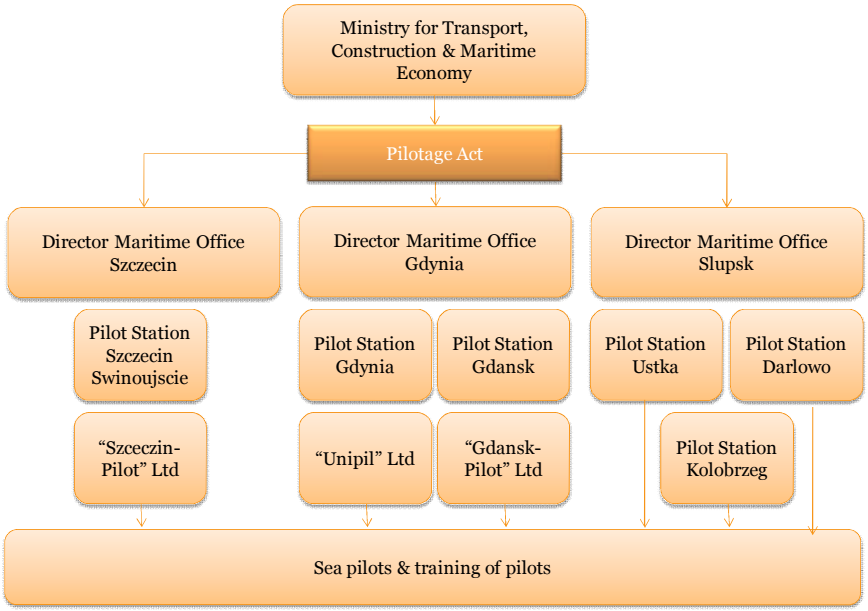
The competent authority is the Ministry of Transport, Construction and Maritime Economy and the Minister establishes compulsory pilotage in the territorial waters.

There are three regional Maritime Offices that support the activities of the Ministry.

Pilotage service provider(s)

Private entities provide pilotage services comprising advice on navigation and local rules. They organize and coordinate pilotage and perform training of candidates to become pilots. The pilots are obliged to report all observed irregularities regarding safety and security to the administration.

Figure 18 – Legal structure of pilotage in Poland



2.3.3.20 Legal structure of pilotage in Portugal

Competent authority

There have been some major changes in the legal structure of pilotage in Portugal since 1995. In the new institutional organization the Maritime Port Institute (IMP) was created as the supervisory body and as a pilot public institution with competence to deal with major issues.

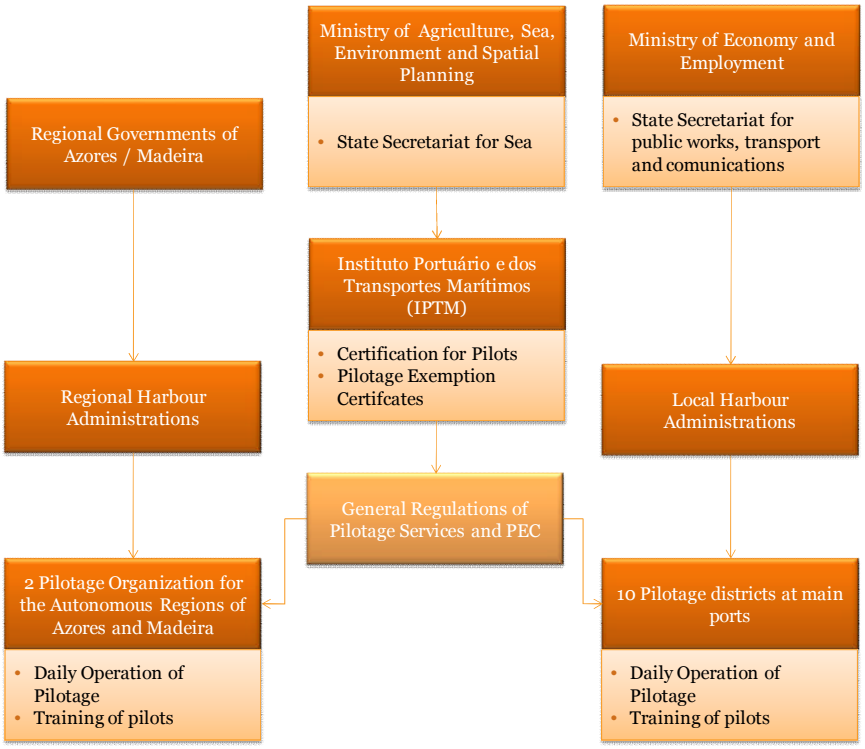
The IMP has competence in terms of exercising regulatory functions, approving technical conditions of pilotage services based on Port Authority proposals, administration of pilot certification, etc.

In the Azores the powers and responsibilities relating to the pilot were transferred to the Regional Government.

Pilotage service provider(s)

The Nacional de Pilotagem e Portos (INPP) was disbanded and professional pilots were integrated into the Port Authorities. As stated in the Decree-Law No. 48/2002 pilots can be provided directly by the appropriate authority or through a concession contract in accordance with rules governing the provision of public services.

Figure 19 – Legal structure of pilotage in Portugal[10]



2.3.3.21 Legal structure of pilotage in Romania

Competent authority

The Ministry of Transport and Infrastructure is the competent authority with responsibilities delegated to the Romanian Naval Authority, Maritime Ports Administration, Maritime Danube Ports Administration, Lower Danube River Administration, and Administration of the Navigable Canals as follows:

[10] Based on discussion with Associação dos Pilotos de Barra e Portos.

- Romanian Naval Authority – examination of pilots and supervision of pilotage services;
- Maritime Ports Administration – provision of pilotage services for maritime ports;
- Maritime Danube Ports Administration – provision of pilotage services for Danube River ports Sulina, Tulcea, Galati, Braila;
- Lower Danube River Administration – provision of pilotage services for passage of Danube River – maritime sector; and
- Administration of the Navigable Canals – provision of pilotage services for passage of Danube-Black Sea canal and ports.

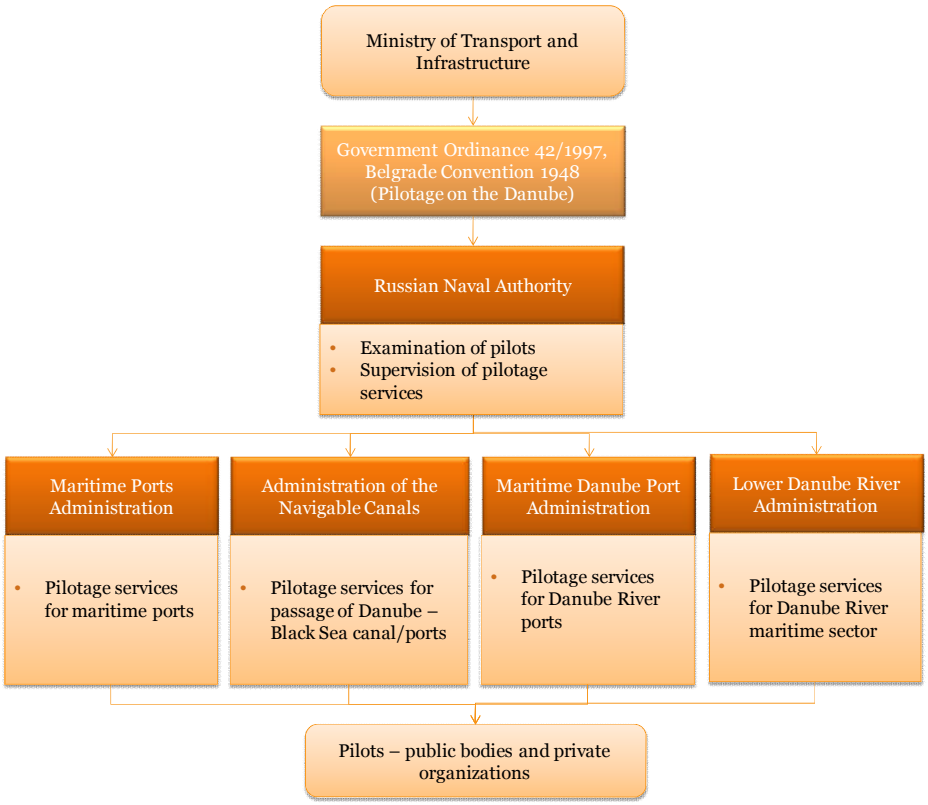
Pilotage service provider(s)

At maritime ports, the pilotage services are provided by private companies.

Lower Danube River Administration (Government company) provides pilotage services for passage of Danube River.

After receiving the authorization the company must sign a Service Contract with the port administration (there are two port administrators for maritime ports and maritime ports on the Danube River). Those companies are authorized by the Romanian Naval Authority (RNA). In order to receive the authorization, the companies must demonstrate that they have the minimum adequate technical equipment required by activity (e.g. pilot boat, an office with telephone and fax, a sufficient number of VHF, etc.) and use only qualified personnel (e.g. competence confirmed by RNA).

Figure 20 – Legal structure of pilotage in Romania



2.3.3.22 Legal structure of pilotage in Slovenia

Competent authority

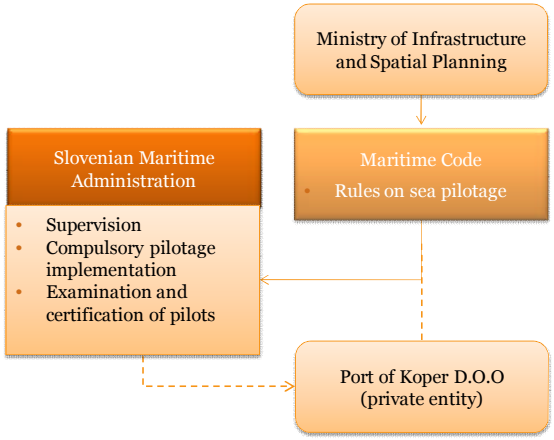
The Slovenian Maritime Administration (SMA) is the competent authority for pilotage-related matters and is responsible for prescribing compulsory pilotage, its limits, and the manner, location and time of embarkation and disembarkation by the pilot, as well as conducting the examination and certification of pilots.

The pilotage and towage of vessels is supervised by the maritime inspectors with the Ministry responsible for maritime affairs.

Pilotage service provider(s)

Pilotage services in the Port of Koper are market based and are currently provided by one private entity (Piloti Koper D.O.O.). If the market could not provide for such services, provisions for establishment of an optional commercial public service for performing pilotage services (based on a concession agreement) are defined in the Maritime Code Article 43. The service provider is responsible for the tariffs for its services.

Figure 21 – Legal structure of pilotage in Slovenia



2.3.3.23 Legal structure of pilotage in Spain

Competent authority

The competent authorities are the Maritime Administration and the Port Authorities. While the Maritime Administration sets the need for pilotage services /working conditions and announces the exams that candidates must pass to fill the positions at each port, the Port Authorities are responsible for regulating the services at their particular port, including number of pilots, training, and tariffs.

Pilotage service provider(s)

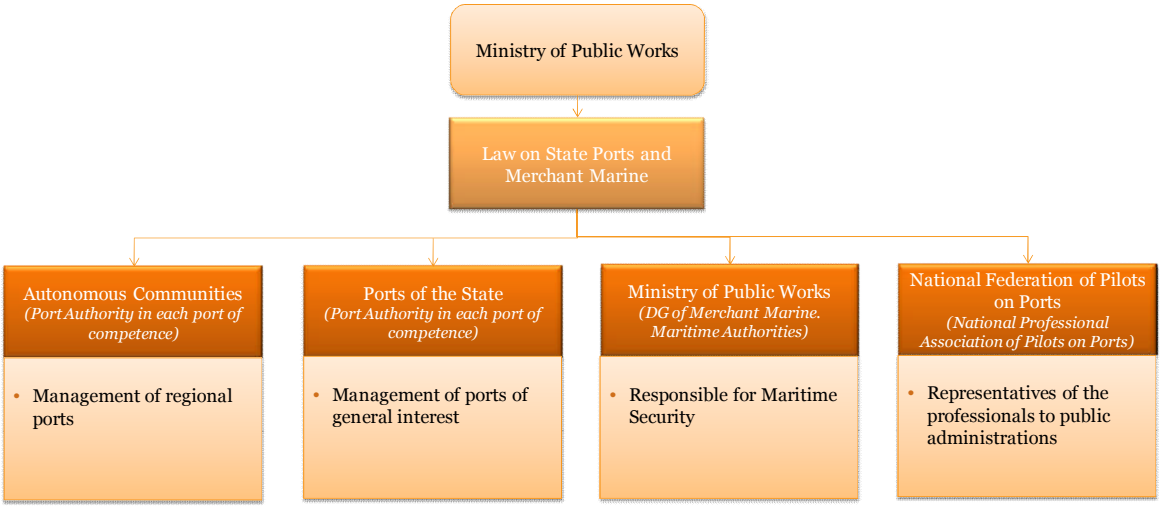
The National Professional Association of Pilots in Ports, functions at national level and is a private organization.

The *Federación Nacional de Prácticos* (National Federation of Pilots in Ports) is another private organization that exists at national level, established prior to the Law 27/1992 of State Ports and Merchant Navy, which includes corporate pilots throughout the national territory. It was established to give legal identity to those working in the profession. There are other private organizations which function at port level.

These are the two bodies that represent all pilots and pilot corporations in Spain. The Act 42/2002 November 14 created the Port Pilots Association and Royal Decree 797/2005 approved the General Statute of the National Professional Association of Pilots on Ports. Pilots have to become members of the Colegio Oficial Nacional de

Practicos de Puerto (National Professional Association of Pilots on Ports) in order to practice pilotage. The association was established to: organize the exercise of the profession under Spanish law, observe professional ethics, represent and defend the profession and the professional interests of their members, perform general activities related with the profession and to collaborate with public authorities in safeguarding maritime security, human life at sea and the environment.

Figure 22 – Legal structure of pilotage in Spain



2.3.3.24 Legal structure of pilotage in Sweden

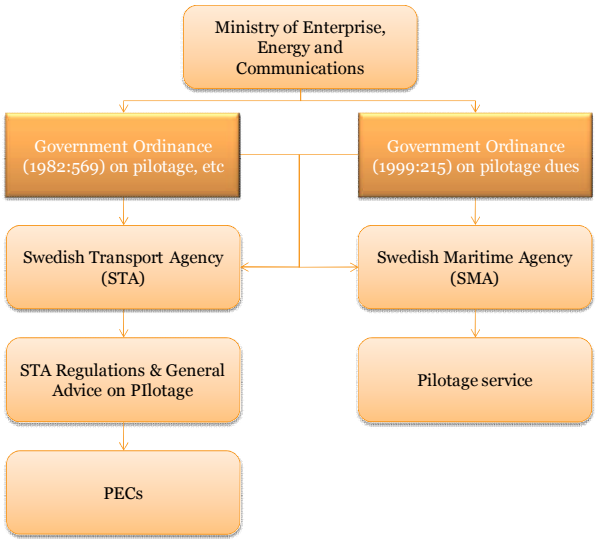
Competent authority

The Swedish Transport Agency (STA) is the competent authority and is responsible for determining where compulsory pilotage is in force and for issuing PECs and connected fees.

Pilotage service provider(s) – public body (single provider)

The Swedish Maritime Administration (SMA) is the only provider of pilotage; hence pilotage is a state monopoly. SMA is a public enterprise within the transport sector. SMA is responsible for the service level, setting the fees, training and certification, pilotage fairways, recruiting and other pilot services such as pilot ordering.

Figure 23 – Legal structure of pilotage in Sweden



2.3.3.25 Legal structure of pilotage in the UK

Competent authority

The Department for Transport (DfT) has policy responsibility for pilotage in the UK, while the responsibility as competent authority has been devolved to competent harbour authorities (CHAs), which are fully responsible for pilotage within their harbour area. There is no active national or regional oversight of pilotage on the part of Government but the DfT and Maritime Coastguard Agency (MCA) are the agencies responsible to central Government for ensuring that CHAs act in accordance with the 1987 Pilotage Act. Under the 1987 Pilotage Act each CHA is required to:

- Keep under consideration whether and what pilotage services need to be provided in their geographical area;
- Keep under consideration whether for safety reasons pilotage should be compulsory and, if so, in which circumstances; and
- Consult with local interested parties before issuing compulsory pilotage directions.

CHAs are empowered to:

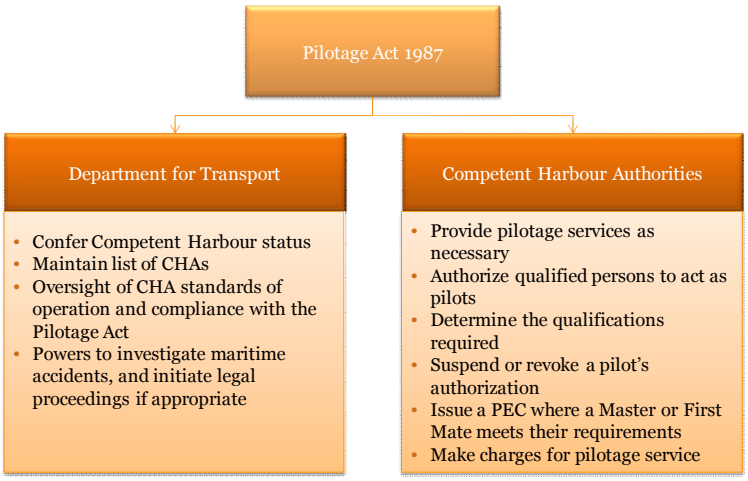
- Provide such pilotage services they consider necessary;
- Authorize persons to act as pilots whom they consider suitably qualified;
- Determine the qualifications required of pilots;
- Suspend or revoke an authorization of a pilot in specified circumstances;
- Issue a PEC where a Master or First Mate meets the requirements in terms of skills, experience, local knowledge and knowledge of English; and
- Make reasonable charges for the pilotage services it provides.

Pilotage service provider(s)

There is a mixture of public and private pilotage service providers in the UK. It is the case that many CHAs employ pilots directly. Examples of the structure include the following:

- Milford Haven and Southampton: these Port Authorities employs pilots directly under a Collective Agreement with Trade Union recognition;
- Belfast Harbour: Belfast Lough Pilotage Ltd. provides pilotage services under contract;
- Tees: pilots work as a co-operative under the name of Teesbay Pilots Ltd. There is a written agreement between the port owners (PD Ports) and Teesbay Pilots to provide pilotage services in Tees and Hartlepool; and
- Dover: pilots are employed directly by the Port Authority.

Figure 24 – Legal structure of pilotage in the UK



2.4 Pilot responsibilities and legal authority on board

2.4.1 Pilot's responsibilities on board

Generally the pilot acts as advisor to the Master or Captain regarding the route into (or out of) the port, berthing and unberthing, drawing on his experience and knowledge within the local maritime area.

In many countries the requirements of the pilot while on board are set out in the pilotage rules or regulations regarding the advice that he can give, the relationship between the pilot and Master and his duties with regard to reporting of the pilotage mission.

In Norway, the pilot can be authorized to give orders with regard to pilotage, rather than advice only – while this may be the case in other countries it was only stated in the response from the Norwegian national administration.

2.4.2 Legal authority on board

At the time of pilotage the Master generally has legal authority on board. Only in Greece and Poland does the pilot have legal authority on board, according to the information obtained. There are also several instances where other entities, such as the State agency or department can board the ship during pilotage and have legal authority.

Table 8 – Pilot's responsibilities and authority on board

Country	Pilot's responsibilities	Who has legal authority on board?
Belgium	According to Article 8 of the Pilotage Decree and Article 10 of the Revised Scheldt Rules, the pilot on board has advisory powers. The pilot acts as an advisor to the Master on vessels which are obliged to take a pilot on board, both when he boards the ship as when shore-based pilotage is given. The pilot reports defects in the vessel, noticed following the fulfilment of his task. The VTS centre and Joint Nautical Authority can provide recommendations, guidelines or traffic signs to the ship. Navigation assistance can also be given to the Captain and/or the pilot.	The Captain remains responsible for his ship. The pilot is a representative of the Government on board the vessel: he is a civil servant and does not replace the Captain at any time. The pilot can, for example, invoke the assistance of the shipping inspectors if he determines obvious defects. Or, he can call on the Joint Nautical Authority for assistance, for example, if the stability or the loading of the ship creates a hazardous situation or when the situation on board causes an obstacle for safe travel. He also has a task in the context of public health and compliance with quarantine regulations.
Bulgaria	The pilot is 'servant' to the Master of the vessel (Article 237 from the Merchant Shipping Code). The Master of the vessel is responsible for the safe navigation of the vessel. The relationship is regulated by Articles 30 to 35 of Ordinance No. 111/2001 for the terms and conditions for implementation of pilot activities in Bulgaria.	No legal entity has any legal authority on board at the time of pilotage act. The sovereignty of the vessel's flag is respected at any time. However, as the Master of the vessel is responsible for the safe navigation, and as a pilot could only be serving him by way of advice, it is assumed that the legal authority on board remains vested with the Master.
Croatia	The pilot gives expert advice to the Master concerning navigation, berthing/unberthing, anchoring, navigation conditions, and regulations that apply to the area where the ship is being piloted. The pilot cooperates with the Croatian VTS service.	The pilotage of the ship, whether compulsory or non-compulsory, does not relieve the Master of the duty to conduct the navigation of the manoeuvre of the ship and the responsibilities thereof. The presence of the pilot on board does not relieve the Master from responsibility of navigating the ship.
Cyprus	The pilot's responsibility is to advise the Captain of the ship and pilot the ship safely into and out of the berth. When the pilot decides for any reason that the ship must stay out of the port, the ship must stay out (e.g. weather, available berth, tug availability, etc.). Communication is paramount for the best result between pilot and Master/Captain of the ship.	The Master has the legal authority during pilotage.
Estonia	The relationship between Master and pilot is regulated by the Maritime Safety Act. The role is advisory based on the following: *The instructions, which are provided by a pilot, are advisory in nature. The pilot shall give instructions to the Master of a ship in a timely manner.* The Act sets out a list of clear specifications that the pilot must adhere to during the pilotage mission, including the actions that he must undertake and the nature of the communication between the pilot and the Master.	The presence of a pilot on board does not release the Master from his or her responsibility to command the ship. The Master, who uses the services of a pilot, is responsible for commanding the ship even if, with his or her consent, the pilot gives instructions, which are necessary for navigating the ship, directly to the person who is to carry them out.

[11] Can be downloaded from the Bulgarian section of www.marad.bg.

Country	Pilot's responsibilities	Who has legal authority on board?
Denmark	Executive Order No. 1199 on activities of pilotage service providers and the obligations of pilots, Section 8, states that the pilot shall advise the Master of a vessel being piloted or his substitute according to professional seamanship and based on the experience and the insight that a pilot shall possess and that a pilot shall give the piloted vessel relevant information for the navigation.	Even though a ship has a pilot on board, it is always the Master that has the legal authority/full responsibility for the ship and the navigation. The pilot is only an advisor.
Finland	The pilot is responsible for the act of pilotage, acting as advisor to the Master and as expert of the waterway and navigation. The VTS authority can in certain circumstances (e.g. SAR operation) close a fairway or order a ship to an anchorage or order a ship to stay in port.	The Master of the ship has overall responsibility for the ship and its safety even when the pilot is on board.
France	Article L 5341-1 of the Code specifies that the pilot provides "assistance" to the Master, while the Captain remains the only 'Master' on board. Beyond his function of assisting the Captain on the ship, the pilot performs a role of provider of information to the harbour and Port Authorities, and ensures a real standby function on behalf of the State. As pursuant to legislation, the pilot has a duty to report, an integral part of the control of the ship by the State port.	The Captain remains the only 'Master' on board the vessel.
Germany	The pilot is an advisor to the Master. The pilot is responsible for his navigational advice and takes no further responsibilities. The Master is the person responsible for the ship. Pilots are also responsible to report any irregularities of the ship, traffic or river or port to the administration. The VTS or harbour authorities carry out sovereign duties, which do not overlap with the pilot's responsibilities. Within their administration orders might be given to the Master via the pilot as a messenger.	The Master has full responsibility, as the pilot takes no further responsibility than to provide navigational advice.
Greece	A pilot is on board a vessel in accordance with legislation acting as advisor to the Master. They (Pilot – Master) exchange information about the mission.	At the time of the pilotage the pilot is the only entity that has legal authority on board.
Ireland	The role of a pilot is as an expert advisor with local knowledge to the Master. A ship which is being navigated in a pilotage district in circumstances in which pilotage is compulsory for it shall be under the pilotage of either a) a pilot or b) a person who is *bona fide* acting as the person in charge of the ship and who holds a PEC. The Master is free to take or decline the pilot's advice. The relationship between pilot and Master is very well defined, when the Master	The Master has full responsibility at all times, even with a pilot on board the command of the ship remains with the Master. Under the Merchant Shipping Acts, the Department's Marine Survey Office has the power to board and give direction to the ship at any stage, even when it is under the direction of the pilot.

Country	Pilot's responsibilities	Who has legal authority on board?
	engages a pilot, then the pilot becomes the 'servant' of the Master for the duration of the voyage. The Harbour Master may allow the Master to navigate in the compulsory pilotage district if a pilot is not available, being satisfied that it is safe.	
Italy	When the pilot is on board he is equal to the First Officer. The pilot suggests the route and advises the Captain in determining manoeuvres that are necessary to hold the course.	The relationship between pilot and Captain is governed by Articles 316 and 321 of the Navigation Code. A representative of the Authority for Maritime may come on board in the event of inspection requirements.
Latvia	The pilot is only an advisor.	The Master has legal authority on board and remains in legal command of the ship.
Lithuania	The responsibility of the pilot on board is set out in the Law of the Republic of Lithuania on Maritime Safety (Article 21. Relations between the Pilot and the Master of the Piloted Ship). The pilot must give advice to the Master of the piloted ship in order to ensure safe piloting of the ship and to make sure that the Master of the piloted ship correctly understands the given advice.	The Master shall always be responsible for the navigation of the piloted ship. If the Master leaves the bridge, he must inform the pilot as to who will be responsible for navigating the ship.
Malta	Regulation 5 of the Maritime Pilotage Regulations states: *'the function of a pilot on board a ship is to provide information and advice to the Master of the ship, as well as to assist the Master and the ship's navigating officers to make safe passage through the pilotage area or areas for which the pilot is engaged.'*	Despite the presence of a pilot on a ship, the Master of the ship continues to be responsible for the conduct and navigation of the ship in all respect. As regards the entities having legal authority during the pilotage act, in terms of the Maritime Pilotage Regulations, the Authority for Transport in Malta has legal authority.
Netherlands	The pilot acts in an advisory role to the Master of the ship.	The Master remains the legal authority on board during the act of pilotage.
Norway	Pilotage is defined by the Pilotage Act as '*guidance to vessels in navigation and manoeuvring*'. The Act states that '*the pilot is responsible for pilotage. The Master or the person in command in his stead may authorize the pilot to give orders on behalf of the vessel relating to its movement, navigation and manoeuvring*.' The Act also emphasizes that the service of pilotage entails no changes in the rules governing the responsibilities of the Master of the vessel.	The responsibilities of the Master of the vessel are dealt with in the Norwegian Maritime Code. 24 June 1994 No. 39, chapter 6. The act lays down the legal responsibility of the Master, including on seaworthiness, navigation, logbooks and in distress situations. The Act does not state explicitly that the Master has the highest legal authority on board the ship, but he has. The Pilotage Act explicitly states that having a pilot on board does not change this situation.
Poland	According to the Maritime Code a sea pilot is an advisor to the ship's Master only.	Harbour Master officers and inspectors can have legal authority in addition to pilot as authorized by relevant Director of Maritime Office.
Portugal	The pilot is obligated to inform and advise the Master on navigation, movements and manoeuvres to be carried out, providing information on any constraints that may affect safety and report on the conditions under	The Master has responsibility for damage to the pilot and vessel, if rules are not complied with.

Country	Pilot's responsibilities	Who has legal authority on board?
	which the vessel is suggesting appropriate precautions, as well as the obligations imposed by regulations.	
Romania	During the time that the pilot is on board he must provide to the Master all relevant information regarding the port or navigation area, so that the vessel can sail or make manoeuvre in safe conditions.	The Master has legal authority at all times – no other entities have legal authority while the pilot is on board. The pilot is not responsible for incidents or accidents that arise during the manoeuvre, unless they occurred as a result of incomplete or incorrect information that was provided by the pilot to the Master.
Slovenia	The pilot's responsibilities and powers are defined in Articles 78, 79 and 83 through 87 of the Maritime Code. *Article 78:* sea pilotage shall be the act whereby a professional person (pilot) gives instructions to a Master on the steering of the ship in order to ensure safe navigation in ports and in other areas of the territorial sea and internal waters. Pilotage shall be provided to every ship under identical conditions.	The Master has legal authority at all times – pilotage of a ship shall not release him from command of the navigation and manoeuvring of the ship, and from the ensuing liability. Therefore the Master is fully responsible for his ship.
Spain	The pilot is an advisor to the Captain during the manoeuvre of exit, entry or movement within the port and is responsible for the correct information provided to the Captain of the ship within the limits of the provision of the service. The port authority indicates to which dock the vessel should go to. The Harbour Master authorizes the entry and exit of the vessel in port.	During the manoeuvre only the Master is in command of the ship and he decides how to manoeuvre.
Sweden	According to the Ordinance (1982:569) the pilot is responsible for the piloting. The pilot shall advise and monitor the actions required for the ships' safe navigation. The piloting shall be performed with regards to safety and environment.	Master has overall responsibility and power at all times. No other entity has legal authority on board at the time of the pilotage.
UK	Part II of the 1987 Pilotage Act sets out these matters. In short, the pilot may require the Master to provide relevant information, and the Master is required to inform the pilot of matters relating to the ship that might affect its navigation.	Master has legal authority on board. Harbour Master has powers of general and special directions.

2.4.3 *Refusal of missions*

In the majority of countries pilots are able to refuse (or abort) pilotage missions under certain circumstances – particularly on safety grounds: if the pilot believes it is unsafe to board the ship, or if the technical condition of the ship or bad weather, for example, render the route through the pilotage area and into/out of berth unsafe, either for the pilot and/or others.

Other circumstances cited include the following, which in effect are related to safety:

- If the Master on board does not adhere to the pilot's instructions;

- If the ship is not seaworthy/there are technical faults with the ship/equipment;
- The dimensions of a ship (e.g. draft) are not compatible with the pilotage area/berth;
- The ship does not have permission to enter a specific port or harbour; or
- Sickness of the pilot.

With regard to aborting a pilotage mission, the pilot is bound in some countries to remain at the bridge despite having aborted his pilotage act. In Lithuania the pilot can only abort a mission with authorization from the Master.

Only in two countries – Italy and Malta – was it reported that a pilot cannot refuse a mission, although in reality it is possible in certain circumstances.

Table 9 – Can a pilot refuse a mission and under which circumstances?

Country	Circumstances in which a pilot can refuse a mission
Belgium	Yes. The pilot can refuse to board when the pilot ladder is unsafe. The pilot may decide on board to stop the pilotage if he finds that the stability or loading of the vessel creates a hazardous situation. In other words, the pilot can refuse to go further, if he considers that the situation on board does not allow a safe passage.
Bulgaria	Yes. As per the Merchant Shipping Code: - If the Master of the piloted vessel does not act according to the pilot's instructions; or - If the requirements for boarding arrangements for pilots are not respected.
Croatia	Yes, under the following conditions: - Ship draft is bigger than depth at the berth; - The ship is not seaworthy; - The ship does not have permission for arrival or departure; or - If the ship does not have safe berth in the harbour.
Cyprus	Yes. The pilot can never refuse a mission unless in bad weather for safety reasons.
Denmark	Yes. The pilot cannot refuse to conduct pilotage, but if weather or other conditions prevent the pilot from embarking, or any '*force majeure*' situation, e.g. fire aboard the ship, etc., the pilotage must be performed from pilot boat or from shore.
Estonia	Yes. Before pilotage commences or during pilotage, a pilot has the right to refuse to pilot a ship if: - The draught, the overall length or width of the ship exceeds the permitted characteristics in the pilotage area; - The Master of the ship does not fulfil the justified demands of the pilot; or - The commencement or continuation of pilotage would endanger the piloted ship, the persons aboard the ship, the property on the ship, or other participants in the vessel traffic, or would reduce the security of the surroundings. The pilot does not have the right to disembark from the ship without the consent of the Master until the ship has been safely anchored, has been made fast at a berth, or has left the compulsory pilotage area, or

Country	Circumstances in which a pilot can refuse a mission
	another pilot has replaced him or her.
Finland	Yes. The pilot can refuse a mission or refuse to commence or continue the pilotage if he considers that commencing or continuing the pilotage would put in danger the ship, people on board, other vessels or environment (Pilotage Act 115).
France	Yes. The pilotage is a public service (Case 2 June 1972 the State Council), governed by the principles of continuity (it must always be available) and equality (all users should benefit without discrimination): in principle, a pilot can refuse to board a ship or refuse to commence or continue a pilotage operation. Furthermore, Article L.5341-2 of the Code of Transport provides: 'even if it is not required except in cases of force majeure, the pilot must take priority, regardless of any other service obligation, his assistance to the vessel in danger, if he/she realizes that the vessel is at risk'. The pilot cannot refuse to assist a ship that has not paid for previous services. In very rare cases, after consultation and approval of the captaincy, a pilot may refuse to execute a pilotage operation if the conditions are such that the ship's safety or security of port facilities would be endangered. Otherwise, without prior consultation of the captaincy, the pilot can make use of his right to withdraw if weather conditions are such that personal safety is endangered. He may then refuse on his own to go on board a ship. In the event that, in spite of considerations relating to his personal safety, a pilot decided to go on board of a ship, the imprudence of his behaviour could be enforced against him by the owner if the pilot was the victim of an accident on this occasion.
Germany	Yes. Pilotage may be refused at any time if the vessel shows serious defects which might endanger the environment or the shipping, such as short manning, noticeable alcoholic/drug influence on the Master or Mate in charge, defects of radio, radar or manoeuvring elements on tankers. Otherwise, the Pilotage Acts states that a pilot shall be operating until such time as he is relieved, he is discharged by the Master, or the ship has reached her destination or the limit of the respective pilotage district.
Greece	Yes. The pilot may refuse a mission when international and/or national legislation are not followed, or when the Master does not follow proper seamanship conduct.
Ireland	Yes, in very exceptional circumstances. The Bye Laws that a pilot must adhere to in most ports will outline the pilot's duty to the port. The protection of the harbour environment and infrastructure should be covered in most Bye Laws. If the vessel is in an unsafe condition, if the Master was under the influence of alcohol or if the weather conditions were such as to create an unacceptable risk for navigation then the pilot could refuse to carry out the job, but must always report such to his superior manager, in Irish Ports that is the Harbour Master who is the final arbiter. If such conditions do not exist and the Harbour Master and/or the Masters do not consent to the refusal to carry out an "act of pilotage" the pilot may be guilty of an offence and shall be liable, on summary conviction to a fine, or imprisonment for a term not exceeding 12 months[12].
Italy	No. The pilot cannot refuse as in charge of providing a public service. In the event of particularly adverse weather conditions the pilot (in accordance with Article 129 of the National Regulation) must keep his boat next to the vessel and advise the Captain on the route. In such circumstances the Maritime

[12] Information provided by AMPI.

Country	Circumstances in which a pilot can refuse a mission
	Authority may, for security purposes, prohibit the entry of the vessel into port.
Latvia	Yes. A pilot can refuse a mission to go on board or refuse to commence or continue the pilotage. The pilot has the right to refuse pilotage when the ship to be piloted does not conform to SOLAS Chapter V, 23. Also if the ship poses a danger to the safety of navigation or to the environment. Any such refusal, together with the reason, should be immediately reported to the VTS or Harbour Master for action as appropriate.
Lithuania	Yes. The pilot cannot refuse a mission to go on board the vessel unless in the following circumstances: the pilotage is already commenced, or the pilot is not sure if the vessel can sail safe with the pilot's assistance or be safely berthed alongside the berth. That is, the pilot can refuse to commence or continue the pilotage due to a ship's technical, navigational equipment failure which has an impact on safe navigation. He is obliged to report to VTS and the Maritime Safety Administration about such defects. Article 22. Prohibition for the Pilot to Leave the Piloted Ship provides guidance on whether the pilot is able to abort a mission that has commenced. Having started to pilot a ship the pilot shall have no right to leave the ship without the authorization of the Master: - When piloting the ship into the sea – until the ship reaches the point from where it may safely sail without the pilot's assistance; - When piloting the ship into the port – until the ship is anchored or moored; and - Until the pilot in the piloted ship is substituted by another pilot.
Malta	No. This scenario is not incorporated in the Maritime Pilotage Regulations. In terms of Regulation 43 of the Maritime Pilotage Regulations, the 'Authority shall institute disciplinary proceedings against any pilot who has contravened any provisions of these Regulations or who in the course of, or in connection with his duties is negligent, or has acted in an inappropriate manner or has acted inappropriately when on duty or fails to comply with any reasonable directive given by the Authority'. Regulation 14 of the Maritime Pilotage Regulations deals with failure to perform pilotage services in general. Within this it states that 'the Authority may, in agreement with the service provider, exempt the Chief Pilot from providing regular pilotage services if his services are required elsewhere in connection with pilotage technical matters'.
Netherlands	Yes. In the event of danger to ship, crew and environment.
Norway	Yes. Not incorporated in the Pilotage Act. In the Quality Management System it is stated that the pilot can step aside if the Master refuses to take the advice of the pilot, but must continue to be present on the bridge as an available resource for the Master. In severe cases it is possible that the pilot may refuse a mission on the grounds of safety or threat to the environment. There have, however, not been any recent cases.
Poland	Yes. If the pilot recognizes that the ship is not seaworthy, seriously damaged, overloaded, the pilot ladder does not comply with SOLAS regulations, ISPS Code is not observed or the ship violates port regulations.
Portugal	Yes. A pilot may refuse a mission to go on board if he considers that the vessel presents a threat to safety of

Country	Circumstances in which a pilot can refuse a mission
	navigation or marine environment, or if there are irregularities such as unavailability of means for embarkation of pilot, the Master has not properly manoeuvred to provide for safe embarkation of the pilot or has not provided the pilot with all the required information.
Romania	Yes. If the pilot considers that the vessel presents a threat for safety of navigation or observes irregularities in the conduct of manoeuvre, he may request interruption of navigation or manoeuvre, until circumstances make it possible to resume safe navigation.
Slovenia	Yes. A pilot may refuse a mission to go on board and refuse to commence or continue a pilotage. Examples: health hazards on board (presence of infectious diseases) or unsuitable draft of vessel, etc. The Maritime Code provides the following: for safety reasons. As per the Code: the pilot must refuse to pilot a ship if its draft is unsuitable for the depth of the route to the location determined for mooring or anchoring, or if the ship is not seaworthy, or if the ship does not have permission to enter or leave, and must duly report such cases to the Slovenian Maritime Administration. During compulsory pilotage, the pilot may not abandon his duty and leave the ship, whether or not the Master accepts his professional advice.
Spain	Yes. When the pilot considers that a manoeuvre is dangerous he may discourage it by justification to the Port Authority (e.g. for safety reasons, in accordance with IMO Resolution A.060(23) and RD 393/96 Regiamento General de Practicaje).
Sweden	Yes. If the Master, or somebody else in charge of the vessel's navigation, acts against the pilot's advice, the pilot may refuse to continue the pilotage. The pilot may also refuse to come on board and start the pilotage if he or she for example suspects that the ship may not be safely boarded or safely navigated. Example – if the Master has not ordered as many tugs as recommended the pilot may refuse the pilotage.
UK	Yes. This is not specifically covered in the 1987 Pilotage Act. However, under other regulations, a pilot can refuse to board if the means of access is not compliant or accommodation is inappropriate.
UK – Belfast	Yes. Pilotage is provided under contract and as such Belfast Lough Pilotage Limited is obligated to attend a vessel subject to the terms and conditions of the contract. Once in attendance a pilot may refuse to conduct the act of pilotage for a legitimate reason and the CHA supports this.
UK – Forth	Yes. Forth Ports empower their pilots to refuse to commence or continue an act of pilotage if the pilot is not satisfied that the vessel/Master is not complying with regulations or the Master is not taking the pilotage advice provided by the pilot. Pilots are instructed to report such concerns to the Harbour Master immediately, who may then issue a Special Direction to the Master.
UK – Tees	Yes. A pilot can refuse on safety grounds (e.g. tug use, weather or Master under the influence of alcohol).
UK – Dover	Yes. A pilot can refuse pilotage on safety grounds if the limitations within the Port Marine Safety Code are exceeded.

Country	Circumstances in which a pilot can refuse a mission
UK – Southampton	Yes. Pilots can refuse an act: - If they are sick; - If they are fatigued or feel unfit to work; or - A pilot newly qualified may, for a period of up to three months after they are authorized, opt out of any ship for which they feel they have insufficient experience.
UK–Milford Haven	Yes. If risk of boarding is deemed unacceptable from safety perspective. Pilotage may be refused if ship fails to comply with port requirements (e.g. must have two persons on bridge capable of handling vessel in addition to the pilot).
UK – Humber	Yes. A pilot may refuse a mission for many reasons both personal and professional. This would be dealt with through management and company employee policy.

2.5 Liabilities

2.5.1 An overview of liabilities in relation to pilotage exemptions

Respondents were asked to provide information on three types of liability for the actors involved in or benefiting from pilotage exemptions. These were namely the pilot, the PEC holder and the pilotage organization. In the questionnaire a distinction was made between contractual liability, civil liability and criminal liability. The question on contractual liability essentially aimed at illustrating the consequences of breach of obligations under the terms of a contract between a pilot and a ship-owner, for example. The question on civil liability, on the other hand, aimed at illustrating the consequences of breach of non-contractual obligations, also referred to as torts, whereby a person suffers personal injury or damage to his/her property as a result of a pilot's, PEC holder's or pilotage organization's wrongful act. Lastly, the question on criminal liability aimed at identifying what acts or omissions are considered criminal acts in the countries examined and what sanctions are imposed. Criminal liability, thus, differs from the former two in the severity of the wrongful act and the punitive character of the penalties imposed – deterrent fines and/or imprisonment.

In the course of the study, a separate trend emerged – administrative penalties imposed for small offences and misdemeanours often administered by extra-judicial bodies. For the sake of properly understanding the core and rationale of these sanctions, they have been inserted under criminal liability, where they are administered by the State on its own motion. When they have been administered by the State on request by a third party, they have been inserted under civil liability, as they will most likely benefit a third party that has suffered loss.

Not all national administrations responded to each element of the question posed in the questionnaire. Where possible, gaps have been completed drawing upon publicly available information regarding legislative provisions.

Pilot liabilities

Contractual liability for pilots, according to the responses received, is provided for in less than half of the countries examined.[13] Normally such liability concerns the relationship between the pilot and the ship-owner and is governed either by Civil Law provisions on contractual matters or by Labour Law. Pilots have to pay for damages to the ship-owner or have disciplinary measures imposed on them.

[13] Countries that have expressly indicated contractual liability for pilots include: Croatia, Denmark, Germany, Ireland, Italy, Latvia, Malta, Poland, Slovenia and Spain.

In terms of civil liability, in most of the countries that responded either both intentional and negligent acts are punished[14], or intentional acts as a minimum[15]. Penalties vary from revocation of rights to fines and the sums involved could be limited to a certain amount (primarily where the damage was caused by negligence), or can be generally limited by the bond paid by the pilot, or lastly – have no limitations at all (primarily where damages have been caused by wilful conduct).

Two countries referred to vicarious liability of the ship-owner for acts of the pilot (Norway) and to liability assumed by the Master (Latvia). One country decides cases of civil liability on a case by case basis (Finland).

With regard to criminal liability pilots are normally subject to the general criminal law applicable in that country. Penalties vary from fines to imprisonment and severity varies as well. Fines could involve sums of up to €30,000 (Romania), and imprisonment could vary from one year (Denmark) to seven years (Romania). Revocation of rights has been referred to by a few countries only (e.g. the Netherlands or Bulgaria) but is presumed to underlie any subsequent prosecution. This type of sanction, together with fines, is normally applied for misdemeanours and small offences that could still be considered criminal, based on the explanation above and without prejudice to their administrative embodiment. Instead of creating additional burden for the judicial system, however, misdemeanours and small offences could be dealt with by special organs within the Harbour Master office, as is the case with Bulgaria and Croatia.

PEC holder liabilities

In most of the cases, PEC holders can only incur civil and/or criminal liability, depending on the country[16].

With regard to civil liability, here exists a trend whereby PEC holders carry a heavier burden of responsibility and thus either do not enjoy limitations on the fine imposed as contrasted to pilots (Ireland) or, incur liability, where a pilot in a similar situation would have not incurred such (Latvia).

With regard to criminal liability, where respondents have indicated such responsibility at all, they have referred either to general criminal law, or on rare occasions to specific sanctions imposed[17]. Sanctions vary from punitive fines to imprisonment.

Pilotage organizations liabilities

Civil liability is the regime that applies in most of the countries where pilotage organizations can incur liability[18]. Examples of sanctions include the following:

- Tariff fee for the respective category of ship multiplied by ten (Bulgaria);
- Damages covered by mandatory insurance policy up to a certain sum (Denmark); and
- Sanctions covered by the deposit (pilotage organization being jointly and severally liable with the single pilot).

Shore-based pilotage liabilities

Where shore-based pilotage exists, liability normally follows the pattern established for regular pilots.

[14] Countries that have expressly indicated a strict liability regime include Denmark, France and Germany. Based on Decree-Law 48-2002, Article 23(2), Portugal is assumed to also apply a strict liability regime. As a matter of fact, most respondents merely indicated whether civil liability applies without going further to indicate the precise regime.

[15] Countries that have expressly indicated a limited liability regime include Belgium and the Netherlands.

[16] Countries that have indicated both civil and criminal liability apply to PEC holders include for example Belgium, Denmark, Estonia, Finland, France, Germany, Lithuania, Malta, Norway, and Poland.

[17] Countries that have referred to sanctions include Croatia, Denmark, Estonia, Lithuania and Norway.

[18] Fourteen countries have expressly referred to civil liability attributable to a pilotage organization: Belgium, Bulgaria, Cyprus, Croatia, Denmark, Estonia, Finland, Germany, Greece, Italy, Lithuania, Malta, Norway and Poland.

2.5.2 Detailed description of trends across the EU, Croatia and Norway

Belgium

Acts entailing civil liability for Belgian pilots are under the jurisdiction of the Belgian courts no matter if they have caused damage on Dutch or Belgian territory. This has been provided for by the Scheldt Rules, which being under international law, prevail over domestic provisions. An important distinction is made between damages caused to the ship piloted and damages caused to other objects. Thus, for damages to the piloted ship, a limited liability regime applies. A pilot can be found liable only if he has acted with intent or gross negligence. In that case he can be ordered to pay compensation up to a certain amount. By way of contrast, damages of any other nature are considered to give rise to liability for a person employed by a public entity. The importance of this situation is emphasized by the fact that such damage can give rise to strict liability, meaning that infrequent and slight errors will still be punishable. In case of serious fault, compensation is not limited.

Criminal liability for pilots is not distinguished from criminal liability for any other person under the Belgian Criminal Code. Additional applicable laws include the Disciplinary and Penal Code for the Merchant Navy and police and shipping regulations. According to the applicable law, violations concerning safety of shipping are punished by imprisonment of three days to three months and/or a fine of between €26 and €300. Violations of the police and shipping regulations for the Lower Seascheldt Area are punished by imprisonment of eight days to three months and/or a fine of between €26 and €300. Depending on the nature and severity of the violation, a surcharge is applied which can increase the fine up to six times.

For PEC holders, civil liability is normally provided for under the Belgian Code of Commerce, Book III on the rules of liability of ship-owners and the limitations thereof. Criminal liability regime is the same as for pilots.

Pilotage organizations may be directly or indirectly liable for damage suffered by or caused by a piloted ship when that damage is due to the fault of the organization or a member of his staff acting in the course of his work.

Shore-based pilotage is performed by pilots within the Pilotage Services. Therefore, it is assumed that a similar regime applies for shore-based pilotage as for pilots and pilotage organizations.

Bulgaria

In Bulgaria pilots' liability for damages caused is assumed by the pilotage organization. Administrative penal sanctions can be imposed, which, for the sake of legibility of the subsequent tables, is inserted under criminal law. Administrative- penal sanctions are thus administered by the State, as contrasted to sanctions which cover damages, and thus fall under civil liability. For example, a pilot who causes a shipwreck or technical breakdown is punished by temporary deprivation of the right to exercise the activity to which the infringement was related for a period of six months to two years. A fine is also imposed varying from BGN 200 to 1,000 (€102 to €511). Sanctions are administered by the Harbour Masters or the Executive Director of the competent authority. Even in this case, however, Masters are not completely released from liability, despite the use of pilotage services.

A Master, and thus a PEC holder, can also incur liability by way of administrative penalties. If he has allowed the ship to sail in violation of safety and prevention of environmental pollution requirements or if he has caused arrest of a ship under the order of the control of the ships in the ports, he can be punished by a fine of BGN 500 to 5000 (€255 to €2,556) and can be deprived of the right to occupy his position for a period of two months to one year[19]. Where he has caused shipwreck or technical breakdown, he will be sanctioned, similarly to the pilot, by a revocation of his rights for a period of six months to two years and a fine from BGN 200 to 1000[20] (€102 to €511). PEC holders can also be held criminally liable as any other person. A PEC holder, who has caused death by negligence, for example, can be sentenced with up to six years of imprisonment[21].

[19] Merchant Shipping Code, Article 378 (2).

[20] Merchant Shipping Code, Article 376.

[21] Bulgarian Penal Code, Article 123 (1), last amended on 9 March 2012.

Pilotage organizations can be held contractually liable on the basis of their contract with the ship-owner, Furthermore, they are liable towards the ship-owner where a pilot under their aegis has caused damages to a vessel. Their civil liability is limited to the tariff fee for the respective category of the ship multiplied by ten.

The competent authority to rule on (i.e. establish the existence of) violation under the code, is the Maritime Administration, and in particular a representative of this body appointed by the Executive Director of the Administration.

Croatia

From the response provided the following liabilities are implied. A pilot is contractually liable for wrongful acts regarding his duties of informing the Harbour Master Offices and VTS of actions planned and performed, filling logbooks, and for irregularities regarding the possession of a pilot ID (i.e. in case of invalid ID). He would incur civil liability where piloting has not been carried out with due care, or where he has misinformed the VTS of any observed extraordinary events. Criminal liability in the form of a fine will be incurred where the pilot does not comply with all the set conditions.

A PEC holder may be held criminally liable, when he pilots his own vessel without possessing a valid PEC.

A pilot organization can be fined if it does not comply with the provisions of the national Pilotage Regulations regarding issuance of authorization, qualifications, piloting ID, marking of piloting vessels and other obligations. It can be held contractually or criminally liable when it does not comply with the conditions set within the granted authorization. It is also liable to pay the damages caused by a pilot to the owner of the vessel.

Cases concerning pilotage and pilotage exemptions are dealt with by the Misdemeanour Council of the Competent Harbour Master Office.

Cyprus

Pilots are employees of the Cyprus Ports Authority (CPA) and therefore Cyprus Ports Authority is responsible for their actions. The CPA will assume only their civil and contractual liability. For criminal acts, pilots are held individually liable.

The respondent did not indicate any penalties imposed or damages that a third party can claim. The respondent further stated that it is not competent on the matter of PEC holders' liabilities.

Denmark

Contractual liability of pilots, PEC holders and pilotage organizations is governed by private contractual agreements. Therefore, sanctions would depend on the breach of the contractual obligation and the provisions of the contract itself.

For pilots, civil liability is limited to the extent that a pilot acts only as an advisor to the Master. However, where he has wilfully broken the rules or has shown gross negligence, he could be liable for compensation of up to five million Danish kroner (€672,680). These damages will be covered by his insurance policy, which is mandatory under s. 3 of Executive Order 1199. Criminal liability in Denmark could involve both fines and imprisonment. Imprisonment is imposed only in the event of wilful misconduct and gross negligence which endangers human lives. Imprisonment is limited to one year.

For PEC holders, information provided on civil liability was scarce. As a PEC holder is the Master, he can face limited liability (potentially along with the company that owns or operates the ship). Criminal liability is usually triggered by PEC holders that do not return their PEC to the Danish Pilotage authority, when obligated to do so. In that case a fine and/or imprisonment of up to one year can be imposed.

For pilotage organizations, reference was made back to the insurance policy and the fines of up to five million Danish kroner (€672,680). It is defined as limited liability. Criminal liability of organizations, being legal entities,

is regulated by the general Danish Criminal Act. Particular sanctions for the organizations have not been mentioned.

The court competent to deal with contractual and civil claims and criminal offences is the District Court where the pilot or PEC holder lives, or where the organization has its base. Alternatively, the Maritime and Commercial Court could exercise jurisdiction instead. The decisions are subject to appeal in the High Court and Supreme Court.

Estonia

Pilots in Estonia can incur civil and criminal liability. According to s. 62 of the Estonian Maritime Safety Act, a pilot is liable for a marine casualty if it is proven that the casualty was caused by an intentional act or omission on the part of the pilot or by an erroneous instruction provided by the pilot on the basis of which it is impossible for the Master of the ship to foresee the marine casualty. In such situations the Maritime Administration could revoke a pilot's certificate or permit, especially where the ship has been put in a dangerous situation. Nevertheless, the Master is not completely released of liability as regards the commandment of the ship.

PEC holders can also incur civil and criminal liability for putting their ship in dangerous situations. They can be held liable by virtue of their failure to observe the maritime safety organization and technical servicing of the ship pursuant to the International Management Code for the Safe Operation of Ships and for Pollution Prevention (hereinafter ISM Code). In such a case the Maritime Administration can withdraw their permit of free pilotage.

Pilotage organizations can be held contractually liable and may also incur civil and criminal liability.

The competent courts to deal with these matters are the following extra-judicial bodies: the Maritime Administration (deals with misdemeanours provided for in §§ 80 – 933 and 94 – 94 of the Maritime Safety Act), the Border Guard (deals with misdemeanours provided for in §§ 94, 94 and 94 of the Act) and the Police Board and the Border Guard Administration (deal with misdemeanours provided for in §§ 88, 89, 93, 94 and 945 of the Act).

For other misdemeanours the Country and Supreme Courts are also involved, and for criminal acts and offences – the Country, Circuit and Supreme Courts.

Finland

The respondent indicated that pilots and PEC holders can incur civil and criminal liability, but this is to be decided by the court on a case by case basis. According to the governing law, however, a pilot would normally be subject only to criminal liability for public acts he had performed[22].

Pilotage organizations can incur limited liability where gross negligence on behalf of a pilot employed by them has been demonstrated. Damages are limited up €100,000.

France

Pilots in France can incur civil and criminal liability. Civil liability for pilots reflects the pilot's role as advisor to the Master; hence the pilot is 'only' providing assistance. Where damages are caused to third parties, claimants can seek compensation for damages from the ship-owner. He in turn may seek compensation from the pilot. This compensation is limited by the amount of his civil obligation – €10,000. A different mechanism applies when the damages have been caused wilfully and with criminal intent, rather than by negligence. Criminal liability of pilots is governed by common law and the Code of Transport.

PEC holders are also subject to civil and criminal liability. Civil liability does not follow the rules described for pilots above. It is governed by common law. PEC holders are further subject to criminal liability of common law applied to Masters of vessels.

[22] Pilotage Act, s. 8 (4).

Pilotage organizations, as a whole, are not subject to liability. This is due to the fact that pilotage stations have no legal personality, and therefore cannot be sued. Additionally, the pilots' union, as an employer of the staff of the station, is liable only in respect of it. It is not liable for the acts of the pilots themselves.

Germany

Pilots can be held liable where they have shown gross negligence. Apart from potentially incurring liability, under § 26 of the Maritime Pilotage Act they are required to give evidence any time an accident or similar event occurs. This disclosure is an instrument of supervision and provides the basis of the public interest to upgrade pilotage within the German Coast Safety Concept[23].

According to the response received, PEC holders, pilotage organizations and providers of shore-based pilotage can also be held liable – based on negligence.

Civil liability is determined by civil courts or civil arbitrations and criminal liability – by criminal courts, respectively. Administrative offences are dealt with by administrative courts. Sanctions are determined by the courts themselves based on the applicable law.

Greece

Pilots in Greece can incur contractual, civil and criminal liability. Normally, for acts or omissions that cause loss or damage, acts will be punished disciplinarily by a fine only. More severe cases can result in a legal case[24].

PEC does not exist in Greece.

Ireland

Contractual liability for pilots and PEC holders depends on their employment contract. The liability of a pilot will further depend on the implied contract between him and the ship-owner and Master. Breach of an obligation under the contract could lead to suspension or dismissal.

Pilots' civil liability is normally triggered by accidents caused following the pilot's errors. In that case the pilot would be liable for damages limited by the amount of the bond he has paid.

PEC holders have primacy, when it comes to the civil liability regime in Ireland. If the accident was proven to have been caused by the PEC holder, i.e. the Master, he may be liable to pay any damages he has caused. Thus PEC holders do not enjoy the statutory limitation on liability that actual pilots do.

The liability of pilotage organizations is determined in accordance with common law, and once again reflects the primacy of the Masters' (i.e. the PEC holder) responsibility.

The respondent has further indicated that the penalties and the competent courts might depend on the particular circumstances of the case.

Italy

For pilots, contractual liability for breach of obligation may involve a number of sanctions varying from fines, to suspension from service and cancelation from the registry.

When a pilot has provided inaccurate information to the Captain manoeuvring the ship, this may entail civil liability. The pilot is responsible for damages suffered by the vessel during pilotage, when it is proven that those

[23] Holger Feldmann, 'The German Pilot System and the WSD as Supervisory Authority' (Paper) http://www.nvzb.de/html/2008/papers/14%20Paper%20H%20Feldmann%20D%20Nissen%20WSD.pdf accessed 22 June 2012.

[24] EU Maritime Pilotage Study (Final Report) 63.

damages have arisen from the inaccuracy of the information provided. There is no limit with regard to the pilot's responsibility, although pilots are usually insured for damages to third parties for at least €1 million.

These two liability regimes have a common ground to the extent that they both involve financial penalties. Pilots can also be held criminally liable. Criminal liability is normally triggered by crimes committed in the execution of the pilot's duties.

PECs are not issued in Italy and the respondent did not indicate any liability for shore-based pilotage.

Pilot corporations are attributed civil liability only. They can be liable jointly with the single pilots or severally to pay damages covered by the deposit.

Latvia

When on board a pilot is there to assist (e.g. give advice) in navigation and manoeuvring of a ship. Pilots are thus immune from civil liability. Their contractual liability is normally regulated by Labour Law and they can also incur criminal liability and be punished for administrative violations. An administrative violation shall be acknowledged as an unlawful, blameable (committed with intent or through negligence) action or inaction, which endangers State or public order, property, rights and freedom of citizens, or management procedures specified and regarding which administrative liability is specified in the Law. Written claims with regard to a pilot's actions during pilotage can be addressed to the Harbour Master for consideration. The Harbour Master accordingly responds in writing to the claimant.

The Master incurs liability for material damages during pilotage as responsibility for handling the ship remains with him. Thus he is solely responsible for navigating and handling the ship.

Masters, and thereby PEC holders can be held liable for damages caused to the ship, cargo owner, or a third person to the amount of two monthly salaries where damages have arisen outside of his contract. Sanctions are not limited where the Master has acted intentionally[25].

The Maritime Code underlines the primacy of the ship-owner's responsibility and liability. He can be held liable for losses caused due to the fault of the Master or the pilot in the performance of their work duties in connection with the relevant ship. However, he can then seek to indemnify the sums by the Master and pilot[26].

The respondent provided that only a person who is guilty of committing a criminal offence, that is, one who deliberately (intentionally) or through negligence has committed an offence and which has all the constituent elements of a criminal offence, may be held criminally liable and punished. To be found guilty of committing a criminal offence and to impose a criminal punishment may be done by a judgement of a court and in accordance with the law. We assume by 'a person', the respondent meant physical person, so legal persons such as pilotage organizations cannot incur criminal liability.

Lithuania

The information obtained from the respondent provides that contractual, civil and criminal liability exist for pilots and PEC holders, and civil liability only – for pilotage organizations.

The law provides that in case of collision, for example, the liability of each party shall be established in proportion to the degree of its fault. If it is not possible to establish the degree of fault of each respective party, the liability shall be apportioned on an equal basis[27]. This principle of fair or equal division demonstrates that normally liability is not dependent on the standing of the actor (PEC holder/pilot) in the hierarchy. If the collision was caused through the fault of the Masters or other members of the crew of all the ships in collision, the liability of each party shall be established in proportion to the degree of its fault.

[25] Maritime Code, s. 282.

[26] Maritime Code, s.57 read in conjunction with s. 282.

[27] The Republic of Lithuania Maritime Shipping Law, Article 57.

The port control function applies "Breach of Administrative Law Code" to the Master for violation of Shipping rules. The penalties are 200 – 500 Litas (€57 – €144). If the Master does not agree with the port control decision he can appeal to the competent City Court.

Malta

Pilots in Malta can incur contractual and civil liability. Contractual liability is normally regulated by the general principles of law enshrined in the Civil Code for all the actors. The same applies to criminal liability, which is regulated by the general Criminal Code. Acts such as illegal piloting, evasion of dues, rates and tariffs, etc. may entail criminal liability. Civil liability, on the other hand, is limited to damages of up to €1,000 for damages and loss suffered as a result of performance of the pilot's duties. Interestingly, such damage may involve death and still be punished by the payment of damages. Shore-based pilotage follows the same model.

For PEC holders, civil liability is regulated by the general principles of the Civil Code, and criminal liability by the Criminal Code, respectively.

For pilotage organizations, pretty much the same applies for their civil and criminal liability, the difference being that an organization could be liable for loss and damage of up to €10,000.

Netherlands

Pilots in the Netherlands can incur limited liability civil liability for gross negligence or in the case of wilful acts. In that case he shall be fined or shall have his license revoked. For criminal liability, pilots are subject to criminal law as is any other citizen. In case of infringement the pilot can use his license[28].

Norway

Contractual liability does not to apply in Norway, as pilotage constitutes a public service and is therefore not regulated by contracts.

As for civil liability, it is generally regulated by the Norwegian Liability in Tort Act for all the actors. However, the liability of a pilot is limited, to the extent that the ship-owner holds vicarious liability for any fault or omission by the pilot. Additionally, organizational liability is widely applied as to include fault or omissions by any of the employees, including VTS operators and pilot vessel navigators.

Criminal liability is covered by the general Criminal Code and the Acts on marine environmental pollution for all the actors. It is further provided in the Pilotage Act that criminal liability is to be incurred by anyone who wilfully or negligently violates the Pilotage provisions under the Pilotage Act. Such violations are punished by fine.

Pilotage organizations are in a way also affected by the provision discussed above, as wilful or negligent violations of the pilotage provisions that are associated with a company, entailing additional liability and fines for the company itself.

Poland

Pilots are contractually liable and responsible to the ship-owner for damage caused in performance of pilotage services. For the rest of the actors, contractual liability does not apply.

Civil liability is normally regulated by the Civil Code rules for all the actors. Regarding pilots and pilotage organizations, these rules provide for compensation equal to the pilot fee multiplied by 20.

Criminal liability could apply to all the actors, including pilot, PEC holder and pilotage organization. The general Criminal Code rules apply.

[28] EU Maritime Pilotage Study, Final Report 1995 and Pilotage Act, Article 3.

Portugal

Article 23 (2) of Decree- Law 48-2002 stipulates a strict standard of liability, without reference to particular agents. It is assumed that negligence is punishable for pilots, as well as PEC holders. Furthermore, PEC holders are further held liable for misuse of the exemption certificate in cases of disability. In such a case they shall be punished by a fine of €2,500 to €25,000. They are punished under criminal law for giving false statements as to the qualifications required[29].

Romania

Pilots in Romania can incur civil liability if they fail to report or misreport to the VTS on the commencement and completion of a manoeuvre. Fines are imposed ranging from 5,000 to 10,000 lei (€1,120 – €2,241). Civil liability can also be incurred when pilots manoeuvre the ship without a tug or with an insufficient number of tugs, where towage is compulsory. Pilots can be sanctioned by a fine between 1,000 and 5,000 lei (€224 – €1,120). Several types of action can also entail criminal liability. These are, for example, the communication of information, knowing it is false. In such a case, the pilot can be sentenced to imprisonment from two to seven years; leaving the ship during service without approval, and thus putting the safety of the ship, cargo or crew at risk is punishable by imprisonment of one to five years; exercise of duties under the influence of alcohol or other substances prohibited by law are punished by imprisonment of three months to a year or a fine.

Pilotage organizations may incur liability if they have enabled pilotage of a ship by a person who does not have the appropriate accreditation documentation/certificate of competence, as well as if they no longer meet the minimum requirements concerning technical equipment. They can have their authorization to provide pilotage services withdrawn.

Slovenia

According to the respondent, liability is only applicable to pilots.

A pilot can be contractually liable to the ship-owner, unless the liability by virtue of the breach of contract sets a lower sanction for his wrongful act than the sanction that would be imposed for his civil liability. Thus, the Maritime Code provides that a pilot can be liable to the ship-owner for damages of up to SDR 6,666 (€8,030) where he has acted negligently. Where the pilot has acted intentionally, the limit may be disregarded. Additionally, a pilot can be held criminally liable. Thus, when a pilot has not observed or has contravened his obligations under the Maritime Code (Articles 78, 79, 83, 84) he could be imposed a fine ranging from €2,100 – €30,000 (as provided for in Article 987 of the Maritime Code). The same criminal penalty is applicable to a legal entity or a private entrepreneur or an individual, if pilotage is performed in contravention of these provisions.

Moreover, the ship-owner of a piloted ship shall be liable for the actions and omissions of the pilot, according to Article 86 of the Maritime Code.

Other offences are regulated by general civil and criminal law provisions.

Spain

Pilots in Spain can incur contractual, civil and criminal liability. This could be also where the Master has been held liable, but has subsequently sought indemnification by the pilot.

PEC holders can be held criminally liable as any other person.

Pilotage organizations, and thereby liabilities, do not exist in Spain. Same applies for shore-based pilotage.

[29] Ordinance 46-2000, Article 4(4).

Sweden

Pilots in Sweden cannot be held contractually liable. In addition, in case of an accident it would be the ship-owner that will incur civil liability. He can then make use of his subrogation's rights.

A PEC holder, i.e. a Master, can be liable for damage caused to the ship-owner, the owner of the cargo or other persons where he has acted wrongfully or with negligence. This however is subject to some adjustments. Ultimately, it is the ship-owner who is liable for damage caused by the Master (please see s. 6:11 and 7:1 of the SMA).

PEC organizations are contractually liable to the ship-owner, who can make claims to the SMA where he is not satisfied with the services provided. SMA could be further held liable for the level of training and equipment available, but this has not been clarified yet by jurisprudence.

UK

Pilots can incur civil and criminal liability. Contractual liability is rather a matter between the service provider and the CHA. Pilot's civil liability for loss or damage caused by act or omission during pilotage activities is limited to £1,000 (€1,237). He could also be held criminally liable, for example, for breach under laws on Security, Health, Pollution, Navigation, Alcohol/drugs, etc.

PEC holders can be held contractually liable for a breach of obligation under their contract with the CHA. The CHA may refuse or revoke their certificate if it appears that the holders have been guilty of any incompetence or misconduct affecting their capability to pilot the ship. In addition, PEC holders can incur civil liability that is not limited, as contrasted to the sanction available for pilots. Similarly to the pilots, PEC holders, can be prosecuted and be held criminally liable for crimes and offences under a number of laws.

With regard to pilotage organizations the CHA cannot be held liable for any loss or damage caused by any act or omission of a pilot authorized by it by virtue only of that authorization[30].

2.5.3 Pilots and PEC holders' liabilities

Table 10 – Pilots and PEC holders: level and type of liability

Country	Contractual liability	Civil liability	Criminal liability
Belgium – Pilots	Yes In case of wilful act or gross negligence.[31]	Yes. For damages suffered by the piloted ship – limited liability normally in case of intent and gross negligence. For damages suffered outside that scope – strict liability. Compensation for damages is limited to certain amount.	Yes. For erroneous advice given to the Captain or for violation of safety of shipping the applicable punishment is imprisonment of three days to three months and/or a fine of €26 – €300. Similar violations within the Lower Scheldt area are punished by imprisonment of eight days to three months and/or a fine of €26 – €300. Surcharges could increase the fine up to six times.

[30] Pilotage Act 1987, s 8(6).

[31] EU Maritime Pilotage Study (Final Report) of 1995 p.62.

Country	Contractual liability	Civil liability	Criminal liability
Belgium – PEC holders	n/a	Yes. Limited liability for ship-owners as provided for under the Belgian Code of Commerce, Book III.	Yes. The penal provisions as for pilots apply.
Bulgaria – Pilots	No.	No. Assumed by the pilotage organization.	Yes. Remark – administrative/penal sanctions apply for small offences, for example: Violations of Ordinance No. 1 for pilot activities- punished under the Commercial Shipping Code by the Harbour Masters. Shipwreck or technical breakdown due to pilot's fault – punished by revocation of authorization for a period between six months and two years; and a fine of BGN 200 – 1000 (€102 – €511).
Bulgaria – PEC holders	n/a	Yes.	Yes. Remark: administrative/penal sanctions apply for small offences. They vary depending on the offence, for example: - Revocation of rights (two months to one year) and a fine of BGN 500 – 5,000 (€255 – €2,556); and - Revocation of rights (six months to two years) and a fine of BGN 200 – 1000 (€102 – €511).
Croatia – Pilots	Yes. For : - Failure to inform Harbour Master Offices or VTS of actions planned and performed; - Failure to fill the logbook; and - Possession of an invalid pilot ID.	Yes. For: - Piloting ships without due care; and - Failure to inform the VTS of any observed extraordinary events.	Yes. Fines for misdemeanours: - Providing pilotage without authorization; and - Failing to comply with set conditions.
Croatia – PEC holders	n/a	n/a	Yes. Fine – if Master performs pilotage of his own ship without having been granted a PEC.

Country	Contractual liability	Civil liability	Criminal liability
Cyprus – Pilots	No. Assumed by the pilotage organization.	No. Assumed by the pilotage organization.	Yes. General criminal law applies.
Cyprus – PEC holders	n/a	n/a	n/a
Denmark – Pilots	Yes.	Yes. Limited liability normally in case of wilful misconduct or gross negligence. Damages of up to five mln kr. Covered by mandatory insurance policy.	Yes. Limited liability normally in case of wilful misconduct or gross negligence that endangered human lives. Fines and/or imprisonment of up to one year.
Denmark – PEC holders	Yes.	Yes. Limited liability (possibly along with the company itself).	Yes. Fines/imprisonment of up to one year.
Estonia – Pilots	n/a	Yes.	Yes. Limited liability – casualty caused by intentional act or omission, or erroneous instruction. Revocation of the pilot's certificate administered by the competent authority for pilotage.
Estonia – PEC holders	n/a	Yes.	Yes. Revocation of the permit of free pilotage administered by the competent authority for pilotage.
Finland – Pilots	n/a	Yes. Case by case, in court.	Yes. Case by case, in court.
Finland – PEC holders	n/a	Yes. Case by case, in court.	Yes. Case by case, in court.
France – Pilots	n/a	Yes. Liable towards the owner, not towards third parties. Limited liability. Damages of up to €10,000 – the amount of the pilot's 'civil obligation'.	Yes.
France – PEC holders	n/a	Yes.	Yes.

Country	Contractual liability	Civil liability	Criminal liability
Germany – Pilots	Yes. Gross negligence required.	Yes. Gross negligence required.	Yes. Negligence required.
Germany – PEC holders	Yes. Negligence required.	Yes. Negligence required.	Yes. Negligence required.
Greece – Pilots	Yes.	Yes.	Yes.
Greece – PEC holders	n/a	n/a	n/a
Ireland – Pilots	Yes. Can be liable for damages equal to the amount he has paid for a bond (s. 70 of the primary Act).	Yes. Can be liable for damages equal to the amount he has paid for a bond (s. 70 of the primary Act).	Yes. Can be liable for damages equal to the amount he has paid for a bond (s. 70 of the primary Act).
Ireland – PEC holders	n/a	Yes. Liable for damages caused. No limitations as for pilots.	No information provided/available.
Italy – Pilots	Yes. Specific disciplinary measures are provided for single pilots in case of violation of their obligations and duties, which consist of fines, suspension from service up to cancellation from the registry.	Yes. For damages resulting from inaccurate information provided to the Captain manoeuvring the ship. Pilots generally insured for up to €1 million.	Yes. Pilots are responsible and also prosecutable for crimes committed in the execution of their duty.
Italy – PEC holders	n/a	n/a	n/a
Latvia – Pilots	Yes. Disciplinary liability according to Labour Law.	No. Remark: administrative claims can be addressed by third parties against a pilot before the Harbour Master. Inserted under civil liability for the involvement of a third party into the claims of violation.	Yes.
Latvia – PEC holders	n/a	Yes. Damages in the amount of two month's salary for negligent acts. No restriction on damages for intentional acts.	No information provided/available.

Country	Contractual liability	Civil liability	Criminal liability
Lithuania – Pilots	No. Potentially assumed by the manager of the ship[32].	Yes.	Yes.
Lithuania – PEC holders	No.	Yes.	Yes. Remark: administrative penalties are imposed: 200 – 500 Litas (€57 – €144).
Malta – Pilots	Yes. Contractual liability is subject to the general principles of law enshrined in the Civil Code regulating contracts and any other law dealing with contractual matters that may be enacted.	Yes. Regulation 16A(2) of the Maritime Pilotage Regulations states that 'the liability for civil damages of a licensed pilot, whether on board a ship or elsewhere, for any loss or damage, including death and personal injury, resulting from any cause during the performance of his duties, shall not exceed the sum of €1,000 in respect of any one voyage and the cost of the pilotage dues in respect of the voyage during which the liability arose.'	Yes. Articles 36, 37 and 38 of the Ports and Shipping Act deals with liability of a pilot when in breach of duty, illegal piloting and evasion of dues, rates and tariffs. The Maritime Pilotage Regulations further stated that the 'Chief Pilot shall be guilty of an offence under these regulations if he instructs a pilot to pilot a ship outside the parameters of his licence without the required authorization' in accordance with provisions of the regulation by the Authority. Criminal liability in general is subject to the general provisions concerning criminal matters enshrined in the Criminal Code and any other law dealing with criminal matters that may be enacted from time to time.
Malta – PEC holders	Yes. The same as the answer given for pilots.	Yes, Civil liability is subject to the general principles of law enshrined in the Civil Code [Ordinance VII of 1868, Chapter 16 of the Laws of Malta] and any other law dealing with civil liability that may be enacted from time to time, including international conventions and EU Directives on civil liability and limitation thereof.	Yes. Criminal liability is subject to the general provisions concerning criminal matters enshrined in the Criminal Code [Order-in-Council of the 30th of January, 1854, Chapter 9 of the Laws of Malta] and any other law dealing with criminal matters that may be enacted from time to time.
Netherlands – Pilots	No information provided/available.	Yes. For wilful act or act of gross negligence. Fine/revocation of license.	Yes. Subject to general criminal law. Revocation of license.
Netherlands – PEC holders	No information provided/available.		

[32] The Republic of Lithuania Maritime Shipping Law, Article 57(6).

Country	Contractual liability	Civil liability	Criminal liability
Norway – Pilots	No.	Yes. General Norwegian Liability in Tort Act, but with the adaptation that the pilot is considered to be in the service of the vessel during pilotage: e.g. the ship-owner holds vicarious liability for any fault or omission by the pilot.	Yes. Not specific but covered by general Criminal Code and Acts on marine environmental protection.
Norway – PEC holders	No.	Yes. General Norwegian Liability in Tort Act.	Yes. Subject to fines for breach of Pilotage Act and regulations, and in addition covered by general Criminal Code and acts on marine environmental protection.
Poland – Pilots	Yes. Liable to the owner for damage caused in performance of pilotage services.	Yes. Pilot fee multiplied by 20.	Yes. Criminal Code rules apply.
Poland – PEC holders	n/a	Yes. Civil Code rules apply.	Yes. Criminal Code rules apply.
Portugal – Pilots	n/a	Yes. Negligence suffices[33].	Yes. Negligence suffices[34].
Portugal – PEC holders	n/a	Yes. For misuse of exemption certificate: fine of €2,500 – €25,000.	Yes. For false statements given as to their qualifications.
Romania – Pilots	No information provided/available.	Yes. Fines payable for certain actions: not reporting or misreporting by the pilot to VTS commencement and completion of a manoeuvre, with a fine from 5,000 – 10,000 lei (circa €1,120 – €2,240).	Yes. Offence (breach) under Law for certain actions: Communication of information by the pilot, knowing that are false shall be punished with imprisonment from two to seven years. Leaving of ship without approval by the pilot during service, if this would have interrupted the passage or endangered the safety of the ship, cargo or crew, shall be punishable with imprisonment from one to five years.
Romania – PEC holders	n/a		

[33] Decree – Law 48-2002, Article 23 (2).

[34] Ibid.

Country	Contractual liability	Civil liability	Criminal liability
Slovenia – Pilots	Yes. Can be held contractually liable to the ship-owner: For negligent conduct – a fine of up to SDR 6,666 (circa €8,006). For wilful conduct – no limitations on the fine.	Yes. For negligent conduct – a fine of up to SDR 6,666 (circa €8,006). For wilful conduct – no limitations on the fine.	Yes. For conduct contravening the Maritime Code (Articles 78, 79, 83, 84) – a fine ranging from €2,100 – €30,000 (as provided for in Article 987 of the Maritime Code).
Slovenia – PEC holders	n/a		
Spain – Pilots	Yes.	Yes.	Yes.
Spain – PEC holders	No.	No.	As any other person.
Sweden – Pilots	No. There is no contractual liability between the pilot and the ship-owner.	Yes. During pilotage the pilot is responsible for the piloting but the Master has the overall responsibility for the ship. If there is an incident the ship-owner will be held liable but may use his subrogation rights.	No.
Sweden – PEC holders	Yes. The liability for a PEC holder is the same as for any Master, regardless of using a PEC or not.	Yes. Certain liability for a PEC holder – the same as for any Master, regardless of using a PEC or not. Negligence is required. Ultimately it is the ship-owner that is liable.	Yes. The liability for a PEC holder is the same as for any Master, regardless of using a PEC or not.
UK – Pilots	Would be a matter for service providers to CHAs where the pilots are not directly employed by the CHA.	Yes. Limited by statute in the Act to £1,000 (€1,237). (A pilot may be subject to civil litigation under other legislation).	Yes. A pilot could potentially be prosecuted under a number of laws, e.g. Security, Health, Pollution, Navigation, Alcohol/drugs, etc.
UK – PEC holders	Yes. For breach of obligations under contracts with the CHAs (where applicable).	No. No limitation of liability under the Act (may also be subject to civil litigation under other legislation).	Yes. A PEC holder could potentially be prosecuted under a number of laws, e.g. Security, Health, Pollution, Navigation, Alcohol/drugs, etc.

2.5.4 *Pilot organization liabilities and liabilities in case of shore-based pilotage*

Table 11 – Pilot organizations and shore-based pilotage: level of liability

Country	Pilotage service providers	Contractual liability	Civil liability	Criminal liability
Belgium	Pilotage organization	See civil liability.	May be held directly or indirectly liable for damage suffered by or caused by a piloted ship when that damage is due to the fault of the organization.	n/a
	Shore-based pilotage	Carried by pilots within the pilotage services, same liability regime applies for both.		
Bulgaria	Pilotage organization	Yes. For breach of an obligation under the contract between the ship-owner and the pilotage authority.	Yes. Assumes the liability for damages caused by the pilot. Pilotage civil liability towards ship-owners is limited to the tariff fee for the respective category of their ship x 10 (only for pilots from pilot organizations).	No.
	Shore-based pilotage	Carried by pilots from the pilotage organizations. It is assumed that similar liability regime would apply.		
Cyprus	Pilotage organization	Yes.	Yes. For violations and damages caused by the pilot.	No.
	Shore-based pilotage	n/a		
Croatia	Pilotage organization	Yes. For failure to comply with the conditions set in the granted authorization.	Yes. Compensation of damages caused by pilot to the operator of the ship.	Yes. Fine for pilotage organizations whose pilots contravene the national pilotage authorizations. Fine for foreign companies that perform pilotage without special authorization.
	Shore-based pilotage	n/a		

Country	Pilotage service providers	Contractual liability	Civil liability	Criminal liability
Denmark	Pilotage organization	Yes. For breaches of contractual obligation in respect of customers and employees.	Limited liability normally in case of wilful misconduct or gross negligence. Damages of up to five mln kr. Covered by mandatory insurance policy	Yes – general criminal law applies. Fines/imprisonment of up to one year.
	Shore-based pilotage	n/a		
Estonia	Pilotage organization	Yes.	Yes.	Yes.
	Shore-based pilotage	n/a		
Finland	Pilotage organization	n/a	Yes – where gross negligence has been demonstrated. Damages are limited to €100,000.	n/a
	Shore-based pilotage	n/a		
France	Pilotage organization	Yes. Pilots' union, being an employer, is liable towards its staff within the station.	No.	No.
	Shore-based pilotage	n/a		
Germany	Pilotage organization	Yes. Negligence required.	Yes. Negligence required.	Yes. Negligence required.
	Shore-based pilotage	Yes. Negligence required.	Yes. Negligence required.	Yes. Negligence required.
Greece	Pilotage organization	Yes. According to Law.	Yes. According to Law.	Yes. According to Law.
	Shore-based pilotage	n/a		
Ireland	Pilotage organization	n/a Primary liability rests with the Master of the ship.	n/a Primary liability rests with the Master of the ship.	n/a Primary liability rests with the Master of the ship.
	Shore-based pilotage	n/a		

Country	Pilotage service providers	Contractual liability	Civil liability	Criminal liability
Italy	Pilotage organization	n/a	Yes. The corporation is jointly and severally responsible with the single pilot as far as covered by the deposit.	n/a
	Shore-based pilotage	n/a	Yes. As above.	n/a
Latvia	Pilotage organization	No information provided/available.		
	Shore-based pilotage	No information provided/available.		
Lithuania	Pilotage organization	n/a	Yes.	n/a
	Shore-based pilotage	n/a		
Malta	Pilotage organization	Yes. As for pilots the service provider is subject to the general principles of law enshrined in the Civil Code.	Yes. Regulation 16A(1) of the Maritime Pilotage Regulations states that "the liability for civil damages of the service provider for any loss or damage, including death and personal injury, resulting from any cause during the performance of the pilotage service, shall not exceed the sum of €10,000 in respect of any one service and the cost of the pilotage dues in respect of the service during which the liability arose".	Yes. As for PEC holders the service provider is subject to the general provisions concerning criminal matters enshrined in the Criminal and any other law dealing with criminal matters that may be enacted from time to time.
	Shore-based pilotage	Yes. As above.		
Netherlands	Pilotage organization	No information provided/available.		
	Shore-based pilotage	No information provided/available.		

Country	Pilotage service providers	Contractual liability	Civil liability	Criminal liability
Norway	Pilotage organization	No. None (as a public service provider not covered contracts).	Yes. General Norwegian Liability in Tort Act, vicarious liability for fault or omission by all employees (including VTS-operators and pilot vessel navigator).	Yes. No specific. Employees covered by general Criminal Code.
	Shore-based pilotage	n/a		
Poland	Pilotage organization	No information provided/available.	Pilot fee multiplied by 20.	Criminal Code rules apply.
	Shore-based pilotage	No information provided/available.	Civil Code rules apply.	Criminal Code rules apply.
Portugal	Pilotage organization	No information provided/available.		
	Shore-based pilotage	No information provided/available.		
Romania	Pilotage organization	Yes. Lose authorization to provide pilotage service: enable pilotage of a ship which does not have accreditation document, certificate of competence; or No longer meets the criteria for minimum adequate technical equipment required by activity.	n/a	n/a
	Shore-based pilotage	n/a		
Slovenia	Pilotage organization	n/a	n/a	n/a
	Shore-based pilotage	n/a		
Spain	Pilotage organization	n/a	n/a	n/a
	Shore-based pilotage	n/a	n/a	n/a

Country	Pilotage service providers	Contractual liability	Civil liability	Criminal liability
Sweden	Pilotage organization	Yes. There is a contractual and economical liability between SMA and the ship-owner. If the ship-owner is not satisfied with the service he or she may claim SMA. SMA is responsible for the pilot's training and equipment.	Unclear. There is liability for the pilot service, but the tort liability has not been examined by court, and is therefore unclear.	
	Shore-based pilotage	n/a		
UK	Pilotage organization	No information provided/available.		
	Shore-based pilotage	n/a		

2.6 Service level and waiting time for pilotage service

2.6.1 Service level and quality requirements for pilotage service

In terms of service level requirements and standards there is a range of indicators and parameters across countries.

In a number of countries there are well defined service level agreements in place: for example, in some UK and Irish ports (even where the port provides pilotage internally), in Belgium (as part of a concession contract), in France (set of service obligations) and in Malta (Service Level Agreement setting out level of service given by pilots and Cooperative Society).

In several countries there are some service level requirements in place such as availability, notice periods and provision of equipment. Notice periods for ordering pilotage services range from 1.5 hours to 24 hours.

According to the information collated, there are no service level requirements present in Bulgaria, Estonia, Germany, Greece, Lithuania, Poland, Slovenia and Spain. There are no service level requirements in the UK at national level, though as mentioned above there are service level requirements in place at some ports.

Table 12 – Pilotage service level requirements

Country	Summary	Service level requirements
Belgium	Maximum ship waiting time for pilot to be on board (six hours, incoming, three hours outgoing). Harbour service level set in concession contract.	Within six hours for incoming ships and three hours for outgoing vessels, a pilot has to be on board. The agreements in this regard are determined by the Pilotage Services within the framework of the Pilotage Decree. In the harbours, services are to be rendered within the stipulations of the concession contract: 24/24, 7/7 and availability within one hour.
Bulgaria	None.	No service level requirements.

Country	Summary	Service level requirements
Croatia	The Ministry sets a specification in relation to traffic volumes in each area.	Within the authorization of pilot companies, the Ministry determines the required number of pilot vessels (including technical characteristics and official colours and labels), number of VHF stations, and number of qualified personnel – all in accordance with volume of maritime traffic in a specific sea area.
Cyprus	No information provided/available.	
Denmark	No service level requirements other than determining time of notice for pilotage.	The pilotage service providers determine their time of notice for pilotage. In general, a pilot can be provided with shorter notice. There are no requirements regarding maximum ship waiting time. It is important to emphasize, that it is compulsory to use pilots in certain areas and/or when sailing with certain cargoes. There is no enforcement of pilotage with regard to all ships.
Estonia	None.	No service level requirements.
France	Yes. Local service obligations and national quality standards.	For each pilotage station, the regional prefect adopts rules of procedure of service complementary to the local regulations, internal use of the station, specifying the modalities of implementation of services. These rules determine service obligations, such as number of pilots for the station, equipment, etc. The prefects also define the quality level of service that pilots must provide in their performance of duties. Regarding the profession, the French Federation of Maritime Pilots (FFMP) has also developed a policy of quality service, adopting a quality charter and defining a set of objectives. The FFMP is certified under ISO 9002:1994, ISO 2001-2000 and since December 2009 it is certified under ISO 9001:2008.
Germany	None.	No such requirement.
Finland	Maximum ship waiting time – three hours.	Maximum allowed wait per ship is three hours. The Ministry of Transport and Communications sets the service level target for Finnpilot Pilotage Ltd.
Greece	None.	No service level requirements.
Ireland	Yes – but developed by the port companies themselves.	An example is that developed by the Port of Dublin: Notice required: a minimum notice of two hours will be required for ordering a pilot. Pilots will then be allocated on a 'first booked first served' basis. Planned service: once an order has been accepted that job will then be entered into the schedule of planned movements. Priority: a ship arriving/departing at its planned time will have priority over a ship arriving/departing early or late. Order time: this is the time for which a pilot job is ordered. It is also the time at which the ship is expected to commence manoeuvring. Standard job time: the standard job time for small and medium sized ships is "one hour". The standard job time for large vessels is "1.5 hours". Grace period: a 15-minute Grace Period will be allowed after the order time for the pilot. If the ship is not ready to depart at end of the Grace Period then that Pilotage Job will be deemed to be cancelled, a cancellation charge will be levied and the ship will have to book a new slot. Typical pilot job: a typical pilot job will be planned to 75 minutes. (Standard Job Time + Grace Period). The travel time to/from a ship at a berth is not included in this time.

Country	Summary	Service level requirements
		Cancellations: cancellation will be accepted up to two hours before the ordered arrival/departure time without penalty. If a cancellation is made within the "two hour" window then a cancellation charge will apply.
Italy	Availability to satisfy ship's service requests.	Pilots must be organized so that they are available to satisfy ships' services requests. Work shifts are organized by the Chief Pilot as directed by the Maritime Authority.
Latvia	Constant availability.	Pilots are available 24/7 each week.
Lithuania	None.	If the ship's Master or ship's agent had ordered a pilot, and the pilot embarked the vessel at the agreed time, but the planned piloting operation is not commenced within one hour due to the fault of the ship's crew or any other natural or legal persons, the pilot must disembark the ship, whereas the ship's Master must sign the pilotage bill.
Malta	Specified Service Level Agreement.	There is a Service Level Agreement between the Authority for Transport in Malta and the Malta Maritime Pilots Cooperative Society Ltd., which contains provisions regarding the level of service given by the pilots and the Cooperative Society.
Netherlands	Specified service level including delivery time.	The law states a maximum pilot delivery time of three hours. Pilot delivery time in practice rarely exceeds the service level of 1.5 hours. The actual service level is well within the norms set in the regulation, both incoming and outgoing. The service level is set by the pilots, in consultation with customers/shipping lines.
Norway	Apply for pilot 24 hours in advance.	A ship can expect to receive a pilot at the required time if they apply for a pilot at least 24 hours in advance.
Poland	None.	No service level requirements.
Portugal	No information provided.	
Romania	Minimum adequate technical equipment.	No requirements (however, the provider must meet criteria for minimum adequate technical equipment required by activity).
Slovenia	None.	No service level requirements.
Spain	None.	No.
Sweden	Apply for pilot five hours in advance.	SMA sets the service level. The service level is not regulated in any Ordinance or Regulation. It is stipulated within the SMA internal quality system. According to SMA a pilot in designated fairways is provided as requested if ordered at least five hours in advance. Pilotage outside designated fairways is provided on agreement.
UK	None.	No service level requirements established at a national level – however, individual CHAs have established their own approach to service level.
UK – Belfast	2 hour notice period.	Under contract between Belfast Harbour and Belfast Lough Pilotage Ltd. a two hour notice period is required for providing a pilot – non-attendance or other non-conformances are covered by penalty clauses in the contract.
UK – Forth	None.	No service level requirements.

Country	Summary	Service level requirements
UK – Tees	2 hour notice period.	Pilots are ordered at two hours' notice but will attend before if possible. Agreed between CHA and pilots co-operative.
UK – Dover	Service Level Agreement.	Dover sets its own service level – this is currently under review.
UK – Southampton	None.	No service level requirements.
UK – Milford Haven	1.5 hour notice period.	The port sets requirements. Currently one hour notice for sailing and 1.5 hours' notice for entry. KPI is set at target maximum of 4.6% delays based on number of pilotage movements.
UK – Humber	None.	No service level requirements.

2.6.2 *Turn-around and waiting times*

Not all respondents were able to provide statistics or information regarding turn-around times and/or waiting times.

Nine national administrations provided an estimate of average turn-around time in port in addition to a number of UK ports. Based on these responses it is clear that the most common turn-around time is in the region of 12 – 24 hours. A higher turn-around time was stated for Malta (26 hours), Finland (two days), Lithuania (one to three days) and Romania (two to five days): in Ireland a range of times were provided according to different ship types, some in excess of three days. For Croatia an estimated turn-around time of 60 minutes was reported.

With regard to time spent waiting for a pilot, in most countries there is practically no waiting time. A number of national administrations indicated a level percentage of pilotage services being delivered on time.

Table 13 – Average turn-around times of ships in port and time waiting for pilot

Country	Turn-around time (on average)	Time spent waiting for pilot (on average)
Belgium	No information provided/available.	Based on results from the last three years there is on average 1.568 hours waiting time per 58,033 pilotage missions per year. 2009: 0.867 hours per 54,990 pilotage missions. 2010: 1.523 hours per 59,374 pilotage missions. 2011: 2.368 hours per 59,735 pilotage missions.
Bulgaria	No information provided/available.	No waiting.
Croatia	One hour.	No waiting.
Cyprus	12 – 24 hours.	No waiting time: pilot service runs from 06:00 to 24:00 daily.
Denmark	12 hours.	No waiting. In Denmark there is almost no waiting. Danpilot reports that 98% of all pilotage is on time. All other pilotage service providers report no waiting time.
Estonia	No information provided/available.	No waiting.

Country	Turn-around time (on average)	Time spent waiting for pilot (on average)
Finland	Two days.	No waiting. In 2009 – 2011 only: 0.3% of ships have been waiting for pilot for more than three hours.
France	Not possible to estimate, given variety of situations across French ports.	The waiting time of ships before being assisted by a pilot is zero or very low. In accordance with Article 6 of the Decree of 19 May 1969, the ships subject to compulsory pilotage are required to inform, at the port of destination, the estimated time of arrival 18 hours in advance or, at the latest when they leave the previous port. A call signal of the pilot must be done again at the entrance to the area where pilotage is compulsory. In turn, the pilot stations are organized to enable the implementation of pilotage assignments 24 hours, every day of the year.
Germany	No information provided/available.	Waiting time regularly occurs for tidal bounded vessels (waiting for the tide) or waiting for a berth place, but there has been no dead time known due to pilotage within the last three years. In Bremen/Bremerhaven there is no waiting time for a pilot as services are provided 24/7 365 days per year.
Greece	Depends on circumstances.	No waiting.
Ireland	Turn-around time varies from port to port. 12 – 24hrs is typical. Shannon port provided the following average times, based on tonnage: - 0 – 5k: 24 hours; - 5 – 30k: 24 – 48 hours; - 30 – 90k: three to four days; and - >90k: six to eight days. AMPI provided the following approximate times for vessel types: - Passenger cruise ships: 12 – 16 hours; - Large bulk carriers: up to one week; - Small bulk carriers: 18 – 36 hours; - Container ships: 12 – 24 hours. - Tankers: 18 – 24 hours; - Ferries: one to three hours; and - Large RoRo PEC holders: 12 hours.	No waiting. Typically little or no waiting time as pilotage is available on demand. One hour waiting would be an extraordinary exception; 10 – 15 minutes delay would be unusual.
Italy	No information provided/available.	No waiting. Generally there is no time to wait.
Latvia	No information provided/available.	20 – 40 minutes. Pilots are available 24 hours seven days per week. A pilot arrives within 20 – 40 minutes.
Lithuania	One to three days.	No waiting – apart from in bad weather conditions. The ships are not waiting for pilots except in bad weather conditions and pilot boat cannot proceed to open sea due to rough sea.

Country	Turn-around time (on average)	Time spent waiting for pilot (on average)
Malta	26.21 hours.	18.3 minutes. On average over last three years: 2009 – 17.7 minutes, 2010 – 19.2 minutes and 2011 – 18 minutes.
Netherlands	Impossible to answer without proper definition and consideration given to ship type and other factors.	No information provided/available.
Norway	No information provided/available.	Low level of waiting. In 2011 a total of 2.5% of missions had a waiting time of more than one hour (a total of 1.125 hours for 44,708 pilotage missions).
Poland	No information provided/available.	No waiting – Gdynia and Szczecin. 30 minutes – Słupsk.
Romania	Two to five days.	No waiting.
Spain	No information provided/available.	In accordance with port regulations – 30 minutes.
Slovenia	No information provided/available.	Pilots are normally available in minutes.
Sweden	14 hours (average for the major ports).	No waiting. If pilot has been ordered at least two hours in advance, 96% of all ships receive pilot, without waiting.
UK – Belfast	Ships with PEC – two hours. Ships without PEC 24 – 36 hours.	No waiting. Pilotage is provided at two hours' notice. 99% of ships receive pilots on time as ordered with occasional delays of up to one hour.
UK – Forth	12 – 24 hours.	Pilots are usually available for arriving ships, though there may be a couple of days per year when the pilot station is closed due to adverse weather.
UK – Tees	18 hours.	2011 total delay all vessels – 6.5 hours/2010 total delay all vessels – 7.5 hours/2009 total delay all vessels – 2.1 hours.
UK – Dover	Various.	Generally, pilots are provided on arrival, subject to the required notices being given.

2.7 Pilotage dues

2.7.1 Responsibility for setting pilotage dues

In several countries Government departments or agencies have a key role in either stipulating the criteria that underpin the level of pilotage dues and/or setting the actual level of dues. In some countries the dues are determined through a consultative process between Government agencies and other stakeholders (as in Bulgaria, France and Malta), while in other countries the level of pilotage dues is determined (Denmark) or a maximum level is specified (Poland) by the Government. In some instances the pilotage provider might propose a tariff, which is then approved by a Government department or agency.

Port authorities are responsible for setting pilotage dues in Cyprus, Ireland, Latvia, Lithuania, Romania, Spain and the UK.

Private pilotage providers in some instances have the power to set the criteria and level of pilotage dues (in Denmark, Estonia and Slovenia).

In Estonia the Maritime Safety Act sets out the framework for pilotage dues, which stipulates that the calculation of dues must be transparent and public, and that they should ensure a 'reasonable profit'.

In Norway the principles for setting pilotage dues are based on the user pays principle, that costs should be distributed between vessels according to the expenses that they incur.

Table 14 – Competent authorities for setting criteria and final level of pilotage dues

Country	Entity responsible for setting criteria	Entity responsible for deciding the actual level of pilotage dues
Belgium	The Flemish Pilot Services proposes a pilotage tariff to the Minister of Mobility and Public Works and the Flemish Government after consulting the Dutch Pilotage Services and the Executive Staff. Under the Pilotage Decree the entity responsible is the Flemish Government while under the Revised Scheldt Rules the final decision on level of dues is enshrined in the Convention.	The Flemish Pilotage Services shall, based on the Decree of the Flemish Government of 1 July 2011 laying down the tariffs of pilotage and other fees and charges for pilotage operations in the Belgian pilot waters, determine the pilotage fees for each piloted ship. Under the Pilotage Decree the entity responsible is the Flemish Government while under the Revised Scheldt Rules the final decision on level of dues is enshrined in the Convention.
Bulgaria	Pilotage dues are determined by the Bulgarian Maritime Pilots Association (BMPA) upon agreement with interested parties.	BMPA. All ships are served in the same way without discrimination.
Croatia	Ministry of Maritime Affairs, Transport and Infrastructure.	Ministry of Maritime Affairs, Transport and Infrastructure.
Cyprus	Cyprus Port Authority is responsible for setting the criteria for pilotage dues.	Cyprus Port Authority. Pilotage dues are calculated through a published tariff and apply to all ships equally.
Denmark	The Danish Ministry of Business and Growth decides on the principles and criteria for setting pilotage dues for the state pilotage service provider DanPilot. DanPilot is not allowed to deviate from these principles. Consequently, pilotage dues are fixed. Private pilotage service providers, e.g. the largest private service provider Danish Pilot Service make their own decisions on principles and criteria.	The state pilotage service provider DanPilot is obligated to follow pilotage dues determined by principles defined by the Ministry of Business and Growth. Consequently, it seems fair to state that the Ministry of Business and Growth makes the final decision on the level of the pilotage dues for each vessel. For instance, DanPilot is not allowed to offer discounts in case of low demand or to raise dues in case of high demand on pilotage services. For the state pilotage service provider DanPilot ships pay: - A basic due independent of ship size, etc.; plus - An additional basic due that depends on ship size (LOA, vessel width and draught); plus - A due for mileage that depends on ship size (LOA, vessel width and draught); plus - 7% of basic dues to cover for travel costs. For Aarhus Harbour Pilot dues are calculated solely by the ship's tonnage (GT).

Country	Entity responsible for setting criteria	Entity responsible for deciding the actual level of pilotage dues
Estonia	Eesti Loots AS (Estonian Pilot Plc.), the pilotage service provider. The Maritime Safety Act sets out the framework for pilotage dues, which stipulates the following: - Calculation of dues will be transparent and public; - Rates and procedures to be established by provider of pilotage services; and - Dues shall be cost-oriented and shall ensure a reasonable profit.	Eesti Loots AS. As per the Act.
Finland	The Pilotage Act sets out the criteria – net tonnage (NT) of the ship and mileage with pilot on board – and process for setting the dues.	The pilot on board, on the basis of the rate table and ship NT and length of piloted voyage.
France	The criteria are set by national regulations, issued by the Prime Minister and Minister for Transport. Under Article 4 of Decree No. 69-515, the rates are: general tariff; increases to the general tariff; reductions to the general tariff; and additional compensation to the list price. The general rate based on length, width and draft (defined in Decree 12 October 1976). An increase in rate applies when a ship that does not require a pilot uses a pilot (up to 50% increase). Discounts apply to ships where the Captain has a PEC: discounted PEC fee is about five per cent or lower of the full pilotage fee that would apply without PEC. Compensation is given for night sailing, when the pilot disembarks outside the limits of the station and when the services of the pilot ordered are not used in the end. Taking into account these criteria, local regulations precisely determine rates for each station.	The rates are set by the pilot regional prefect, in the local regulation, after notice of the 'commercial assembly'. The assembly includes voting members and an advisory committee. The voting members of the assembly are: two representatives of ship-owners, two representatives of other harbour users, two pilots in the port concerned and two representatives of the governing bodies of the port. Members in an advisory committee include the Departmental Director of Competition, Consumption and Fraud Prevention and the Departmental Director of the Territories and the Sea (DDTM, decentralized service representative the prefect of the department). The Departmental Directorate for Competition, Consumption and Fraud issues an opinion on the proposed tariffs.
Germany	Federal Ministry of Transport. In Hamburg it is the Federal State Government, while in Bremen/Bremerhaven it is the Federal Ministry of Economy, Labour and Ports.	Federal Ministry of Transport. In Hamburg it is the Federal State Government, while in Bremen/Bremerhaven it is the Federal Ministry of Economy, Labour and Ports.
Greece	Ministry of Development, Competitiveness and Shipping.	Ministry of Development, Competitiveness and Shipping and Ministry of National Economy are responsible for any readjustments to pilotage dues.
Ireland	The responsible port company. Section 64(1) of the Harbours Act 1996 states the company may '*impose charges at such rates as are from time to time determined by it*'.	Port companies.
Italy	Ministry of Infrastructure and Transport, Ports Division.	Ministry of Infrastructure and Transport, Ports Division.

Country	Entity responsible for setting criteria	Entity responsible for deciding the actual level of pilotage dues
Latvia	Port Authority Board. Management of a port is carried out by the Port Authority. This is a body governed by public law that performs administrative functions, including the determination of port fees and tariff ceilings for the services.	Port Authority Board.
Lithuania	Principles and criteria for setting pilotage dues are set by Rules on Application of Klaipėda State Seaport Dues, approved by the Order No. 3-246 of the Minister of Transport and Communications, adopted on 30 of June 2008.	Klaipeda State Seaport Authority.
Malta	The Authority for Transport in Malta, in consultation with the Ministry for Infrastructure, Transport and Communications and the Malta Maritime Pilotage Cooperative Society Ltd.	The Authority for Transport in Malta, in consultation with the Ministry for Infrastructure, Transport and Communications and the Malta Maritime Pilotage Cooperative Society Ltd.
Netherlands	The Government/Ministry of Infrastructure and the Environment.	National Competition Authority.
Norway	Principles are set by Pilotage Act, Chapter IV. Costs shall, as far as possible, be distributed between the various types of vessels according to the expenses they incur (user pays principle).	Annual fee rates are proposed by the NCA as amendment to the Regulations on fees. This is reviewed and levels of fees are decided annually by the Ministry of Fisheries and Coastal Affairs, according to the Regulations. Different types of fees and criteria for setting duties are described in Regulations on pilotage fees.
Poland	Minister of Transport, Construction and Maritime Economy provides maximum dues.	Pilot stations introduce their dues on their own but within limits described in the Ministry Decree regulating pilotage fees.
Portugal	No information provided/available.	No information provided/available.
Romania	The pilotage dues are set by the ports' administrations with Ministry of Transport and Infrastructure approval.	Ministry of Transport and Infrastructure.
Slovenia	The tariffs for pilotage are specified and published by the service provider (private entity Piloti Koper D.O.O.).	Service provider (Piloti Koper D.O.O.).
Spain	The Port Authority at each port is responsible.	The Port Authority at each port is responsible.
Sweden	The Swedish Maritime Administration.	The Swedish Maritime Administration.
UK	Under the 1987 Pilotage Act, CHAs are responsible for setting the charges for pilotage services.	CHAs.

2.7.2 *General criteria for setting pilotage dues*

It is evident that there is a wide range of criteria and formula used to calculate pilotage dues across countries.

In some countries pilotage dues are calculated using a simple approach – for example in Cyprus and Latvia dues are based only on tonnage, whereas in Ireland and Belgium, the due is based on a wider range of criteria such as LOA, draft and distance.

It is often the case that the due is calculated for different categories of tonnage, as gross tonnage and net tonnage, taking into account the distance of the pilotage mission. Generally the main criterion applied is tonnage.

There are specific fees in many countries for vessels carrying dangerous cargo, while in others a discount exists for certain types of ship, such as ferries and cruise liners, for example.

A number of respondents indicated 'other' criteria. These included special (or additional) tariffs for holidays, night work, high seas, false calls, and other manoeuvres such as shifting within the port area, for example.

Table 15 presents a high level summary of criteria used to set pilotage dues for every country, while Table 16 presents a more detailed description of these criteria, based on the survey responses.

Table 15 – High level summary of criteria for setting pilotage dues

Country	Tonnage	LOA	Draft	Distance	Duration	Cargo
Belgium		✓	✓	✓	✓	✓
Bulgaria	✓			✓		✓
Croatia	✓			✓		✓
Cyprus	✓					
Denmark	✓	✓	✓	✓		
Estonia	✓			✓		✓
Finland	✓			✓		
France	✓	✓	✓			
Germany	✓			✓		✓
Greece	✓			✓	✓	✓
Ireland	✓	✓	✓	✓	✓	✓
Italy	✓			✓		✓
Latvia	✓					
Lithuania	✓	✓				✓
Malta	✓					
Netherlands			✓	✓		
Norway	✓				✓	
Poland		✓	✓			
Portugal	✓			✓		✓
Romania	✓					✓
Slovenia	✓					✓
Spain	✓					
Sweden	✓				✓	
UK[35]	✓ / x	✓ / x		✓ / x	✓ / x	✓ / x

[35] Information was obtained on criteria for three ports only – results are based on this sample only. Every port has different criteria, which is represented by ✓ / x.

Table 16 – Setting criteria for pilotage dues

Country	Tonnage	Ship size (LOA)	Ship draft	Voyage distance	Voyage duration	Cargo type	Other
Belgium	No.	Yes – LOA + maximum width.	Yes – summer draft.	Yes – indirectly, the duration and length of pilot's trip is calculated within the framework of the new pilotage fee structure (cost recovery/break-even).		Yes. RoRo (but not RoRo + SSS).	
Bulgaria	Yes.	No.	No.	Yes.	No.	Yes.	Docking/undocking. Vessels without engines. Criteria and exceptions are described in the publicly available pilotage tariff schedule.
Croatia	Yes – GT tonnage steps[36].	No.	No.	In the case of coastal pilotage, categorized as follows: A. within 50 Nm; B. between 50 and 150 Nm and C. above 150 Nm.	No.	Yes – more expensive for ships with dangerous liquid chemicals and liquefied gases.	More expensive pilotage: ports outside of pilot company residence; change of berth within port; late arrival/departure of ships; pilotage of RoRo ships; pilotage of ships restricted in manoeuvrability; during weekends and holidays and between 22.00 – 06.00 hours.
Cyprus	Yes – net tonnage.	No.	No.	No.	No.	No.	
Denmark	Yes – Aarhus Harbour Pilot only dues are calculated solely by tonnage (GT).	Yes.	Yes.	Yes.	No.	No.	Basic plus additional dues to cover start costs.

[36] 1,001 – 2,000; 2,000 – 3,000; 3,001 – 4,000; 4,001 – 5,000; 5,001 – 10,000; 10,001 – 20,000; 20,001 – 30,000; 30,001 – 50,000; 50,001 – 70,000; 70,001 – 100,000; above 100,000.

Country	Tonnage	Ship size (LOA)	Ship draft	Voyage distance	Voyage duration	Cargo type	Other
Estonia	Yes, dues are per GT categories.	No.	No.	Yes – whether in port basin or pilotage by pilotage distance outside of port basin.	No.	Yes – discounts are given to cruise liners and passenger ferries engaged in regular voyages. Some other vessel types are exempt from pilotage dues (e.g. hospital ships, State visits, etc.).	Yes: special tariffs for high seas/transit on the Väinameri Sea/false call.
Finland	Yes. NT.	No.	No.	Yes.	No.	No.	
France	Formula where V = cubic metres, L = length, b = maximum width and Te – maximum summer draft: (V = L x b x Te).			No.	No.	Not subject to special provisions in local regulations.	
Germany	Yes.	No.	No.	Yes.	No.	Yes.	
Greece	Yes.	No.	No.	Yes.	Yes.	Yes – dangerous cargo.	Night/Day/Holiday.
Ireland	Yes[37] – varies between ports.	Yes – varies between ports.	Yes – varies between ports.	Yes – varies between ports.	Yes – varies between ports.	Yes – varies between ports.	Whether the pilot is ordered on time, delayed, carried over, or cancelled. Additional charges may apply in some ports if a pilot is ordered when only one is available and an additional pilot is required (can be up to 100% additional charge).
Italy	Yes.	No.	No.	Yes – length of pilotage service.	No.	Yes.	
Latvia	Yes – based on GT.	No.	No.	No.	No.	No.	

[37] In Dublin, for example dues are based on increments of tonnage.

Country	Tonnage	Ship size (LOA)	Ship draft	Voyage distance	Voyage duration	Cargo type	Other
Lithuania	Yes – one GT * 0.254 Litas (€0.07).	Yes – ships which have not GT in docs one metre LOA * 1.00 Litas (€0.28).	No.	No.	No.	Yes – oil tankers one GT * 0.241 Litas (€0.06).	Shifting one GT * 0.182 Litas (€0.05).
Malta	Yes. Based on GT.	No.	No.	No.	No.	No.	
Netherlands	No.	No.	Yes.	Yes.	No.	No.	A frequency scheme (e.g. discount) is available.
Norway	Yes.	No.	No.	No.	Yes – but only the pilotage fee.	No.	PEC test has its specific due, unrelated to size or duration. All vessels subject to compulsory pilotage must pay pilotage readiness fee, for use of waters. Choice between fee per voyage or annual fee. Amount of fee based on tonnage. In addition vessels actually using a pilot must pay for such use, by the hour and based on tonnage.
Poland	No.	Yes – L x B x D = V (LOA x breadth x summer draft).		No.	No.	No.	

Country	Tonnage	Ship size (LOA)	Ship draft	Voyage distance	Voyage duration	Cargo type	Other
Portugal	Yes. T = Cn x UP x √GT, where: T= Fee in €s; Cn = Specific coefficient for each type of service to be carried out; UP = Value of pilotage unit; √GT = Square root of ~GT of the vessel.	No.	No.	Yes.	No.	Yes – tariffs applicable to tankers for crude oil and products with segregated ballast tanks are estimated based on a reduced GT.	The pilotage due for standing-by pilot is calculated as € fee per indivisible hour. Tariff rules by Port Authority define maximum expected time for the rendered services.
Romania	Yes – fixed dues + GT * variable (0.05 to 0.045 depending on GT).	No.	No.	No.	No.	Yes – total costs increase by 15% for vessels carrying dangerous cargo. Total costs decrease by 25% for liner and container vessels.	Total costs increase by 30% for manoeuvres done on weekends/public holidays. Total cost increase by 10% in night time. Specific dues apply for other manoeuvres within the port
Slovenia[38].	Yes.	No.	No.	No.	No.	Yes – dangerous cargos.	Night/Day/Holiday.
Spain	Yes.	No.	No.	No.	No.	No.	
Sweden	Yes – rate calculated in steps of 1,000 GT.	No.	No.	No.	Yes – rate calculated in steps of 30 minutes.	No.	

[38] Additional information provided by Piloti Koper.

Country	Tonnage	Ship size (LOA)	Ship draft	Voyage distance	Voyage duration	Cargo type	Other
UK – Forth	Based on vessel DWT.	No.	No.	Two areas on the Forth which have differing levels of dues based on pilotage distance.	No.	Three cargo vessel rates: Gas Tankers, Hound Point oil tankers and all others.	
UK – Dover	No.	According to length.	No.	No.	No.	No.	
UK – Southampton	No.	No.	No.	Yes.	Yes.	No.	

2.7.3 Examples of pilotage fees

Respondents were asked to provide an indication of pilotage dues for three specified vessels as shown in Table 17.

Table 17 – Example vessel dimensions

Type of vessel	Dimensions
Non-specialized general cargo vessel	GT: 4,226. NT: 2,315. Draft: 5.40 metres. LOA: 109.93 metres. Beam: 16.11 metres.
Container vessel	GT: 7,170. NT: 3,068. Draft: 7.75 metres. LOA: 131.50 metres. Beam: 19.20 metres.
Passenger vessel	GT: 1,386. NT: 754. Draft: 3.60 metres. LOA: 69.60 metres. Beam: 14.00 metres.

Most national administrations provided illustrative pilotage dues for the three vessel types at either the main port in the country or for a number of ports. Information was also obtained on special circumstances, such as discounts for particular vessel types or frequency of call, for example.

Further examples have been included in the analysis, calculated from publicly available tariffs for pilotage dues in France, Portugal and Spain.

Pilotage dues have been gathered and/or calculated for a total of 67 ports across 12 European countries, plus standard national pilotage fees from the remaining 12 countries.

Comparison of these data is not straightforward as the calculation of individual pilotage dues is often dependent on a number of local characteristics, such as the length of the fairway and the length of time needed to carry out the pilotage service. However, it is possible to compare the dues for each vessel at a high level.

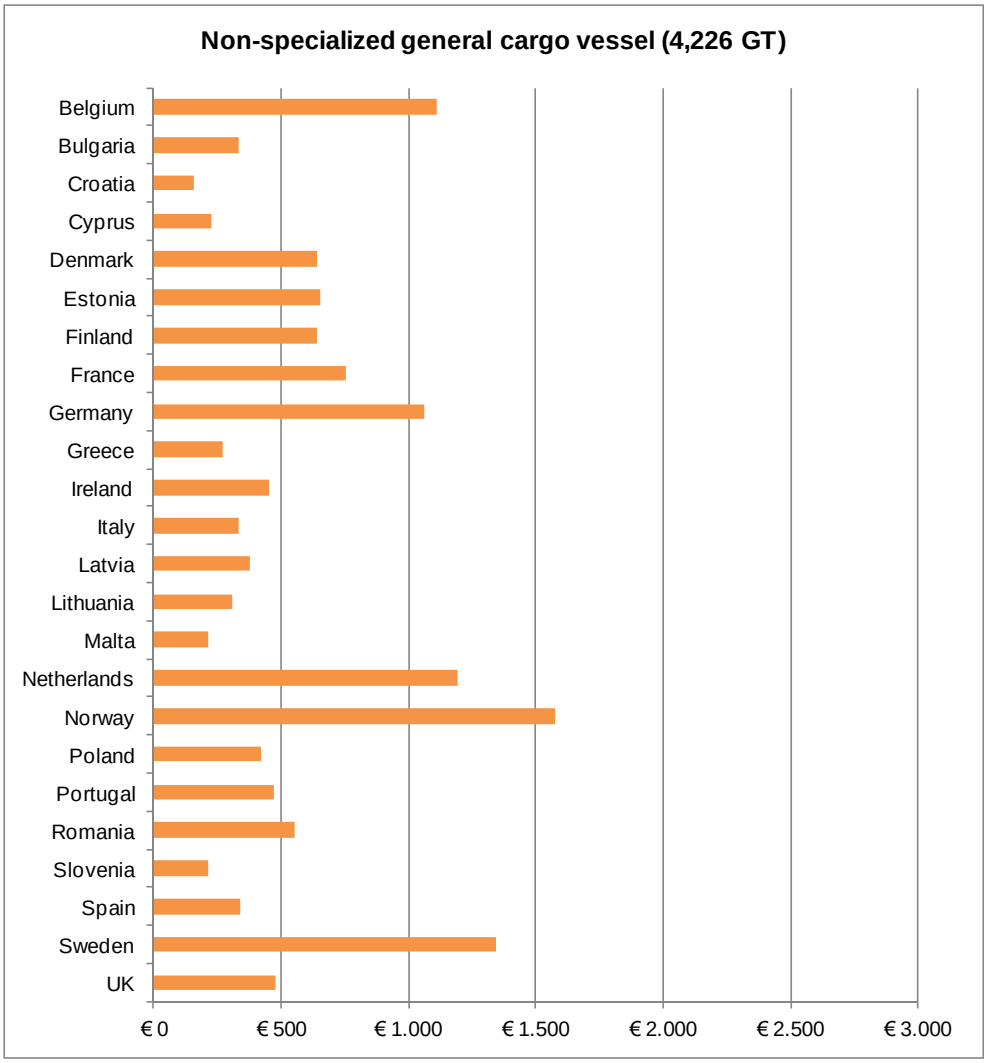
Using an appropriate exchange rate, these figures have been converted to € for comparison[39].

Figure 25 presents the average pilotage due per country charged to shipping companies for one pilotage movement for a non-specialized cargo vessel of 4,226 GT[40].

[39] Monetary values expressed in local currencies have been converted into Euros according to the exchange rate of 6 June 2012.

[40] Average dues per country are based on the data presented in Table 18.

Figure 25 – Average pilotage dues charged: non-specialized general cargo vessel



For non-specialized cargo vessels of 4,226 GT the average due is approximately €590 per (piloted) movement (for example one entry or one departure from a port), though there are several outliers in either direction:

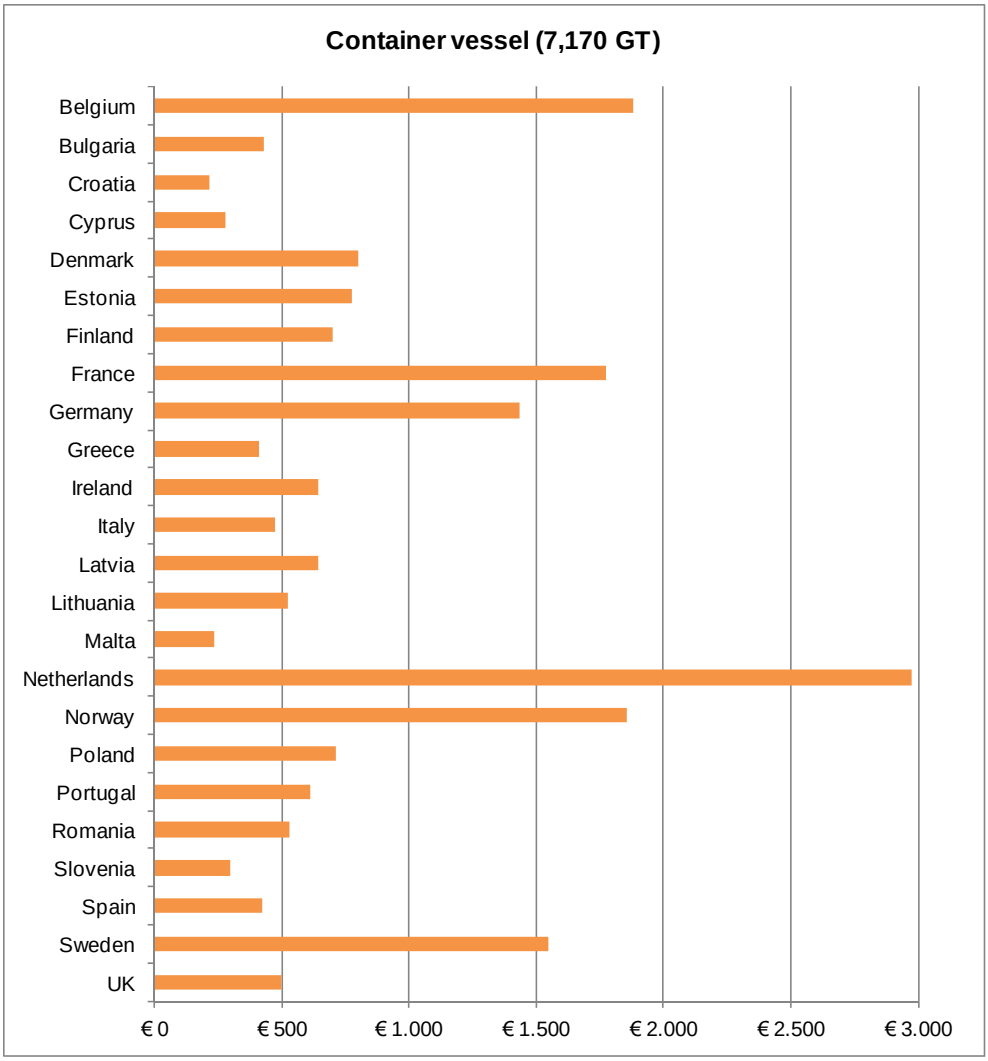
- Dues appear to be high in Norway, Sweden, the Netherlands, Belgium and Germany, where they are on average €1,000 or more per movement;

- In Norway, the information provided suggests that a vessel of this type could pay €1,578 – although with a PEC the due reduces considerably to €441; and

- In some countries the due is significantly lower than the average, for example in Bulgaria, Croatia, Cyprus, some Italian ports, Malta, some Spanish ports and Slovenia the pilotage due is less than €250 per movement.

Figure 25 presents the average pilotage due per country charged to shipping companies for one pilotage movement for a container vessel of 7,170 GT.

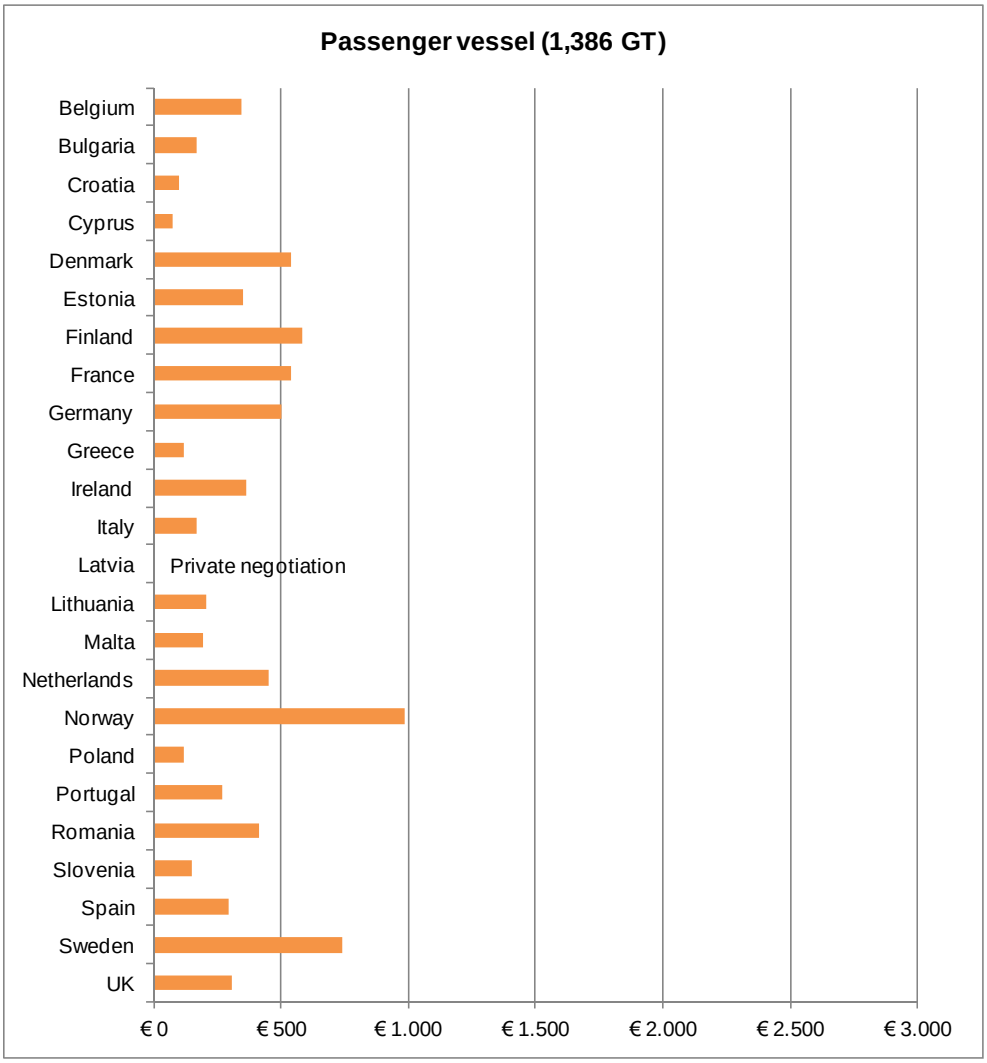
Figure 26 – Average pilotage dues charged: container vessel



The pilotage dues for the specified container vessel of 7,170 GT follow a similar pattern, though with a higher average due of just under €860 per movement. Again, there are several outliers, with dues exceeding €1,500 per vessel in the Netherlands, Norway, Belgium, France and Sweden, while the lowest dues charged are in Croatia, Cyprus, Malta and Slovenia (below €300). In Bulgaria, Greece, Italy, Spain and the UK pilotage dues are on average between €300 and €500.

Figure 27 presents the average pilotage due per country charged to shipping companies for one pilotage movement for a passenger vessel of 1,386 GT.

Figure 27 – Average pilotage dues charged: passenger vessel[41]



Dues for passenger vessels are generally significantly lower than for the other vessel categories, with an average due of €330 across all ports. Pilotage dues for passenger vessels are highest in Nordic countries (Norway, Sweden, Denmark and Finland), followed by France, Germany and the Netherlands. Dues are lowest for passenger vessels in Cyprus and Croatia where the dues are less than €100 per movement.

Given the uniqueness of each due, the data has been provided also on a port by port basis. Table 18 presents detailed information regarding pilotage dues across the EU, Croatia and Norway.

[41] Average Country fee refers to the average of the fees charged in the ports indicated in Table 18 per each Country.

Table 18 – Illustration of pilotage dues across EU, Croatia and Norway

Country	Non specialized general cargo vessel	Container vessel	Passenger
Belgium[42]	To Antwerp: €1,297. To Ghent: €1,229. To Zeebrugge: €810. A volume discount is calculated based on the turnover of a liner service or a tramping service in one year, and is expressed as a percentage discount on the pilotage.	To Antwerp: €2,188. To Ghent: €2,072. To Zeebrugge: €1,378.	To Antwerp: €407. To Ghent: €387. To Zeebrugge: €247.
Bulgaria -Varna	€225 (in/out Varna East, 45 min). €265 (in/out Shipyard Odessos, 60 min). €375 (in/out Lesport, 1 hr 15 min). €525 (in/out Varna West, 2 hr 30 min).	€300 (in/out Varna East, 45 min). €355 (in/out Shipyard Odessos, 60 min). €495 (in/out Lesport, 1 hr 15 min). €675 (in/out Varna West, 2 hr 30 min).	€150 (all the passenger vessels are sailing to Varna East Port with 10% discount from the tariff).
Bulgaria – Burgas	€260 (in/out Burgas East, 1 hr 30 min). €300 (in/out Burgas West, 2 hr). €380 (in/out Oil terminal, 2 hr 30 min).	€360 (in/out Burgas East, 1 hr 30 min). €390 (in/out Burgas West, 2 hr).	€190 (all the passenger vessels are sailing to Burgas or Nessebur with 10% discount from the tariff).
Croatia	Rijeka: 1,176.57 Kuna (€155). Split: 1,176.57 Kuna (€155). Indication for port pilotage only (one pilotage mission).	Rijeka: 1,449.70 Kuna (€195). Split: 1,806.88 Kuna (€238).	Rijeka: 756.37 Kuna (€99). Split: 756.37 Kuna (€99).
Cyprus	€227.73 (one pilot movement).	€279.69 (one pilot movement).	€77.66 (one pilot movement).
Denmark	Copenhagen Harbour: €654. Aarhus Harbour: €624 (Total pilot fee for one movement which includes charge for pilot boats in/out).	Copenhagen Harbour: €826. Aarhus Harbour: €778.	Copenhagen Harbour: €560. Aarhus Harbour: €519.
Estonia	€653. For distance of 10 miles or more, if shorter pilotage, cost is less. Daytime. Night time +25%. Same in/out.	€779. For distance of 10 miles or more, if shorter pilotage, cost is less. Daytime. Night time +25%. Same in/out.	€352. For distance of 10 miles or more, if shorter pilotage, cost is less. Daytime. Night time +25%. Same in/out.

[42] The respondent also provided details of the VBS tariff, which is a fee payable for each vessel that comes from the sea, bound for Flemish ports, that is included in the traffic system. The fee is not part of the pilotage charge, although is collected by the Pilotage Services Division. The fee has not been included in the analysis on vessel dues. It should be noted that there are only pilotage dues and the VBS tariff – no light dues are imposed on vessels.

Country	Non specialized general cargo vessel	Container vessel	Passenger
Finland	€600 + €41/nm. Basic fee for specified size of vessel and each piloted nautical mile costs an additional €41.	€653 + €47/nm. Basic fee for specified size of vessel and each piloted nautical mile costs an additional €47.	€547 + €36/nm. Basic fee for specified size of vessel and each piloted nautical mile costs an additional €36.
France[43]	Rates whose design parameters are defined and framed by the Government are likely to vary from case to case depending on the ports and ships involved, hence France does not have appropriate figures for comparison. It should be noted that the rates charged for the costs of pilotage are the only financial resource available to the pilot stations. They are not given any assistance or public subsidy. The funds raised during pilotage missions are dedicated to the remuneration of pilots, maintenance of equipment and to cover all operating costs of the pilot stations. For information, pilotage charges are on average four per cent to five per cent of the costs associated with visiting a port.		
	Bordeaux: €1,225.86 Vessels providing new services may be granted a reduction of 20% in the tariff during the first year and 10% for the second. Dunkerque: Internal area: €314.40. External area: €195.70 15% reduction for entry/exit of vessels performing only national cabotage. 10% reduction for vessels <90 metres that call at the port at least eight times per month. Saint-Nazare: €723.50. Price increase of 20%, up to €561.64 for short notice.	Bordeaux: €3,939.23 Vessels providing new services may be granted a reduction of 20% in the tariff during the first year and 10% for the second. Dunkerque: Internal area: €402. External area: €211.30. 15% reduction for entry/exit of vessels performing only national cabotage. 10% reduction for vessels <90 metres that call at the port at least eight times per month. Saint-Nazare: €981.70. Up to 28% reduction for frequent caller. Price increase of 20%, up to €561.64 for short notice.	Bordeaux: €874.87 Vessels providing new services may be granted a reduction of 20% in the tariff during the first year and 10% for the second. Dunkerque: Internal area: €216.3. External area: €195,70 15% reduction for entry/exit of vessels performing only national cabotage. 10% reduction for vessels <90 metres that call at the port at least eight times per month. Saint-Nazare: €528.60. Up to 28% reduction for frequent caller. Price increase of 40%, up to €561.64 for short notice.

[43] Calculated by the Consultant based upon publicly available tariffs.

Country	Non specialized general cargo vessel	Container vessel	Passenger
Germany[44]	Bremerhaven: €900 (Outside port: €822 – Inside port €78). Bremer: € 1,946.96 (Outside port: €1,871 – Inside port: 108,01). Hamburg: € 1,115 (Elbe: €912 – Inside port: €203). Rostock: €673. Trave (Luebeck): €494. Wilhelmshaven: €1,259.	Bremerhaven 1,180.87: (Outside port:€1,073 - Inside port €107.87) Bremer: € 2,559.01 (Outside port: €2,451 – Inside port: €108.01). Hamburg: € 1,497 (Elbe: €1,224 – Inside port: €273). Rostock: €1,016. Trave (Luebeck): €629. Wilhelmshaven: €1,722.	Bremerhaven: €472,13 (Outside: port €424 – Inside port: €48.13) Bremer: € 984,35 (Outside port: €944 – Inside port: €40.35). Hamburg: € 587 (Elbe: €470 – Inside port: €117). Rostock: €169. Trave (Luebeck): €216. Wilhelmshaven: €575.
Greece	In/out total €270. Transit or repairs €135. Nights/holidays plus 25%. Dangerous cargo plus 25%. Mooring €34. Unmooring €13. An increase of five per cent to the above amounts from the 1st of April.	In/out total €413. Transit or repairs €207. Nights/holidays plus 25%. Dangerous cargo plus 25%. Mooring €51. Unmooring €18. Overtime €50/hour. An increase of five per cent to the above amounts from the 1st of April.	In/out total €118. Nights and holidays plus 25%. Drydocking €15. Mooring €34. Unmooring €13. An increase of five per cent to the above amounts from the 1st of April.
Ireland	Shannon: €552.15 (fee includes minor incidental expenses (€8.37)/fee is calculated according to GT/fee is calculated for a ship proceeding to facilities at Limerick. Dublin: €350 (<5,000 T). (one pilotage mission: a separate fee is charged for arrival, departure and in certain cases for shifting within a port).	Shannon: €756.33 (Shannon does not handle containers; fee is for vessel of similar tonnage heading to Limerick/fee includes minor incidental expenses (€8.37)/fee is calculated according to GT). Dublin: €530 (<8,000 T).	Shannon: €452.77 (fee includes minor incidental expenses (€8.37)/fee is calculated according to GT/fee is calculated for a ship proceeding to facilities at Foynes. Dublin: €270 (<2,400 T).

[4444] Rostock: 10.7km (northern boarding position – harbour limits; Elbe: 140km (Elbe – harbour limit); Trave – 27km (Trave – harbour limit).

Country	Non specialized general cargo vessel	Container vessel	Passenger
Italy	Ancona porto – €143.62. Bari – €127.21. Genova – €288.31. Gioia Tauro – €165.06. La Spezia – €188.62. Livorno – €247.03. Napoli – €311.97. Ravenna – €461.63. Taranto – €263.90. Trieste – €284.00. Venezia Lido – €611.26. Venezia Marghera–€923.29.	Ancona porto – €235.20. Bari – €206.66. Genova – €474.48. Gioia Tauro – €253.67. La Spezia – €266.65. Livorno – €376.62. Napoli – €514.63. Ravenna – €756.63. Taranto – €390.62. Trieste – €387.49. Venezia Lido – €729.56. Venezia Marghera – 1,104.24.	Ancona porto – €90.12. Bari – €55.56. Genova – €207.67. Gioia Tauro – €71.46. La Spezia – €120.43. Livorno – €187.93. Napoli – €216.08. Ravenna – €274.72. Taranto – €215.85. Trieste – €192.96. Venezia Lido – €238.50.
Latvia	€380.34 (Ventspils). Pilotage fee €0.10 per GT (entering/leaving port).	€645.30 (Ventspils).	€Based on agreement (Ventspils). Discounts applicable.
Lithuania	€310.88. In: 4,226 x 0,254 = 1,073.40 Lt. (Litas). €310.88. Out: 4,226 x 0,254 = 1,073.40 Lt. €222.76 Shifting: 4,226 x 0.182 = 769.13 Lt.	€527.45 In: 7,170 x 0.254 = 1,821.18 Lt. €527.45 Out: 7,170 x 0.254 = 1,821.18 Lt. Shifting: 7,170 x 0.182 = 1,304.94 Lt.	1st voyage in/out: 1,386 x 0.254 = 352.04 Lt x 2 = 704,08 Lt. 2nd -3rd voyage in/out: 1,386 x (0.254 – 20%) = 281.64 Lt x 2 = 563.28 Lt. 4th voyage in/ out: 1,386 x (0.254 – 50%) = 176.02 Lt x 2 = 352.04 Lt. After 4th voyage no more discounts.
Malta	€214. The fee quoted is the standard rate which is payable when entering a port, or when leaving port or when shifting berth under own power in the same port. Other additional fees and applicable discounts are found the Schedule to the Maritime Pilotage Regulations.	€235.	€193.
Netherlands	Rotterdam – €1,162. Amsterdam – €1,160. Vlissingen Terneuzen – €1,254. These are the fees for pilotage in 2012 for a one way trip with a distance of more than eight but less than 12 sea miles.	Rotterdam – €2,880. Amsterdam – €2,889. Vlissingen Terneuzen – €3,151.	Rotterdam – €445. Amsterdam – €443. Vlissingen Terneuzen – €463.

Country	Non specialized general cargo vessel	Container vessel	Passenger
Norway[45]	Circa 12,000 NOK (€1,578) (to and from Oslo Harbour (arriving from Denmark), stipulated four hours total sailing time using pilot. Circa 3,350 NOK (€441) if holding a PEC (pilotage readiness fee only).	Circa 19,100 NOK (€1,854) (non-PEC). Circa 5,360 NOK (€705) (PEC).	Circa 7,500 NOK (€986) (non-PEC). Circa 1,100 NOK (€145) (PEC).
Poland	Fees are for each leg (e.g. one movement). Gdynia €287. Gdańsk €320. Szczecin €759 (50 Nm inland). Świnoujście €330.	Fees are for each leg (e.g. one movement). Gdynia €502. Gdańsk €550. Szczecin €1239. Świnoujście €570.	Fees are for each leg (e.g. one movement). (L x B x D) minus 25%. Gdynia €79. Gdańsk €90. Szczecin €232. Świnoujście €92. A 50% discount is applicable (but not applied here).
Portugal[46]	Fees are for each leg (e.g. one movement). Leixoes €464. Lisboa €523. Sines €422. (discounts may be applied in some cases – repeated arrivals, liner services).	Fees are for each leg (e.g. one movement). Leixoes €604. Lisboa €681. Sines €549. (discounts may be applied in some cases – repeated arrivals, liner services).	Fees are for each leg (e.g. one movement). Leixoes €266. Lisboa €300. Sines €242. (discounts may be applied in some cases – repeated arrivals, liner services).
Romania	€554.30. (discounts may be applied in some cases – repeated arrivals, liner services). Fees are for one leg. Same fee for entering/exiting port.	€528.25. For all container vessels a 25% discount is applied to dues for general cargo (ordinary due is €704.33). Fees are for one leg. Same fee for entering/exiting port.	€412.30. (discounts may be applied in some cases – repeated arrivals, liner services). Fees are for one leg. Same fee for entering/exiting port.
Slovenia[47]	€215.25. For ships with draft >16.7 metres the tariff increases by 10%. Discounts up to 25% are applied to ships belonging to the same owner/operator based on frequency.	€299.25. For ships with draft >16.7 metres the tariff increases by 10%. Discounts up to 25% are applied to ships belonging to the same owner/operator based on frequency.	€152.25. For ships with draft >16.7 metres the tariff increases by 10%. Discounts up to 25% are applied to ships belonging to the same owner/operator based on frequency.

[45] The Norwegian Coastal Administration provided the example pilotage fees for entering plus exiting the port. For allowing comparison with other countries the fees have been divided by two.

[46] Calculated by the Consultant based upon publicly available tariffs.

[47] Information provided by Piloti Koper.

Country	Non specialized general cargo vessel	Container vessel	Passenger
Spain – Tarragona	Area A: €250. Area B: €375. 2007.	Area A €351. Area B €531 2007.	Area A €171. Area B €252. 2007.
Spain – Barcelona[48]	Entry/departure: €222.40. Manoeuvre within port tariff: €278.	Entry/departure: €225. Manoeuvre within port tariff: €281.30.	Entry/departure: €222.40. Manoeuvre within port tariff: €278.
Spain – Bilbao[49]	Entry/departure: €352.20. Internal port operations: €294.30. 100% surcharge for vessels without propeller and/or rudder. Each additional hour of pilot's presence will be charged at: Vessel GT <= 10,000: €143.60/hour. Vessel GT >10,000: €239.70/hour.	Entry/departure: €528.60. Internal port operations: €410.60	Entry/departure: €352.20. Internal port operations: €294.30.
Spain–A Coruña[50]	Area A: €245. Area B: €490. Area C: €735. Interior movements: €141.	Area A: €277. Area B: €554. Area C: €831. Interior movements: €166.	Area A: €219. Area B: €438. Area C: €657. Interior movements: €119.
Spain – Valencia[51]	Entry/departure: €58.40. Mooring/unmooring: €29.50. Shifting between berths: € 4.20. 100% Surcharge for night services. 50% surcharge for Sundays, bank holidays and Saturdays after 12.00 p.m. 100% surcharge for vessels without their own power. 10% surcharge for VHF service. 1.5% surcharge for pilotage service insurance.	Entry/departure: €85. Mooring/unmooring: €42.50. Shifting between berths: €63.70.	Entry/departure: €44.60. Mooring/unmooring: €22.30. Shifting between berths: €23.50.

[48] Calculated by the Consultant based upon publicly available tariffs.

[49] Ibidem.

[50] Ibidem.

[51] Ibidem.

Country	Non specialized general cargo vessel	Container vessel	Passenger
Sweden	0-60 min: 7,927 SEK (€879). 61-90 min: 9,354 SEK (€1,037). 91-120 min: 10,781 SEK (€1,195). Goteborg 9,354 SEK (€1,038). Lulea 11,808 SEK (€1,311). Malmo 7,927 SEK (€879). Stockholm 23,621 SEK (€2,621). Trelleborg 7,927 SEK (€879). 1,027 SEK (€113) for each 30 minutes added. Pilot dues are based on sailing time. The dues are calculated on an average speed of eight knots. Fees are for one movement.	0-60 min: 9,064 SEK (€1,005). 61-90 min: 10,696 SEK (€10,696). 91-120 min: 12,328 SEK (€1,367). Goteborg 10,696 SEK (€1,186). Lulea 13,959 SEK (€1,548). Malmo 9,064 SEK (€1,005). Stockholm 27,010 SEK (€2,996). Trelleborg 9,064 SEK (€1,005). 1,632 SEK (€181) for each 30 minutes added. Pilot dues are based on sailing time. The dues are calculated on an average speed of eight knots.	0-60 min: 4,348 SEK (€482). 61-90 min: 5,131 SEK (€569). 91-120 min: 5,914 SEK (€655). Goteborg 5,131 SEK (€569). Lulea 6,696 SEK (€742). Malmo 4,348 SEK (€482). Stockholm 12,957 SEK (€1,436). Trelleborg 4,348 SEK (€482). 783 SEK (€482) for each 30 minutes added. Pilot dues are based on sailing time. The dues are calculated on an average speed of eight knots.
UK – Belfast	£288.41 (€351.86).	£350.00 (€427.00).	£166.19 (€202.75).
UK – Dover	£302.44 (€368.97).	£390.44 (€476.33).	£181.47 (€221.39).
UK – Forth	£475.00 (€579.50).	£411.00 (€501.42).	£301.00 (€367.22).
UK – Humber	£366.44 (€447.05).	£311.23 (€379.70).	£171.94 (€209.76).
UK – Milford Haven	£352.00 (€429.44).	£597.00 (€728.34).	£294.00 (€358.68).
UK – Southampton	£465.75 (€568.21).	£465.75 (€568.21).	£465.75 (€568.21).
UK – Tees	£495.43 (€604.42).	£352.35 (€429.87).	£183.61 (€224.00).

2.8 Compulsory pilotage, exemptions and PECs

2.8.1 Compulsory pilotage across Member States, Norway and Croatia

The criteria governing compulsory pilotage varies between and within countries. Generally pilotage is compulsory for vessel entering, exiting or manoeuvring within a port, taking into account the dimensions of that vessel and the type of cargo, in the context of differing channels, tides and currents and traffic density within a particular fairway or area.

With regard to vessel dimensions, the main criterion is generally either gross tonnage or overall length (LOA). In some countries draft or width criteria are also stipulated.

The most common criteria for compulsory pilotage is >500 GT or >70 metres LOA. However, it is the case that there are often many variables from port to port or even within a single port. Vessels carrying dangerous goods are almost always subject to compulsory pilotage without exemption.

Table 19 provides a high level illustration of the main vessel dimension criteria governing the requirement for compulsory pilotage across countries, drawing on the detailed information presented in the subsequent tables.

Table 19 – Main vessel dimension criteria governing compulsory pilotage

Vessel type	Country
>500 GT	Croatia/Estonia/Greece/Italy/Malta/Slovenia/Spain.
>100 GT	Bulgaria.
>90 metres LOA or 13 metres breadth	Germany.
>60 metres or >70 metres LOA	Finland/Ireland/Netherlands/Norway/Portugal/Sweden.
>40 metres or >45 metres LOA	Cyprus/Finland/Poland.
>24 metres LOA	Lithuania.
Various LOA	Belgium/Denmark/France/Latvia/UK.
All vessels	Romania.

All countries present exemptions to pilotage with regards to specific vessel types or sizes. All but four (Cyprus, Greece, Italy and Romania), have adopted a PEC system.

With regard to vessel exemptions the main criteria include:

- Vessels with dimensions less than those determining the need for compulsory pilotage;
- Vessels performing maintenance or services within with the port area/compulsory pilotage district (for example, vessels performing pilotage, iceobreaking and dredging, floating cranes, barges, etc.);
- Government-owned vessels;
- Military vessels;
- Recreational and fishing vessels; and
- Passenger ferry vessels.

In a number of countries there are exemptions that require vessels to be registered in that country or flying the national flag (Bulgaria, Croatia, Greece, Poland and Portugal).

The subsequent tables provide an overview of compulsory pilotage, the criteria that govern compulsory pilotage and the nature of any exemptions that exist in each country, drawing upon the survey responses obtained from national administrations.

Table 20 – Compulsory pilotage and exemptions in Belgium

Overview of compulsory pilotage	Pilotage is compulsory for ships as defined in the Pilotage Decree and the Revised Scheldt Rules, except for the exempted vessels and Captains. In the harbours pilotage is compulsory for all sea-going vessels except for a limited list of exemptions, as stated in the police regulations.

Criteria for compulsory pilotage – ship dimensions	Within the Flemish Region compulsory pilotage is the same for all ports – vessels >80 metres LOA. In the ports: vessel >120 metres LOA and/or depth >6 metres. Length, maximum width and summer draft are taken into consideration. The length, width, depth, height above the vessel, the manoeuvrability of the vessel, the ratio between the vessel and the characteristics and dimensions of the waterway, the ratio between the vessel and the characteristics and dimensions of the artwork to pass, the load on board and the state of a floating object can determine the decision to require more than one pilot on board (special and extra-normal shipments). In the harbours: vessels assisted by tugboat.
Criteria for compulsory pilotage – cargo type	Cargo/destination. >80 metres LOA all marine vessels require compulsory pilotage, regardless of the cargo. Pilotage is compulsory for dangerous cargo.
Criteria for compulsory pilotage – geographic	In the Flemish coastal ports the Pilotage Decree applies and the Flemish Scheldt ports are covered by the Revised Scheldt Rules. For the coastal ports, it always involves a pilot of the Pilotage Services of the Flemish Region. For the Scheldt ports it can either be a pilot of the Pilotage Services of the Flemish Region or a pilot of the Dutch pilotage services, in accordance with the agreed formula. In the harbours, the regulations on the port pilotage and PEC also differ in the various ports. The local regulations can stipulate various rules about compulsory pilotage.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes, but not for ships carrying dangerous goods. Pilotage Decree: for certain Captains who meet certain cumulative conditions, including authority to act as Master, employed on one or more similar vessels for which PEC is requested, at least 24 in/out calls in one year and successful completion of compulsory exam.
Exemptions – vessels	Pilotage Decree – exemption from compulsory pilotage: For certain vessels: - Inland waterway vessels (except for some exceptions)/estuary shipping; - Fluvio-maritime shipping; - Vessels <80 metres; - Vessels at anchor; - Vessels built for extraction/ transport of sand and gravel dredged; and - Vessels owned/operated by Flemish/Dutch pilotage services or by Belgian, Dutch or Flemish Government. Individual exemptions as a result of special circumstances. In case of emergency. If a vessel is not foreseen within a reasonable time with a pilot, an exemption can be provided. The Revised Scheldt Rules provide a similar list of exemptions, but with additional categories of vessel (for example warships, Rhine ships, etc.) and with reference to the Scheldt mouths and vessel dimensions. For example, the competent authority may exempt the requirement to use the services of a pilot: - Vessels <95 metres LOA and a depth of 5.5 metres to the Scheldt and its mouths navigated through the buoy Magnetics, Oostgat, the Galgeput, and Sardine to Flushing Roads area; - Vessels <95 metres, the Scheldt and its mouths navigated through other waterways; and - A Rhine barge, a Denemarkenvaarder, inland/sea-going vessels or a low air draft coaster. The exemptions do not apply to vessels constructed or adapted for the transport of bulk liquid

	cargoes of flammable nature or used for the transport of gas or chemicals in bulk, and thus fully or partially loaded or empty, but not degassed or cleaned of hazardous residues, with the exception of certain ships lying at anchor. Harbours: plus exemptions for military vessels, governmental ships, dredgers.

Table 21 – Compulsory pilotage and exemptions in Bulgaria

Overview of compulsory pilotage	Pilotage is compulsory as follows: - Ships entering/exiting berths from/to port approaches; - Ship movements of a distance greater than one ship length; - Entering and leaving repair facilities; - Movement in an inland canal or lake; and - Manoeuvring for trans-shipment. See Article 5 of Ordinance No. 1/2001 for the terms and conditions for implementation of pilot activities in Bulgaria, issued by the Minister of Transport and Communications, published in the State Gazette No. 12/2001.
Criteria for compulsory pilotage – ship dimensions	>100 GT.
Criteria for compulsory pilotage – cargo type	All types of dangerous cargo.
Criteria for compulsory pilotage – geographic	No.
Exemptions allowed under legislation?	Yes. Based on Ordinance No. 6 on Seafarers' Competence in the Republic of Bulgaria; Ordinance No. 1 on Terms and Conditions for Implementation of Pilot Activities in the Republic of Bulgaria and Ordinance No. 7 regarding Exemption from Compulsory Pilotage.
Exemptions – PECs	Yes. According to Ordinance No. 107 2.1 the Master of a vessel must have a PEC issued by the Executive Agency Maritime Administration stating that he is entitled to perform manoeuvres with the particular vessel in a defined pilotage area.
Exemptions – vessels	The exemption from compulsory pilotage is for ships of < 100 GT and <50 metres LOA in coastal waters, flying the Bulgarian flag (except for oil tankers and ships carrying dangerous goods). Vessels defined in Article 5 of the Merchant Shipping Code are exempt: ships used for scientific, training, cultural and sport purposes, for pilotage, for exercising control and supervision, fire-fighting, communication, customs/sanitary purposes, for ice-breaking, for rescuing human lives and property, war carriage of cargoes and passengers and military ships. In accordance with Order No. 107, exemption from the obligation to use the assistance of a pilot applies as follows: - Bunkers, water carriers, floating cranes, barges and tugs, only when they work in ports, channels and roadsteads in the relevant pilotage area; - Fishing vessels; and - Passenger ships, RoRo passenger ships and ferries, sailing line and performing scheduled trips, visiting a port of Varna Pilotage Area, not less than once a week and anchoring at permanently assigned to them berth.

Table 22 – Compulsory pilotage and exemptions in Croatia

Overview of compulsory pilotage	For entering and exiting ports and berthing, pilotage is compulsory for ships over 500 GT and yachts over 1,000 GT.
Criteria for compulsory pilotage – ship dimensions	Ship type and ship size. Ships over 500 GT and yachts over 1,000 GT.
Criteria for compulsory pilotage – cargo type	Pilotage is compulsory for vessels carrying dangerous liquid chemicals/liquefied gases (no exemptions).
Criteria for compulsory pilotage – geographic	Compulsory pilotage does not vary between ports.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes.
Exemptions – vessels	Exceptionally the Minister is entitled to exempt a certain ship or yacht from the obligation of port pilotage (with the exception of ship transporting dangerous or toxic substance) whose gross tonnage is <2,000 tons for a limited period and in a particular port area, on the condition that Master has passed a special exam. Croatian warship, Croatian public ships, ships used for the maintenance of navigable waterways and facilities serving for the safety of navigation on these waterways, water tankers, Croatian passenger ships and ferryboats in regular service are not obliged to be piloted.

Table 23 – Compulsory pilotage and exemptions in Cyprus

Overview of compulsory pilotage	Pilotage is compulsory for all ships in port areas with some exemptions set out in the regulations for particular types of vessel.
Criteria for compulsory pilotage – ship dimensions	All vessels >45 metres LOA.
Criteria for compulsory pilotage – cargo type	No.
Criteria for compulsory pilotage – geographic	No geographical differences.
Exemptions allowed under legislation?	No.
Exemptions – PECs	No.
Exemptions – vessels	Local vessels are exempted by Cyprus Ports Authority, such as fishing boats and small bunker vessels, vessels <45 metres LOA, vessels not carrying commercial cargo which have the port as their base, such as tug boats. Vessels in the port limits under license (e.g. bunker barges) are exempted from pilotage following confirmation from the pilots.

Table 24 – Compulsory pilotage and exemptions in Denmark

Overview of compulsory pilotage	It is stated in the Danish Pilotage Act, that there is an obligation for ships to use a pilot in inner and outer territorial waters depending on the ship's cargo and dimensions. The Danish Maritime Authority makes a navigational assessment in order to determine if pilotage should be compulsory in an area. The navigational assessment takes into account several factors such as statistics, probability studies, reports, surveys and a general assessment of the area, etc.
Criteria for compulsory pilotage – ship dimensions	In certain areas it is compulsory to take pilot for certain ships, in regards to: - The ships length overall (LOA); - The ships draught; - Whether the ship has bow propeller and sufficient engine power, or not; or - If a ship is towed or is towing another (vessels that are towed must use a pilot in excavated channels and buoyage fairways leading into or past harbours).
Criteria for compulsory pilotage – cargo type	The general criterion for compulsory pilotage is cargo[52]. It is stated in the Act that there is an obligation for ships to use a pilot in internal and external Danish territorial waters if the ships: - Are carrying oil or have uncleaned cargo tanks that have not been rendered safe with inert air; - Are carrying chemicals or gases; - Have >5,000 GT bunker oil on board; or - Are carrying highly radioactive material.
Criteria for compulsory pilotage – geographic	There is an extended obligation for the usage of a pilot in a number of ports with regard to a ship's draught and size (Amagerværkets, Prøvestens, Næstved, Odense Harbour, Aalborg Harbours, the harbours in Limfjorden and Mariager Fjord, Oddesund Bridge and railway bridge across Limfjorden at Aalborg). The compulsory pilotage for certain ships in these ports is due to shallow waters, etc. Therefore, the ship's dimensions determine whether or not a ship must use a pilot. There is an area between Skæring Strand and Skødshoved (section 10 in executive order on use of pilot), where all ships (regardless of size, draught, cargo etc.) must use a pilot.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. It is possible to obtain a PEC for a certain pilotage area. If a Captain or navigator can demonstrate the same local knowledge as a pilot by making the same required number of calls in an area, and pass an oral aptitude test.
Exemptions – vessels	There are some exemptions from pilotage for certain ships in section 12 and 13 in Executive Order no. 378 on the use of the pilot: - Danish vessels flying a foreign flag which are entitled to perform the navigation in question without a pilot; - Vessels designed exclusively to carry liquid carbon dioxide in bulk; and - Offshore support vessels that according to international definitions carry certain products in bulk. Exemptions are also possible based on defined areas as set out in Section 4 of the Danish Pilotage Act.

[52] There have been several examples that show how an accident with a tanker can have a massive impact on the maritime environment in an area that is exposed to large quantities of oil, as was the case with Exxon Valdez in Alaska, and most recently the containership Rena of the coast of New Zealand, that had a large amount of bunker oil aboard. The legislators found, that oil (even uncleaned oil tanks or large amounts of bunker oil), chemicals, gasses and highly radioactive materials are so dangerous cargo types, that these transports must be as safe as possible, as a potential accident could have dire and catastrophic consequences for the Danish water environment and marine life.

Table 25 – Compulsory pilotage and exemptions in Estonia

Overview of compulsory pilotage	Compulsory pilotage of ships is conducted in the inland sea as well as in the vicinity of ports and in the water areas of ports and between ports to ensure the safe navigation of ships. The procedures for pilotage and the places for the pilot to embark or disembark a vessel are established by the Minister of Economic Affairs and Communications. In the area of vessel traffic where pilotage is not compulsory, the Master has the right to request a pilot on board if he or she deems pilotage to be necessary.
Criteria for compulsory pilotage – ship dimensions	Yes. Ships, flying the flag of a foreign country, 500 or more GT. Ships, flying the national flag of the Republic of Estonia 20,000 or more GT. Ships, flying the national flag of the Republic of Estonia >20,000 GT when entering or leaving the port and in the water area of the port.
Criteria for compulsory pilotage – cargo type	Yes. Chemical tankers, liquefied gas tankers and the tankers with gross tonnage of more than 3,000 shall not be exempted from compulsory pilotage.
Criteria for compulsory pilotage – geographic	No.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. The ships, the Master of which, or the passenger ships, the Master and the Chief Mate of which, have passed the required examinations and have obtained a PEC. A PEC cannot be issued for ships with 500 or more GT, ships flying the national flag of the Republic of Estonian with 20,000 or more GT, or with between 500 and 20,000 GT when entering or leaving the port and in the water area of the port; and all chemical tankers, all liquefied gas tankers and oil tankers with 3,000 or more GT.
Exemptions – vessels	Yes. The following are exempt from compulsory pilotage in the compulsory pilotage area: - Ships performing state administrative duties and flying the national flag of the Republic of Estonia, all ships connected with the provision of port services, and the ships of the dredging fleet, flying the flag of a foreign country, which are leaving the water area of the port; - All recreational craft and the ships, flying the national flag of the Republic of Estonia <500 GT; - Ships, flying the national flag of the Republic of Estonia, while passing through the Väinameri Sea and the Soela Strait, and the liners, flying the national flag of the Republic of Estonia, being engaged in domestic voyages; - Ships upon saving human lives, or preventing an accident to take place, or being engaged in reducing the damage that arise from an accident; - The ships which, due to the impact of force majeure, cannot use pilotage services; - The vessels of the navy of the Republic of Estonia; and - The ships, which in accordance with subsection 2 of § 55 of this Act, concerning pilotage, arrive at the designated anchoring place or leave it. Ships with the gross tonnage of less than 20,000, flying the national flag of the Republic of Estonia, are exempt from pilotage in the compulsory pilotage area, except when entering or leaving the port and in the water area of the port. The following ships are exempt from compulsory pilotage: an icebreaker, which is providing service for the State of Estonia, a ship, which is flying the flag of a foreign country and is

	providing service for the State of Estonia, and a ship of a dredging fleet, which is flying the flag of a foreign country and is leaving the water area of a port during the period of dredging activities, provided that prior to it the ship has made at least 10 trips with a pilot aboard.

Table 26 – Compulsory pilotage and exemptions in Finland

Overview of compulsory pilotage	As a main rule pilotage is compulsory in Finnish territorial waters.
Criteria for compulsory pilotage – ship dimensions	- >70 metres; or - >14 metres breadth; or - >4.5 metres draft.
Criteria for compulsory pilotage – cargo type	All ships carrying dangerous or harmful cargo irrespective of size.
Criteria for compulsory pilotage – geographic	No.
Geographical differences?	No.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	PEC can be granted for the Masters of certain ships and on certain fairways (only for ships not carrying dangerous cargo).
Exemptions – vessels	Yes – with regard to size/length. Dispensation can be granted for the Master of certain ships on certain waterways (only for ships below 3,700 GT and not carrying dangerous goods).

Table 27 – Compulsory pilotage and exemptions in France

Overview of compulsory pilotage	In accordance with the Code of Transport, pilotage is compulsory for the conduct of ships arriving and departing from ports, in the ports, and in certain maritime waters. The definition of maritime waters is given in Articles L.5000-1 and L.5341-1 of the Code of Transport. Pilotage is compulsory in areas where navigation takes place at sea and for navigation in estuaries and rivers downstream from the first obstruction to navigation of vessels. The perimeter of the area where pilotage is mandatory is set at the local level, according to local navigation conditions. Pilotage is compulsory in the area described and defined by local regulations of each pilotage station set by the Regional Prefect.
Criteria for compulsory pilotage – ship dimensions	Depends on characteristics within the port and length of vessel.
Criteria for compulsory pilotage – cargo type	Dangerous goods (in accordance with international regulations).
Criteria for compulsory pilotage – geographic	The general rule is that pilotage is compulsory in all ports. The limits of the area where compulsory pilotage and vessel characteristics are subject to the requirements defined in the regulations of local pilotage stations according to local navigation conditions. This system allows consideration of configurations and particularities of each port.

	In estuaries and rivers pilotage is compulsory downstream from the first obstruction to navigation of vessels.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. Ships subject to compulsory pilotage but exempt from the pilot obligation. Ships subject to compulsory pilotage are exempt from the pilot obligation if the Captain holds a Captain-pilot license (e.g. PEC). It is therefore not an exemption from compulsory pilotage. This obligation is still applicable since the pilotage is guaranteed by the Captain with a Captain-pilot license (PEC). The Captain-license is issued under strict supervised conditions to ensure the safety of maritime navigation. It is valid only for the Captain who obtained it, for a given vessel and in a defined area.
Exemptions – vessels	In each station pilotage is compulsory within the defined area in the local regulation except for: - Ships chartered exclusively for maintenance/surveillance of ports and their access, as well as rescue, regardless of tonnage; - Military vessels at the entrance and exist of military ports; and - Vessels of LOA exceeding a threshold set for each station in the local regulation. The threshold is fixed taking into account local conditions of navigation. In practice it varies between 40 and 70 metres LOA. Vessels exempted from compulsory pilotage pay no pilotage fees.

Table 28 – Compulsory pilotage and exemptions in Germany

Overview of compulsory pilotage	Pilotage is compulsory when entering and exiting ports and berthing within a defined pilot district.
Criteria for compulsory pilotage – ship dimensions	Pilotage is compulsory for all vessels exceeding 90 metres LOA or 13 metres breadth (some districts also prescribe a decisive draft). In the district of the Kiel Canal every vessel must take a pilot. In some districts (e.g. Lubeck, Rostock, Straisund) a pilot is compulsory for all vessels exceeding 60 metres LOA or 10 metres breadth. Variations are stated with regard to draft. In some districts a draft of more than six metres leads to compulsory pilotage (e.g. Ems or Rostock Fischereihafen): some districts differ between waters (e.g. Weser).
Criteria for compulsory pilotage – cargo type	Pilotage is compulsory for all tankers.
Criteria for compulsory pilotage – geographic	At the interface to inland navigation or other countries pilotage is compulsory for administrative vessels, dredgers and in other specific circumstances.
Geographical differences?	Compulsory pilotage may occur at the interface to inland navigation or other countries.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Compulsory pilotage begins at a certain length/breadth/draft and may be overcome by individual PECs to the Master.
Exemptions – vessels	Administrative vessels, dredgers in regular service and in specific circumstances vessels may be exempted.

Table 29 – Compulsory pilotage and exemptions in Greece

Overview of compulsory pilotage	Pilotage is compulsory in all cases, except the cases determined by national legislation.
Criteria for compulsory pilotage – ship dimensions	>500 GT.
Criteria for compulsory pilotage – cargo type	All types of cargo except passenger/cruise vessels.
Criteria for compulsory pilotage – geographic	No.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	No.
Exemptions – vessels	Yes. - Greek lines passenger ferries; - Greek cruise passenger vessels that perform scheduled tourist routes for at least three months per year in the Greek ports and foreign ports; - Greek Navy Warships; and - Greek cargo vessels under 500 gross tonnage.

Table 30 – Compulsory pilotage and exemptions in Ireland

Overview of compulsory pilotage	There are seven compulsory pilotage districts – Dublin, Cork, Shannon Foynes, Waterford, Galway, Drogheda and New Ross.[53] Pilotage is compulsory in these districts for entering, berthing, unberthing and leaving from the district.
Criteria for compulsory pilotage – ship dimensions	Criteria vary among ports. Generally all vessels >70 metres LOA (again with criteria varying between ports). Dublin: vessels >24 metres LOA with a Passenger Certificate. Shannon: compulsory pilotage area is determined by tonnage, but two separate pilot embarkation/disembarkation areas have been established depending on the tonnage of the vessel: - For vessels >5,000 GT pilots embark/disembark at an outer area; and - Vessels <5,000 GT embark/disembark pilots at an established area within the estuary. Waterford: pilotage is compulsory for every vessel (other than exempted vessels). Drogheda: vessels >45 metres LOA. Galway: petroleum cargoes.
Criteria for compulsory pilotage – cargo type	Dublin: vessels carrying hazardous cargoes in bulk. Drogheda: all vessels with hazardous or polluting cargoes.

[53] Criteria vary among ports: unfortunately information on criteria governing compulsory pilotage and exemptions are not available for all ports.

	Galway: petroleum cargoes.
Criteria for compulsory pilotage – geographic	There are differences geographically, depending on the individual port company Bye Laws. Each port has its own criteria for the vessels that must take pilots and for granting PECs. Therefore compulsory pilotage varies by pilotage district generally.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. PEC is the form of exemption in a compulsory pilotage district for non-exempt vessels, or the Harbour Master's decision. The Law in the governing legislation only refers to the act of pilotage being carried out on the vessel. In practice if a port in Ireland has VTS services, that service may and probably will determine the organization and management of the transit of the vessels. However, the responsibility for the navigation of the vessel rests with the Master and the pilot if he has conduct of the vessel's navigation. Customary practice of issuing PECs to suitable candidates by examination for many years to regular runners such as ferries and coasters. Nowadays a third option is available where restricted PEC is issued to departing vessels up to 95 metres in Dublin, providing a statement is received from the Masters.
Exemptions – vessels	Pilotage is compulsory in all major ports with the exemptions typically for: - Vessels owned by the State; - Pleasure Craft; - Fishing Vessels <50 metres LOA; - Ferry Boats plying as exclusively within the limits of the Company's Pilotage District; - Vessels <50 GT; - Vessels, the property of the Lighthouse Authority responsible for the care and maintenance of lighthouses and navigation buoys in the State, so engaged; - Vessels, the property of, or engaged by the Company; - Vessels, the property of, or engaged by a Local Authority in the exercise of its Statutory Function; and - Tugs, Dredgers, sludge vessels, barges and other similar craft working within the Pilotage District may be exempt from Compulsory Pilotage of the Company, after examination, are satisfied that the Master in charge has the necessary local knowledge and is capable of communicating in English. Exemptions can be issued at the Harbour Master's discretion. Exemptions can be issued, based on the availability of pilots[54].

Table 31 – Compulsory pilotage and exemptions in Italy

Overview of compulsory pilotage	Pilotage is compulsory for ships coming in and going out from ports and for movements within the port area.
Criteria for compulsory pilotage – ship dimensions	>500 GT.
Criteria for compulsory pilotage – cargo type	All types of cargo.

[54] Information provided by AMPI.

Criteria for compulsory pilotage – geographic	Compulsory pilotage exists within the port area and in general within one mile radius from the port entrance. There are geographical differences, but not to a great extent. Limits between which pilotage is compulsory may vary, since these are related to specific characteristics of each port. The area of obligation is established by ministerial Decrees.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	No. In Italy a PEC cannot be issued. Shore-based pilotage via VHF radio fulfils the same function but with a higher guarantee of safety at a similar cost.
Exemptions – vessels	Yes. Exemptions concern small vessels, vessels that use the port frequently or vessels undertaking port services (whereby the Captain knows the port as well as a pilot). Exemptions apply to: - Vessels <500 GT; - Navy ships; - Fishing boats; and - Ships assigned to provision of port services. VHF pilotage can be used for ships that make frequent calls to a port. This is normally permitted for 'liners' which call at a harbour at regular, pre-arranged times, weekly or bi-weekly at a maximum. It applies to ports where this type of traffic occurs. VHF pilotage is not supported by the VTS.

Table 32 – Compulsory pilotage and exemptions in Latvia

Overview of compulsory pilotage	Pilotage in Riga and Ventspils is compulsory based on ship dimensions and cargo carried.
Criteria for compulsory pilotage – ship dimensions	Riga: >24 metres LOA. Ventspils: >70 metres LOA; all tankers.
Criteria for compulsory pilotage – cargo type	Riga: all vessels with dangerous goods on board. Ventspils: all tankers.
Criteria for compulsory pilotage – geographic	Each port has its own port regulations and rules on compulsory pilotage which may vary.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. The Harbour Master in the pilotage area may exempt a vessel from pilotage service and issue a PEC. The PEC may be obtained only if the Captain of the vessel has, with a specific vessel, regularly (at least as often as defined in the port rules) visited the port with a pilot on board, is familiar with navigational aids, communication systems, depths and currents, as well as port rules.
Exemptions – vessels	Yes. Liner ships and ships with regular traffic.

Table 33 – Compulsory pilotage and exemptions in Lithuania

Overview of compulsory pilotage	In principle pilotage is compulsory in the Port of Klaipėda. There are some exemptions which are regulated by Klaipėda State Seaport Shipping Rules.
Criteria for compulsory pilotage – ship dimensions	>24 metres LOA.
Criteria for compulsory pilotage – cargo type	All types of cargo.
Criteria for compulsory pilotage – geographic	From pilot reception buoy no. 1 up to berth and back. There are no geographical differences as there is only one major seaport.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. The Master may be granted a PEC when following conditions are met: - Liner ships carrying homogeneous cargoes; - Six arrivals/six departures with pilot's positive assessment; - Knowledge of Lithuanian or English languages; and - Examination at Harbour Master's office has been passed.
Exemptions – vessels	Yes: - Fishing vessels <300 GT; - Local navigation vessels <500 GT; - Vessels rendering port services; - Sport and promenade vessels, sailing yachts and other vessels <24 metres in length; - Dredgers performing dredging works at the order of the Port Authority; and - Liner vessels (no specified ship size) and vessels assigned to serve uniform cargo flows operated by one carrier (operator), register in KSSA.

Table 34 – Compulsory pilotage and exemptions in Malta

Overview of compulsory pilotage	Overall pilotage is compulsory both at national and port level, as provided by Law.
Criteria for compulsory pilotage – ship dimensions	Disabled ships and tug and tow combinations may be required by the Authority to engage the services of a pilot.
Criteria for compulsory pilotage – cargo type	Dangerous goods.
Criteria for compulsory pilotage – geographic	There are five ports designated as 'compulsory pilotage' ports – Valletta, Marsamxett, Marsaxlokk, Mgarr and Gozo. There are no geographical differences.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. Regulation 31 states that "the Authority shall in its discretion issue PECs to Masters of ships who regularly call at the ports in accordance with established criteria, provided that the Authority shall reach agreement with the service provider about the level of compensation, if any, for loss of revenue." High speed craft calling in on a scheduled service and whose Master complies with qualification and standards developed by the Authority.
Exemptions – vessels	Yes. According to the legislation, the following ships shall be exempted ships: - Ships owned or operated by the Government of Malta; - Men-of-war of a foreign power; - Maltese navy ships; - Ships <500 GT; - Fishing vessels; - Yachts; - Ships, including tugs, dredgers, barges and other types of vessel whose ordinary course of navigation and trade does not extend beyond the limits of the territorial waters of Malta; and - High speed craft calling in on a scheduled service and whose Master complies with qualification and standards developed by the Authority. The Authority may exempt any ship from compulsory pilotage due to bad weather.

Table 35 – Compulsory pilotage and exemptions in the Netherlands

Overview of compulsory pilotage	Pilotage is compulsory for sea-going vessels on designated fairways entering or leaving a port with the exception of certain categories (see below).
Criteria for compulsory pilotage – ship dimensions	According to publicly available information[55] pilotage is compulsory on all major fairways for vessels >60 metres LOA except in Europoort where the criteria is >70 metres LOA).
Criteria for compulsory pilotage – cargo type	Pilotage is always compulsory for vessels carrying dangerous cargo.
Criteria for compulsory pilotage – geographic	Pilotage is compulsory in all port regions in the Netherlands, on the fairways which are specifically mentioned in the Shipping Traffic Act. Exemptions may vary between ports.
Exemptions allowed under legislation?	Yes. However, pilotage is always compulsory for vessels carrying dangerous goods.
Exemptions – PECs	Yes.
Exemptions – vessels	A. The following are always exempted, except when the safety situation so requires (situation on Scheldt differs slightly): - Inland shipping vessels; - Dredging vessels; - Pilot vessels; - NATO vessels; - Vessels crossing the fairway without entering or leaving a seaport; and - Vessels making limited movements within the port. B. In addition to A, the pilot exemption policy defines three categories of exemption: - Category 1 – exemption based on length of vessel; - Category 2 – 'extra' exemption based on an assessment of the Captain, crew, vessel; and - Category 3 – general exemption based on training and examination. These three categories give the following results in terms of length parameters: - Scheldt region: cat. 1–<80 metres; cat. 2 – 80 to 95 metres; cat. 3 – >95 metres; - Rotterdam Rijnmond region: cat 1. – <75 metres; cat. 2 – 75 to 95 metres; cat 3 – >95 metres; - Ijmond region: cat. 1 – <75 metres; cat. 2 75 to 95 metres; cat. 3 – >95 metres; and - Northern region: cat. 1 – < various; cat. 2 – various to 95 metres; cat. 3 – >95 metres. For example: In the Scheldt region: first there are vessels which are 'automatically' exempted (mentioned under A). Then there are vessels which are exempted because the vessels are less than 80 meters (category 1). Then there are vessels of which the Captain, crew and ship were assessed and obtain an extra exemption up to the maximum of 95 meters (category 2). Finally there are vessels which have a general exemption because the Captain was successfully trained. The vessels' length is not maximized (category 3). Besides A and B there is, finally, a category of smaller sea-going vessels with a broader exemption possibility based on length and additional demands. These vessels, with a maximum of 115 metres, are exempted from pilotage, for the inland parts (river parts) of the designated fairways. For the outer parts (sea parts) of the fairway they face less strict demands for category 2 and 3 exemptions.

[55] www.pilotservices.de/empa/.

Table 36 – Compulsory pilotage and exemptions in Norway

Overview of compulsory pilotage	Compulsory pilotage is defined in Section 6 of the Regulation. Due to the nature of the Norwegian coast and the sea traffic, compulsory pilotage covers both vessels calling at ports only and vessels sailing along the coast. The Regulations on compulsory pilotage empower the NCA to: - Decide in special cases that a vessel shall take a pilot for a particular voyage; and - Decide in special cases that a vessel may be exempt from the compulsory pilotage for a particular voyage, when there is a shortage of pilots or for other very special reasons. There are a set of local rules that apply in addition to the regulations regarding pilotage: these rules are more concerning the specifics of the coast of Norway and restrictions with regard to vessel length and width. There are some places where a pilot may navigate a vessel but a PEC-holder may not.
Criteria for compulsory pilotage – ship dimensions	The general rule is that all vessels of 70 metres or more LOA are subject to compulsory pilotage when sailing in Norwegian internal waters (e.g. within the baselines). 70+ metres LOA or 20+ metres width. Tow of 50 metres LOA object(s) being towed. Passenger vessels 24+ metres LOA. All nuclear powered vessels.
Criteria for compulsory pilotage – cargo type	Dangerous goods (MARPOL, annex I and annex II XYZ): single hulled vessels 35+ metres and double hulled vessels 50+ metres. Liquefied gases in bulk: 50+ metres. Vessels carrying INF Code substances. Vessels carrying atomic waste.
Criteria for compulsory pilotage – geographic	The same rules apply for all harbours and ports. There are, however, 12 geographical areas within the baselines that are exempt, allowing vessels to sail in open waters (mouths of fjords) up until the dedicated pilot boarding points.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. The PEC system may be used on most types of ship on which the regulation applies. With regard to dangerous cargo and atomic parts the PEC is not valid for use. Geographical area: sailors with documented sea-service on the bridge and who have passed a practical and theoretical exam by a pilot for the fairway that the application concerns.
Exemptions – vessels	Yes. Some vessels between 70 and 150 metres. Dangerous goods: up to 110 metres, extra safety measures to be installed and functioning on board. The NCA (e.g. the local chief executive pilot 'losoldermann') is empowered by compulsory pilotage regulations to waive the requirement for compulsory pilotage for a single journey and a specific vessel. This is by regulations only allowed in special circumstances. If there is a shortage of available pilots the Master of a vessel may apply for an exemption. The local chief executive pilot does an individual risk assessment of the vessel and voyage, including aspects such as vessel size, cargo, type of vessel, the Master's experience of local waters/coastal navigation and asks for confirmation that charts are updated and the vessel is properly equipped with navigation aids and fully operational.

Table 37 – Compulsory pilotage and exemptions in Poland

Overview of compulsory pilotage	Pilotage is compulsory for entering, berthing, unberthing and departing from the port, according to regulations.
Criteria for compulsory pilotage – ship dimensions	Length overall (LOA). In Gdynia pilotage is compulsory for vessels over 40 metres LOA[56] Passenger vessels.
Criteria for compulsory pilotage – cargo type	Dangerous cargo according the IMDG code.
Criteria for compulsory pilotage – geographic	It varies between ports and depends on LOA of the ship and different specific conditions of a port.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes, if Captain has proven maritime practice and passed the required exam.
Exemptions – vessels	Yes. - Navy ships; and - Vessels with LOA of less than a certain length, dependent on port regulations.

Table 38 – Compulsory pilotage and exemptions in Portugal

Overview of compulsory pilotage	In Portugal as a general rule pilotage is compulsory in all major ports/districts for vessels >70 metres LOA.
Criteria for compulsory pilotage – ship dimensions	All vessel >70 metres LOA.
Criteria for compulsory pilotage – cargo type	All ships carrying dangerous goods.
Criteria for compulsory pilotage – geographic	Pilotage is required at each port, inside the port and to the outer limit of two to five miles depending on the port.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes.
Exemptions – vessels	Warships, vessels and units of the Navy, Maritime Police and National Guard. National coastal shipping vessels. Vessels of local traffic, local boats and tugs. Vessels engaged in dock work. Vessels shifting along piers. Local fishing boats and Recreational craft.

[56] http://www.umgdy.gov.pl.

Table 39 – Compulsory pilotage and exemptions in Romania

Overview of compulsory pilotage	Pilotage is compulsory for all maritime vessels with regard to entry/exit to/from ports, manoeuvres between piers, inner roads at the same port, all maritime vessels and river-sea vessels on passage of Danube River maritime sector and passage of Danube – Black Sea canal. There are specific criteria relating to the passage of the Danube River maritime sector, for maritime vessels (see Belgrade Convention 1948 (Pilotage on the Danube)). The Master of maritime vessels must have knowledge of 'Navigation Rules on the Danube' and hold a valid licence as 'Skipper A'.
Criteria for compulsory pilotage – ship dimensions	All vessels.
Criteria for compulsory pilotage – cargo type	All types of cargo.
Criteria for compulsory pilotage – geographic	One to two nautical miles from port entrance. Danube River – from Black Sea up to km 175. No geographical differences.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	No.
Exemptions – vessels	Pilotage is compulsory for all type of vessels in Romania; nevertheless, pilotage services are provided for free to navy ships (both Romanian and foreign), Romanian Coast Guard vessels, police patrol, port services vessels, hospital ships and vessels for sport activities. Further, the Ministry of Transport and Infrastructure, representing Romanian Government on transport issues, and in exceptional cases may approve derogations from legislation (for limited period of time/harbour/vessels).

Table 40 – Compulsory pilotage and exemptions in Slovenia

Overview of compulsory pilotage	Pilotage is compulsory when entering/exiting the port, berthing and for other movements within the port.
Criteria for compulsory pilotage – ship dimensions	Vessels >500 GT.
Criteria for compulsory pilotage – cargo type	No.
Criteria for compulsory pilotage – geographic	For ports only. There is only one major seaport in Slovenia.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes – but in practice there are none.

Exemptions – vessels	Yes. Pilotage shall not be compulsory for ships used for administrative purposes and for Slovenian navy vessels. Pilotage shall not be compulsory for ships under 500 GT or for ships designated on a case by case basis by the Slovenian Maritime Administration taking into account the type of ship and shipmaster's experience.

Table 41 – Compulsory pilotage and exemptions in Spain

Overview of compulsory pilotage	The pilotage service obligation is for the entry, exit and nautical manoeuvres within a port or service boundaries.
Criteria for compulsory pilotage – ship dimensions	Vessels >500 GT. Other criteria can come into play, namely technical specifications which are specific to the port in question (for example, vessel draft, the requirement for more than one tug, etc.).
Criteria for compulsory pilotage – cargo type	Dangerous goods.
Criteria for compulsory pilotage – geographic	It does not vary between ports (compulsory for all ports determined by the Directorate General of Merchant Marine), other than the local technical specifications depending on the nature and attributes of the port.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Service exemptions are granted to Captains and ships for certain berthing cases and conditions.
Exemptions – vessels	Yes. Exempted from pilotage services: Ships of War when it involves loss of confidentiality, maritime salvage vessels, dredgers working in ports and fuel supply barges, all provided that the Harbour Master does not oblige the service for justifiable reasons affecting maritime safety. Maritime Captains may suspend or propose to the Director General the suspension of the exemption for reasons of maritime safety. Also, the Harbour Master may declare the compulsory use of pilotage for any type of ship, when there are circumstances that endanger the maritime or navigation safety.

Table 42 – Compulsory pilotage and exemptions in Sweden

Overview of compulsory pilotage	The use of pilot is compulsory in Swedish internal waters. This does not include vessels owned or operated by the Swedish Government.
Criteria for compulsory pilotage – ship dimensions	There are three defined categories of vessel, which are used to define whether or not compulsory pilotage is required. Generally a combination of factors is used to define the thresholds according to length of vessel and type of cargo.
Criteria for compulsory pilotage – cargo type	Category 1 – always subject to compulsory pilotage except for single hull tankers carrying oil products <50 metres LOA. These vessels must be carrying specific cargoes – e.g. liquid chemicals, oils, etc. Category 2 and 3 – any type of vessel has no obligation to use a pilot provided that the ship's length is <70 metres LOA. Most bunker vessels in Swedish waters are less than 70 metres and are not obliged to use a pilot.
Criteria for compulsory pilotage	Yes, there are specific criteria. Inside a designated pilotage fairway: the limits for the dimensions that regulates if a vessel is

– geographic	subject to compulsory pilotage are individually stated for each designated pilotage fairway and are found in Annex 1 of the pilot regulations. The limits are expressed as L/B/D. Typical limits are 70/14/4.5 or 90/16/. The limits for vessels in category 2 are normally 10 metres less than the limits for a vessel in category 3. Outside a designated pilotage fairway: a vessel is subject to compulsory pilotage outside designated pilotage fairways if it belongs to category 2 or 3, and has a length of 70 metres or greater, a breadth of 14 metres or greater or a draught of 4.5 metres or greater. A vessel of category 1 is always subject to compulsory pilotage outside a designated pilotage fairway
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	Yes. - Fairway Specific PEC – exemption for a specific vessel(s) in a specific fairway(s). The most common exemption; - General Pilot Exemption – An exemption for a specific vessel(s) in a specific area (e.g. the west coast of Sweden or south coast of Sweden). Mostly applicable to small vessels or tug-boats; and - Temporary Pilot Exemption–In most cases, a temporary exemption is granted for shorter shifting along a berth or between berths in a port.
Exemptions – vessels	Exemptions from compulsory pilotage apply to: - Single hull tankers carrying oil products of <50 metres LOA (must be carrying specific cargoes); and - Any type of vessel <70 metres LOA has no obligation to use a pilot.

Table 43 – Compulsory pilotage and exemptions in the UK

Overview of compulsory pilotage	CHAs decide whether to make pilotage compulsory and in what circumstances given their knowledge and experience of the particular risks to vessels (e.g. tides, obstacles, other traffic) within their geographical area. The decision-making process is entirely devolved to these CHAs. Criteria for compulsory pilotage vary considerably between ports.
Criteria for compulsory pilotage – ship dimensions	Examples for specific UK ports are provided in Table 44.
Criteria for compulsory pilotage – cargo type	Examples for specific UK ports are provided in Table 44.
Criteria for compulsory pilotage – geographic	Decisions are made by the ports designated as CHAs.
Exemptions allowed under legislation?	Yes.
Exemptions – PECs	The 1987 Pilotage Act permits CHAs to issue a PEC to the Master or First Mate of any ship if satisfied that he is sufficiently skilled.
Exemptions – vessels	The 1987 Pilotage Act states that compulsory pilotage may not be applied to ships < 20 metres LOA or to fishing boats <47.5 metres LOA.

Table 44–Criteria for compulsory pilotage in a number of UK ports

Port	Description of compulsory pilotage criteria
Belfast	Compulsory pilotage applies to all ships navigating inside the port limits, subject to a number of exemptions: - Ships <75 metres LOA; - Ships between 75 metres and 100 metres in LOA navigating the outer harbour; - Navy ships and foreign warships; - General Lighthouse Authority tenders; - Ships that are moving from one berth to another; and - Ships navigating to or from Cariickfergus Harbour. Exemptions do not apply if the above ships: - Have a Passenger Certificate; - Are carrying dangerous cargoes in bulk; - Are in ballast that are not gas free; and - Are not fitted with working radar installation/visibility is less than 2.5 cables in certain weather conditions. Exemptions do not apply if ships or their tows have certain specified defects.
Forth	Pilotage is compulsory in a particular section of the Forth for vessels carrying 12+ passengers but excluding vessels exempted under Section 7(3) of the Act. There are also a number of areas within the CHA boundaries, for which different limits are set for compulsory pilotage in the case of vessels not carrying 12+ passengers. Area 1 (section 4.2 of the Pilotage Direction) - Vessels 45 metres or more LOA; and - Dredgers and other craft 85 metres or more LOA undertaking specific activities. Vessels less than 85 metres LOA are required to undertake an assessment with a pilot on board. Vessels with summer DTW <8,000 tonnes are exempted when shifting berths. In certain circumstances the Harbour Master will require such vessel to take a pilot. Area 2 (section 5.2 of the Pilotage Direction): - Vessels 45 metres or more LOA; and - Dredgers and other craft 85 metres or more LOA undertaking specific activities. Vessels less than 85 metres LOA are required to undertake an assessment with a pilot on board. Vessels with summer DTW <8,000 tonnes and not carrying 12+ passengers or dangerous goods are exempted when shifting berths. In certain circumstances the Harbour Master will require such vessel to take a pilot. Areas 3 and 4 (sections 6.2 and 7.2 of the Pilotage Direction): - Vessels of 45 metres LOA carrying dangerous goods and vessels of 60 metres or more LOA; and - Dredgers and other craft 85 metres or more LOA undertaking specific activities. Vessels less than 85 metres LOA are required to undertake an assessment with a pilot on board.
Tees	There are four designated areas where pilotage is compulsory when: - LOA is 95 metres or more; or - Summer deadweight exceeds 4,000 tonnes; or - GT exceeds 4,000 tonnes; or

Port	Description of compulsory pilotage criteria
	- LOA is >20 metres and cargo on board is dangerous; or - LOA is >50 metres and vessel requires a tug; or - LOA is <50 metres and vessel requires services of a tug where a risk assessment by the Harbour Master and Pilots so dictates. For one particular area pilotage is compulsory when LOA is >80 metres. For one particular area compulsory pilotage may be temporarily suspended due to weather conditions for hazardous vessels <150 metres LOA and all other vessels >175 metres LOA except RoRo ferries which must be <200 metres LOA provided that the VTS can satisfactorily complete the relevant risk assessment.
Dover	The Dover Pilotage Area comprises the Harbour and the sea within a distance of one mile from the seaward limits of the Harbour. Pilotage is compulsory for all vessels navigating within the Dover Pilotage Area subject to the following exceptions: - Vessels <20 metres LOA, fishing boats <45 metres LOA, HM ships and foreign warships; and - Vessels <80 metres (other than those described in the first point) provided that it is not carrying dangerous goods, not substandard and not certified to carry 12+ passengers.
Southampton	Individual Competent Harbour Authorities may decide whether to make pilotage compulsory and in what circumstances within their geographical area. In the case of Southampton, the detail is contained within their published Pilotage Directions which are kept under review and updated as required. <u>Compulsory Pilotage</u> Pilotage in the ABP Southampton CHA area is compulsory for the following vessels: all vessels ≥61 metres LOA and vessels carrying more than 12 passengers ≥20 metres in length. <u>Exemptions from compulsory pilotage</u> The following categories of vessels shall be exempt from compulsory pilotage: - HM Ships; - Ministry of Defence-owned/operated ships; - Naval vessels of Commonwealth countries; and - Foreign Naval vessels. Bona fide Masters and First Mates of all vessels subject to compulsory pilotage within limits defined in the schedules may apply for and be issued with PECs for the area, or specified parts of the area, subject to their fitness and qualification both by examination and experience in the appropriate parts of the area.
Milford Haven	Pilotage Compulsory for all vessels over 50 metres LOA except Royal Navy and certain other Government-owned vessels.

2.8.2 PECs across the EU, Croatia and Norway

2.8.2.1 Where are PECs issued?

Based on the information gathered four countries do not issue PECs: Cyprus, Greece, Italy and Romania (as of 2011). In 2011 there were no active PECs in Croatia or Slovenia and only a small number in Portugal (five), Malta (four) and Bulgaria (three).

In 2011 there were less than 50 PECs in Lithuania (40), Latvia (29), Estonia (28), while there were between 100 and 500 PECs in Belgium, Denmark, France, Ireland, Netherlands, Poland and Spain.

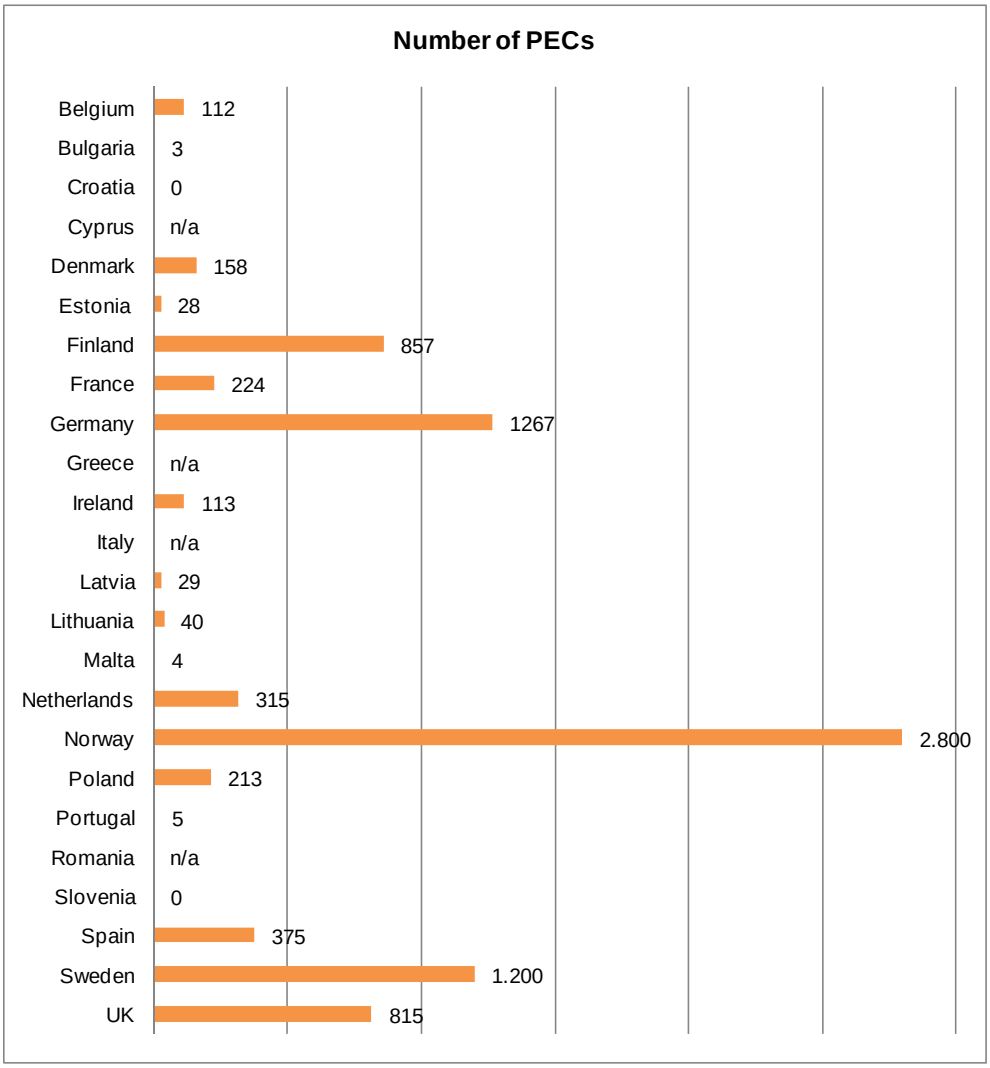
Countries in the Nordic Region have the highest number of PECs in circulation: in 2011 there were 2,800 PECs in Norway, 1,267[57] in Germany and 1,200 in Sweden. There is also a high prevalence of PECs in Finland (857).

With regard to the UK, the national administration was not able to provide details of the number of PECs. Based on the information gathered for a sample of ports, it was broadly estimated that there were in the region of 815 PECs in 2011[58].

It is clear that there is a much higher prevalence of PECs in northern Europe compared with southern Europe.

Figure 28 presents the number of active PECs in 2011 by country.

Figure 28 – Number of active PECs in 2011



The pilotage study conducted in 1995 considered the presence of PECs in eleven countries at that time. Considering these eleven countries only it is clear that:

- PECs have been introduced in Belgium, Denmark, Portugal and Spain, since 1995;

[57] This figure includes also PEC issued by Hamburg and Bremerhaven.

[58] Based on the ratio between number of PECs (2011) for a sample of UK port and total port throughput at those ports in 2010 (DfT).

- There has been an increase in the number of PECs issued in Germany, Ireland and the Netherlands;
- There has been no change in Greece and Italy, where PECs are not possible; and
- There has been a decrease in PECs issued in France, and potentially the UK (although the number of PECs in the UK presented here is estimated).

National administrations provided details on the number of active PECs over the last five years (e.g. 2007 – 2011). There are no clear trends between 2007 and 2011 – PECs have increased in some countries and decreased in others. Based on the information obtained during the survey there were around 8,150 PECs in 2011 (excluding the number of PECs in Malta and Portugal as this information was not obtained from the national administrations).

Table 45 presents a comparison of PECs active in 2011 with the number of PECs in 2007, and the number reported in the 1995 Pilotage Study Report.

Table 45 – PEC trends over the last 15 years[59]

Country	2011	2010	2009	2008	2007	1995[60]	Change in last 5 years	Change in last 15 years
Belgium	112	107	103	9	8[61]	0	▲	▲
Bulgaria	3	9	1	0	0		▲	
Croatia	0	0	0	0	0		—	
Cyprus	0	0	0	0	0		—	
Denmark[62]	158	167	182			0		▲
Estonia[63]	28	27	40	47	62		▼	
Finland	857	1,185	1,405	1,659	1,900		▼	
France	224	228	236	236	233	500-1,000	▼	▼
Germany[64]	1,267	1,269	1,180			20		▲
Greece	0	0	0	0	0	0	—	—
Ireland	113	118	111			80		▲
Italy	0	0	0	0	0	0	—	—

[59] Shaded cells indicate that national administrations were not able to provide the data/countries not included in the 1995 Pilotage Study Report analysis.

[60] EU Maritime Pilotage Study 1995

[61] Under Scheldt Rules only.

[62] A person with a Danish PEC can have several PEC areas on his/her PEC. Data were also provided on the number of PECs relating to harbours, bridges and channels and coastal areas respectively.

[63] Defined as 'issued' rather than 'active' PECs in the response.

[64] Figures for Germany include also PEC issued by Hamburg and Bremerhaven.

Country	2011	2010	2009	2008	2007	1995[60]	Change in last 5 years	Change in last 15 years
Latvia	29[65]	23	21					
Lithuania	40	35	31	28	34		▲	
Malta	4	0	0	0	0		▲	▲
Netherlands	315[66]	317	309	203	191[67]	60	▲	▲
Norway	2,800	2,800	2,800	2,866	2,904		▼	
Poland	213	198	245	234	140		▲	
Portugal[68]	5	5	5			0		▲
Romania	0	0	0	0	0		—	—
Slovenia	0	0	0	0	0		—	
Spain	375[69]	375	375			0	▲	▲
Sweden	1,200	1,100	1,200	1,200	1,100		▲	
UK	815					1,000		▼
UK – Belfast	56	71	68	69	63		▼	
UK –Forth	8	10	7	7	12		▼	
UK – Tees	20	20	15	18	19		▲	
UK–Southampton	106	108	119	113	119		▼	

Legend: ▲*=increased;* ▼*=decreased;* — *= steady.*

2.8.2.2 *Pilots and pilotage missions*

Information was obtained from national administrations on the number of pilots, pilotage missions, and missions exempted from pilotage, whether due to a PEC being held by the Master or for other reasons.

Statistics gathered relating to the number of pilots, pilotage missions and exempted missions is presented in Appendix C.

Based on the data obtained for 2011, a pilot is, on average, responsible for conducting around 320 pilotage missions per year. The data obtained indicates, however that the number of pilotage missions per pilot is

[65] Ventspils – 24; Riga – 5.

[66] Scheldt region – 94; Rotterdam Rijnmond region – 143; IJmond region – 78.

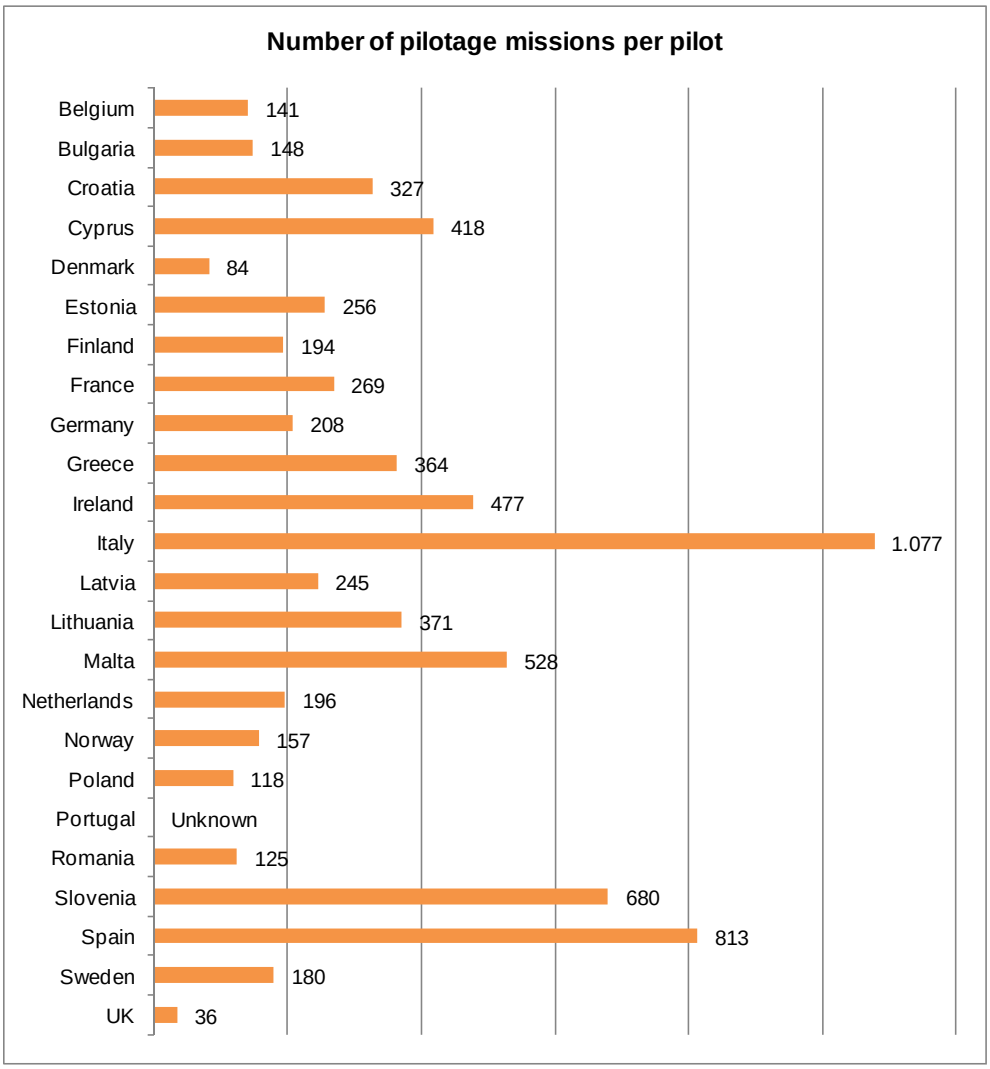
[67] Scheldt region – not available; Rotterdam Rijnmond region – 140; IJmond region – 51.

[68] Estimation of number of PECs for 2011, 2010 and 2009 based on discussion with Associação dos Pilotos de Barra e Portos.

[69] Circa.

significantly higher in Italy[70], Spain, Slovenia and Malta, with more than 500 pilotage missions per pilot – while in Denmark a pilot conducts only 84 pilotage missions during the year.

Figure 29 – Average number of pilotage missions per pilot (2011)



2.8.2.3 *Pilotage missions compared with exempted missions*

Based on the information provided by national administrations, there are significant numbers of pilotage missions carried out in Italy, Spain, the Netherlands, France and Belgium, compared with other countries.

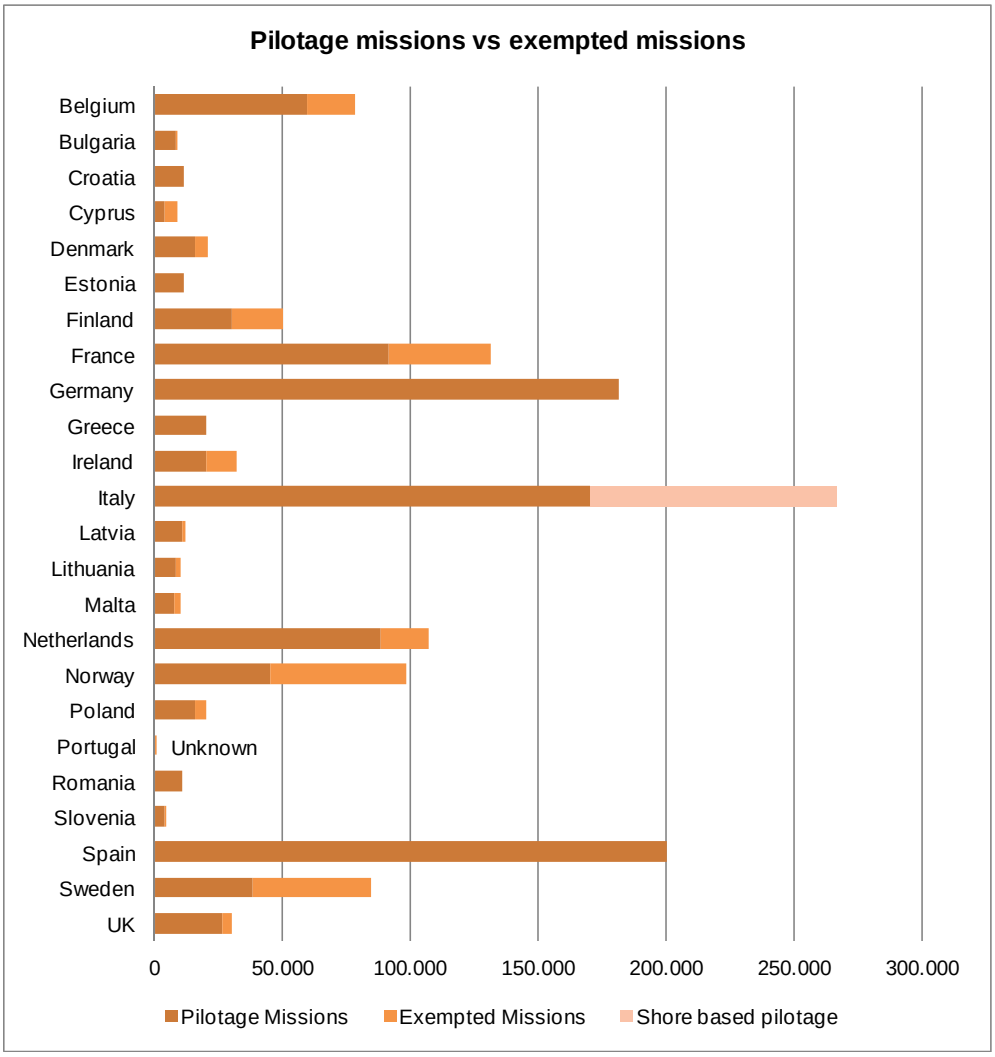
In Norway and Sweden the number of exempted missions exceeds the number of pilotage missions that took place in 2011.

In Germany the number of exempted missions is unknown, however, it was reported that the number of exempted missions in 2011 in the port of Hamburg were 5,019.

In Italy the number of pilotage missions carried out from shore via VHF is about 36% of the overall pilotage missions. Shore-based pilotage services are available also in another 12 countries although only as additional support or when the safety conditions are not good for pilot boarding.

[70] This figure includes the pilotage missions carried out from shore via VHF.

Figure 30 – Comparison of pilotage versus exempted missions (2011)[71]



2.8.2.4 *Missions exempted from pilotage due to PEC*

Taking into account the total number of missions exempted from pilotage, national administrations provided information as to the nature of those exemptions, whether they are PEC related or for other reasons.

It is clear that PECs account for a high proportion of exempted pilotage missions – in Bulgaria, Denmark, France, Latvia, Lithuania, Poland and Sweden 100% of exempted pilotage missions are PEC exemptions, compared with 96% in Norway, circa 95% in Ireland[72], 84% in Finland and 53% in Belgium.

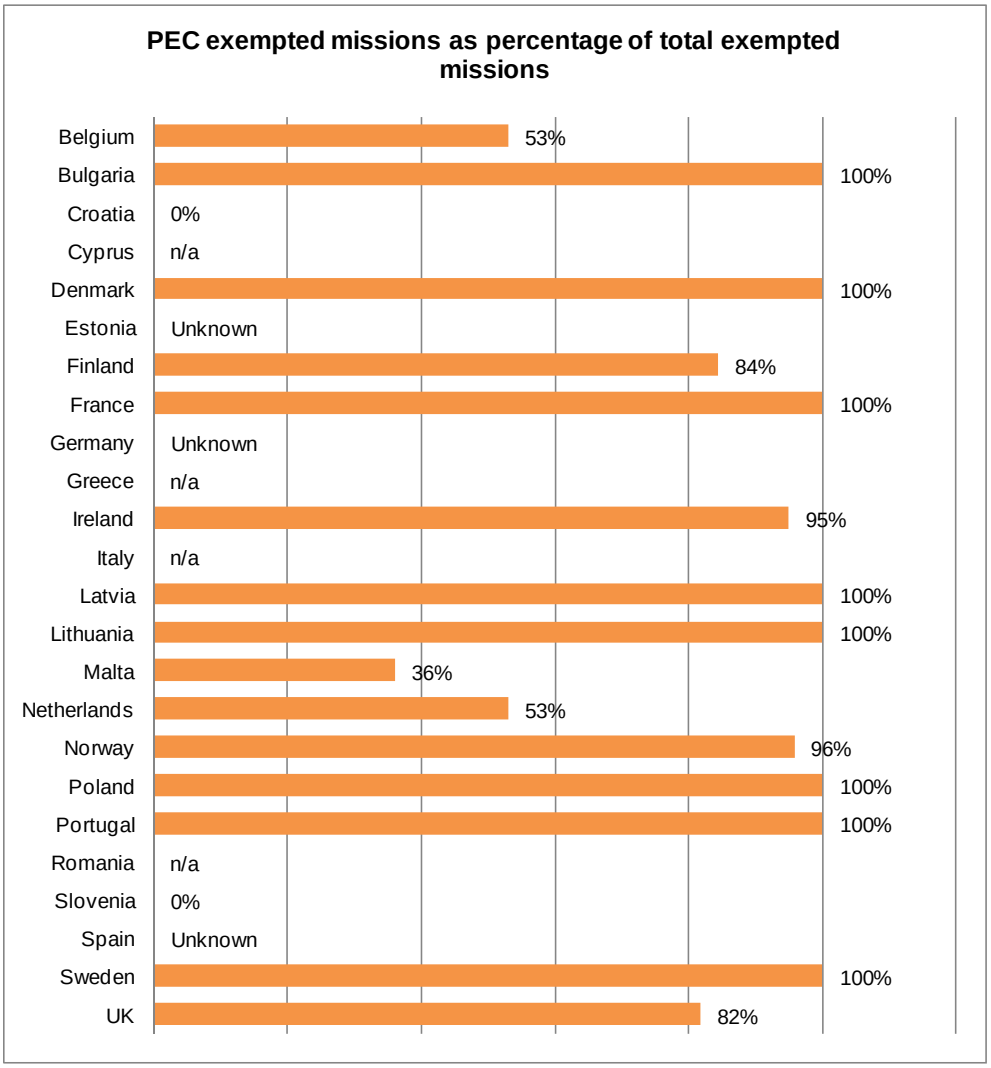
In the Netherlands on average at a national level the split between PEC and other types of exemption, for example inland shipping vessels or exemption based on length vessels, is almost 50/50. However, this split varies considerably at a local level. For example in Amsterdam – North Sea Canal, 84% of exemptions are due to PECs being in place, while in the Rotterdam – Rijnmond area, 68% of exemptions are PEC related.

[71] Exempted missions – no data available for Estonia, Germany, Portugal and Spain/pilotage missions – no data available for Portugal.

[72] Dublin is the major port in Ireland, where the majority of exempted pilotage missions occur. Based on discussion with AMPI, only a small number of exempted pilotage missions for reasons other than the Master holding a PEC take place.

In the UK data were obtained for four ports only (Belfast, Forth, Tees and Southampton) with regard to the number and nature of exemptions. An average was calculated, indicating that around 80% of exemptions across these ports were PEC exemptions.

Figure 31 – PEC exempted missions as percentage of total exempted from pilotage (2011)



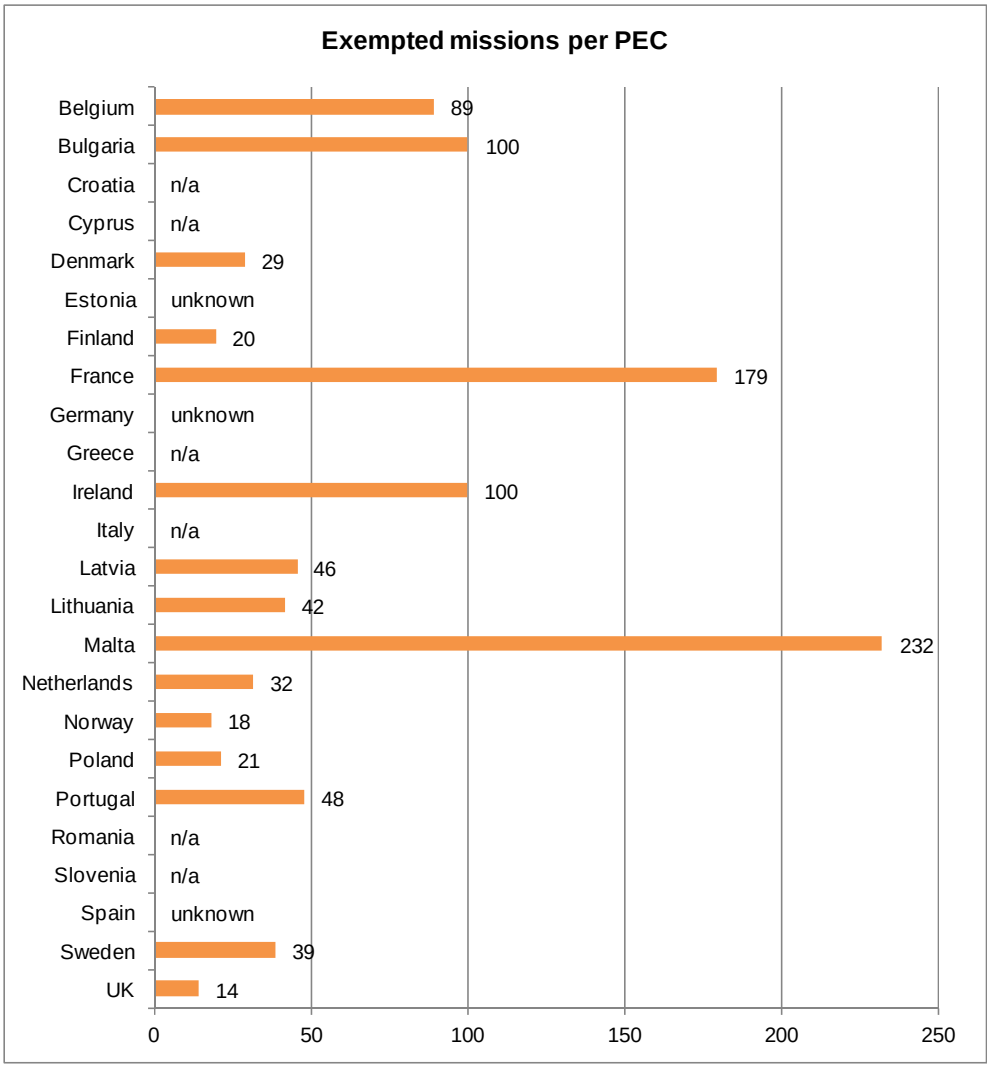
2.8.2.5 PEC holders and exempted missions

Taking into account missions exempted from pilotage on account of a PEC being held by a Master, it is clear that the number of missions per PEC holder is high in certain countries – for example in Malta there are circa 230 missions per PEC holder in 2011. PEC holders in France each execute on average 179 missions per year, which could, for example, equate to almost two port calls per week, while a PEC holder in Ireland or Bulgaria executes on average 100 missions per year. In Latvia, Lithuania, the Netherlands, Portugal and Sweden a PEC holder conducts on average between 30 and 50 missions per year.

In terms of frequency, most PEC holders are calling at least once per month, if not more frequently. Based on the data gathered, frequency is slightly less than once per month in Finland, Norway, Poland and the UK.

Figure 32 presents the number of missions per PEC holder, excluding all countries where data were not available or where there are no active PECs.

Figure 32 – Number of exempted missions per PEC holder (2011)



2.8.2.6 Nature of PECs

Some additional information provided by respondents suggests that a large number of PECs are issued to types of vessels that make regular calls at ports, particularly passenger and freight RoRo ferries, and vessels that are operating frequently at a local level. One exception to this is in Estonia where PECs are issued on a harbour basis and are not linked to a type or size of vessel.

Table 46 –Information regarding the nature of PECs issued

Country	Survey response
Bulgaria	In Bulgaria, where a separate PEC is required for each vessel, there are only a small number of PECs active, which are for either ferry or bunker vessels. The ferries call at Bulgarian ports approximately once per week, while the bunker vessels operate locally between Varna and Burgas.
Denmark	In Denmark, PECs can be categorized by the nature of the area that they apply to: sailings to ports, fjords and bridges, or sailings to pilotage areas. The majority of PEC sailings are to pilotage areas, in 2011 of the 4,570 exempted missions, 65% (2,980) of these were for PECs sailing into pilotage areas.

Country	Survey response
Estonia	Generally all Masters on ferries calling at Estonian ports have PECs in place, as well as a number of coasters on routes between Estonian/Finland/Sweden. The key aspect of PECS in Estonia is that they are issued on a harbour basis, rather than by vessel – this means that a Master can obtain a PEC and use it for different types and sizes of vessel. This situation has only been in place for around one year[73].
Ireland[74]	The majority of PECs issued are for passenger ferries, RoRo ferries and container ships, mostly on the short Irish Sea routes. There are a significant number of ferry movements per day. PECs are also issued to vessels visiting once or twice per week from other EU ports: these vessels are generally container vessels as well as some large RoRo vessels. Tankers are usually excluded. Many Masters have several PECs, for example on the Liverpool – Dublin route a Master would need both and the Liverpool PEC is notoriously difficult to obtain. Usually PECs are issued for one vessel or a similar sister vessel sometimes to a certain area or berth in a port in some ports, and always to a named individual for a specific period, whether they be Master or not of the vessel. A Master's employment may well depend on him obtaining and keeping a valid PEC for which he will get paid usually a very small proportion of the pilotage and/or pilot boat fee. The amount paid varies greatly and often seems to depend on the nationality of the Master or PEC holder acting as person in charge.
Lithuania	Exemptions from pilotage where a Master has a PEC are generally for RoRo passenger vessels, which are travelling frequently to and from Lithuania.
Portugal	In Portugal there are only a few PECs active for the port of Lisbon for cargo vessels that operates weakly services in connection with Azores and Madeira islands.[75]
Sweden	In Sweden, Masters on the majority of frequent passenger ferry services have PECs – and a PEC can be used for sister vessels. Many of such ferry services run daily, even several times per day, for example on routes between Sweden and Denmark. Of the 46,400 exempted missions due to PEC 34,000 of these were for ferry vessels. PECs are also issued to Masters of cargo vessels (e.g. coasters or RoRo freight vessels) – these generally call frequently at Swedish ports. The cost of PEC is relatively high and thus only those shipping lines with vessels calling relatively frequently tend to apply for PEC. There is generally a high pass rate of PEC exams – this is likely due to the fact that the majority of applicants have been making frequent passages on the fairways, etc., in question. As the majority of PEC holders are frequently travelling in and out of ports, they are able to assess when ready to pass the exam.

2.8.3 Rationale for pilotage exemptions

The main rationale reported is that of safety – a number of countries reported that decisions regarding pilotage exemptions are made based on safety grounds.

One or two national administrations carry out analysis of accidents and undertake consultation with stakeholders in order to establish exemptions.

In Norway, exemptions may be allowed for a single journey or a specific vessel – this is done in specific circumstances, and in light of an individual risk assessment undertaken by the local chief executive pilot. Similarly in Slovenia an exemption can be given on a case by case basis taking into account the type of ship and the experience of the Master.

[73] Information based on discussion with the Estonian Maritime Pilot Association.

[74] Information provided by AMPI.

[75] Based on discussion with Associação dos Pilotos de Barra e Portos.

Table 47 – Underlying rationale for decisions on pilotage exemptions

Country	Rational for pilotage exemptions
Belgium	Royal Decree of June 8th 1971. PECs can be issued to Captains who are familiar with the route on similar vessels, who pass an ability test. In harbours, the Harbour Master's Office decides to issue PECs taking into account strict safety criteria.
Bulgaria	The exemption from pilotage in Bulgaria is based on the principle of safety of navigation in the ports of Varna and Burgas.
Croatia	Not relevant.
Cyprus.	To improve safety and reduce risks. Based on size, regular use, familiarity with the port, non-commercial activity.
Denmark	Decisions on exemptions (e.g. deeming it not necessary to use a pilot for certain ship types, cargos, areas, etc.) are based on feasibility studies, reports from ships and pilots, a general assessment of the area, etc.
Estonia	Mainly study of the probability of accidents with vessels of a certain size.
Finland	Accident statistics, risk analysis.
France	Regulations applicable to the Captain-pilot license are based on experience and practice. As it is constantly updated, it has not been necessary to change the system.
Germany	PEC may be approved on the basis of consideration of vessel size and available space, potential danger to the environment and shipping. Requirements for obtaining a PEC are in general: the knowledge of specific conditions, rules and situation of the sea area respectively river, canals or ports, and experiences in ship handling and navigating in the respective area. Also accidents in former times with the ship and the Master are considered. The terms will be verified by the Waterways and Shipping Directorates and their District Offices. The terms are set in Hamburg by the Hamburg Port Authority, while in Bremen/Bremerhaven they are set by the Hansestadt Bremisches Hafenamt – Harbour Master.
Greece	Safety. These exemptions have been provided on the basis that those particular vessels do not threaten the safety of the vessel, port, environment and human life.
Ireland	Determined by the individual port companies.
Italy	Exemptions are based on objective criteria and these are the same in all Italian ports (for example vessel dimensions and nature of activity/service performed in the port).
Latvia	According to the Regulations concerning pilots it is stated that the Harbour Master in a pilotage service area may exempt a ship from pilotage services and issue a PEC. In exempting a vessel, the Harbour Master considers how often a vessel arrives at the port, the level of knowledge that a Master has with regard to navigation aids, the communication systems, depth and flows and port regulations.
Lithuania	Decided by the Ministry of Transport and Communications while preparing Klaipeda State Seaport Shipping Rules after proper consultation with maritime professionals and other parties concerned.
Malta	Exemptions are provided by Law for certain types of vessel. With particular regard to high speed crafts, exemptions are based on two considerations. First of all, high speed crafts do not usually have all equipment that is needed for the safe embarking/ disembarking of a pilot. Secondly, high speed crafts usually call frequently at the port.

Country	Rational for pilotage exemptions
Netherlands	Exemption policy is based on a professional qualitative (risk) assessment, substantiated, if possible, by statistical information. It focuses on aspects of the ship, port, fairway, Captain, personnel, the environment and navigational developments. For example, characteristics of the fairway, tidal flows, depth, etc., environmental considerations, the outlay of the port, the manoeuvrability of ships, the experience, knowledge and training of Captain and crew, and VTS. As a result exemptions may vary between ports.
Norway	Apart from the issuance of PECs, exemptions may be allowed for a single journey and a specific vessel by regulation. This is done in specific circumstances, and in light of an individual risk assessment undertaken by the local chief executive pilot.
Poland	Technical/safety. The level of difficulty in manoeuvring depending on the port's manoeuvrability characteristics.
Portugal	No information provided/available.
Romania	n/a
Slovenia	The Slovenian Maritime Administration has the discretionary right to assess and approve a possible exemption from pilotage. The decision is made on a case by case basis taking into account the type of vessel and the experience of the Master for manoeuvring in the pilotage area. There are no formal guidelines regarding procedures for approving pilotage exemptions, but the following applies: - Pilotage shall not be compulsory for ships used for administrative purposes and for Slovenian navy vessels; and - Pilotage shall not be compulsory for ships under 500 GT or for ships designated on a case by case basis by the Slovenian Maritime Administration taking in account the type of the ship and Master's experience.
Spain	The Directorate General of Merchant Marine may establish exemptions to compulsory pilotage service utilization in a port or a group of ports. The basis for exemption from pilotage is the prevention of accidents, experience/knowledge of Captain, and nonetheless manoeuvrability of the vessel. The exemptions are granted taking into account the number of entries and exits in the port, the time of command of the Captain in the ship, the knowledge of the port, lights, sensors, etc., technical conditions of the ship, the existence of a control system and information VTS to ships.
Sweden	Safety and accessibility. Given the intense ferry traffic and considering the balance between maritime safety and accessibility to Swedish ports, PEC is a well-functioning system to maintain a high safety level and accessibility.
UK	The system of PECs was introduced following a review in 1911 which identified that the haphazard local rules for allowing Masters not to use pilots on payment of a fee was not based on safety. It was accepted that frequency of passage made a system of exemption desirable but that it should be dependent on examinations. Tees: CHA risk assessment on vessel size and cargo. Milford Haven: Risk based approach based on accident/incident data and mix of vessels and cargo types.

2.8.4 Entities responsible for granting PECs

PECs are generally granted either by Harbour Masters (at port or State level) or Government departments or agencies.

In Ireland, Portugal and the UK, the ports acting as CHAs are responsible for issuing PECs.

Harbour Masters at ports in Croatia, Latvia and Lithuania issue PECs while in the Netherlands it is the responsibility of the State Harbour Master and in Malta the Chief Officer of the Ports and Yachting Directorate has the function of Harbour Master at a national level. In Poland, the Harbour Master is part of the Maritime Office that is responsible for issuing PECs.

In France, there are Government representatives at regional level responsible for issuing PEC, though this is done in consultation with a local Board made up of representatives from ports and other stakeholders such as shipping companies and pilot organizations.

Table 48 –Entities responsible for granting PECs

Country	Entities responsible for granting PECs
Belgium	Agency for Maritime and Coastal Services. Specifically: Pilotage Decree: the head of the Shipping Assistance Division signs the declarations of exemption. Revised Scheldt Rules: the Joint Nautical Authority signs the declarations of exemption. In the Port of Antwerp: Port Authority and Harbour Master.
Bulgaria	Executive Agency Maritime Administration.
Croatia	Harbour Master Officers.
Cyprus	PECs are not applicable, but if they were, the entity responsible for issue would be Cyprus Ports Authority.
Denmark	Danish Maritime Authority can issue a PEC.
Estonia	Estonian Maritime Administration.
Finland	Transport Safety Agency.
France	The PEC is issued by the Prefect of the Department (State representative in the Department) after consultation with the local Board. The local Board is governed by the Ministerial Decree of 18 April 1986. It comprises: the departmental director of the territories and the sea, or his representative (decentralized service of the State representing the Prefect of the Department), the representative of the appointing authority of port police, an officer of the port, a pilot in service in the station, a representative of ship Captains, and in military ports director of the military port.
Germany	Each competent authority within its regional competency, e.g. for federal waterways the regional Waterways and Shipping Administration (Waterways and Shipping District Offices). In Hamburg the Harbour Master's Division of the Hamburg Port Authority is responsible, while in Bremen/Bremerhaven the Hansestadt Bremisches Hafenamt – Harbour Master – is responsible.
Greece	PECs are not applicable, but if they were, the entity responsible for issue would be the Ministry of Development, Competitiveness and Shipping in accordance with the Act of pilotage.
Ireland	Currently the only issuing bodies for PECs are the seven State port companies which have pilotage districts. These companies are: Dublin, Cork, Shannon Foynes, Waterford, Galway, Drogheda and New Ross. The entity responsible for issuing PECs is the Port Authority and/or Harbour Master. The Minister does have powers to create new pilotage districts (section 79 of the Harbours Act 1996 as amended) and if he does so he must designate a 'specified person' to be responsible for the organization of pilotage in the new district who would have the same powers as one of the State port companies in respect of pilotage. However, no such new district has been created since enactment of the Act in 1996.
Italy	PECs are not applicable in Italy. VHF pilotage (e.g. shore-based pilotage) fulfils the same functions but with higher safety guarantees and similar costs.

Country	Entities responsible for granting PECs
Latvia	Harbour Master.
Lithuania	The Harbour Master's Office is part of the Port Authority, a state company. The administration of PEC is the Harbour Master's duty. He manages the process of issuing and monitoring PECs.
Malta	The Authority for Transport in Malta is responsible for granting PECs in Malta. The Chief Officer of the Ports and Yachting Directorate of the Authority for Transport in Malta also has the function of Harbour Master at a national level.
Netherlands	State Harbour Master.
Norway	The NCA regional office Western Coastal Administration (centre for pilotage and VTS) handles all PEC applications covering all of Norway.
Poland	Director of relevant Maritime Office; for renewal of PEC. Relevant Harbour Master who is also a part of Maritime Office.
Portugal	The Port Authorities are able to issue PECs on the mainland, while in the Azores and Madeira, the competent bodies of the respective regional Governments issue PECs.
Romania	PECs are not applicable.
Slovenia	Slovenian Maritime Administration is the competent authority responsible. Currently there are no PECs granted – it is not defined how and on what grounds a PEC may be granted.
Spain	The Directorate General of Merchant Marine.
Sweden	Swedish Transport Agency (STA).
UK	CHAs. The Harbour Master (or nominated deputy) within the CHA often has responsibility. In one instance a Committee of three persons chaired by the Harbour Master with pilot and independent mariner is responsible (Milford Haven).

2.8.5 *Limitations to PECs*

National administrations provided detailed information on the circumstances in which a PEC may or may not be granted, alongside the requirements that must be met in order to obtain a PEC. While the responses to these questions overlap in some cases, it is useful to note the information collated.

In a number of countries a whole range of criteria are considered, in order to assess the potential risks.

One criterion, which varies considerably between countries, is whether a PEC is issued for a specific vessel or not. For example,

- In Bulgaria and France, the PEC is only valid for a particular vessel in a defined pilotage area;
- In Denmark, Lithuania and Sweden a PEC can be used on a sister or similar vessel; and
- A PEC is granted for the harbour in Estonia and can be used for more than one vessel. No information was obtained to suggest that these vessels must be similar.

In Sweden a supplementary PEC can be extended to include other vessels. An evaluation is undertaken to understand if the vessel applied for has the same dimensions: if it does not then an additional practical exam must be sat.

With regard to other limitations, PECs are often not issued for vessels carrying dangerous goods, or for specific vessel types or specified length of vessel, or if a tug is required.

Weather conditions are also taken into account, with visibility and wind cited as key criteria determining the issuance of a PEC.

Table 49 – Limitations to granting PECs

Country	Limitations
Belgium	Firstly, the Master, the one who wishes to obtain the PEC, must be a Captain. This Captain needs to be working in employment on the vessel for which the PEC is requested, either as Master or as a qualified officer. Harbours: PECs cannot be used in case of visibility less than 1,000 metres, wind speed more than six bft (constant) or if the ship does not have a functioning bow thruster.
Bulgaria	The PEC is only valid for a particular vessel in a defined pilotage area.
Croatia	There is a slight difference in requirement for persons operating ships under 50 metres LOA, and those above 50 metres LOA.
Cyprus	n/a
Denmark	A PEC is granted to a navigator for a specific geographical area and can include more than one ship, for example, a sister ship or similar ship.
Estonia	A PEC is only issued for a harbour and can be used with more than vessel. It is not possible to have a PEC issued for a specific vessel.
Finland	A PEC cannot be granted for ships carrying dangerous or harmful cargo.
France	The PEC is granted to a given Captain of a specific ship and for a given area. These conditions may be more stringent and be linked to weather conditions (wind limit), use of tugs, and ship manoeuvring ability, for example. The Regional Prefect specifies the categories and LOA of vessels for which a PEC can be issued. Tankers carrying oil (MARPOL 73 Annex I) and ships carrying dangerous substances are not eligible. However, depending on the configuration of the port and nature of traffic, a derogation may be granted by the Prefect of the Department (after consultation with the local Board) to the Captain of a bunkering or refuelling ship meeting the PEC requirements.
Germany	Generally there are no limitations. Higher requirements concerning ship dimensions in the case of tankers transporting determined dangerous goods. Extraordinary tows and extraordinary large vessels excepted.
Greece	n/a
Ireland	A PEC may be granted subject to such conditions as the company concerned thinks fit. Conditions can therefore be part of a port company's Bye-Law regime. As an example the Port of Galway does not grant PECs to vessels carrying petroleum. Generally PECs are not usually granted to vessels with hazardous cargo in bulk (e.g. tankers), although the Harbour Master retains authority to insist on a vessel taking a pilot[76].
Italy	n/a

[76] Additional information provided by AMPI.

Country	Limitations
Latvia	Riga: limitations can be defined by the Harbour Master based on maritime safety considerations in the port. Ventspils: limitations of granting PECs for tankers.
Lithuania	PECs are available for liner ships and ships carrying regularly the same type of cargo at the port of Klaipėda – size not limited.
Malta	PECs are available only for Master serving on passengers high speed crafts.
Netherlands	The 'extra' exemption is limited by the length of the ship. A general PEC is unlimited. Ships carrying dangerous cargo cannot obtain a PEC; these ships always require a pilot. If the safety situation so requires the State Harbour Master can overrule the exempted ship Captain and demand a pilot to be taken on board.
Norway	There is a general limitation that PECs cannot be issued to vessels of 150 metres or more LOA or to nuclear powered vessels. Furthermore vessels of 70/90 metres LOA carrying dangerous or polluting cargo may not use their PEC (can only be used when not carrying cargo and properly cleaned).
Poland	Granting of exemptions is limited by the type of cargo on board, geographical area and vessel size. Weather criteria limitations depending on vessel's size and the need for tug assistance. The areas are described for which the PEC is valid. In most cases for the whole port area, occasionally for main fairways and specified parts of the port.
Portugal	PEC holders cannot use their certification to command vessels carrying cargoes of certain type, namely dangerous goods. The PEC is limited to vessels with a maximum gross tonnage.
Romania	n/a
Slovenia	Currently there are no PECs granted – it is not defined how and on what grounds a PEC may be granted.
Spain	A PEC is limited to 200 MT of dangerous goods and the exemption is not granted for transporting especially dangerous goods, vessels with insufficient means of propulsion, ships without a backup of water under the keel of at least 10% of the draft, vessels for which the Harbour Master considers that it is particularly difficult to navigate or manoeuvre and berthing at docks authorized for storage of dangerous goods.
Sweden	Some specific vessels may not be granted exemption. There is no exact limitation for exemption in each fairway. An individual Safety Assessment is made for each application. Aspects to be considered are for example, ship size, manoeuvrability, manning, cargo and Master's certificates. With regard to the issue of PECs a Master can apply for more than one vessel in his application. Generally a PEC can apply to sister ships as long as the dimensions are similar. A Master can ask for an additional vessel to be added to his PEC – if the ship is different, then a further practical exam might be required. An evaluation of the ship is undertaken and then a decision made on whether this is required or not.
UK	Not in the Act, though a CHA may apply to the UK Government to refuse to grant PECs for its harbour area for periods of no more than three years at a time should it consider there are unusual hazards involved in shipping movements.

2.8.6 *Qualification and requirements for obtaining a PEC*

With regard to obtaining a PEC there is a number of requirements that need to be met by the applicant. Information has been gathered on the following potential requirements:

- Valid license as Master or Chief Officer;
- Medical certificate;
- Frequency of manoeuvres;
- Examination requirements;
- Language requirements; and
- Any other requirements stated by respondents.

Table 50 presents a summary of requirements at a high level. The following paragraphs provide a more detailed description of the requirements in each country, based on the information provided by national administrations, as well as publicly available information.

Table 50 – PEC requirements–summary

Country	Certification			Manoeuvres per year			Exam			Language		
	Master	Chief Officer	Medical	0–15	16 – 30	>30	Written	Oral	Practical	National only	National / English	English only
Belgium[77]	✓	✓	✓ and x[78]			✓		✓	✓			✓
Belgium[79]	✓	✓	✓			✓		✓	✓	✓		
Bulgaria	✓		✓	✓			✓	✓	✓		✓	
Croatia	✓	✓	✓	✓				✓	✓	✓		
Denmark	✓	✓		✓	✓	✓		✓			✓	
Estonia	✓[80]	✓ and x[81]	✓	✓			✓		✓		✓	
Finland	✓	✓		✓	✓		✓		✓		✓	
France	✓	✓	✓			✓	✓		✓	✓		
Germany	✓	✓		✓			✓			✓		
Ireland	✓	✓		✓[82]	✓[83]			✓				✓
Latvia	✓				✓		✓				✓	
Lithuania	✓		✓	✓			✓				✓	
Malta	✓			✓				✓				✓
Netherlands[84]	✓	✓	✓		✓		✓ and x[85]	✓	✓			✓

[77] Under Pilotage Decree.

[78] Not yet required.

[79] Under Revised Scheldt Rules.

[80] For cargo ships.

[81] Only for passenger ships.

[82] Port of Cork, for vessels with a LOA less than 60 metres.

[83] Port of Cork, for vessels with a LOA greater than 60 metres.

[84] The Dutch Directorate of Maritime Affairs did not provide information on this topic. The information presented for the Netherlands refers to the Port of Rotterdam and has been sourced by "Harbour Master Port of Rotterdam, *Port Information Guide*, 1 March 2012." The information on the type of examination required concern general country provisions which have been extracted from "Decree PEC Shipping Traffic Act/Besluit verklaringhouders Scheepvaartverkeerswet (Stb, 1995, 396)."

Country	Certification			Manoeuvres per year			Exam			Language		
	Master	Chief Officer	Medical	0–15	16 – 30	>30	Written	Oral	Practical	National only	National / English	English only
Norway	✓	✓		✓				✓	✓			✓
Poland	✓	✓	✓	✓			✓				✓	
Portugal[86]	✓				✓			✓		✓		
Spain	✓	✓			✓		✓		✓	✓		
Sweden	✓	✓ and x[87]	✓	✓			✓		✓		✓	
UK	✓	✓ and x[88]	✓		✓		✓	✓				✓

[85] The written exam is not always required.

[86] Based on discussion with Associação dos Pilotos de Barra e Portos.

[87] If applicant holds a certificate for Chief Officer/Second Officer during service on the vessel and obtaining a master certificate.

[88] Chief Officer Certificate is not accepted in Tees but it is accepted in the majority of the UK ports.

2.8.6.1 Master and Chief Officer Certification/License

Across all countries a PEC applicant is generally required to hold a Master's license or certificate.

There are some variances regarding terminology: for example in Bulgaria a valid 'Certificate of Competence' is required, and in Norway a 'valid navigator's certificate, any class is required.

With regard to nationality, in Bulgaria the Certificate of Competence must be issued or recognized by the Executive Agency Maritime Administration (EAMA), while in France, the Master must have a license issued in France or recognized by France.

In Estonia a Master is required for cargo ships, while a Chief Officer certificate is sufficient for passenger ships only.

In Germany a Chief Officer's licence is required in all ports apart from Hamburg and Bremen/Bremerhaven.

In Ireland the Act which governs most ports states that the requirement is that the applicant must hold a STCW[89] certificate (also a requirement in Belgium under the Revised Scheldt Rules). However, it is the case that the PEC is normally held by the person in charge who is usually the Master or mate (Chief Officer).

In five countries (Bulgaria, Latvia, Lithuania, Malta and Portugal) a Chief Officer is not able to obtain a PEC. In Sweden and the UK a Chief Officer may be able to obtain a PEC under certain circumstances:

- In Sweden, if the applicant holds a certificate for Chief Officer and may obtain a Master's certificate while in service on the vessel the applicant may be granted an exemption – though an exemption may only be used if the Master on board holds an exemption; and

- One port in the UK indicated this also, which suggests that there may be other CHAs in the UK where this is also the case.

2.8.6.2 Medical Certificate

Evidence of medical fitness, generally by a medical certificate is required in most countries. However, it is also the case that this evidence is provided indirectly in some instances: e.g. the medical certificate is a requirement of, for example the Master's license which itself is a requirement for the PEC application.

It was reported in five countries that a valid medical certificate is either required indirectly, or not required – as it is a requirement of, for example, the Master's certificate (Germany, Spain), the STCW certificate (Ireland), Certificate of Competence (Denmark) and Navigator's Certificate (Norway).

A medical certificate is reported as not being a requirement for PEC in six countries (in Belgium, under the Pilotage Decree, Finland, Latvia, Malta, Portugal and Norway).

All other countries indicated that a medical certificate is required (Belgium under the Revised Scheldt Rules, Bulgaria, Croatia, Estonia, Ireland, Lithuania, Poland, Sweden and the UK).

Where certification is required, there are specific criteria set in some countries – for example in Bulgaria it must be issued by an authorized facility, while one port in the UK stipulates that the certification must come from a registered practice in the UK. In France, the certificate must be issued within the preceding three months.

Table 51 describes which types of Master certificates are accepted, whether a Chief Officer certificate can be accepted in place of a Master certificate and finally whether a medical certificate is required.

[89] Standards of Training, Certification and Watchkeeping.

Table 51 – Certifications required and or accepted for obtaining a PEC

Country	Valid certificate – Master	Valid certificate–Chief Officer	Valid medical certificate
Belgium Pilotage Decree	Yes–STCW Captain. Antwerp: Licenced Master.	Yes–STCW qualified Officer.	Not yet required.
Belgium – Revised Scheldt Rules	Yes–STCW Captain.	Yes–STCW qualified Officer.	Yes.
Bulgaria	Yes–valid Certificate of Competency issued by Executive Agency Maritime Administration. If certificate issued from foreign administration –it needs to be recognized by Executive Agency Maritime Administration. Persons who hold a valid pilot's license according to Article 40 Item 3 of Ordinance No. 6 do not need to fulfil the requirements of application.	No–not accepted, only Master's certificate.	Yes–medical fitness certificate issued by an authorized medical facility according to Ordinance No. 6.
Croatia	Yes.	Yes.	Yes.
Cyprus	n/a	n/a	n/a
Denmark	Yes.	Yes.	Yes – indirectly. Applicant must have a valid certificate of competence, which requires a medical certificate.
Estonia	Yes–for cargo ships.	Yes–for passenger ships only.	Yes.
Finland	Yes–position as Master.	Yes–position as Officer.	No.
France	Yes–must have a license issued in France or recognized by France.	Yes.	Yes – must meet the physical skills requirement, demonstrated by a medical certificate issued by the doctor of seafarers within the last three months.
Germany	Yes.	Yes – apart from in Hamburg and Bremen/Bremerhaven.	A valid medical certificate is required as part of the Master/Chief Officer license, part from in Hamburg where it is not required.
Greece	n/a	n/a	n/a

Country	Valid certificate – Master	Valid certificate–Chief Officer	Valid medical certificate
Ireland	Yes – Act states that must be qualified SCTW officer.	Yes – Act states that must be qualified SCTW officer.	May be a requirement by issuing ports. Medical Certificate is a requirement of STCW. Dublin: must satisfy the Harbour Master as to medical fitness, particularly eyesight, hearing and physical fitness in that they meet the standards required for the certification of Masters and Officers in charge of a navigational watch (STCW).
Italy	n/a	n/a	n/a
Latvia	Yes.	No–not accepted, only Master's certificate.	No.
Lithuania	Yes.	No–not accepted, only Master's certificate.	Yes.
Malta	Yes.	No–not accepted, only Master's certificate.	No.
Netherlands[90]	Yes.	Yes.	Yes.
Norway	Yes–valid Navigator's Certificate, any class.	Yes.[91]	No–this is a prerequisite of the navigator's certificate.
Poland	Yes.	Yes.	Yes.
Portugal[92]	Yes.	No–not accepted, only Master's certificate.	No.
Romania	n/a	n/a	n/a
Slovenia	n/a	n/a	n/a
Spain	Yes–Master or 1st Class Pilot of the Merchant Marine.	Yes.	No medical certificate is required. A medical certificate is already a requirement to be Master of the vessel.
Sweden	Yes.	No–not accepted, only Master's certificate.	Yes.
UK – Belfast	Yes.	Yes.	Yes.
UK – Forth	Yes.	Yes.	Yes.

[90] The Dutch Directorate of Maritime Affairs did not provide information on this topic. The information presented for the Netherlands refers to the Port of Rotterdam and has been sourced by "Harbour Master Port of Rotterdam, *Port Information Guide*, 1 March 2012."

[91] It is assumed that 'valid navigator's certificate, any class' includes the equivalent of Chief Officer.

[92] Based on discussion with Associação dos Pilotos de Barra e Portos.

Country	Valid certificate – Master	Valid certificate–Chief Officer	Valid medical certificate
UK – Tees	Yes.	No–not accepted, only Master's certificate.	Yes.
UK – Dover	Yes	Yes.	Yes.
UK–Southampton	Yes.	Yes.	Yes–evidence of medical fitness including eyesight. Must be qualified medical practitioner registered in UK or country where vessel registered.
UK–Milford Haven	Yes.	Yes.	Yes.
UK – Humber	Yes.	Yes.	Yes.

2.8.6.3 Frequency of manoeuvre

With regard to frequency of manoeuvre the requirement is often a specified number of 'passages' or 'calls' or 'manoeuvres' incorporating movements into and out of a specific port, within a specified time frame.

Figure 33 shows the number of manoeuvres per year required for obtaining a PEC: for these countries where the requirement in terms number of manoeuvres varies for different type of PEC, the chart provides the minimum and maximum requirement.

The number of passages required varies considerably – both the highest minimum and maximum requirements are in Belgium, and France. Also in Denmark and the UK the requirement for obtaining a PEC can be relatively high (40), but in these countries the requirement can fall to respectively 10 and 12 for different type of PECs.

In Belgium, for example, 25 in/25 out manoeuvres are required per year in the port of Antwerp (right bank). Even within Antwerp, the requirements vary as fewer manoeuvres are required on the left bank.

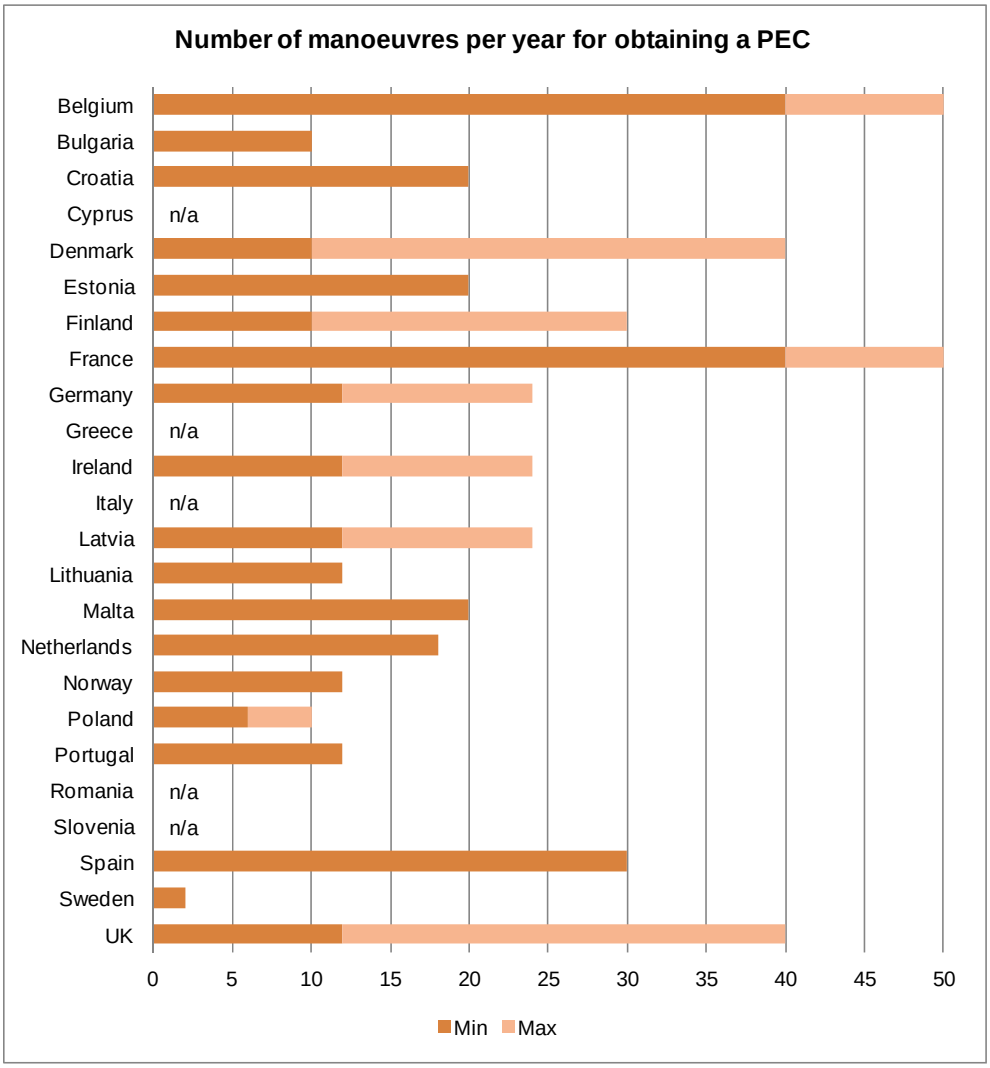
In Germany and Denmark there are different levels of frequency requirements: in Germany small ships are required to make six calls, while large ships are required to make 12 calls – the ports of Bremen and Bremerhaven have their own requirements which range from 12 calls to 48 calls per year depending on the size of vessel.

For some areas in Denmark there is a high requirement, but not in all: in Denmark there are four categories of area, for which different levels of frequency are required, based on degree of navigation requirements – e.g. the most complex to navigate requires a higher frequency of manoeuvre as part of the application (Area A requires 20 calls per year, which is 40 pilotage manoeuvres).Generally the requirement varies between 10 and 20 manoeuvres, while the specified time periods vary from three months to two years. In some instances national administrations indicated that a pilot must be on board at the time of these manoeuvres.

In Sweden the requirement is for two informational passages only: however it is up to the applicant to decide how many passages he requires to make in order to have a chance of passing the exam.

In Latvia and Norway the manoeuvres must be carried out in three months, while the requirement in Croatia is for a two year period. Generally the frequency requirements are for the preceding year to the PEC application.

Figure 33 – Number of manovers per year[93] for obtaining a PEC



2.8.6.4 Examination requirements

With regard to examination, this is a requirement across all countries – although the nature of the exam varies.

Twelve national administrations indicated that a written exam is required. In the UK there is often both a written and oral exam.

In eight countries there is reported to be an oral exam only. In Malta there is not a written or oral exam, but an interview process, which has been classed as an oral exam for the high level summary presented above. In Germany only Masters from larger ships are required to sit a theory exam, while those on smaller ships are only required to confirm their experience.

In most cases a practical exam is conducted in addition to either the written or oral exam, often involving a pilot on board, assessing the applicant. For example in Belgium an applicant must undertake three trial trips with an accompanying pilot and possibly examiner, with the results presented to a committee.

[93] In Latvia and Norway the manoeuvres must be carried out in three months, while the requirement in Croatia is for a two year period. Information on Ireland concern the Port of Dublin only: the manoeuvres must be carried out in six months. Information on the Netherlands concern the Port of Rotterdam only

The level of knowledge required for these exams varies between countries, firstly depending on whether or not a written exam is required and secondly, depending on the criteria that have been set in that country. While only limited information was gathered from national administrations on the actual contents of the exams, it is clear that in some countries the focus is on the practical ability of the applicant, while in others the applicant must have a detailed knowledge of regulatory, administrative and environmental aspects, as well as navigation.

Table 52 – Requirements for obtaining a PEC: frequency of manoeuvre and examinations

Country	Frequency of manoeuvres (e.g. in and out of port)	Written/theoretical exam
Belgium Pilotage Decree	Yes–24 in/24 out per year. Harbour of Antwerp: 25 in/25 out port per year (right bank) and 20 in/20 out per year (left bank).	Oral exam, with an examination committee, comprising a general part and a specific part. Harbour of Antwerp: written application. Three trial trips on route where practical knowledge is tested with accompanying pilot and possibly also examiner. Report is presented to committee. Practical experience in Harbour of Antwerp (20 or 25 in/out calls per year).
Belgium – Revised Scheldt Rules	Yes–24 in/24 out per year. Harbour of Antwerp: 25 in/25 out port per year (right bank) and 20 in/20 out per year (left bank).	Oral exam, with an examination committee, comprising a general part and a specific part. 3 trial trips on route where practical knowledge is tested with accompanying pilot and possibly also examiner. Report is presented to committee.
Bulgaria	Yes (frequency of manoeuvres)–not less than 10 manoeuvres under the command of the pilot on board the ship that will be granted the exemption.	Yes–must pass exam before Committee (established in accordance with Article 7 of Ordinance No. 6) which is part of a programme developed by BMPA and approved by the Executive Agency. The exam is theoretical and practical and has to be conducted according to approved examination criteria and programme. Examinations are conducted and documented.
Croatia	Minimum of 10 arrivals and 10 departures under the supervision of the pilot–in last two years.	Oral exam on safety of navigation, geography, hydrography, meteorology, ship manoeuvring, extraordinary events, navigation, order at sea and in ports, administration's oversight and marine environment protection. Practical exam on manoeuvre of vessel. There is no written exam.
Cyprus	n/a	n/a

Country	Frequency of manoeuvres (e.g. in and out of port)	Written/theoretical exam
Denmark	Yes–required number of calls for an area is stated in Executive Order no. 1201. The required number of calls per year depends on which pilotage area is in question. There are four categories of areas; "A", "A*", "B" and "C". "A areas" are often the areas that are most difficult and dangerous to navigate in, and C areas are the least difficult. An "A area" requires 20 calls per year, a "B area" requires 10 calls per year, and a "C area" requires a maximum of five calls per year. An "A* area" requires 20 calls per year, but is reduced to a "B area" (10 calls per year), after having a PEC for the pilotage area for five consecutive years.	Oral aptitude test conducted with pilot as examiner and an employee as censor from the Danish Maritime Authority, or appointed person.
Estonia	10 port calls in the last 12 months.	Exam is conducted by the Estonian Maritime Administration and consists of two parts, theory and practical. In Estonian.
Finland	Yes–cargo ship – 10 voyages/passenger ship – 30 voyages.	Yes–plus practical pilotage test.
France	Captain must complete a minimum number of missions during a given period. The number of missions and their periodicity are determined by local regulation decision-making. Overall, around 20 calls per year are required, but the number may vary depending on the port where the exemption is requested. For example, Le Havre requires 25 calls per year. Marseille allows exemption certificates only to refuelling providers or to vessels with an activity limited between basins within the Grand Port Maritime de Marseille.	Yes – always a theoretical exam and a practical exam conducted at each pilot station. The candidate must have knowledge and capacity to lead without the assistance of a pilot. There is at least a practical test, the contents of which are determined locally. The pilot stations have the option of adding a theoretical test to compare the characteristics of candidates for pilotage areas they cover.
Germany	Small ships – six calls per year. Large ships – 12 calls per year. In Bremen the requirement is 12 calls per year for vessels between 90 metres and 120 metres with a breadth of 19 metres. In Bremerhaven the requirement is 48 calls for vessels >120 metres LOA/19 metres breadth and 24 calls for vessels 90 – 120 metres LOA/19 metres breadth (except tankers).	Smaller ships – confirmation of experience only (e.g. calls). Larger ships: theory exam (and for tankers and vessels beyond the size 120 metres LOA/19 metres breadth). Not applicable in Bremen/Bremerhaven.
Greece	n/a	n/a
Ireland	*Yes–the person has the skill, experience and local knowledge required to pilot a vessel within the company's pilotage district.* Bye-Laws may have very specific requirements regarding number and time of trips, the type of ships (usually sister or similar, for example). Port of Cork: six in/six out port per six months (LOA <60 metres), nine in/nine out per six months (LOA <80 metres) and 12 in/12 out per six months (LOA >80 metres). [94]	May be a requirement by issuing ports, though an oral examination is standard practice in most ports, rather than a written exam. Dublin: every applicant for a PEC must present himself for an oral examination before the Harbour Master. The examination is very thorough and carried out in English.

[94] Port of Cork Company, *Pilotage Bye-Laws*, February 2011.

Country	Frequency of manoeuvres (e.g. in and out of port)	Written/theoretical exam
Italy	n/a	n/a
Latvia	Yes–Riga: 12 calls during three months/Venstpils: >5 call during three months.	Yes. Theoretical examination of knowledge of port regulations and navigational situation in the port.
Lithuania	Yes–six arrivals/six departures with pilot per year.	Yes.
Malta	Yes–The Master must have completed 12 manoeuvres, six of which in night hours, either with a pilot or with another Master holding a PEC for the particular type of high speed craft.	Although there is not either a written or theoretical exam, the Authority may arrange an interview to High-Speed Craft Master, who have applied for PEC. The purpose of the interview is to verify: the level of knowledge of manoeuvring high speed crafts; the level of experience in coming in to/out from the port, both in daytime and at night. In addition the Master has to be confident in English, as official language for maritime.
Netherlands	Yes–Experience in the pilotage area of Rotterdam should be considered as completing a minimum of 18 trips under a pilot annually. [95]	Yes. The knowledge and skill of the applicant is determined by practical and oral examinations. In addition, also a written exam may be required. [96]
Norway	Yes–six calls during last three months where at least two were during night time, or: One year's effective service as duty navigator in Norwegian waters, including area of PEC.	Yes–theoretical exam done by pilot on board the vessel. Practical exam with a pilot on board the vessel during voyage in the area of the PEC or to/from harbour covered by the PEC
Poland	Yes–in Gdynia and Gdańsk: three manoeuvres entering port/three exiting port (five in/five out for tankers) with pilot on board. In Słupsk and Swinoujście-Szczecin pilot areas: five manoeuvres entering port/five exiting port with pilot on board.	Yes.
Portugal	Yes – applicant must have frequented the port at least six times in the last six months[97].	Yes. Complementary course at the Nautical School Prince Henry or equivalent, in accordance with STCW.
Romania	n/a	n/a
Slovenia	n/a	n/a
Spain	Yes. 30 manoeuvres per year.	Yes–theoretical knowledge of the port as part of a soft exam. Plus a practical exam to demonstrate execution of manoeuvres in and out of the port.

[95] The Dutch Directorate of Maritime Affairs did not provide information on this topic. The information presented has been sourced by "Harbour Master Port of Rotterdam, *Port Information Guide*, 1 March 2012."

[96] The Dutch Directorate of Maritime Affairs did not provide information on this topic. The information on the type of examination required concern general country provisions which have been extracted from "Decree PEC Shipping Traffic Act/Besluit verklaringhouders Scheepvaartverkeerswet (Stb, 1995, 396)."

[97] Based on discussion with Associação dos Pilotos de Barra e Portos.

Country	Frequency of manoeuvres (e.g. in and out of port)	Written/theoretical exam
Sweden	No – the only specification is a minimum of two information passages (a passage where the pilot provides the applicant specific fairway information), must be done before an application may be considered. It is however the case that a significantly higher number of passages will be required in reality. The exam requires that the applicant completes a 'blind chart' – which entails filling in all the detail of a fairway/port as part of the exam, which requires a full knowledge of that area and its navigational requirements. Therefore, it is up to the applicant to decide how many passages are necessary in order that he is able to pass the exam. This part of the exam varies between ports – a short fairway compared to a long fairway will require less knowledge for example.	Yes–also practical examination – one passage in each direction. If an applicant wishes to add a vessel to the PEC an additional exam may be required if the dimensions of that vessel are significantly different from the original vessel.
UK–Belfast	Yes–12 (six in/six out) trips minimum within previous 12 months. eight trips must be in six months prior to application. Trips must not all be performed in one month. 1st Class Pilot must attend one trip. 25% of trips in darkness.	Yes.
UK – Forth	Yes–varies with port and size of vessel.	Yes.
UK – Tees	Yes–24 (12 in/12 out) trips completed within 12 months prior to application. Four must be observed by a Senior Pilot: if tug usage is being considered then two trips involving tugs must be observed. Observed trips must be carried out towards the end of the 24 trip.	Yes–written + oral exam. PEC can be issued based on oral exam only.
UK–Dover	Yes–20 trips in/out the port preceding exam. Six in/six out each year to remain valid. Observance of one in/one out manoeuvre.	Yes–includes oral exam.
UK–Southampton	Yes–Specified trips within the previous 12 months for different vessel sizes: All vessels > or = 20 metres LOA: 24 trips (12 in/12 out). Minimum of two passages as on board assessments. All vessels > or = 61 metres LOA and < 150 metres: 12 trips (six in/six out) including two on board assessments. All vessels > or = 150 metres LOA to have additional familiarisation trip.	Yes–includes oral exam.
Milford Haven	Yes–dependent upon size of vessel. Larger vessels more calls, e.g. up to 200 metres LOA minimum 20 calls per annum	No – oral exam.
UK–Humber	Yes–initially, nine trips in and nine trips out within 18 month period. For renewal six trips in and six trips out in the preceding 12 months.	Yes.

2.8.6.5 Language and other requirements

In eight countries there is a requirement for a level of understanding of the national language and/or English (Bulgaria, Denmark, Estonia, Finland, Latvia, Lithuania, Poland and Sweden).

In Estonia the respondent indicated that the Master must have knowledge of Estonian and English – however, the exam is currently conducted in Estonian only. There are proposals currently to introduce English as an alternative to Estonian. It is the case that most Masters who obtain the PEC in Estonia are either Estonian or Finnish, along with some Swedish Masters. There can be issues arising due to the fact that many other entities in the area (for example, other local vessels, port control staff) only speak Russian or Estonian and not English, making communication more complex for approaching vessels). [98]

In other instances respondents indicated national language OR English, suggesting that one or the other suffices.

In Latvia, the applicant must have competency in Latvia OR 'one of the international maritime languages, which is either English or Russian – thus the applicant does not necessarily require to have any English competency at all.

In five countries it is reported that there is only a requirement for the national language and not English– Croatia, France, Germany, Portugal and Spain. It should be noted that the German response stated that the German language is 'requested'.

Under the Revised Scheldt Rules in Belgium, basic concepts of Dutch are required, while 'maritime English' is required under the Pilotage Decree.

In addition to some areas in Belgium, Norway and Malta are the only countries other than the UK and Ireland to state that English is the only language requirement.

Several national administrations stated 'other' requirements, which included successful vessel inspection, one to three years' experience of navigation, official letter from vessel and familiarisation trips, for example.

Table 53 –Language and other requirements for obtaining a PEC

Country	Language	Other
Belgium Pilotage Decree	Yes–Maritime English.	No.
Belgium – Revised Scheldt Rules	Yes–At least basic concepts of Dutch.	No.
Bulgaria	Yes–Bulgarian or English. Master has to speak to an extent sufficient to communicate without difficulty with the VTS operators. The Master shall be able to manage the work of tugs, mooring boats and mooring men.	The vessel must have the necessary safety documents for the particular vessel and navigation/communication/other equipment, as well as all notices to mariners, detailed map of the port, compulsory rules and instructions and orders present. The vessel must also have liability insurance in place. Successful inspection of the vessel's technical condition, manning and required documents and appliances of the ship, conducted by the Executive Agency.
Croatia	Croatian language.	12 to 36 months of navigation experience.

[98] Based on discussion with Estonian Maritime Pilot Association

Country	Language	Other
Cyprus	n/a	n/a
Denmark	Yes–applicants must be able to pass an aptitude test performed in Danish or English.	No.
Estonia	Yes–national language (Estonian) and English.	No.
Finland	Yes–national languages Finnish or Swedish or English.	No.
France	Yes – the candidate must understand French and be able to speak the language. The purpose of this condition is to ensure that foreign Captains have the minimum level sufficient to communicate with the captaincy and users of the basin. An exception to this requirement may be granted by the Prefect of the Department after consultation with the local Board.	No.
Germany	Yes–German language requested.	Functioning radar, radio, AIS (for tankers).
Greece	n/a	n/a
Ireland	Yes–may be a requirement by issuing ports. Bye-Laws may require a reasonable level of competency in spoken English language which is tested at the examination for the PEC. Dublin: the candidate must have good fluency in English.	No.
Italy	n/a	n/a
Latvia	Yes–national (Latvian) or one of international maritime languages (English or Russian).	No.
Lithuania	Yes–Lithuanian or English language.	Original official letter from the vessel owner with request to give PEC to Master.
Malta	Yes – English language.	The level of knowledge and training for manoeuvring the specific high speed craft. The level of experience in coming in to/out from the port during the day and at night. Having attended a familiarisation visit to the Traffic Management Unit (TMU) and the Vessel Traffic Service (VTS) of the Authority.
Netherlands[99]	Yes – English.	No response.
Norway	Yes–English.	No.
Poland	Yes–English or Polish.	Evaluation by local pilot station representative during required number of "pilot practice" calls.

[99] The Dutch Directorate of Maritime Affairs did not provide information on this topic. The information presented for the Netherlands refers to the Port of Rotterdam and has been sourced by "Harbour Master Port of Rotterdam, *Port Information Guide*, 1 March 2012."

Country	Language	Other
Portugal	Yes – must possess knowledge of Portuguese language necessary for piloting and manoeuvring. This requirement can be alternatively met if the second officer or equivalent officer has the knowledge, or on board qualified interpreter.	No.
Romania	n/a	n/a
Slovenia	n/a	n/a
Spain	Yes–Spanish.	No
Sweden	Yes–Swedish or English.	Practical examination. One passage in each direction.
UK – Belfast	Yes–English.	Familiarisation trip to port operations/VTS. Knowledge of tugs.
UK – Forth	Yes–English.	Tug assessment if PEC is required for vessels using tugs.
UK – Tees	Yes–English.	Visit to operations centre prior to application.
UK – Southampton	Yes–English.	Visit to operations within preceding three months and familiarisation with VTS.
UK – Humber	Yes–English.	Tour of VTS centre plus range of different requirements according to ship type and size.

2.8.7 Duration, renewal and withdrawal of PECs

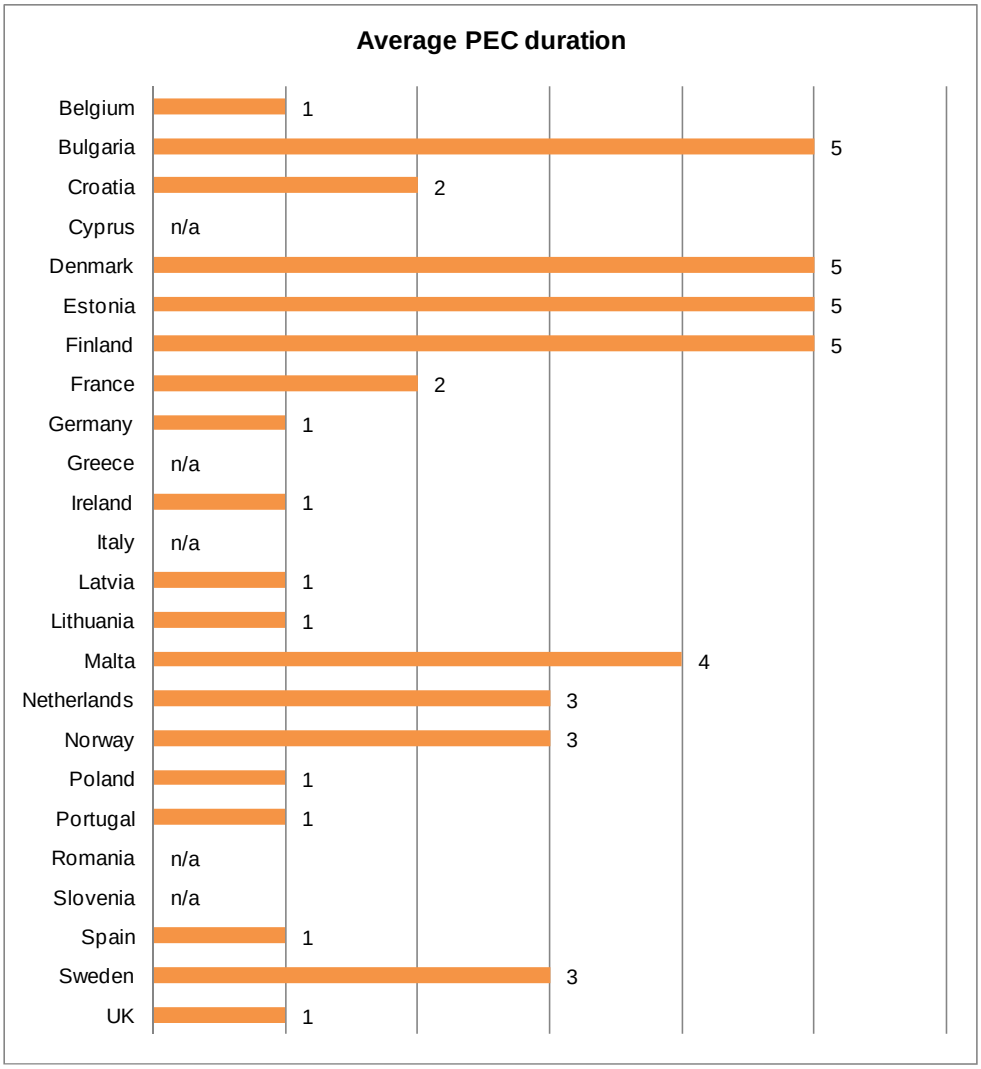
The duration of a PEC tends most frequently to be either one year or five years, based on information gathered:

- One year (Belgium, Germany, Ireland, Latvia, Lithuania, Poland, Portugal, Spain, UK);
- Two years (Croatia, France);
- Three years (Netherlands, Norway, Sweden): although in Norway there are two categories, one of which has no time limit; and
- Five years (Bulgaria, Denmark, Estonia, Finland, Malta).

It is interesting to note that a number of countries where a high number of PECs are in circulation have longer renewal periods (e.g. Finland, Sweden and Norway, for example). It is the case however, that some countries with high numbers of PECs also have short duration periods (e.g. Germany and the UK, where the duration of a PEC is one year).

Figure 34 presents the duration of PECs for each country.

Figure 34 – Duration of PECs



The renewal process varies with regard to requirements, being stricter in some countries compared with others. For example in Belgium the applicant must provide a list of dates and times at six month intervals as evidence of manoeuvres.

In many cases the same criteria for the original application must be met – particularly in terms of frequency of manoeuvres during the preceding year. In a number of cases the manoeuvre requirement is less than at the time of application – for example in Finland the PEC must present documentation of two voyages per year in the fairway.

In Bulgaria the PEC only becomes invalid with the holder has not made the required number of manoeuvres in a three month period.

In Sweden, the PEC holder must only have used the PEC in the preceding 12 months – there is no stipulation on frequency of passage other than at least two passages.

In some cases re-examination is required – for example in Finland a written test must be passed as well as a simulator test, and a theoretical text must be passed in Estonia.

In other countries, no exam is required – in Lithuania, all that is required is that there have been no accidents or remarks from VTS/pilots in the preceding year. In France there is no requirement for re-examination, provided that all other conditions are met (these are the same for renewal as for initial PEC issue).

Table 54 – PEC duration and renewal

Country	Duration	Renewal procedure
Belgium	One year.	In principles the PEC is valid for one year, with possibility of extension if conditions of renewal are met. Pilotage Decree At the end of 12 months, the PEC must hand over a list of times and dates when he has navigated the route in question. If the PEC holder made the route, over the past 12 months, 24 times in both directions, in compliance with the conditions, the exemption may be extended. Revised Scheldt Rules Every six months the PEC holder has to provide a list of dates and times when he has navigated the route in question. The holder submits a valid medical certificate annually. As under the Pilotage Decree, if the PEC holder made the route, over the past 12 months, 24 times in both directions, in compliance with the conditions, the exemption may be extended. Conditions for renewal are considered to be relatively strict, especially compared to neighbouring countries. The density of shipping traffic is one of the reasons for this.
Bulgaria	Five years.	According to Ordinance No. 107 the PEC is issued for a period of five years for navigation and manoeuvres in the defined port area with a specific vessel. The issued PEC ceases to be valid when the holder is not sailing and/or manoeuvring the ship which it is valid for more than three months, and when the Master does not have a valid PEC.
Croatia	Two years.	Minimum 10 arrivals and 10 departures with granted ship in granted sea area in last two years
Cyprus	n/a	n/a
Denmark	Five years.	A PEC holder must annually meet – and document–the requirement for frequency of manoeuvres/sailings and local knowledge in the area.
Estonia	Five years.	When applying for the revalidation of the PEC, the applicant shall have to pass the theoretical part of the PEC exam.
Finland	Five years.	PEC holder has to present documentation of two voyages per year in the fairway and pass a written test and simulator test.
France	Two years.	The PEC is granted for two years. Renewal conditions are identical to conditions for issuance, except for the examination – the PEC can be renewed without examination, provided that all other conditions required for the issue remain in place. The Prefect of the Department may issue a second Captain a PEC under the same criteria as the Master, extend the validity of a PEC held by a Captain of a ship or ships of comparable characteristics, depending on their safety equipment, manoeuvring and navigation, or restrict the validity, time and place of a PEC depending on climatic considerations, the density of traffic, port status and security reasons.

Country	Duration	Renewal procedure
Germany	One year.	PEC may be prolonged under alleviated preconditions (for example additional calls in the year, same ship, same Master/Chief Officer). Vessels of 90 metres LOA/13 metres breadth – 120 metres LOA/19 metres breadth: six voyages within 12 months. Vessels of >120 metres LOA/90 metres breadth: 12 voyages within 12 months. Double hull tankers: six voyages within 12 months. Single hull tankers: 12 voyages within 12 months. In Hamburg: Vessels of 90 metres LOA/13 metres breadth – 120 metres LOA/19 metres breadth, all tankers with hazardous goods: 12 voyages within 12 months. Vessels of 130 metres LOA/21 metres breadth: 24 voyages plus theory examination within 12 months. Bremen: six voyages within 12 months. Bremerhaven: vessels of <120 metres LOA/19 metres breadth: 12 voyages within 12 months; and vessels of >120 metres LOA/19 metres breadth: 24 voyages within 12 months (except tankers).
Greece	n/a	n/a
Ireland	One year.	Annually or shorter. At renewal trip requirements are checked and other conditions if required by Bye-Laws. In Dublin, the renewal is contingent on evidence of completion of six in/six out passages in the preceding 12 months. Without evidence, there would be no renewal and need for re-examination.
Italy	n/a	n/a
Latvia	One year.	Annually with theoretical exam. The period of validity of the certificate may be extended annually if the port regulations have been respected in previous year.
Lithuania	One year.	During current year sailing without accidents, VTS or pilot remarks – the renewal is carried out without examination.
Malta	Five years.	By application from the holder of the PEC. The Master must have completed 24 manoeuvres within the period of validity of the PEC.
Netherlands	Cat. 2–3 years. Cat. 3 – no specified duration.	Category 2: extra exemption PEC is valid for three years from date of issue. Can be prolonged if the bearer reaches the specified number of calls during the last two years. Number of calls can vary between ports. For example in the port of Rotterdam the number of calls is 12 during the last two years of which at least three calls during the last year (a call is defined as the voyage to the berth and the voyage from the berth, so one time inward bound and one time outward bound). Category 3: general exemption PEC is valid until the bearer fails to reach the specified number of calls per year. Number of calls can vary between ports. For example in the port of Rotterdam the number of calls is 18.

Country	Duration	Renewal procedure
Norway	Three years.	Renewals are based on continued sailing in the area of PEC, and the navigator's certificate needs to be valid on the day of issue. The procedure is such that the candidate applies for a renewal no later than 30 days before the certificate is invalid, he then sends a copy of his Navigator's certificate and a document form overseeing his sailing in the PEC area during the prior period. This is normally signed by an official in the company.
Poland	One year.	The PEC holder has to apply for renewal every year, after that time a request for the next document is necessary and PEC is re-issued for next 12 months. Every five years the PEC holder has to pass written/theory exam and present the seaman book with confirmation of sea-going practice.
Portugal	One year.	Renewable annually. The holder may apply for renewal early.
Romania	n/a	n/a
Slovenia	n/a	n/a
Spain	One year.	Renewed annually. The PEC holder must perform a minimum of 12 calls at that port during the year of application of the exemption.
Sweden	Three years[100].	For renewal the PEC holder must have used the PEC in the last 12 months. There is no stipulation on frequency of passage, other than at least two passages (one in/one out).
UK – Belfast	One year.	Certificate may be renewed annually provided that the Certificated Officer has made at least 12 trips within the Port of Belfast within 12 months preceding the expiry of his Certificate. PEC shall not be renewed without re-examination unless application for renewal is made within one month of the expiry of the Certificate. Each PEC holder will be reassessed every five years.
UK – Forth	One year.	Every four years PEC holder is required to undergo re-validation process which includes assessment trips with an authorized pilot. PEC is valid and will be re-issued upon application with production of medical fitness certificate, valid certificate of competency and providing the required number of trips had been completed during the past 12 months.
UK – Tees	One year.	Confirmation of 24 trips in the year, copy of medical certificate and Masters Certificate.
UK – Dover	One year.	PEC's will be renewed annually without examination provided that the Board is satisfied as to the holder's competence and continued experience in the Dover Pilotage Area and t conditions for renewal of the PEC are fully met. At least six in/six out trips during previous 12 months is required to qualify for renewal. Confirmation of continuing validity of STCW certificate of competency. Valid medical certificate. Knowledge of any relevant changes affecting navigation. Every five years a PEC holder will be required to undertake a formal assessment to satisfy the Board.

[100] For the Fairway Specific Exemption which is the most common.

Country	Duration	Renewal procedure
UK–Southampton	One year.	Certificates shall be renewable annually. Holder must satisfy CHA of their continuing knowledge of pilotage requirements in the area. Written medical evidence. Must have visited VTS Centre within preceding two years. Certificates shall not be renewed after holders reach the age of 65 years, except in exceptional circumstances.
UK–Milford Haven	One year.	Application with evidence of continued experience. Incident history. Further oral exam if felt appropriate.
UK – Humber	One year.	May be renewed annually if the holder continues to satisfy the requirements of the Humber Pilotage Directions.

PECs can be withdrawn in a number of circumstances, primarily if the PEC holder has not complied with the PEC requirements or has acted negligently. A wide range of such and other circumstances were reported by the national administrations:

- The PEC holder has not completed the required number of manoeuvers in the year;
- The PEC holder is involved in an accident during the preceding year;
- The PEC holder's certificate as Master or equivalent becomes invalid;
- If the PEC holder has committed a crime or acted negligently, or has not followed the orders given by VTS; or
- An examination has not been passed.

Table 55 – PEC withdrawal process

Country	Withdrawal procedures
Belgium	Under the Pilotage Decree the PEC can be withdrawn where: - There is failure to comply with the conditions imposed, if the PEC holder did not, in the past 12 months, travel 24 times in both directions, on the route; - The vessel to which the exemption certificate relates, was rebuilt, so the type of vessel or the main dimensions have changed significantly; - There is falsification; and - Not complying with the regulations applicable to the relevant section. Under the Revised Scheldt Rules it is the same as under the Pilotage Decree, plus: - If the PEC holder does not act as a good traffic participant; and - If the PEC holder no longer meets the requirements for issuing.

Country	Withdrawal procedures
Bulgaria	The PEC can be withdrawn where: - An emergency incident occurs due to technical defect of the ship, or due to gross negligence of the ship-owner or his employees; - The Master fails to follow the orders of the VTS operator, regarding safety of navigation; and - Manoeuvring and/or navigation is in violation of Mandatory Rules and endangers the safety of other vessels and/or creates conditions for environmental pollution due to improper manoeuvring by the Master. The Executive Agency Maritime Administration issues an Order for withdrawal of the PEC, after investigation of circumstances. If the PEC is suspended under Article 3 of Ordinance No. 107 for six months, than the candidate must apply for a new PEC not less than six months from the date of suspension. If the PEC is suspended under Article 3 of Ordinance No. 107 for 12 months, than the candidate must apply for new PEC not less than 12 months from the date of suspension.
Croatia	PEC is withdrawn if 10 arrivals and departures with granted ship in granted sea area not done in last two years.
Cyprus	n/a
Denmark	The PEC holder and his company are informed that the PEC is withdrawn and must be returned to the Danish Maritime Authority if requirements are not met. If the PEC holder (or pilot, as the same rules apply with regard to maintaining sufficient local knowledge by meeting required frequency of calls in an area) does not meet the annual requirement for sailing frequently in an area, the PEC holder/pilot must return the PEC/pilot certificate to the Danish Maritime Authority. It is not necessary to start completely from scratch, the PEC applicant only has to show that he has met the requirements for the preceding year.
Estonia	Estonian Maritime Administration shall refuse to issue and revalidate the PEC, if: - The required qualification of the Master or the Chief Mate, concerning exemption, does not comply with the provisions of the legislation; - The Master or the Chief Mate has not passed the PEC exam; - During the period of the last 12 months there has been a marine casualty or a dangerous incident, due to the fault of the Master or the Chief Mate, or there has been a breach of the requirements of maritime safety concerning the pilotage exemption; - If the holder of the PEC has had a continuous break in pilotage exemption activity for more than 12 months then the validity of the PEC shall be suspended; and - The Estonian Maritime Administration may cancel the PEC if a vessel has suffered a marine casualty, due to the activity or inactivity of the holder of the certificate.
Finland	The Transport Safety Agency has to withdraw the PEC if: - Medical certificate has been withdrawn; or - PEC holder no longer fulfils the requirements for PEC. The Transport Safety Agency may withdraw the PEC if: - PEC holder repeatedly breaks the rules of the Pilotage Act; or - Endangers maritime safety. PEC can be withdrawn with immediate effect, permanently or for a certain period.

Country	Withdrawal procedures
France	The PEC ceases to be valid when the holder no longer meets one of the conditions set for his deliverance. It may be withdrawn by the Prefect of the Department if the owner is sentenced to disciplinary or criminal sanctions linked to the performance of his duties as a sailor, after consultation with the local Board, before which the person may make representations. If the investigation after a maritime accident highlights the facts to justify the indictment of the licensee under section 81 of the Act of 17 December 1926, the Prefect of the Department may suspend temporary license until the judgement. The aforementioned law establishes the disciplinary and criminal code of the merchant marine. It includes items from 79 to 87 provisions for losses of ships, collisions, groundings and other accidents of navigation.
Germany	No special withdrawal procedure is regulated, but if individually necessary the administration may order compulsory pilotage for any vessel at any time.
Greece	n/a
Ireland	S72(10) provides for the suspension or revocation of PECs. Also S71 of the Act allows companies to make pilotage Bye-Laws. Part II of the Sixth Schedule to the Act details that these Bye-Laws may include issues such as suspension or revocation of PECs. In Dublin, the Company may suspend, revoke, or refuse to renew the PEC of a holder who is in breach of these Bye-Laws. The Harbour Master may, at his sole discretion, suspend a PEC while an investigation is being carried out by the Harbour Master, should he deem it necessary.
Italy	n/a
Latvia	A PEC can be withdrawn as a result of violation of Port Regulations.
Lithuania	A PEC can be withdrawn if there is an accident or if the Master's actions do not comply with shipping rules or VTS orders.
Malta	A PEC can be withdrawn following a breach of the applicable regulations in force.
Netherlands	PECs can be withdrawn – no information provided regarding the circumstances when this can occur.
Norway	A PEC may not be issued if the applicant fails to send his/her application within the correct period the renewal process, and a new test will be required for the area in which the application applies for. If the use of the PEC is incorrect and the holder clearly is incapable of conducting him/herself in a matter required for holding a PEC it may be withdrawn i.e., breach of act/regulation, breach of conditions for PEC, drunkenness, no system for resting the crew, sailing without reporting or following the VTS's or Coastguard's instructions.
Poland	Director of relevant Maritime Office may withdraw, suspend or cancel PEC in the event that a PEC holder does not follow rules or does not obey port regulations.
Portugal	The PEC can be withdrawn where a maritime accident occurs in a compulsory pilotage area that involves, directly or indirectly, its PEC holder. It can also be cancelled if the holder is convicted in criminal proceedings, violates port regulations or omits any information relating to irregularities in the vessel with regard to safety, navigation and the preservation of the marine environment.
Romania	n/a
Slovenia	n/a
Spain	Can be withdrawn where the manoeuvrability of the vessel has worsened.

Country	Withdrawal procedures
Sweden	The PEC is automatically withdrawn if the holder has not met the requirements for renewal or: - If the holder is involved in an accident at sea; - If the holder does not meet the General conditions when using a fairway-related or general PEC; - If the holder violates any Ship Traffic Regulation; or - If the holder shows lack of seamanship.
UK	May be suspended or revoked if the holder has been found guilty of any incompetence or misconduct affecting their capability to pilot the ship. Before doing so, the CHA must give the holder written notice of its intention to do so and stating why, giving him/her reasonable opportunity to respond. After withdrawal there is no limit established by the Pilotage Act with regard to when a PEC can be obtained again – it is down to the CHAs to determine this on a case by case basis.

2.8.8 Granting PECs for geographical areas

PECs are generally granted for a specific route, or for a specific fairway and port area, based on the characteristics pertaining to that area.

Table 56 – PECs granted for defined geographical areas?

Country	Description of geographically focussed PECs
Belgium	A PEC is granted for a specific route, between the sea and the intended port, including the movements within the port. Harbours: PECs are granted for a specific fairway in the harbour (from and towards a lock) at the left or the right bank.
Bulgaria	Authorization to carry out manoeuvres and navigation without the assistance of a pilot in pilotage areas on board vessels, as specified in Ordinance No. 107, is given to a particular (named) vessel, managed by a Master holding permission from the Director of the Directorate "Maritime Administration" – Varna and/or Burgas.
Croatia	Yes, a PEC is granted for a specific ship and specific geographical area.
Cyprus	n/a
Denmark	The rules regarding the frequency of calls are defined for each geographical area–a specific fairway or harbour, for example.
Estonia	The PECs are granted for a specific harbour – without restriction on vessel size or type.
Finland	PECs are granted for specific fairways.
France	Licenses are granted either for all the compulsory pilotage area, or for part of the area.
Germany	PECs have a strict regional character and are limited to determined sea areas, rivers or canals or ports.
Greece	n/a

Country	Description of geographically focussed PECs
Ireland	Yes, Section 72(1)(a) of the Harbours Act 1996 (as amended) states that PECs may be granted by a Company to a person to enable him or her to pilot the ship of which he or she is in charge within the Company's pilotage district or such part or parts thereof as is or are specified in the certificate.
Italy	n/a
Latvia	In Riga PECs are focussed on an area from the pilot station to a defined terminal only. In Ventspils PECs are granted for the harbour and fairway.
Lithuania	PECs are granted for Klaipeda port.
Malta	Presently, the PEC authorization granted for the regular high speed craft Jean de la Vallette has no restriction but the vessel has a dedicated berth in the Grand Harbour.
Netherlands	PECs are defined for a specific fairway/destination.
Poland	The areas are described for which the PEC is valid. In most cases the port area, occasionally main fairways and specified parts of the port.
Portugal	PECs are issued in accordance with regulations adopted on the continent (the Decree of the Minister of the port's sector) and in the Autonomous Region (by regional law).
Norway	PECs are valid only for a defined geographical area, specific fairways. If a PEC holder succeeds in several examinations along the coast of Norway it is possible to achieve a PEC for the entire coast. But one test only coves part of the coast.
Romania	n/a
Slovenia	n/a
Spain	PECs may be granted for a single port or a group of ports.
Sweden	The PEC is normally granted for a specific fairway(s). A general exemption may be granted for a specific area, for example the west coast of Sweden or south coast of Sweden.
UK	PECs are granted for the defined geographical area that is the responsibility of the CHA issuing the PECs. Some CHA issue different PECs for different geographical areas.

2.8.9 *Administrative cost to Government for issuing PECs*

A number of national administrations were able to provide an illustration of the administrative costs associated with the PEC process. For example:

- 100 man-days [101]per year in Belgium (112 active PECs in 2011);
- €210,000 per year in Finland (857 active PECs in 2011);
- €12,800 in 2011 for issue of PECs in Poland (213 active PECs in 2011);
- NOK 5,300,000 (€696,580) in Norway in 2011 (2,800 active PECs in 2011); and

[101] The man day cost was not provided

- SEK 5,000,000 (€554,937) in Sweden in 2011 (1,200 active PECs in 2011).

It was reported that the administrative cost per PEC was €37 in Germany and €60 in Poland.

Taking into account the number of active PECs in 2011 it is possible to calculate an illustrative 'administrative cost per PEC' for those countries where data were made available. The cost ranges from €37 per PEC in Germany and €60 per PEC in Poland to €462 per PEC in Sweden. The cost per PEC in the UK, Norway and Finland is between €200 and €300.

Several countries were not able to provide an estimate as the costs for this are not separated from other public sector costs within the relevant department, while in the UK and Ireland, for example there were no costs to Government at all. In the UK, however, there are costs at a local level, information about which was obtained from a number of CHAs.

Table 57 – Administrative costs to Government

Country	Administrative costs to Government	Estimated cost per PEC in 2011
Belgium	This is difficult to measure. The cost includes human resource to examine the applicants, organize the exams and execute all necessary administrative tasks, issue certificates and manage the involvement of examiners, for example. It is approximately several days a year of multiple staff members. It also depends on the number of new candidates, who present themselves. An estimate is as follows: circa 100 man-days per year.	112 (active PECs in 2011)/(100 man-days * average salary) = 1.12 man-days per PEC.
Bulgaria	No information provided.	
Croatia	n/a – no PECs have been issued in last five years.	
Cyprus	n/a	
Denmark	There is no annual administrative cost for PEC holders.	
Estonia	While not significant it is difficult to estimate. The theoretical part of the exam lasts two hours while the practical part of the exam can last between two hours and an entire working day. The reason for this is that the applicant has to navigate into and out of the port in question, for example on a RoRo passenger ship that is scheduled to run between Tallinn and Helsinki. In some cases the examiner may not be able to disembark the ship due to hydro-meteorological conditions.	Based on the response, one man day per PEC is assumed by the Consultant.
Finland	€210,000 per annum.	857 (active PECs in 2011)/€210,000 = €245 per PEC.
France	The licenses of Master-pilot do not cause significant costs to the State. The issuing and monitoring of licenses are an activity among many others, whose costs are included in the overall costs of the decentralized services concerned.	

Country	Administrative costs to Government	Estimated cost per PEC in 2011
Germany	The administrative cost is reflected in the costs for obtaining PECs: €37 per PEC issue, €20 per PEC renewal and €35 for special direction of taking a pilot by VTS. These costs are based on the cost of personnel to carry out the administrative tasks. In Bremen/Bremerhaven the cost is €35.	€37 per PEC.
Greece	n/a	
Ireland	None.	
Italy	n/a	
Latvia	These expenses are covered by daily costs.	
Lithuania	The administration is conducted by Harbour Master with no additional resources employed. Therefore the cost to Government is zero.	
Malta	This is considered as an integral part of pilotage. As per the pilotage tariff found in the Schedule to the Maritime Pilotage Regulations, the persons bound to pay pilotage dues shall pay an administrative charge of five per cent on such pilotage dues.	
Netherlands	This is difficult to measure, as depends upon number of applicants and role of the Government which differs between port regions. In the Port of Rotterdam and Amsterdam the cost in terms of full-time equivalent jobs (FTEs) is as follows: 0.1 – 0.25 FTEs for the State Harbour Master. 0.25–1.0 FTEs for the Port Authority. The costs are covered by the Government and Port Authorities, while shipping lines are not charged.	Based on information provided the Consultant assumes that one FTE is required for the administration of PECs.
Norway	The actual cost in 2011 for issuance of PECs was 3,900,000 NOK (€512,555) (includes the 4.3 persons directly involved in issuance/renewal and repeal/suspension of PEC + travel and related costs for PEC-test). The sum does not, however, cover salaries for pilots involved in carrying out PEC tests. It also does not include costs of monitoring or general administration (accounting, HQ-employees, etc.). The reason is that PEC services are included in the general pilotage services, and there is no separate PEC budget. For budget purposes we have set the amount to 5,300,000 NOK (€696,580), which is closer to the total costs of administering PEC.	2,800 (active PECs in 2011)/NOK 5,300,000 (€696,580) = €249 per PEC.
Poland	There were 213 active PECs in 2011 – an approximate annual cost to Government for issuing PECs in 2011 is estimated to be €12,800.	213 (active PECs in 2011)/€12,800 = €60 per PEC.
Portugal	No information provided.	

Country	Administrative costs to Government	Estimated cost per PEC in 2011
Romania	n/a	
Slovenia	n/a	
Spain	No information provided.	
Sweden	Total cost to Government for PECs in 2011 – 5,000,000 SEK (€554,937). This includes administrative costs and costs for examinations carried out by SMA and then charged to STA. The fees for PEC are based on covering the cost of administration at the Agency. No profit is made. The fees have increased over the last few years following a detailed review of costs and income.	1,200 (active PECs in 2011)/5,000,000 SEK (€554,937) = €462 per PEC.
UK	None – this is not a function undertaken by the UK Government.	
UK–Milford Haven	Approximately £40,000 (€48,800) per annum.	
UK – Tees	Approximately £5,000 (€6,100) per annum.	20 active PECs in 2011)/€6,100 = €305 per PEC.

2.8.10 Costs associated with obtaining a PEC

Information was gathered on the fees charged for a PEC exam, the issue of a PEC and renewing a PEC. It is the case that costs varied considerably, not only in terms of the magnitude, but also in terms of how they are structured: in some cases a cost was given for the exam only, in others for the exam plus issuance of the PEC, or separate costs for different types of exam. There are also many variants in a number of countries, depending on the number of persons sitting an exam, or whether the individual is national or from abroad, for example.

While a comparison of costs associated with obtaining a PEC is difficult for the reasons described above, it is possible to make some assessment of trends. In doing so, it is also pertinent to consider the length of time for which a PEC is valid in each country.

The cost for examination and issuing of a PEC varies considerably between countries. It was reported that obtaining a PEC is free of charge in France, Latvia, Lithuania, Malta and Portugal, while the cost is very small in Bulgaria (€25 for the exam), Estonia (€30), Germany (€37) and Poland (€30).

In Croatia, Ireland and the UK the cost of the PEC exam is between €100 and €500.

The cost of sitting the exam is in excess of €500 in six countries, and above €2,000 in Finland, the Netherlands, Norway and Sweden – it is the case however that the PEC is valid for five years in Finland, three years in the Netherlands, Norway and Sweden.

The cost of a PEC exam can vary within a country, such as in Ireland and the UK – even within a port there can be different levels of PEC.

The renewal cost is generally much lower than the initial PEC exam cost.

Table 58 presents an illustrative comparison of PEC costs alongside the duration of PECs, while Table 59 presents a more detailed summary drawing upon the information obtained from national administrations.

Table 58 – Comparison of PEC costs (examination and issuing)

Country	PEC duration	PEC is free	PEC cost<€100	PEC cost €100–€500	PEC cost €500+
Belgium	1 year.				✓
Bulgaria	5 years.		✓		
Croatia	2 years.			✓	
Denmark	5 years.				✓
Estonia	5 years.		✓		
Finland	5 years.				✓
France	2 years.	✓			
Germany	1 year.		✓		
Ireland	1 year.			✓	
Latvia	1 year.	✓			
Lithuania	1 year.	✓			
Malta	5 years.			✓	
Netherlands	3 years+.				✓
Norway	3 years.				✓
Poland	1 year.		✓		
Portugal[102]	1 year.	✓			
Sweden	3 years.				✓
UK	1 year.			✓	

Table 59 – Cost to obtain a PEC – summary of responses

Country	Cost to obtain a PEC – summary of responses
Belgium	Examination fee: €1,460 for the Pilotage Decree. Include examination fee + pilotage fee for three test journeys. (Revised Scheldt Rules). No costs involved from Harbours.
Bulgaria	Examination + issue of PEC: BGN 50.00 (€25). Renewal of Certificate of Competence: BGN 35.00 (€17) (within one month) or 55.00 (€28) (within seven working days).
Croatia	Fee for PEC exam is 1,500 Kuna (€198) for domestic persons and 3,300 Kuna (€436) for foreign persons.
Cyprus	n/a

[102] Based on discussion with Associação dos Pilotos de Barra e Portos.

Country	Cost to obtain a PEC – summary of responses
Denmark	Issue of PEC + aptitude test: DKK/hour 1,067 (€143) plus travel expenses. External examiner: DKK/hour 1,645 (€221) + travel expenses. Average cost for PEC over last three years: DKK 6,739.19 (€906). (Average cost for pilotage mission over last three years: DKK 6,872 (€924)(DanPilot)).
Estonia	PEC exam–€30. PEC Certificate – €3. Renewal exam – €30. Renewal Certificate–€3.
Finland	Obtaining PEC: minimum €3,200 (includes only administrative costs). Renewal of PEC: minimum €2,342 per PEC (includes only administrative costs).
France	The cost is zero for the companies. The pilots of pilotage stations do not charge for the training of Captains who are candidates for the exam required for licensing.
Germany	Administration cost for obtaining the PEC is €37. The renewal cost is €20.
Greece	n/a
Ireland	Cork: examination fee: €500/Issue of PEC: €170/ renewal: €33. Dublin: examination + issue of PEC: €200/renewal: €50.
Italy	n/a
Latvia	No fees for PEC exams.
Lithuania	PEC exam, certification and renewal are free of charge.
Malta	Examination fee: free Application for authorization of vessel €300. Application for authorization of Master €100. Renewal €60.
Netherlands	Shipping lines are only charged for obtaining a general exemption (category 3). Fees for examination are set by the National Competition Authority and vary considerably according to the number of participants. One applicant is charged €4,368 in the Scheldt region, €4,238 in the IJmond region, €5,216 in the Rotterdam Rijnmond region and €5,216 in the Northern region. The prices are reduced approximately by 50% if two or more participants take the examination at the same time.
Norway	1,000 NOK (€131) administration fee for handling application/issuing. 2,000 NOK (€262) for practical test and 2,000 NOK (€262) for theoretical text. Total amount depends on number of tests to be completed e.g. in/out of one harbour only could be a minimum of 5,000 NOK (€657) for the PEC. An area PEC where several tests need to be carried out could amount to a total of 21,000 NOK (€2,760) (e.g. five tests). Costs for training/preparing Master/navigator for the test are not included and must be carried out by ship-owner.

Country	Cost to obtain a PEC – summary of responses
Poland	PEC issuance cost: €50 (250 units which is equal to 250 PLN as per Act of Maritime Safety). Renewal cost: €30 (150 units per year for renewal as per Act of Maritime Safety i.e. around €30 depending on exchange rates).
Portugal	The product of the rates is shared equally by the IMP and the Port Authority of the port to which the certificate was issued. The rates, as stipulated in Ordinance No. 434/2002, to be reviewed annually, were: €1,246.99 (emission–issue); and €997.59 (renewal).
Romania	n/a
Slovenia	n/a
Spain	No information provided.
Sweden	An exemption in a 15 Nm long fairway with no re-exams – 28,500 SEK (€3,165). Including administrative fee of 8,000 SEK (€888) and Examination fee of 20,500 SEK (€2277). An exemption in a five Nm long fairway with one practical re-exam – 22,500 SEK (€2,497). Including administrative fee of 8,000 SEK (€888), Examination fee of 10,500 SEK (€1166) and a fee for a practical re-exam4000 SEK (€444). The administrative fee is charged regardless of the outcome of the application. If the application is not granted the fee for the exams which have been carried out will be charged in addition to the administrative fee. A fee of 5,000 (€555) SEK will be charged in addition to fees above, if the application is not completed. Renewal of an exemption costs 6,650 SEK (€738). Changes in an exemption (e.g. change of vessel) costs 1050 SEK (€116) in addition to the fees for any extra exam related to the change.
UK	Under the 1987 Pilotage Act, CHAs "may charge such fees [that it] considers reasonable for the purposes of meeting its administrative costs" for these activities; consequently the cost will vary from port to port. There is no definition in the Pilotage Act with regard to what is considered a 'reasonable fee'.
UK – Belfast	Charges for PECs (from 1 January 2012): - For examination or re-examination for a Certificate £300.00 (€371.80); - For the grant of a Certificate £55.00 (€68.15); - For the annual renewal of a Certificate £55.00 (€68.15); - For the grant of a duplicate Certificate £22.50 (€27.87); and - For the addition of names of vessels to a Certificate–per vessel £22.50 (€27.87).
UK – Dover	Examination fee £266.16 (€329.43). Renewal fee £41.80 (€51.72). Additional ship fee £19.25 (€23.815). Pilotage fee for observance trip depending on V/L length.

Country	Cost to obtain a PEC – summary of responses
UK – Forth	Examination for and issue of a PEC for part of, or whole of the Compulsory Pilotage Area: £290.00 (€358.79). Re-examination for a PEC for part of, or whole of, the Compulsory Pilotage Area: £290.00 (€358.78). Renewal of a PEC for part of, or whole of, the Compulsory Pilotage Area: £100.00 (€123.75). Replacement of a PEC for part of, or whole of, the Compulsory Pilotage Area: £ 35.00 (€43.31). Re-validation of PEC for part of, or whole of the Compulsory Pilotage Area, required at four yearly intervals: £480.00 (€593.85).
UK–Humber	Class A (100 metres and over in length): £385 (€476.41). Class B (Under 100 metres in length): £319 (€394.75). Class C (Barges, etc.): £148 (€183). Class D (Anchorage only): £165 (€204). Annual renewal of PEC: Classes A & B: £132 (€163). Class C: £32 (€39). Class D: £32 (€39). Assessment charges: Class A (100 metres and over in length): £595 (€736). Class B (Under 100 metres in length): £505 (€625). Re-issue of a lost or defaced Certificate: £132 (€163). Alteration or addition to Certificate: £99 (€122).
UK–Milford Haven	£360 (€445) initially. £63 (€77) for annual renewal.
UK–Southampton	Issue of a PEC–£150 (€185). Re-examination–£100 (€123). Renewal–£50 (€61). Amendments–£50 (€61).
UK – Tees	Examination fee: £255 (€315) (written and oral examinations). Examination fee: £105 (€129) (oral examination only). Renewal fee: £55 (€68).

2.8.11 Fees for shipping lines using a PEC or shore-based pilotage

Shipping lines are charged in many countries with a significantly lower fee when a Master holds a PEC in comparison to standard pilotage mission. This is logical, in that a much lesser service is provided with regard to pilotage (e.g. there is no requirement for a pilot to physically embark the vessel and advice the Captain).

Eighteen countries and six UK ports provided an indication of the level of reduction which ranges from 50% to 100% when compared with standard pilotage fees:

- In eleven countries there are no pilotage fees charged if the Master holds a PEC (Bulgaria, Denmark, Estonia, Finland, Lithuania, Malta, Netherlands, Poland, Portugal, Spain and Sweden;

- In Belgium the standard PEC fee per vessel is €100, which can constitute a reduction of more than 90% in some cases;) – similarly in France there is roughly a 95% reduction when compared to standard pilotage fees;

- In Ireland, the UK and Norway, fees for shipping lines can comprise between a 60% and 85% reduction when compared with standard pilotage fees; and

- In Latvia and Croatia the fee for shipping lines using a PEC is 50% lower.

- In Germany vessels with PEC are still required to pay the full pilotage due, without any reduction.

It is interesting to note that in some countries there is no charge at all, while in others there is – information on the rationale for these charges was not obtained from the survey responses. One possible explanation is that all vessels must contribute towards the cost of maintaining a pilotage service, as pilotage may be required at any time, depending on the local circumstances or force majeure situations, for example.

In Norway, the fee structure is explanatory: vessels with PEC holders on board must pay what is called a 'pilotage readiness fee'. This fee is paid by all vessels subject to compulsory pilotage regardless of whether a state pilot is used or not. Thereafter vessels without a PEC holder must pay an additional *pilotage service fee*.

There is evidence that fees for shore-based pilotage, like PEC holders, are either the same or lower than standard pilotage fees:

- No shore based pilotage fees (Latvia and Portugal);

- 20 – 25% of standard pilotage fees (Italy); and

- Fees are the same for shore-based pilotage as having a pilot on board (Belgium, Bulgaria and Malta).

In the Netherlands a new tariff system is being introduced, so that the fee structure is in line with that currently in place for pilotage, which is cost based.

Table 60 – Fees for shipping lines using a PEC and shore-based pilotage

Country	PEC fees (e.g. dues) for shipping lines	Shore-based pilotage fees for shipping lines
Belgium	Every single call (incoming or outgoing) a fee of €100 is charged. Taking into account the pilotage dues calculated for three specified vessel types, this fee constitutes a significant reduction compared with the standard pilotage due, depending on the type of vessel (more than a 90% discount in some cases, 40% discount in others). Harbours: no costs involved.	The same pilotage fee as for a pilot on board the vessel.
Bulgaria	Nil. There are no fees for pilotage if the vessel is using a PEC.	The fees for shore-based pilotage are the same as if the pilot is on board the vessel.

Country	PEC fees (e.g. dues) for shipping lines	Shore-based pilotage fees for shipping lines
Croatia	For those ships which have been granted with PEC, the basic pilotage fee is reduced by 50%.	n/a
Cyprus	n/a	n/a
Denmark	Nil. There are no extra pilotage fees for ships using PEC holders. Average cost for PEC over last three years: DKK 6,739.19 (€906.63). Average cost for pilotage mission over last three years: DKK 6,872 (€924.55) (DanPilot) – evident that PECs are cost-effective for shipping lines, as cost for one PEC is more or less equivalent to the cost of one pilotage mission.	Information not provided.
Estonia	Nil. No fees for the pilotage. All other fees are applied.	n/a
Finland	Nil. Shipping companies usually pay compensation to a Master who has a PEC.	n/a
France	Where a ship has a Captain with a PEC, the ship pays a reduced rate. This fee is set at a local level. It is difficult to summarize the diversity of local situations, but overall: - The price for ships that are captained by the licensee is rarely greater than five per cent of the general rate for compulsory pilotage; and - Ports with regular daily connections with other ports (e.g. UK) have established, for ships engaged in these links (when their Captain is the licensee), a sliding scale depending on the number of annual movements, this tariff being generally less than five per cent of the general rate for compulsory pilotage.	n/a
Germany	Payment of pilotage dues is still required, without any reduction.	No special fee for shore-based pilotage.
Greece	n/a	n/a
Ireland	Varies between ports, usually 25% to 33% of the pilotage fee[103]. In Dublin, if the Master or Chief Officer is a PEC holder, the vessel owner pays the Authority 7.25% of the rate which would have been payable in respect of the pilotage within the Pilotage District if the officer had not held a PEC (on every occasion).	Information not provided

[103] AMPI.

Country	PEC fees (e.g. dues) for shipping lines	Shore-based pilotage fees for shipping lines
Italy	n/a	Generally equal to 20 – 25% of on board pilotage fees.
Latvia	Pilotage fees are decreased by 50% (PEC).	Nil. No fees for using shore-based pilotage (Riga).
Lithuania	Nil. The ships using PECs do not pay pilotage fees.	Information not provided
Malta	Nil.	The fees for ships using shore-based pilotage are the same as those found in the Schedule to the Maritime Pilotage Regulations.
Netherlands	Nil.	It is difficult to give an indication because the pilotage fee is based on the draft of the vessel. The basic rate is that pilotage fee must be cost based. Currently this is not the case for shore-based pilotage, but it will be in a new tariff system which takes effect as of 1 Jan 2014.
Norway	The *pilotage readiness fee* is paid by all vessels subject to compulsory pilotage regardless of whether a state pilot is used or not. Vessels without a PEC holder have to pay also for *pilotage service fee*. Pilotage readiness fee is in between 15%-40% of the total fee paid by vessels without a PEC holder. Example: the non-specialized general cargo vessel calling on the port of Oslo without a PEC-holder must pay 12,000 NOK (€1,578). The same vessel with a PEC-holder must pay 3,350 NOK (€441) + a relative part of the amount paid for issuance of the PEC(s). The relative part will vary according to the number of PEC-holders and how many calls on port during the 3-year period (to calculate the relative part you have to divide the amount paid for the PEC(s) on the number of ports called on).	Information not provided
Poland	Nil. There is no pilotage fee for the vessel having the PEC in place.	n/a
Portugal[104]	Nil.	Nil.
Romania	n/a	n/a
Spain	Nil. When they are exempted there are no pilotage fees, but they pay for the information service to ships.	n/a
Slovenia	n/a	n/a

[104] Based on discussion with Associação dos Pilotos de Barra e Portos.

Country	PEC fees (e.g. dues) for shipping lines	Shore-based pilotage fees for shipping lines
Sweden	No fees, except for fairway dues, which all ships pay, regardless of piloting or not. Anecdotally some shipping lines pay Captains a higher salary if they have a PEC as benefit to the shipping line.	n/a
UK	These fees may be determined by CHAs, so will vary from port to port (see below).	n/a
UK – Belfast	20% of the fee that would apply if a pilot had been on board.	n/a
UK – Dover	No information provided.	n/a
UK – Forth	25% of the fee that would apply if a pilot had been on board.	n/a
UK–Milford Haven	£20 (€24.70) per movement. Capped at 500 movements per company.	n/a
UK -Southampton	25% of the fee that would apply if a pilot had been on board.	n/a
UK – Tees	Nil.	n/a

2.9 Shore-based pilotage

2.9.1 Definition and context

The European Maritime Pilots' Association (EMPA) Charter sets out the following definition of shore-based pilotage: *'shore-based pilotage is an act of pilotage carried out in a designated area by a pilot licensed for that area from a position other than on board the vessel concerned to conduct the safe navigation of that vessel'*. EMPA also makes the point that shore-based pilots *cannot be a substitute for pilotage performed by a pilot on board.*

As with other forms of pilotage, it is the case that countries have their own definition and understanding of what shore-based pilotage is – and this has evolved over recent years as ports continue to develop and implement highly sophisticated VTS systems, advanced radar, traffic control and position fixing systems.

Generally shore-based pilotage is understood to be when a pilot provides advice to the Master from the shore–or as understood by some, advice from a pilot aboard a pilot boat, or other vessel.

It can also refer to the provision of nautical/navigational assistance from VTS teams to the pilot on board or Master on navigation, for example in bad weather or to assist extremely large vessels, even in good weather. It is also the case that pilots who are based ashore can assist the VTS teams, thus act as VTS officer rather than pilot.

Regarding VTS, there are three types of service that can be provided to vessel traffic – information service, traffic organization service and navigational assistance service. Navigational Assistance service (NAS) is defined in the IMO Resolution A.857(20) as '*when the VTS is authorized to issue instructions to vessels, these instructions should be result-oriented only, leaving the details of execution, such as course to be steered or engine manoeuvres to be executed, to the Master or pilot on board the vessel*'. This navigational/nautical assistance therefore differs from that generally given by a pilot either on board or

ashore in that it does not advise on the control of the vessel, rather it is a service to assist decision-making on board by the Master or pilot.

2.9.2 *Shore-based pilotage trends in the EU, Croatia and Norway*

As described above there are many interpretations of what 'shore-based pilotage' actually is – the definition above could for example cover advice from a pilot given from a pilot boat or another vessel, rather than ashore. From the responses gathered, it is the case that some national administrations go as far as to consider advice from a VTS officer from the VTS centre, rather than a pilot, as shore-based pilotage.

Thus, the interpretation of what shore-based pilotage is has naturally influenced the responses from national administrations.

Shore-based pilotage is reported to occur in eleven countries, mostly in exceptional circumstances, such as bad weather or for reasons of safety, when the pilot is not able to board a vessel.

It was reported in twelve countries that shore-based pilotage does not occur.

In France, the view of the national administration is that the only satisfactory situation is when a pilot is on board as any other location contradicts the law. It is the case however that the VTS systems in France are used to provide nautical assistance to vessels and some ports reported the usage of shore-based pilotage in bad weather (nonetheless the official national position is that shore-based pilotage is not used).

In ten countries advice from a pilot can be given from a pilot boat or from another vessel. In some countries this is the only advice a pilot can give other than being on board the vessel being piloted (Estonia, Norway and Romania). Interestingly, the response from Estonia is that shore-based pilotage is not carried out, while in Norway the respondent stated that shore-based pilotage does exist – highlighting a fundamental difference in perception. Similarly in Finland, Slovenia, Sweden and the UK, advice from a pilot boat or other vessel is possibly not interpreted as constituting shore-based pilotage.

In Latvia shore-based pilotage is used for around one third of ships entering or leaving a port – in Riga it is provided as *additional advice* to ships, while in Lithuania, Germany and the Netherlands it was also stated that shore-based pilotage is offered as a complementary service to the pilot on board.

Table 61 presents a comparison of practices across countries, drawing upon the survey results.

Table 61 – Shore-based pilotage – a comparison of practices

Country	Is shore-based pilotage used?	When pilots advice from shore can occur	Can pilot give advice from pilot boat/other vessel?	VTS
Belgium	Yes.	Incoming vessels only/bad weather.	Yes.	Yes.
Bulgaria	Yes.	Bad weather/regular high-speed passenger vessels/supply vessels with safety issued around pilot boarding.		Yes.
Croatia	No.			Yes.
Cyprus	No.			Yes.
Denmark	Yes.	Bad weather or other conditions preventing pilot embarkation.	Yes (preferable method).	Yes.

Country	Is shore-based pilotage used?	When pilots advice from shore can occur	Can pilot give advice from pilot boat/other vessel?	VTS
Estonia	No.	Bad weather or other conditions (e.g. preventing pilot embarkation). Pilot's advice is from pilot boat/other ship and not shore.	Yes.	Yes.
Finland	No.		Yes.	Yes.
France	No.			Yes.
Germany	Yes.	As additional advice to pilot only.		Yes.
Greece	No.			Yes.
Ireland	Yes.	Bad weather.	Yes.	Yes.
Italy	Yes.	Regular ferries or small ships mostly departing.		Yes.
Latvia	Yes.	If visibility is poor. As additional service. Compulsory for some vessels. Significant usage.		Yes.
Lithuania	Yes.	No advice given by pilot ashore. Shore-based pilotage is undertaken by VTS.		Yes.
Malta	Yes.	Rarely used.		Yes.
Netherlands	Yes.	Bad weather, or to complement pilotage.		Yes.
Norway	Yes.	Advice is only given from pilot boat.	Yes.	Yes.
Poland	No.			Yes.
Portugal	Yes.	Bad weather or other conditions preventing pilot embarkation.		Yes.
Romania	No.		Yes.	Yes.
Slovenia	No.		Yes.	Yes.
Spain	No.			Yes.
Sweden	No.		Yes.	Yes.
UK	No.		Yes.	Yes.

The following tables provide a description of shore-based pilotage in each country.

Table 62 – Shore-based pilotage in Belgium

Extent of shore-based pilotage	When pilotage is suspended shore-based pilotage is used. The shore-based pilotage is subject to certain limitations and may not apply to all vessels (dimensions in combination with depth). The goal of shore-based pilotage is to bring the vessel to a location where the pilot can physically board the vessel. Shore-based pilotage is considered "second best", the best is a physical pilot on board the vessel. There are other situations where it is considered necessary for safety reasons to have both a pilot on board and a pilot on shore but this is not considered to be shore-based pilotage.
Circumstances when used	Shore-based pilotage is only used when: - It is physically impossible for the pilot to board the vessel (e.g. in bad weather); and - Only for incoming vessels (for outgoing vessels the pilot can board the vessel in port). There are limiting factors: for the route Wandelaar (West) – Flushing anchorage: LOA of max 175 metres and depth of max 80 metres. For the route Stone Bank (North)–Flushing anchorage LOA of up to 115 metres and depth of max 64dm. On the route Steenbank (North) there is no shore-based pilotage for sea-going vessels. Shore-based pilotage is only provided for on the route from the first pilot station to the pilotage switch at Flushing anchorage. The vessel must have the necessary means of communication on board. The Master of the vessel should explicitly (through VHF) agree with the shore-based pilotage. Vessels transporting IMO gas loads can only use shore-based pilotage when they are included in the list of LOA-IMO vessels. This list takes into account the knowledge of the Master of the local area and thus the number of calls/frequency.
Shore-based pilotage – responsible entity	The shore-based pilotage, by which a pilot gives advice from the shore, is done by the Pilotage Services within the Internal Autonomous Agency for Maritime and Coastal Services. The shore-based pilotage is done by pilots, from the Traffic Central in Zeebrugge (within the Pilotage Decree) or from Flushing (within the Revised Scheldt Rules). The Shipping assistance Division is responsible for the technical equipment.
VTS systems	The VTS is responsible for the provision of information, for providing navigational assistance and traffic organization. The same words are used as in the IMO Resolution A.857(20), adopted on 27 November 1997 concerning Guidelines for VTS and in the IALA Vessel Traffic Service Manual. Besides information and traffic organization/traffic management, VTS also provides navigational or nautical assistance, which is provided by a VTS operator. Nautical or navigational *advice* is only given by pilots.
VTS – responsible entity	The Shipping Assistance Division is responsible for the VTS, also within the Agency for Maritime and Coastal Services. The traffic management is done from the Joint Nautical Authority for shipping traffic that is subject to the Revised Scheldt Rules.

Table 63 – Shore-based pilotage in Bulgaria

Extent of shore-based pilotage	Shore-based pilotage in the ports of Varna and Burgas is used very rarely. A log of pilotage activities is kept by the pilot dispatchers in Varna and Burgas pilot stations, which can be consulted in order to find out how often. It is carried out by the pilot dispatchers according to internal procedures ISO 9001/ISPO Code.
Circumstances when used	Shore-based pilotage in Varna and Burgas pilot stations is only executed when the weather conditions are not good for pilot boarding and on pilot boarding positions. In those cases the dispatchers from the pilot station direct the ship to a safe place where the pilot embarks the ship and starts the manoeuvre by himself. It is applicable as well for some specific cases with high speed passenger vessels, supply

	vessels where the requirements for pilot boarding are not safe. In such cases the Masters of those ships must be authorized by the Harbour Master for a specifically defined period of time. English is required.
Shore-based pilotage – responsible entity	Pilot stations.
VTS systems	Yes. VTS operators man the VTS centres, providing nautical assistance to the vessels. The pilot company dispatchers operate from different terminals in the same centre. The main difference is that these persons can give advice to the Master.
VTS – responsible entity	The VTS Centres in Varna and Burgas are operated by a State Enterprise Company "Ports Infrastructure".

Table 64 – Shore-based pilotage in Croatia

Extent of shore-based pilotage	Shore-based pilotage is not used. In Croatia a pilot is currently not permitted to give advice to a vessel from ashore.
Circumstances when used	No indication given that shore-based pilotage is used in any exceptional circumstances.
Shore-based pilotage – responsible entity	n/a
VTS systems	VTS is used to provide general navigational advice or warnings (for example collision courses, dangerous shore vicinity, etc.) – generally, the organization of navigation and management of maritime transport, as well as overall oversight over safety of navigation. This advice is provided by VTS officer only. A pilot does not have to be on board to receive advice from VTS. Some practical information on conditions in port are provided by the port authorities, though this will cease when VTS will be fully implemented.
VTS – responsible entity	Harbour Master and National VTS Service.

Table 65 – Shore-based pilotage in Cyprus

Extent of shore-based pilotage	Shore-based pilotage is not used. Pilotage in Cyprus only has one definition, which applies to all ships in port areas when moving in/out/shifting in said port areas.
Circumstances when used	No indication given that shore-based pilotage is used in any exceptional circumstances.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes. The VTS service plans and coordinates traffic movements and provides information services concerning arrival, berthing, anchoring and departure of vessel, as well as information on aids to navigation and navigation generally.
VTS – responsible entity	Operated from a centre at the Port of Limassol.

Table 66 – Shore-based pilotage in Denmark

Extent of shore-based pilotage	Shore-based pilotage is rarely employed (approximately five times per year on the west coast of Jutland approaching harbours of Esbjerg, Hanstholm and Hirtshals in rough sea and/or weather conditions). In all other areas it rarely happens (one time in five years).
Circumstances when used	Shore-based pilotage is not performed in Denmark, unless weather or other conditions prevent the pilot from embarking the ship, in which case the ship shall as far as possible be piloted from the pilot boat or from shore until the pilot can embark.

Shore-based pilotage – responsible entity	The Danish Pilotage Act, section 15, states that: t*he Director General of the Royal Danish Administration of Navigation and Hydrography defines more specific rules governing trials with and the possible establishment of land-based pilotage.* However, such specific rules have not been made, and it is therefore not legal to perform shore-based pilotage.
VTS systems	Yes. The VTS centre provides nautical assistance in the form of information on the area, traffic density, depth, weather, etc. VTS does not provide navigational advice that is equivalent to advice from a pilot.
VTS – responsible entity	Admiral Danish Fleet is the national VTS authority for BELTREP, Great Belt VTS and SOUNDREP, Sound VTS. Vessel traffic monitoring is performed by BELTREP, Great Belt VTS and SOUNDREP, Sound VTS. Coastal surveillance, etc. is performed by Admiral Danish Fleet, Maritime Surveillance Centre North, Maritime Surveillance Centre South, "Project Bornholm" (collaboration between the Danish Police, Navy and Customs) and the Danish Pilotage Authority.

Table 67 – Shore-based pilotage in Estonia

Extent of shore-based pilotage	Shore-based pilotage is not used – but there are provisions in the Maritime Safety Act governing the use of radio communication.
Circumstances when used	There are specific terms in the Maritime Safety Act Section 60. Pilotage of Ships under Special Conditions: if a pilot cannot embark a ship, due to poor hydrometeorological conditions or for any other reason, the pilot shall, with the consent of the Master of the ship, organise the pilotage of the ship by using radio communication from a pilot boat or other ship at minimum safe distance from the ship, except another ship that is being piloted. Continuous radio-communication shall be ensured between the piloted ship and the pilot.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes. Transmitting navigational information and warnings to seafarers. If the ship is within a compulsory pilotage area a pilot must be on board.
VTS – responsible entity	Estonian Maritime Administration (Vessel Traffic Management Department) is responsible for VTS.

Table 68 – Shore-based pilotage in Finland

Extent of shore-based pilotage	Shore-based pilotage is not used. Actual pilotage is only done on board the vessel. Advice relating to the boarding of the pilot can be given from the pilot boat (e.g. making the lee, pilot ladder, etc.).
Circumstances when used	None.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes. Navigational assistance can be given to identified vessels on request or when deemed necessary by the VTS centre. For example, information on course, speed and warnings (e.g. on shallow water). Navigational assistance is only advisory and normative; the Master of the vessel is still responsible for the manoeuvring of the vessel. This is provided by a VTS Office only as defined by the decision of the Transport Ministry in accordance with the Act.
VTS – responsible entity	Finnish Transport Agency.

Table 69 – Shore-based pilotage in France

Extent of shore-based pilotage	Shore-based pilotage is not used. This possibility was not considered relevant for the approach to French ports in view of safety requirements, the characteristics of each port and each ship. For the French authorities, these security requirements in respect of the ship, port and third parties can be satisfied only by the presence on board of pilots that have in situ an overall view of the situation enabling them to attend a Captain in manoeuvring the ship. Moreover, the presence of a pilot allows port authorities to be, if necessary, alerted to risks (environmental, health, safety and security) before the vessel arrives at port. The pilot is subject to mandatory reporting of apparent deficiencies that could compromise the safety of navigation or pose a threat to the marine environment under Decree No. 2012-161 of 30 January 2012 amending Decree No. 84-810 of 30 August 1984 on the safety of life at sea, the authority to board ships and pollution prevention. This obligation is also included in the Erika III package (ships safety). Although shore-based pilotage is not officially used in France, few ports (i.e. Bastia, Marseille – Fos and Nice) reported that it is rarely used in case of emergency or bad weather conditions.
Circumstances when used	Although shore-based pilotage is not officially used in France, few ports (i.e. Bastia, Marseille – Fos and Nice) reported that it is rarely used in case of emergency or bad weather conditions.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes.
VTS – responsible entity	No information provided.

Table 70 – Shore-based pilotage in Germany

Extent of shore-based pilotage	Shore-based pilotage is generally provided as additional advice and information to a pilot already on board or to Masters/Chief Officers with PEC in forms of shore-based radar assistance, not as a replacement of the pilot on board. Shore-based pilotage is used frequently – in some areas almost every day, while in others around 10% of passages involve shore-based pilotage.
Circumstances when used	The possibilities of making use of the provision of radar advice from ashore are restricted by the fact that radar advice is not generally provided at all times. The Master of a vessel exempted from the obligation to take a pilot shall be under an obligation to make use of the radar advice from ashore provided by pilots whenever the range of visibility in any one of the areas covered by radar is less than 200 metres. When the pilot boat is stationed at the bad weather position and if there is no pilot embarked, the Master of a vessel, which is required to take a pilot on shall be obligated to make use of the radar advice from ashore provided by pilots. Radar advice from ashore shall be provided when the provision of such radar advice has been requested by a Master or when the provision of such radar advice has been officially imposed by the shipping police authority. The provision of radar advice from ashore shall not be requested for the purpose of avoiding taking a pilot on board.
Shore-based pilotage – responsible entity	Local pilotage organizations are in charge of shore base pilotage services through radar equipment provided by the Administration.
VTS systems	Yes. Information service, navigational assistance service and traffic organizational service. VTS centre informs, assists and manages the traffic in the territorial waters and in the German exclusive economic zone.
VTS – responsible entity	VTS is carried out sovereign by officers of the Waterways and Shipping Administration and from the Hamburg Port Authority.

Table 71 – Shore-based pilotage in Greece

Extent of shore-based pilotage	Shore-based pilotage is not used.
Circumstances when used	No indication given that shore-based pilotage is used in any exceptional circumstances.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes.
VTS – responsible entity	Ministry of Development, Competitiveness and Shipping is responsible for VTS. VTS is generated by officers of Hellenic Coast Guard who are responsible for monitoring the navigational area and giving permission and instructions to vessels.

Table 72 – Shore-based pilotage in Ireland

Extent of shore-based pilotage	Shore-based pilotage is not used except in bad weather. In certain emergency (oil spill, collision, salvage) circumstances various official bodies can give orders under national EU and international law to the Master which he must obey. A Harbour Master usually has very extensive and immediate powers to give orders to a vessel Master to prevent it entering departing or doing anything in contravention of the Harbour Master's order. The execution of the manoeuvre consequent upon that order is usually carried out by the Master with the assistance of a pilot if one is on board, or is put on board by the order of the Harbour Master.
Circumstances when used	In bad weather to enable a ship to reach a safe boarding area for the pilot. Usually the channel is cleared of all other traffic to facilitate entry. The pilot may lead the vessel from the pilot boat or another vessel if that is safe to do so. With large and difficult vessels this exception may not be acceptable to the Master, the pilot or Port Authority as it would be too risky. Often to avoid carrying a pilot in bad weather ships may be allowed to depart from some ports if the Harbour Master is satisfied and authorizes that the vessel can be so navigated in the compulsory pilotage district. Some ports are concerned with pilots being carried away in bad weather (e.g. cost and roster impact) and in some circumstances the Port Authority may request a vessel unable to disembark a pilot due to bad weather to return to port, drop the pilot and proceed out of the port without a pilot.
Shore-based pilotage – responsible entity	Port Companies.
VTS systems	In some ports VTS will give directions to ships with pilots or PEC holders, advising on traffic and other constraints if necessary. They will never give directions to the Master on navigation in the compulsory pilotage area. An exception is where a ship is seen standing into danger and if possible they will give warnings by radio to change his intentions[105]. Any person in charge of the vessel; usually the Master, officer in charge or pilot can accept or must act on advice from a properly constituted VTS or VTIMS, unless they have a compelling reason not to do so.
VTS – responsible entity	The port Companies and Harbour Masters are responsible for VTS. In some ports pilots man the VTS stations.

[105] Information provided additionally by AMPI.

Table 73 – Shore-based pilotage in Italy

Extent of shore-based pilotage	There is no specific legislation regarding shore-based pilotage. Shore-based pilotage is used as an alternative to on board pilotage. It is provided via radio (VHF) from pilots of the same corporation. It is also referred to as VHF pilotage. This type of service is provided on more than 30% of pilotage missions. There have been no accidents with VHF pilotage. At present VHF pilotage is not supported by VTS.
Circumstances when used	It is generally allowed for ferries, given the frequency of landings, or small ships (<2000 GT), generally when going out, but often when coming in, too. VHF pilotage is not allowed occasionally, but each port has the power to grant its use based on certain criteria/requirements: - Minimum number of calls at port (5 or 10 for example); - Knowledge of the Italian language; and - Favourable/suitable weather conditions. These requirements are not fixed and are reviewed from time to time.
Shore-based pilotage – responsible entity	Pilot corporations are responsible for shore-based pilotage via VHF. Authorization for shore-based pilotage can be granted by the Ministry of Transport to a Master for a specific vessel and a specific port, based on security assessments carried out by the Competent Harbour Authority.
VTS systems	Yes.
VTS – responsible entity	VTS monitoring is operated by local Harbour Master (i.e. Capitaneria di Porto). VTS monitoring activity generally concern the area outside the port.

Table 74 – Shore-based pilotage in Latvia

Extent of shore-based pilotage	Shore-based pilotage is used for approximately 30% of ships entering or leaving a port. In Riga shore-based pilotage is provided as additional advice to ships entering or leaving operations with a pilot on board or without. Shore-based pilotage does not liberate a Master from liability to navigate the vessel.
Circumstances when used	In Ventspils the use of shore-based pilotage is compulsory not withstanding weather conditions for vessels >150 metres length, draught >11.5 metres, cargo loaded tankers. If visibility is limited to two miles, or wind speed exceeds 8 metres/sec shore-based pilotage is compulsory for vessels >70 metres in length. There are a number of other requirements, such as: - Knowledge of national (Latvian) language or one of international maritime languages (English or Russian); - Presence of standard VTMIS equipment (Riga) and a VTS station (Ventspils); - Equipment on ship is in good working order, according to SOLAS requirements; and - Valid Master license.
Shore-based pilotage – responsible entity	Shore-based pilotage is used at the request of the pilot. The Maritime Administration of Latvia is responsible for shore-based pilotage, along with the Port Authority and Harbour Master at a local level.
VTS systems	Yes.
VTS – responsible entity	Maritime Administration of Latvia, Port Authority, Harbour Master–VTS. Maritime Administration of Latvia issues certificates to pilots and operators of the vessel traffic services (VTS) and performs supervision of qualification examinations.

Table 75 – Shore-based pilotage in Lithuania

Extent of shore-based pilotage	Shore-based pilotage is carried out by the VTS Officer in the Port of Klaipeda, whether the pilot is on board or not. No advice is provided by a pilot that is based ashore.
Circumstances when used	In bad weather conditions where it is not possible for the pilot to board the vessel, VTS pilotage is used to guide small vessels to the port gates, where the pilot is able to board the vessel. VTS pilotage is also used to provide additional advice and information to a pilot on board.
Shore-based pilotage – responsible entity	Harbour Master is responsible for VTS monitoring and shore-based pilotage is carried out by VTS.
VTS systems	Yes. VTS is used as shore-based pilotage (see above).
VTS – responsible entity	Harbour Master is responsible for VTS monitoring – shore-based pilotage is carried out by VTS and is provided as additional advice and information to a pilot on board.

Table 76 – Shore-based pilotage in Malta

Extent of shore-based pilotage	Shore-based pilotage is used very rarely. During shore-based pilotage a pilot does not have to be on board.
Circumstances when used	According to Regulation 30 of the Maritime Pilotage Regulations shore-based pilotage shall only be provided when required and accepted by the Master of the ship and allowed by the Authority and the pilot rendering the shore-based pilotage considers it possible. *The Authority in consultation with the service provider shall establish the norms under which such service shall be rendered.*
Shore-based pilotage – responsible entity	The Authority for Transport in Malta is responsible for shore-based pilotage.
VTS systems	Yes. The VTS officers provide mainly traffic organisation and an information service. Additionally, they provide local information, weather forecasts and information relating to Notices to Mariners that may be of relevance to the ship whilst navigating within the Maltese Territorial Waters.
VTS – responsible entity	The Authority for Transport in Malta is responsible for VTS. VTS nautical assistance can be provided either by a pilot or by a VTS officer, after agreement with the Master.

Table 77 – Shore-based pilotage in Netherlands

Extent of shore-based pilotage	Shore-based pilotage is complementary to ordinary pilotage and can be used as an alternative when pilotage is suspended mainly due to bad weather, or if the safety situation so requires. Once the vessel is in the port a pilot embarks. Shore-based pilotage was used 4,380 times in 2011.
Circumstances when used	Due to bad weather, if the pilot cannot board the vessel or if the safety situation so requires.
Shore-based pilotage – responsible entity	Shore-based pilotage is performed by the pilots via/with the aid of the vessel traffic control centres (State or port owned).
VTS systems	No information provided.
VTS – responsible entity	No information provided.

Table 78 – Shore-based pilotage in Norway

Extent of shore-based pilotage	Shore-based pilotage is not used unless in bad weather. Guidance from a pilot boat might be given to both inbound and outbound vessels and is used when the adverse weather conditions do not allow safe boarding of/disembarkation from the vessel at the standard designated pilot embarkation/disembarkation point. An inbound vessel shall in these circumstances be guided by the pilot from his position on board the pilot boat until they reach more sheltered waters where safe boarding can take place. An outbound vessel will be disembarked by the pilot on an alternative disembarkation point in more sheltered waters and then followed by the pilot boat from which the pilot shall give advice to the vessel until the vessel is clear of the coast/outside waters subject to pilotage.
Circumstances when used	The only instance where a pilot gives advice from outside the piloted vessel in Norway is when the weather does not allow the pilot to board safely from the pilot boat on the designated pilot embarkation/disembarkation point. In these circumstances the pilot shall give advice to the vessel from his position on board the pilot boat.
Shore-based pilotage – responsible entity	The NCA is responsible for shore-based pilotage: however there is none in Norway.
VTS systems	The Norwegian Vessel Traffic Service (VTS) offers three types of services; 1. Information Service (INS), 2. Navigation Assistance Service (NAS) and 3. Traffic Organization (TOS). - Information service (INS): provision of important information at the right time to support the nautical decision-making processes on board (information provided may include traffic situation, meteorological and hydrographic information, relevant limitations or activities in the fairways, guidelines for mandatory reporting, VHF channels that are used in the VTS area); - Navigation Assistance Service (NAS): is established either on request from a vessel or when the traffic controller observes irregular navigation and the traffic controller deems it necessary to intervene. The vessel and traffic control centre will agree on when the navigation assistance service starts and stops; and - Traffic Organization Service (TOS): the purpose of this service is to prevent hazardous situations from developing and to ensure safe and efficient navigation through the VTS area. The traffic control centre provides information, advice and instructions to vessels. Vessels report before sailing into the VTS area, or when leaving an anchorage site or dock in order to avoid traffic congestion that can create critical situations. There does not need to be a pilot on board at the time of receiving this advice and information.
VTS – responsible entity	NCA operates five VTS systems.

Table 79 – Shore-based pilotage in Poland

Extent of shore-based pilotage	Shore-based pilotage is not used. Pilotage is only performed by the pilot present on board the ship or on board the towing set. During bad weather conditions a vessel can obtain permission to approach the entrance only to facilitate pilot embarkation.
Circumstances when used	None. There is no possibility to have pilot services other than pilot embarkation.
Shore-based pilotage – responsible entity	While there is no shore-based pilotage, the pilot organization, as established by Maritime Office Director, is responsible for shore-based pilotage.
VTS systems	Yes. Generally VTS instructions are for vessels outside the harbour areas where pilotage is not compulsory. According to the rules, VTS services are limited for organizing ships' movements and providing information only. A pilot does not need to be on board when advice is being given. The main function of Zatoka Gdanska VTS is to give information and provide navigational assistance for those vessels which are outside the area of compulsory pilotage. The information comprises: all navigational dangers, density of ship movements, ships' clusters,

	meteorology and hydrology, navigational signs, prediction of potential collision, information about other ships manoeuvring in the area, local operations and harbour conditions and availability of anchorage areas. In Poland VTS does not employ pilots for providing advice.
VTS – responsible entity	Maritime Office Director is responsible for VTS in Swinoujście, Szczecin, Gdynia and Gdańsk pilotage areas. For other ports within Slupsk Maritime Office Harbour Master and pilotage organizations are responsible.

Table 80 – Shore-based pilotage in Portugal[106]

Extent of shore-based pilotage	Shore-based pilotage is not used unless in bad weather.
Circumstances when used	When the pilot cannot board the vessel, typically in case of bad weather conditions. The service is provided by pilots with the support of VTS equipment.
Shore-based pilotage – responsible entity	Pilot organization with the support of VTS equipment
VTS systems	Yes. Service available in all ports.
VTS – responsible entity	Instituto Portuário e dos Transportes Marítimos (IPTM)

Table 81 – Shore-based pilotage in Romania

Extent of shore-based pilotage	Shore-based pilotage is not used.
Circumstances when used	If the pilot cannot board the vessel, the manoeuvre will not be done. A pilot might give advice to the vessel's Master from a pilot boat, in order to approach boarding point or to offer better shelter in bad weather.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes. All vessels entering the Constanta VTS area shall comply with VTS instructions in view of stating the pilot embarkation/disembarkation point. VTS provides nautical assistance to vessels regarding anchorage area/point of anchorage, pilot boarding point, date and time of entry manoeuvring. VTS nautical assistance is provided by the VTS officer and is provided to all vessels at all times. Other forms of advice include bad weather notifications, vessels movements, positions, traffic, etc. A pilot does not need to be on board when VTS nautical advice is being provided.
VTS – responsible entity	Romanian Naval Authority – responsible for VTS and RoRIS.

Table 82 – Shore-based pilotage in Slovenia

Extent of shore-based pilotage	Shore-based pilotage is not used – at least not from the shore.
Circumstances when used	Exceptionally, a pilot might give advice from on board a vessel to another vessel, when the latter is approaching the pilot station from the seas and until it reaches the pilot boarding area.

[106] Based on discussion with Associação dos Pilotos de Barra e Portos.

Shore-based pilotage – responsible entity	n/a
VTS systems	No VTS, but vessel traffic monitoring. The body in charge can provide instructions to vessels, but not nautical assistance.
VTS – responsible entity	Vessel traffic monitoring is performed by the Slovenian Maritime Administration.

Table 83 – Shore-based pilotage in Spain

Extent of shore-based pilotage	Shore-based pilotage is not used.
Circumstances when used	No indication given that shore-based pilotage is used in any exceptional circumstances.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes. VTS is among the aids to navigation, which is a service conducted in the ports by the Port Authority, designed to improve safety and traffic efficiency and environmental protection. It can vary from the provision of simple information messages to extensive management of traffic within the port. Depending on the ports, the service is given by the pilots themselves or operators of SASEMAR Marine Rescue Society.
VTS – responsible entity	Port Authorities: VTS is according to IMO Resolution.

Table 84 – Shore-based pilotage in Sweden

Extent of shore-based pilotage	Shore-based pilotage is not used. Swedish pilots do not give navigational assistance at all from ashore. Pilots do give advice from a pilot boat in exceptional circumstances.
Circumstances when used	If a pilot is prevented from safely embarking a vessel (e.g. in bad weather or prevailing ice conditions), the vessel may be guided by the pilot from a pilot boat or in another appropriate way according to the Swedish Pilotage regulations. In bad weather, when a pilot cannot be on board the safety of the pilot is prioritised – before approving that the vessel is guided from a pilot boat careful consideration is given to the use of nearby anchorage areas and the time delay of monitoring equipment on the pilot boat, especially in narrow channels and areas with high traffic density.
Shore-based pilotage – responsible entity	n/a
VTS systems	Nautical/navigational advice may be provided by VTS. The communication is made between the VTS operator and the bridge of the ship, irrespective of whether there is a pilot on board or not. The advice may be given by VTS operators within a declared VTS area. Navigational advice within NAS should follow the IALA Guideline No. 1068 On Provision of a Navigational Assistance Service by Vessel Traffic Service. The Swedish VTS regulations states that if required for safety reasons a vessel may be given warnings and advice of significance for its safe transit. Therefore the VTS operators of the Swedish Maritime Administration may give such navigational advice in case of imminent danger such as risk of grounding or collision. In Sweden it has been the case that pilots have worked as VTS officers and have provided Navigational Assistance from ashore to a vessel, though this is regarded as NAS, a service type within VTS, albeit provided by a pilot. This can be executed not only in exceptional circumstances. Pilots no longer work in VTS and therefore this does not occur today.

VTS – responsible entity	STA is the competent authority responsible for VTS and is responsible for issuing VTS regulations including reporting rules within a VTS area and declaring the VTS area and its designated radio frequencies. SMA is responsible for providing VTS according to the set standards. SMA is also responsible for providing maritime safety information as well as ice information.

Table 85 – Shore-based pilotage in UK

Extent of shore-based pilotage	Shore-based pilotage is generally not used. Belfast: any advice provided within the pilotage district will only be provided by a pilot on board the vessel. Advice from the pilot boat or another vessel is not allowed. Southampton: advice from a pilot boat does not occur. Milford Haven: there are occasions where a pilot aboard a pilot boat and in sight of a vessel to be piloted can offer guidance to the vessel. Felixstowe, Hutchinson Ports: shore-based pilotage is rarely used only with bad weather conditions.
Circumstances when used	Southampton: there are no exceptional circumstances in which shore-based pilotage would be executed. Milford Haven: there is a concern that trying to pilot a vessel remotely is technically challenging and questionable legally. This is offered to vessels that have previously been led in or out successfully with a pilot on board but observing the Master's capability. It depends upon the Master's English, familiarity with the port and Port Control, pilot and Master have agreed the passage procedure taking into account size of vessel, draft, visibility, sea and swell conditions, traffic, vessel charts, radar status, navigation aid status, boarding and landing position and any other relevant factor.
Shore-based pilotage – responsible entity	n/a
VTS systems	Yes. Belfast: information and organization of movements is provided by the VTS, which is not manned by pilots. The VTS organize traffic movements and provide timely information to assist on board decision-making. They will ask for clarification from the vessel on their intentions or provide information such as warning and questions. No navigational instructions should be given. Southampton: VTS services occur daily within the CHA area and VTS area. Information Service and Traffic Organization Service are provided by VTS. Milford Haven: if necessary and as determined by the watch Harbour Master vessels can be directed to act. This will nearly always be focused on achieving outcomes and avoiding the development of dangerous situations.
VTS – responsible entity	The Maritime and Coastguard Agency (MCA) is the Competent Authority for VTS within UK territorial waters. The MCA operates two coastal VTS and 20 UK ports are designated to provide a port VTS. The Merchant Shipping (Vessel Traffic Monitoring and Reporting Requirements) Regulations 2004 implemented the EU vessel traffic monitoring Directive.

Respondents were asked to indicate any special requirements that must be in place in order that shore-based pilotage can be used. Special requirements includes, for example:

- Language knowledge, particularly English or the national language;
- The presence of particular equipment either aboard the vessel or ashore; and
- The Master must have specific qualifications and/or knowledge of the area.

Table 86 – Special requirements for using shore-based pilotage

Member State	Requirements
Belgium	Dutch or English, according to the IMO Guidelines VTS. Equipment on shore: shore-based pilotage is carried out by sea pilots. They are therefore brought to the Radar Centre in Zeebrugge from which the radar screens and means of communication are controlled. Normally, a one on one relationship is applied. The Shipping Assistance Division is responsible for the high-tech equipment. The Master of the vessel should explicitly (through VHF) agree with the shore-based pilotage. Vessels, transporting a IMO gas load can only use shore-based pilotage, if they are included in the list of LOA-IMO vessels. This list takes into account the knowledge of the Master of the local area and thus the number of calls and their frequency. The vessel must have the necessary means of communication on board. Valid Certificate as Master or Chief Officer.
Bulgaria	English. The pilot must have access to the VTS terminal and communication equipment, while the vessel must be equipped with VHF, radar and AIS transponder. The pilot has to hold a Master's license and be a 1st grade pilot.
Germany	In principles German language is requested. In exceptional cases the service is provided in the English language. VTS according to IMO standards. Ship equipment according to IMO standards. Pilots must be certified and specifically trained. Valid Certificate as Master or Chief Officer.
Italy	Knowledge of the Italian language. Minimum number of calls at that port with pilot on board (5 or 10). Favourable weather conditions.
Latvia	English or Latvian. Valid Master's certificate. Standard VTMIS equipment/VTS station. Ship equipment in good working order, according to SOLAS requirements.
Lithuania	Shore-based pilotage cannot be carried out without a pilot on board.

2.10 Accident trends on vessels with a pilot or exempted from pilotage

National administrations were asked to provide details of accidents that have occurred in the last three years in their country, on vessels with a pilot or exempted from pilotage.

Not all national administrations were able to provide statistics on the number of accidents and in some cases only limited information was provided about each accident. Information on a total of 436 accidents was

received. This figure includes 384 accidents that occurred to vessels with a pilot on board and 52 accidents involving a vessel exempted from pilotage.

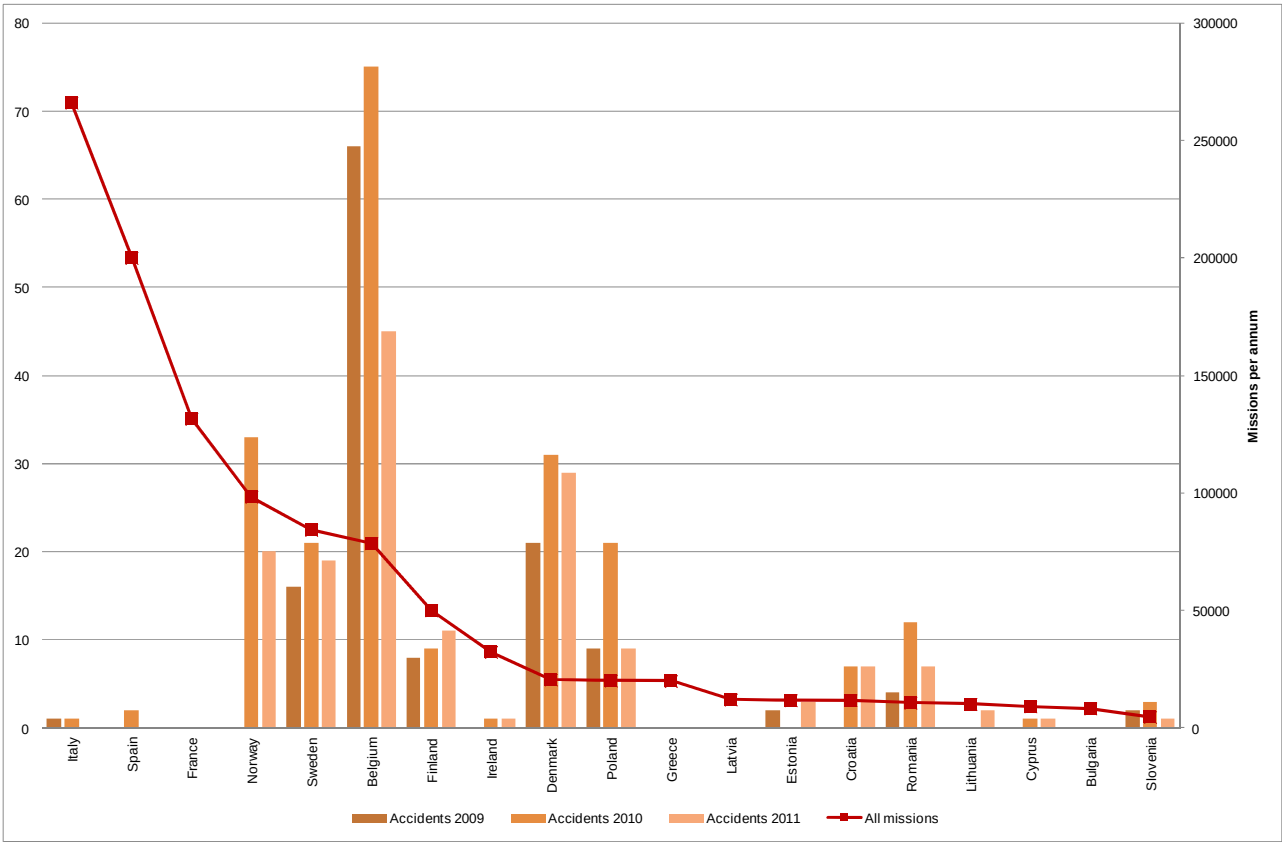
Based on the information collated through the survey no clear trends are apparent in terms of the number of accidents over the three year period or compared to the activity levels at the ports in the countries under examination.

2.10.1 Total accidents by country

France, Greece, Latvia and Bulgaria reportedly experienced no accidents between 2009 and 2011, or the data were not available at national level. In the UK accident data was only available from two ports which are confidential.

Figure 35 shows the number of accidents in each country as well as the total number of pilotage and PEC missions in the year 2011 (combined). It is apparent from the data there are no clear patterns, with significant variation across the vast majority of countries in the three years examined.

Figure 35– Accidents in 2009, 2010 and 2011 and all missions (with pilot or exempted from pilotage) in 2011

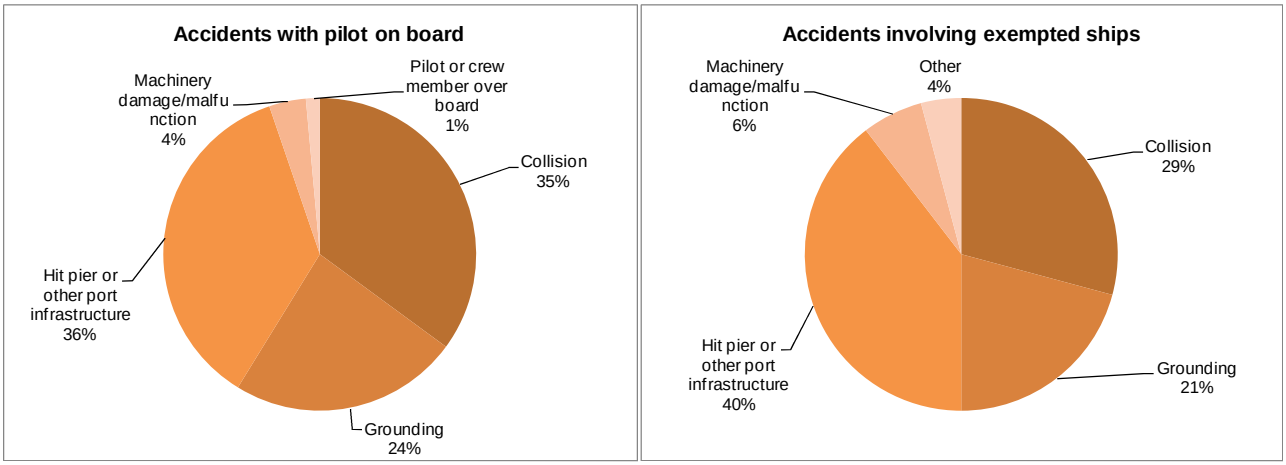


Belgium by far has the highest reported number of accidents, with between 45 and 75 per annum over the three year period. Norway and Denmark then are showing as having the next highest number of accidents, with between 20 and 30 accidents per annum in the period. However, it should be noted that accident reporting and accident statistics are not harmonised at the EU level which is likely to have an impact on the comparability of data.

2.10.2 Nature of accidents involving ships with a pilot on board and exempted ships

Figure 36 cross-compares the nature of accidents involving vessels with and without a pilot. These figures include only accidents for which the nature of accidents was reported (211 accidents involving vessels with a pilot on board and 48 accidents involving a vessel exempted from pilotage).

Figure 36–Accident type in 2009-2011 period with without a pilot present



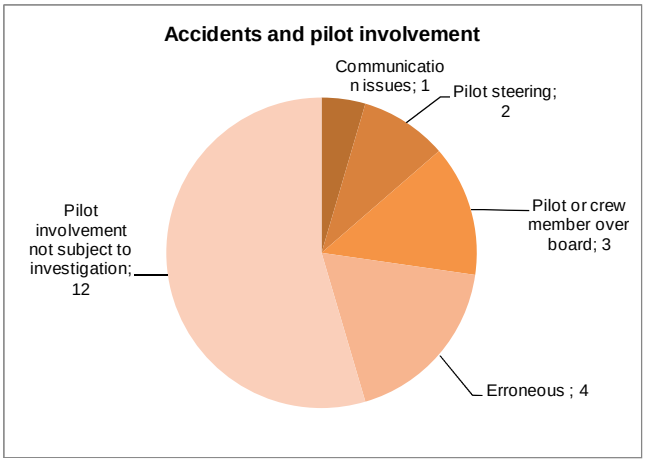
For accidents occurring in the period 2009 – 2011, it seems that the split of accidents by their nature is relatively similar, with or without a pilot on board. Around one-third of accidents comprise either a collision, grounding or hitting a pier or other element of port infrastructure, although a collision or grounding occurs slightly less when there is no pilot on board. Hitting a pier or other element of port infrastructure occurs more frequently when there is no pilot on board.

2.10.3 Accidents by type of pilot involvment

Only in a relatively small number of cases (22 out of 384) is the nature of the pilot's involvement in the accidents known during the period 2009 – 2011.

For the remaining 362 of 382 accidents the actual responsibility of the pilot was not established or was not known.

Figure 37 – Description of the pilot involvment in accidents (number of cases, period 2009 – 2011)



For the majority of the extensively documented accidents (12 out of 22), the pilot was not responsible for the accident. Of the remaining cases, the data reported suggests that communication problems (one record), the

pilot went over board (three records) and pilot steering (two records) were to blame, while erroneous instructions were to blame in four cases.

If we explore in more detail particularly the cases of communication problems and erroneous instructions, the following information is worthy of note in respect to the particular cases in question. The comments perhaps suggest that fault lay with human error in these cases.

Table 87 – Sample accidents with pilots; communication problems and erroneous instructions cited

Accident type	Pilot involvement in accident	Damage caused
Hit pier or other element of port infrastructure	Communication between pilot and ship's Master not effective.	None.
Hit pier or other element of port infrastructure	Careless manoeuvring.	Damage to berth construction.
Hit pier or other element of port infrastructure	Erroneous berthing manoeuvre.	None.
Grounding	Erroneous manoeuvring.	Damage to vessel hull.

2.10.4 Rates of accidents with pilot or PEC holder on board

It is useful to consider the number of accidents, taking into account the volume of pilotage (and exempted from pilotage) missions in any one country.

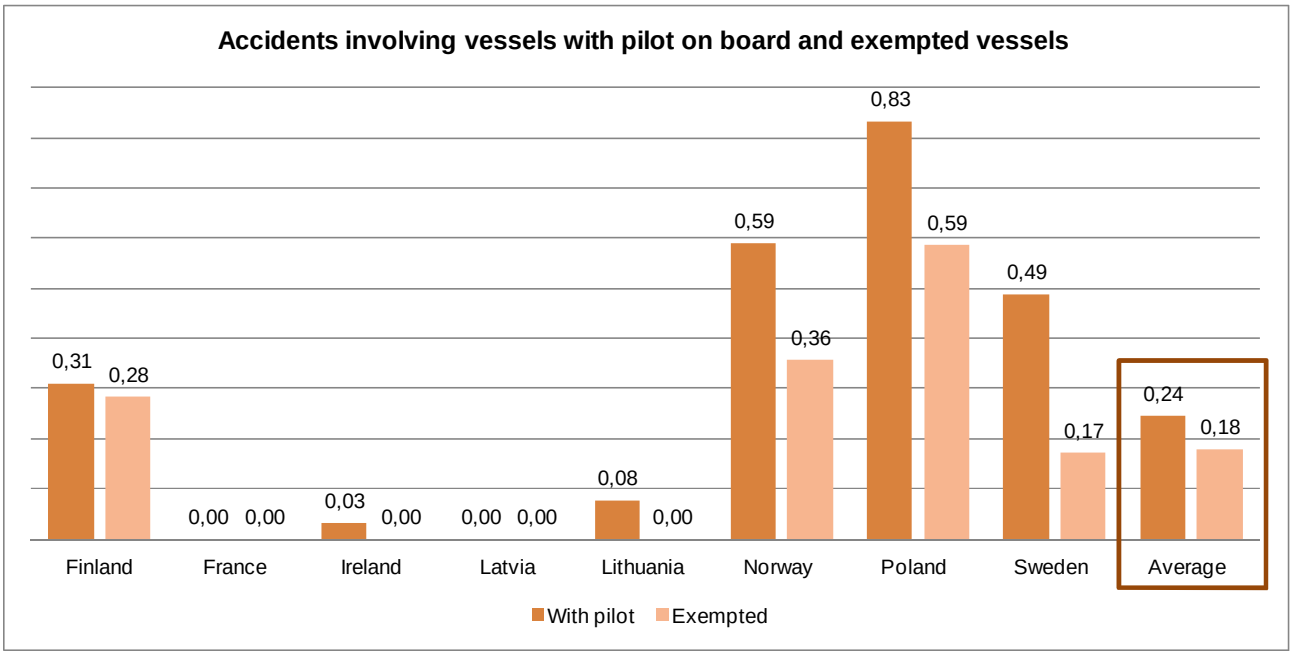
Figure 38 compares the rate of accidents with a pilot on board per 1,000 pilotage missions with the rate of accidents involving exempted vessels per 1,000 exempted missions per country for 2009, 2010 and 2011[107]. The analysis is restricted to only these countries where there are active PECs and for which the needed information was available for a total of 267 accidents.

It is important to note that for the considered countries the 97% of the missions exempted from pilotage were exempted because the Master held a PEC.

Again, the data suggests that there are no clear patterns or trends within the data, but instead a general fluctuation within each of the countries in terms of the rate of accidents.

[107] Estimations based on the cumulated number of pilotage missions and missions exempted from pilotage undertaken in 2011. Only for Norway, analysis refers to the period 2010-2011.

Figure 38 – Rate of accidents with pilot on board and exempted vessels by country (accidents per 1,000 missions, 2009 – 2011)



From the data available it appears that on average the frequency of accidents with PEC holders on board is similar to the frequency of accidents when a pilot was on board; generally 0.18 accidents per 1,000 exempted missions. This frequency is slightly lower compared to a frequency of 0.24 per 1,000 pilotage missions when a pilot was on board.

3 National administrations: views and opinions

3.1 Introduction

This section sets out the views and opinions presented by national administrations concerning:

- What impact PECs have on safety;
- Costs and benefits to the shipping industry;
- Exemption rules;
- The need for EU legislation;
- Language requirements;
- Shore-based pilotage; and
- Technical innovation.

3.2 Views and opinions

3.2.1 PEC impact on safety

Table 88 – National Authorities views on PEC impact on safety

Country	National Authorities views
Belgium	It is important that this possibility [issuing of PECs] is provided. The PEC holders do not cause more accidents. And of course, there is also the VTS. Given that there is a wide range of shipping traffic (smallest to largest sea-going commercial ships, fishing vessels, pleasure craft, working vessels) at the mouths of the river Scheldt and to/from Belgian and Dutch ports, it is imperative that a PEC system is subject to stringent rules and monitoring.
Bulgaria	A system for PEC should only be introduced where appropriate. PECs should include prior risk assessment, clear preconditions/ship cargo, manning, traffic and effective monitoring.
Croatia	No available indicators, though no major differences in safety could be expected through PEC system than what is expected from traditional pilotage.
Cyprus	The ports in Cyprus are closed areas between breakwaters and as vessels are not visiting the ports regularly Masters are not familiar with the ports – thus local pilots are needed to ensure safety of berthing and unberthing.
Denmark	An applicant for a PEC must meet–and a holder of a PEC must continuously meet–the requirement for frequency of calls and local knowledge, which are the same requirements that pilots must meet. A PEC applicant must also pass an oral aptitude test. This is to ensure that an appropriate level of local knowledge is met and safety is not compromised.
Estonia	Not significant.

Country	National Authorities views
Finland	No response.
France	The licensing of Master-pilot has an impact on the safety of navigation in ports and their surroundings, which justifies the vigilance of the public authorities to ensure the safety of navigation. This system supervised by the State is satisfactory. It seems therefore essential to maintain the current system under which the State is the only competent authority to set the conditions for obtaining and issuing licenses to master-pilot on a case by case.
Germany	No response.
Greece	Greece is against the issue of PECs because they threaten safety. For this reason the national administration believes that the extensive experience and qualifications of the pilot are of paramount importance. Greece has almost no accidents. As a result the State has ensured a very high standard of qualifications: at least 10 years' service in the merchant marine environment serving as Master for at least three years on a vessel >500 GT, owning a diploma Captain Class A only, English awareness (Level B2 minimum), sound health, completion of six exams and at least six months training.
Ireland	Opinions are from the ports, rather than the national administration. Cork: if PEC exams are detailed and the Master continues to learn about the particular port, then PECs are safe. The Master must also be very aware of all port operations that could impact on his vessel, this is a weakness with a PEC as most Masters are only concerned with the schedule of their own vessel. Shannon: a correctly managed regime should ensure that impact on safety is minimal. A functioning VTS is considered an integral component of any PEC regime. The inherent risk of a PEC regime is that the pilotage district loses all 'visibility' in terms of assessing conditions on board e.g. Master fatigue, condition of vessel. Waterford: the commercial pressures placed on the holders of PECs are a cause of concern. PEC holders particularly in winter operate their vessels in bad weather and often fail to get adequate sleep during sea passages and are then expected to undertake pilotage duties. PEC holders do not have sufficient backup from their respective bridge teams. This is due to the poor quality of bridge watch keeping officers in the world today. PEC holders need to complete a sufficient number of port visits to gain a PEC and indeed need to maintain a sufficient number of calls to maintain their knowledge. PEC holders should be compelled to take a pilot on board on returning from leave (sometimes this leave is three months), bad weather or from time to time. Drogheda: not suitable for all port, depends on local conditions. Would have the view that STCW standards of many senior officers would give cause for concerns and in many instances command of English is poor.
Italy	PEC reduces safety standards compared with the pilotage service provided via radio (VHF).
Latvia	No impact. The Master is responsible for safety with or without PEC.
Lithuania	The Masters with PECs comply with requirements relating to safe navigation, berthing, unberthing and shifting in accordance with Shipping Rules.
Malta	Malta has always been of the view that the granting of PECs should be the prerogative of the Member State since it affects the safety of navigation within its ports. Malta, being an island state, cannot afford a serious maritime casualty in one of its major international ports and therefore the conditions of granting PECs may have to be more stringent than in other countries which have numerous ports and even land connections.
Netherlands	A PEC is only issued if safety is not compromised. Therefore a PEC should have no impact on safety.
Norway	The presence of a PEC in comparison with no PEC offers a great improvement to the safety in Norwegian national waters.

Country	National Authorities views
Poland	No response.
Portugal	No response.
Romania	Could be a negative impact for safety of navigation.
Slovenia	PECs have an impact on safety – manoeuvring without a pilot it is considered less safe and poses greater risk for accidents. (Opinion reflects only the individual expert opinions and should not be treated as an official position of the Republic of Slovenia).
Spain	PECs are a crack in the chain of port safety and security.
Sweden	A PEC may reduce maritime safety, but within acceptable limits. A PEC may be granted to a person who has extensive knowledge of the ship with regard to manoeuvring and safety. The officers are the experts on their particular ship. In addition to this, the procedure for obtaining PEC in Sweden ensures that the PEC holder will possess the necessary knowledge of the fairway and their overall competence is tested through the examinations.
UK	The UK is content with the current PEC arrangements; they sensibly recognise the skills of experienced Masters and First Mates, and do not appear to impact negatively on safety. Belfast: PEC holders will never have the totality of port or ship handling experience of a harbour pilot. However, within Belfast there have only been two major incidents in a period of over 10 years involving PEC holders. The most recent of which happened two months ago. This would demonstrate that PEC holders are sufficiently competent on the vessels for which they are Mate or Master to conduct pilotage safely in normal circumstances. Forth: There is no indication on the Forth that PEC's have any negative impact on safety. However it is important that port authorities have a robust system in place to ensure there is an appropriate assessment process in place before issuing PEC's. Tees: Provided that PEC holders are qualified and examined no issues with safety.

3.2.2 Costs and benefits of PECs to the shipping industry

Table 89 – National Authorities views on costs and benefits of PECs to shipping industry

Country	National Authorities views
Belgium	The opinion of the cost/benefit to the shipping industry of the PEC system is a question for the shipping companies to judge. A pilotage service is not the right party to voice a judgment on such a system, being a concerned party itself. The governmental organizations have taken upon them the obligation to see to a '"smooth and safe" passage for all ships and craft. In that context they have put legislation regarding PEC in place giving them sufficient guarantees that – when adhered to – the PEC system will not constitute an undue or greater hazard any more than the passage of ships under pilot's guidance.
Bulgaria	No response.
Croatia	No available indicators, although costs and benefits of PEC may vary significantly depending on the requirements envisaged for exemptions as well as characteristics of voyages covered by this approach. Liberal approach to PEC may influence liner shipping in a positive way but on the other hand tramper shipping would be left excluded.
Cyprus	Shipping industry benefits from cost and time reductions only for liner vessels travelling regularly between two ports.
Denmark	The PEC is a flexible solution that in a safe way gives the maritime industry the possibility to reduce their costs by not using a pilot. Nonetheless there are equal demands regarding local knowledge for pilots and PEC holders. Furthermore it must be possible to conduct the aptitude test for PEC in English in order to be a fair system to all.
Estonia	Good for the ship-owners (operators), not good for the service provider (Eesti Loots AS).
Finland	No response.
France	The rules for exemption from the requirement of pilot are necessary but they must be strictly regulated. The system of licensing -for a given Captain, on board a particular ship and for a specific area- must be maintained. The French authorities do not wish to extend the exemption rules that would reduce the safety of navigation.
Germany	No response.
Greece	Cost and benefits are relevant because if an accident happens the economic and environmental results will be huge.
Ireland	Cork: PECs are only a benefit if the Master is competent and agreeable to undertake PEC exams. Accidents with PEC holders can be extremely expensive in claims. Shannon: PECs should reduce the waiting time for pilotage exchange. PECs should also contribute towards a significant cost reduction – in the region of 75%. Waterford: PEC's do provide some savings to ship-owners and may in some of the larger ports cut down on waiting times for pilots; this would be particularly more evident in larger ports. Galway: Reduced costs for the ship-owner. Less risk to port pilots climbing ships. Greater risk to the marine environment when no pilot on board due to local knowledge. Pilot on board is there to advise the Master and is port company representative whilst on board and will be better aware of untoward practices by rogue ships.
Italy	Considering that PEC is generally granted in exchange for payment, there is no apparent economic benefit when compared with VHF pilotage, the tariff of which is equal to 20/25% of the overall tariff.
Latvia	Attractive for ship-owners.
Lithuania	No response.

Country	National Authorities views
Malta	The granting of a PEC is dependent on the prevailing circumstances and conditions. The benefit may be that a Master will not get extra payment for doing pilotage without the assistance of a pilot.
Netherlands	From a governmental point of view pilotage should be compulsory only if necessary from a safety point of view. The exemption policy makes this possible; it provides for exemptions from the general rule that every sea-going vessel visiting or leaving a port should have a pilot on board. Through this the Government facilitates shipping lines that undoubtedly benefit from exemptions. Safety however is and remains the basis upon which the exemption policy is formulated. Safe and expedient shipping is a quality element which is of the utmost importance for shipping lines, ports and the general interest.
Norway	The savings a ship has when using a PEC instead of a pilot is quite extensive for each voyage. The dues for pilotage are set so that the smaller vessel pays less, but still those vessels normally benefit the most from the PEC system.
Poland	No response.
Portugal	No response.
Romania	A decrease of costs for vessel operations.
Slovenia	PECs enable benefits to the shipping industry by cutting costs for the ship-owners/operators. (Opinion reflects only the individual expert opinions and should not be treated as an official position of the Republic of Slovenia).
Spain	PECs serve the interests of a particular owner and do not reduce the cost of freight for cargo and/or passage.
Sweden	Pilot exemptions are essential to some ship-owners (e.g. ferry companies trading between Sweden/Finland and Sweden/Germany) and necessary to maintain high accessibility to some ports. The cost for a PEC should reflect the cost for the administration issuing the PEC.
UK	The UK is content with the current PEC arrangements; the shipping industry does not raise this issue as a substantial concern and the costs/benefits are probably reasonably well-balanced. Belfast: There is an obvious cost and operational benefit to shipping with the use and availability of PECs Forth: PEC's have two benefits to ship-owners one a financial saving on both pilotage tariff and boarding and landing charges, secondly it provides greater efficiency in sailing and arrival in that vessels do not need to provide notice for ordering a pilot. Tees: Shipping benefits from there being no pilotage charges and no waiting or ordering time. This can be an advantage when the weather creates boarding/landing delays.

3.2.3 Exemption rules

Table 90 – National Authorities views on exemption rules

Country	National Authorities views
Belgium	Pilotage exemption rules should exist as thorough local knowledge by Masters/officers may present to an authority that controls or organizes pilotage services sufficient guarantees that a level of local experience is acquired similar to that of the local pilot. The rules however may (and should) vary from port to port or in case of several ports on one river or in one area for such river/area. A breakwater lockless coastal port cannot be compared with an inland river port with locks. The PEC issuing authority should however be manned with sufficient and relevant nautical experience or where this is not the case have a formal and documented consulting platform with the pilots concerned in order to establish a concerted opinion on relevant requirements for examination and granting any PECs. Such requirement may include – but not limited to – diploma's and certification as per international standards with Member State validation, the interpretation of "local knowledge" (frequency of calls, number of calls, size of vessel), one or several trial voyages with pilot on board as an exam or another form of test to ascertain the understanding of the particular circumstances and communication procedures for entering the particular port at stake.
Bulgaria	Exemption rules in general cannot be monitored by an internal monitoring system.
Croatia	When establishing exemptions from pilotage appropriate compensation measures must be envisaged in order for the end result is achieved and that is safety. Levels of exemptions and conditions that have to be met in order to issue exemptions can be numerous. Some of the criteria could be the following: - Existence of VTS services; - Existence of shore-based pilotage; - Characteristics of the vessel and cargo; - Frequency of arrival/departure of the vessel (same Master); - Characteristics of the port approach/passage; - Weather conditions; - Configuration of the port/terminal; and - Entry requirements for PEC training and certification. In any case exemptions are always related and issued per port or sea-area. There could not be any generic exemptions since the character of pilotage is to a large extent relates to local knowledge and experience.
Cyprus	Exemption rules have to specific for each port, based on the characteristics of that port.
Denmark	PEC can be a useful and flexible solution for the maritime industry, but the maritime safety and the protection of the environment must never be threatened by pilotage exemption. The system should be objective, and pilots and PEC holders should meet the same demands for local knowledge.
Estonia	Current rules in Estonia are satisfactory.
Finland	No response.
France	The rules for exemption from the requirement of pilot are necessary but they must be strictly regulated. The system of licensing –for a given Captain, on board a particular ship and for a specific area- must be maintained. The French authorities do not wish to extend the exemption rules that would reduce the safety of navigation.
Germany	No response.
Greece	Against exemptions.

Country	National Authorities views
Ireland	Cork: PECs need to be strictly controlled by harbour authorities with regard to the overall port operation. Shannon: a correctly enforced regime makes sense from both a commercial and practicality perspective. Waterford: exemption rules should be tightened along with certification standards. Galway: exemptions are determined by the Harbour Master which is sufficient.
Italy	No response.
Latvia	No response.
Lithuania	Exemptions rules as described in the current national legislation and Klaipeda Shipping Rules are satisfactory.
Malta	Exemptions should remain at the discretion of the Member States but have to be based on a technical justification.
Netherlands	From a governmental point of view pilotage should be compulsory only if necessary from a safety point of view. The exemption policy makes this possible; it provides for exemptions from the general rule that every sea-going vessel visiting or leaving a port should have a pilot on board. Through this the Government facilitates shipping lines who undoubtedly benefit from exemptions. Safety however is and remains the basis upon which the exemption policy is formulated. Safe and expedient shipping is a quality element which is of the utmost importance for shipping lines, ports and the general interest.
Norway	In Norway exemption rules are an integral part of the compulsory pilotage requirements and an important supplement.
Poland	No response.
Portugal	No response.
Romania	No response.
Slovenia	Exemption rules should be very well defined and if possible unified. (Opinion reflects only the individual expert opinions and should not be treated as an official position of the Republic of Slovenia).
Spain	Not satisfactory. The exam is not rigorous. Captains do not know the port and avoid reporting deficiencies in order to avoid Port Control (Parismou).
Sweden	STA believes that if a pilot can navigate a ship safely in a fairway, a holder of a PEC may be capable to do the same. To evaluate an application for PEC an individual review of each application must be done.
UK	The UK is content with the current exemption rules. Belfast: Presently the arrangements within the Pilotage Act which allows for exemptions and ensure that they are no more onerous than the requirements for a pilot are adequate. Forth: It is the responsibility of the Port Authority to ensure that the criteria and assessment process for the issuing of PECs is appropriate to achieve he required levels of safety. There is probably some need to standardise this approach to ensure consistency. Tees: The exemption rules are adequate at this time.

3.2.4 Need for EU legislation

Table 91 – National Authorities views on need for EU legislation

Country	National Authorities views
Belgium	Generally speaking, the absence of EU pilotage legislation does not create a greater undue hazard than if such legislation was in existence and in force. The pilotage services are seen by authorities of all levels as a way to safer shipping in confined and busy waters and thus an implicit protection of the marine and land environment. To our knowledge no complaints of a fundamental nature on the above questions put forward have been lodged. Small issues are no doubt raised from time to time but dealt with by pilotage services in a way that stakeholders do not take matters further. Tariffs between ports may vary and the way of organizing may differ but no generalized feeling from port users exists that pilotage services in EU ports are unfairly and inefficiently organized and that they do not obtain value for money. In most EU countries a system of "pay what the ship can bear" is in existence and on top a documented system of pilot exemptions with clearly defined criteria exists and is applied. Harbours: For further information: EMPA (European Maritime Pilotage Association). No need for further legislation.
Bulgaria	No response.
Croatia	Pilotage is a safety of navigation service and as such is a tool of the coastal state ensuring safe passages with significant impact on marine environment protection. Future EU pilotage legislation therefore could to some extent introduce elements of standardization of shore-based pilotage services in combination with PEC schemes.
Cyprus	In our opinion pilot regulations are developed based on the needs and characteristics of every different port. In this regard, a single legislation for the whole of the EU can be an issue.
Denmark	The Danish Maritime Authority does not find that there is a need for EU pilotage legislation, as national legislation is the best way to ensure that rules regarding pilotage and PEC are customized especially to meet the level of local knowledge in pilotage areas. This will provide the best safety for navigation and protection of the environment. In Denmark there are high standards and demands for both PEC and pilot applicants, since they have to meet the same requirements for frequency of calls in a specific sailing area.
Estonia	Good to have similar (harmonized) requirements in all EU countries.
Finland	No response.
France	Given the proper functioning of the French system with regards its implementation and its results (i.e. the absence of any accidents in particular) and the proper coordination of the activity of pilotage with the other port stakeholders, the French authorities do not consider what might be the added value of a future European regulation. They believe that national legislation is adapted to the proper administration of the public service provided by the pilotage and ensures, in its current form, the safety of navigation.
Germany	No response.
Greece	Every Member State knows how to manage the pilotage service at the national level depending on its needs.
Ireland	Shannon: standardized approach to training and qualification of pilots is necessary. Guidelines with regard to PECs is desirable – based on factors including experience and qualifications of Master, navigation suite fitted, manoeuvrability of vessel, etc. Reduced manning levels on board vessels leading to crew fatigue and increased reliance on pilot input in pilotage waters needs to be addressed. Heightened safety and environmental legislation necessitates rigid standards for manning levels, pilotage and PECs. Waterford: only EU citizens should be allowed to gain PEC's and these should reach a set European Standard with regards to training and certification. PEC holders, particularly from Russian federation countries are under-cutting European seafarers: therefore I believe a standard PEC payment should be made Europe-wide for all PEC holders. This will allow a high standard to be maintained and

Country	National Authorities views
	competent, experienced seafarers will be rewarded accordingly. Drogheda: national legislation is sufficient.
Italy	Not necessary. It is believed that the subsidiarity principle should be maintained for this service (concerning navigation safety, human life at sea, port infrastructures and marine habitat).
Latvia	There is no need for EU pilotage legislation. These matters have to be regulated at national level.
Lithuania	No it is not necessary.
Malta	EU pilotage legislation should be based on minimum standards of service and competence of persons engaged as pilots.
Netherlands	From a transparency point of view, information on the different national pilot/PEC policies should be interesting and might provide an interesting benchmark which might even fuel some changes in policy. EU legislation is however not considered necessary. The policy is and can only be based on local circumstances in and around the different European ports which are impossible to compare. It is therefore hard if not impossible to imagine EU legislation in this field.
Norway	Norway has a well-developed legal framework for pilotage and PECs, taking into consideration local conditions of the Norwegian coast. While it should benefit all parties to share information on the pilotage and PEC solutions of different Member States, it is still too early to say if there are any real benefits from harmonizing pilotage and PEC through EU pilotage legislation.
Poland	No response.
Portugal	No response.
Romania	Pilotage legislation at the EU level could be useful for all Member States.
Slovenia	EU pilotage legislation could be beneficial if unifying and defining minimum requirements for pilotage in all EU ports. (Opinion reflects only the individual expert opinions and should not be treated as an official position of the Republic of Slovenia).
Spain	The key issue is safety/security, which is provided through pilotage. PECs are an economic issue for owners, not for cargo and passage.
Sweden	EU legislation on PEC may contribute to a maritime transport area without barriers. If the legislation for PEC is harmonized in an appropriate way, it may benefit the competition between the ports in EU at the same time as it preserves maritime safety within acceptable limits.
UK	The UK sees no particular need for EU legislation on pilotage, except potentially if it were to support further deregulation (without impacting adversely on safe working practices). Belfast: There is no requirement for EU regulation on this matter with regard to operations in Belfast. However the 1987 Pilotage Act could be amended to better reflect exactly what constitutes misconduct and incompetence leading to a suspension or revocation. Forth: No need for yet further legislation the Pilotage legislation in the UK works perfectly well. Tees: No need for change at the moment.

3.2.5 Language requirements

Table 92 – National Authorities views on language requirements

Country	National Authorities views
Belgium	Wherever in a port or its approaches international shipping movements are taking place, communication between participants to the traffic flow should be in one commonly agreed language and imposed upon all users. The example is there: in the airline/aviation industry one common language with a number of standard phrases is used. In view of the mix in many EU ports today of extreme large commercial ships with extreme small commercial or pleasure craft, a common language platform should be imposed possibly with a sufficiently large number of standard phrases. At the same time a control and policing of the understanding thereof by users not covered by STCW or other international recognized certificates should be put in place. This is a field where the EU could issue Directives, intervene or impose legislation as it may have a direct impact on safety and the protection of the environment in general.
Bulgaria	English according to IMO resolution A.960 and national language.
Croatia	Local language important but not crucial.
Cyprus	Clear understanding is essential for safety of navigation – language requirements must be strict.
Denmark	A pilot should, as a minimum, be able to speak English to an acceptable level, and at least in accordance with IMO's Standards of Training, Certification and Watch keeping.
Estonia	National language and English language to be allowed during examination.
Finland	No response.
France	If the language requirements correspond to those in the current regulation of pilotage, the French authorities consider they should be maintained. For pilotage operations at national ports, a basic knowledge of French is the only one able to guarantee the smooth flow of information between the many actors on the port. This requirement is particularly crucial to avoid any ambiguity in the relations between different actors operating at any given time on the port and allow appropriate decision making
Germany	No response.
Greece	Pilots must have at least English awareness level B2 and more as referring to common European Framework of reference for Languages published by the Council of Europe.
Ireland	Cork: a good standard of English is required. Shannon: international language to remain as English. Competency to be assessed prior to the issue of a PEC. A necessity to ensure compatibility with wider control measures including a VTS regime. Waterford: All PEC holders should be fully conversant in the language of the country where the PEC is issued and operated for. All PEC holders should also be fully conversant in the English language. Drogheda: good command of English must be a basic requirement including a language test. Galway: English is the language of the sea.
Italy	The knowledge of the Italian and English language is considered necessary.
Latvia	No response.
Lithuania	Knowledge of Lithuanian or English languages.

Country	National Authorities views
Malta	Pilots and Masters alike should have an excellent command of English, being la lingua franca, particularly of the maritime terminology, in order to ensure better communication for the efficient, effective, safe and secure manoeuvring, berthing and shifting of a vessel during pilotage.
Netherlands	The human factor, communication and therefore language requirements are very important.
Norway	No response.
Poland	No response.
Portugal	No response.
Romania	Important requirement. Good communication can increase safety of pilotage.
Slovenia	*Opinion reflects only the individual expert opinions and should not be treated as an official position of the Republic of Slovenia.* In any case good knowledge of English (SMCP) should be a requirement. Knowledge of the national language spoken in the port would be beneficial.
Spain	Spanish ports have the same entrance for cargo vessels and fishing/recreational vessels. National language is necessary to avoid accidents.
Sweden	STA's view is that English as PEC language improves the accessibility to the ports at the same time as it preserves maritime safety by using one common language which should be understood by all navigators and shore-based personnel, e.g. VTS operators. IMO's Standard Marine Communication Phrases (SMCP) that was adopted in November 2001 was developed for use by seafarers, following agreement that a common language – namely English – should be established for navigational purposes where language difficulties arise.
UK	The UK is content with the current language requirements. Belfast: Again this is satisfactory as the language is part of the oral test prior necessary for the issuance of the Certificate. Forth: English is an essential requirement for both pilotage and PEC. Tees: Requirements are adequate.

3.2.6 Shore-based pilotage

Table 93 – National Authorities views on shore-based pilotage

Country	National Authorities views
Belgium	Shore-based pilotage can be an additional tool with regard to pilot assistance as a whole. It will however not be recommended for all types and size of ships nor should it be the rule to provide pilotage in this way under all circumstances. In order to ascertain the size limits on ships assisted in this way, matters such underkeel clearance, emergency turning circle, cargoes carried, width of the fairway in relation to the ship's beam, local knowledge of the Master/officers and understanding of a common language are to be considered. On the pilotage side, shore-based pilotage should only be given if the (weather) circumstances make it impracticable or unsafe for pilots to board ships or particular types of ships. Shore-based pilotage should be given by pilots who are specially trained (including refresh) technically, in standard phrases, in communication, in emergency procedures to provide such guidance. In addition these pilots have a dedicated and fully equipped radar and communication centre at their disposal with which they are well-acquainted. The pilots giving this assistance should be in the chair some time in advance in order to start all the systems, adjust the settings to their comfort and liking and test the equipment. Their turn of duty

Country	National Authorities views
	should not exceed the duration of a ship's watch (4 hours) and their relief colleague should be present some time (e.g. full 15 minutes) to ascertain and acquaint himself with the situation before taken over the pilotage. On the ship's side, it is highly recommendable that the Master himself is present on the bridge during the shore-based pilotage together with a navigation officer in order to make sure that two persons hear each direction given by the shore-based pilot and avoid any misunderstandings; this fuels the idea that the total duration of shore-based pilotage should not exceed a ship's watch in order to also avoid fatigue or involuntary relaxation of attention on board. Also all systems of the ship – in particular AIS – should be operational. Shore-based pilotage on deficient ships should not be given. The only exception thereto is that the non-provision of such pilotage would create a greater hazard to other ships or the environment than by providing the pilotage from shore anyway. In order to avoid misunderstandings with the piloted vessels, pilots should not assist more than two to three vessels and these should all be travelling in the same direction. Clear lines of communication should be established, tested and kept open during such an operation. This not only with the ships so assisted but also with ships – if any – in the vicinity and under a pilot's assistance on board. It may be wise to advance the pilot exchange ground – if sufficient open water is available – to keep the time of shore-based pilotage to a minimum and avoid such assistance in busy areas with ships coming/going from/to various directions. As soon as a pilot can safely board the ship using shore-based pilotage the boarding should be done (e.g. between the breakwaters) and the ship should continue the transit with a pilot in person on board. When the above observations are scrupulously observed with possibly others added as the case may be, ac-cording to the particularities of a port or port approach, there is no reason to assume that shore-based pilotage is an inferior way of providing pilot assistance to Masters/officers in particular circumstances such as heavy or stormy weather.
Bulgaria	Poor reliability of radio communication, congestion of communication channels, technical limits of radar technology, crucial time delay between pilot's advice and observation of correct implementation: for these reasons shore-based pilotage must be offered only in the coastal areas and approaches to pilot stations.
Croatia	Shore-based pilotage must be in direct conditional relation to technical means available to the shore-based pilot station providing realistic real time data regarding the maritime traffic situation.
Cyprus	In some instances it can be useful.
Denmark	Shore-based pilotage is not implemented in Denmark.
Estonia	In our opinion shore-based pilotage is not safe enough at present stage.
Finland	No response.
France	Shore-based pilotage might seem an attractive solution. However, given the specificity of the approach of each port, the Government considers that only the presence on the ship alongside the Captain, allows the pilot to realize exactly the situation and to give the best possible advice to the Captain. In addition, the presence of the pilot on board allows him to consider the seaworthiness of the ship and being sometimes the cause of dockside checks and play its role as an informant. The pilot on the ground cannot therefore replace the pilotage as it is currently practiced. Finally, the French authorities would be interested in a feedback of experience from other countries that would include a detailed description of the case in which this type of pilotage is practiced and the evaluation of means (technical, financial and human) used.
Germany	No response.
Greece	Not relevant in Greece.
Ireland	Shannon: shore-based pilotage is currently employed when weather conditions dictate that the pilot is unable to board at the outer pilot pick-up. Used only to guide vessels to an anchorage. If to be expanded or employed as a routine, then a robust and correctly functioning VTS is a necessity. Back-ups also to be

Country	National Authorities views
	in place in case of failure e.g. radar/power supply, etc. Waterford: shore-based pilotage should not replace the need for pilots. Pilots would have local knowledge and would in my opinion react to developing situations quicker than shore-based pilotage. Masters of vessels prefer to converse with pilots and discuss manoeuvres, passage plans and emergency procedures in person. This avoids confusion and allows the pilot to become a valuable member of the bridge team. Often the Master of a vessel is finding his or herself without adequate or competent bridge teams due to the varying standards of watch keeping officers throughout the world. It is in confined pilotage waters where the level of risk significantly increases. The pilot is also vital in the co-ordinating of communications between ship and shore, particularly in emergency situations. Shore-based VTS is a valuable tool and information service and should be used to allow for the safe navigation of vessels. Drogheda: not possible for small ports. Galway: in ports where there are few navigational hazards, there is no reason why shore-based pilotage won't work, after a proper risk assessment.
Italy	It is believed that it is an efficient and efficacious mode for the delivery of the service and combines cheapness and adequate safety standards.
Latvia	No response.
Lithuania	Available only with pilot on board.
Malta	Shore-based pilotage is a tool that gives the ports operational flexibility in circumstances where the physical boarding of a pilot is not possible.
Netherlands	In the Netherlands shore-based pilotage is performed in specific circumstances. From a safety point of view it is considered second best, while at the same time it is considered a possible attractive service in the future and is therefore under continues research/testing.
Norway	No response.
Poland	No response.
Portugal	No response.
Romania	Shore-based pilotage can be useful in certain conditions – used for early warnings about potential dangerous situations.
Slovenia	*Opinion reflects only the individual expert opinions and should not be treated as an official position of the Republic of Slovenia.* Shore-based pilotage should only be used when the pilot is unable to board a vessel and the shore-based pilot has access to very sophisticated equipment for traffic monitoring and is very well trained to provide shore-based pilotage. The rules and procedures for such pilotage should be very strict and well defined.
Spain	With shore-based pilotage it is impossible to know if vessels are in good condition, especially for entering the port (safety and security conditions).
Sweden	In 2008 the Maritime Department of the Swedish Transport Agency, gave a replay on an investigation concerning pilotage. In the investigation shore-based pilotage was discussed. The reply may be summarized as below. STA is principally very critical of shore-based pilotage. Pilotage means that an adviser boards the ship, and takes part of the operational work on the bridge. If a ship is guided from shore, it is not to be considered as pilotage, but as guidance. Guidance from shore is not the same as the detailed actions and advice from a pilot on the bridge. With respect to a few degrees change of course, rudder angle or pitch, detailed advice may be crucial to the ship's safe navigation. From shore side an operator may only roughly advise the ship if it deviates from a certain track or heads into a dangerous situation. Piloting is an operation between people with technology as a tool and not a technique itself. STA's view is that a study where shore-based pilotage is simulated in an appropriate way and then

Country	National Authorities views
	evaluated and assessed may be required to provide information to decide whether or not to proceed with live trials. According to STA it is not likely that shore-based piloting will have the same level of maritime safety as traditional piloting. This statement shall not be considered as an adverse attitude to technology and innovation, but as a clear-headed view and understanding of the nature of pilotage. In VTS, there is a service type called Navigational Assistance Service (NAS), normally given by a VTS operator from a VTS centre ashore. Shore-based pilotage should therefore more appropriately be called navigational assistance by a pilot.
UK	The UK does not recommend the use of shore-based pilotage and considers that the technology is not in place to implement it safely.

3.2.7 Technical innovation

Table 94 – National Authorities views on other technical innovation

Country	National Authorities views
Belgium	With the advent of shore-based radar coverage, AIS plugs on board, ECDIS, wireless internet, lock approach systems and highly accurate position systems with independent satellite receivers, navigational software and download possibilities of all types of nautical and marine information, the job of pilot has received a technological dimension which it did not have 10 or even five years ago. The up-to-date pilot organization will train, provide and maintain her pilots with the latest proven technological navigational and position determination aids. This development however is often barely enough to keep pace with the growth in ship dimensions which are expected to enter ports. As public investment in building ever larger ports and ever deeper dredging and channel maintenance becomes rare or difficult in the years of budget austerity to come in the whole of the EU, the importance of technologically literate and very well trained pilots is unprecedented. The compression of margins in shipping and the ruthless competition in particular in liner trades and in short sea shipping increases the pressure upon pilots. This is felt mainly through more stringent traffic control systems and meeting deadlines in ship's line ups with the onus on pilots in order to have a smooth and non-time loosing exchange between ship at berth or meet timings a lock complexes which become increasingly congested as their age progresses and no money is available to build new infrastructure. The commercial maritime industry expects ships to be on time, boarding pilot or – shore-based – pilot assistance at all times whatever the weather and traffic but at the lowest possible cost. Most pilot services succeed in satisfying this demand. In order to realize this, investment by pilot services in technology, special craft for boarding (e.g. swath), training and of course people puts a heavy burden on such organizations as their customers expect all this at a very reasonable cost. As in ship's navigational safety no compromises can be accepted, it is the best option for the majority of pilot services that they are run as government institutions or as authorities or non-profit organizations.
Bulgaria	Advanced technology is welcomed by pilots. However it must be remembered that electronic aids to navigation or pilotage are just that: aids. They supplement but do not replace the knowledge, expertise and intuition of an experienced pilot.
Croatia	Technical innovations should be used in order to define and approve voyage planning (by way of AIS) for shore-based pilotage.
Cyprus	Technical innovation improves safety but they will never replace the need of a Master or pilot.
Denmark	Ships should always be equipped with the best navigational and safety equipment available in order to perform as safe navigation as possible. However, current technology cannot replace the local knowledge and increased safety that a pilot provides. The pilot can is able to foresee situations, which technical equipment is not able to.

Country	National Authorities views
Estonia	No response.
Finland	No response.
France	Generally speaking, technical innovation is positive but it cannot replace the human component of the pilot: any assistance to manoeuvers of entry and exit of ports carried out on board of ships by professionals whose experience and knowledge of the field, like those of other actuaries port, guarantees the safety of navigation in close proximity to ports or therein [need to check translation]
Germany	No response.
Greece	There is nothing at present to comment on.
Ireland	Shannon: integration of systems (e.g. Radar/AIS/ECDIS) should lead to increased safety, with both Master and Port Authority having increased real-time awareness of activity in their space. In addition, pilotage and docking/undocking operations improved with development of docking systems, including real-time environmental data (e.g. tide gauges). Newer systems including 3D charting are likely to further enhance safety Waterford: technical innovations are to be welcomed by everyone, however due regard should be made to their limitations and the competency of the operators. Drogheda: advantageous, but in smaller ports a manned presence provides the safest environment. Galway: ship's technical ability to receive in real-time the information that the pilot gives the Master needs to be improved. Some ships still cannot receive attachment in emails. Ships need to be able to receive hi-speed WiMax to be able to upload the latest information. This is the true way of shore-based pilotage. Get that right and it will open all kinds of possibilities. In Galway we are proof testing WiMax over water to be able to provide ships calling into the bay with real information. The work is being conducted with Intel, Galway Harbour Company and the Marine Institute.
Italy	No response.
Latvia	All ships participating in traffic are obliged to be equipped with AIS which is useful for safety.
Lithuania	The pilots use on ships 'pilot plug' socket to switch on pilot portable unit for ships safe pilotage in Klaipeda Port. Marimatech E Sea Fix Cat Rot equipment is being used.
Malta	Technical innovation has to be treated with caution and should not put aside experience and professional judgement. It should be considered as another tool.
Netherlands	In general innovation is considered to be of central importance. For this reason the Government and pilots set up an innovation platform to which contributions can be made by the sector/shipping lines.
Norway	No response.
Poland	No response.
Portugal	No response.
Romania	Technical innovations have increased safety of navigation.
Slovenia	No response.
Spain	Shore-based pilotage and other technical innovation to avoid pilotage are against safety and security, because it is impossible to know if vessel has any deficiencies or threats (according to ISPS Code).
Sweden	When STA makes the individual assessment for an application for PEC, the ships technical standard and equipment is examined. A ship with a poor technical standard is not as likely as a technical

Country	National Authorities views
	advance ship to pass the assessment. Technology is a tool that may improve maritime safety.
UK	The UK continues to see value in making best use of new technologies to ensure vessel safety without becoming reliant on a single system that does not have a back-up in case of failure. Skilled pilots continue to be valuable for safe shipping operations though aided by technological developments. Belfast: PEC holders relate to regular port visitors and as such are usually ferries or container vessels. Both of these will under normal conditions manoeuvre without tug assistance. PECs do not in general take account of the extraordinary and more emphasis should be placed on exceptional circumstances. Certainly the incident involving the Fairplay 22 in Rotterdam would indicate that ports should put endorsements relating to towage onto PECs. Forth: As with all technology there has to be care taken that there is not too much reliance on new technology. Not only is technology prone to failure it can also be relied upon too much and hence detract from the abilities of the pilot.

4 On-line stakeholder survey

4.1 Introduction

Other stakeholders in addition to the national administrations, namely port authorities, pilots, shipping companies and ships' Masters were invited to participate in an on-line survey, which was geared towards gathering opinions on key topics from each stakeholder category.

This Chapter sets out a synthesis of responses gathered during the on-line survey, along with a summary of views and opinions from the national administrations. The remainder of this Chapter covers the following aspects:

- Considerations in the analysis;
- Compulsory pilotage;
- PECs;
- Language requirements;
- Technical innovations; and
- The need for future EU legislation.

Copies of the questionnaire for on line survey are attached at Appendix B.

4.2 An overview of survey responses

The on-line questionnaire was originally intended to be 'live' from mid-April until mid-May 2012, though this period was extended until the end of May 2012, due to the fact that only a small number of responses had been received directly from shipping companies and ships' Masters by the original deadline.

A low number of responses from shipping companies was received on account of the fact that the European Community Ship-owners' Association (ECSA) preferred to collect data from its members directly with a view to providing us later with an aggregation of responses. Overall responses were collected from shipping companies operating throughout Europe and worldwide[108].

Of the ten ships' Masters that completed a questionnaire, the geographical range covered the UK/Ireland (four respondents), the Atlantic range (three respondents), the Mediterranean Sea range (four respondents), the Hamburg – Le Havre range (four respondents) and the Black Sea range (one respondent)[109].

The survey was strengthened by contributions from the European Tug-owners Association, the European Maritime Pilots Association (EMPA) and ECSA. ECSA received 20 completed questionnaires from individual national ship-owners' associations which represent more than 200 shipping companies.

A total of 34 port authorities and 36 pilots completed a questionnaire on-line. Table 95 presents the total number of responses by country.

[108] It was concluded that these would not be included in the country-based clusters since their business is not related to local specificities. It was nonetheless decided to consider their routes, in order to determine the geographical reach of the survey.

[109] Ships' Masters operate in more than one range.

Table 95 – Total responses to on-line stakeholder survey

Country	Total	Port Authorities	Pilots
Belgium	3	3	
Croatia	2	1	1
Cyprus	1	1	
Estonia	1		1
Finland	6	6	
France	23	3	20
Germany	2	2	
Greece	1	1	
Ireland	6	4	2
Italy	1		1
Netherlands	9	4	5
Romania	2		2
UK	14	10	4
Total	71	34	36

4.3 Considerations in the analysis

Although questionnaires directed to various stakeholders share several similar or identical questions, other questions were specifically designed for one or some categories of stakeholders and not for others. This section of the report presents an aggregation of the survey responses as well as a cross section of stakeholder opinion, highlighting the differences when these add relevance, informing the understanding of the topic being considered.

Collected responses are not geographically homogeneously distributed. This is particularly relevant for Port Authorities and pilots, where local or national specificities may impact on the perception of pilotage issues and challenges. In order to preserve the validity of the survey, responses have been aggregated at country level as a minimum. This involved the aggregation of data through a weighted average, where each country had an equal value and responses from same country respondents were therefore valued as fractions of that country-based value.

4.4 Compulsory pilotage

4.4.1 Importance of compulsory pilotage

Almost all respondents recognized an undoubted importance of having pilotage service mandatorily provided. Few respondents, mainly concentrated in northern Europe, claimed that pilotage is often unnecessary and, therefore, a waste of resources, while a relevant share of ports and pilots' from the sample raised the necessity to have specific conditions (e.g. vessel type, geographical peculiarities, etc.) for pilotage to be mandatory. On the contrary, shipping lines and Masters mostly recognize the importance of pilotage for specific, uneasy situations, but doubt if having it compulsory without regard to the context is necessary and justified. The views of Port Authorities and Harbour Masters lie somewhere in between.

Associations agree on the importance for pilotage to be compulsory. The European Maritime Pilots' Association (EMPA) highlights the relevance of pilotage not only for port users and vessels, but considers positive externalities for all stakeholders (i.e. citizens living near the port, etc.), who benefit from safety and

the prevention of environmental disasters. The European Community Association of Ship Brokers and Agents (ECASBA) considers compulsory pilotage important for safety, but recognizes that it should apply under objective conditions that have to be set in a sound and transparent way, in order to lead towards liberalization of the maritime sector from "unnecessary and unwarranted burdens and restrictions". The International Maritime Pilots' Association (IMPA) is in favour of compulsory pilotage, as it considers that it increases safety and protects the environment.

The Dutch Pilot Corporation highlights the importance of pilotage and its externalities, as pilots do not only provide a service to the benefit of the ship, its cargo and owner, but also provide the service in the interest of society, the environment, security and the protection of infrastructure; and they have a public task as they play a key role in the implementation of regulation concerning maritime safety, the environment and security.

4.4.2 Consideration on pilotage service currently offered

Masters are generally satisfied with pilotage services. Pilotage enhances safety and can mitigate a number of difficult situations that vessels can encounter when entering a port. Nonetheless negative aspects are present, too. It may happen that inclement weather prevents a pilot from commencing a mission from the port: due to compulsory pilotage policies, a vessel may not be allowed to even get as far as the breakwater area.

Those particularly in favour of compulsory pilotage claim that the experience of pilots overcomes the potential risks related to insufficient training of the crew and poor state of the vessel. On the contrary, others claim that pilots should be aware that their role is of a mere advisor, while it often happens that they tend to think they should assume the command of the vessel.

Particular attention should be given to the specific case of inland waterway pilotage, for which legislation is not coherent with that for sea-based pilotage. Although there was no specific mention of this issue in any questions within the questionnaire, some stakeholders raised the issue themselves, indicating the need for a shared set of rules for both activities.

Table 96 presents an overview of opinions on compulsory pilotage that were considered particularly relevant. These are not considered as representative of opinions raised by countries/different stakeholders.

Table 96 – Overview of stakeholders' opinions

Stakeholder	Some relevant suggestions/opinions
	Positive
Pilot	Pilotage must be compulsory, also when technological aids are used. Indeed no technology can substitute the knowledge and capabilities of a pilot, who is experienced in local specificities.
Pilots (EMPA)	Compulsory pilotage is the most efficient method to ensure smooth and safe navigation in EU ports.
Master	Better to have four eyes rather than two.
Master	Even in short-distance services, it should be compulsory in order to keep rest times.
	Neutral
Port	Port Authority should be able to decide, after a risk assessment, whether pilotage is compulsory or not.
	Negative
Port	Sometimes needed, but often unnecessary.
Master	Pilots should be able to board inside breakwaters when the weather makes it uneasy to do it outside.

Stakeholder	Some relevant suggestions/opinions
Shipping company	Safety argument should not be used to justify unnecessary pilotage services or undue monopolistic structures.

4.5 PECs

4.5.1 Pros and cons of PECs

The presence of PECs is widely accepted. Almost all stakeholders recognize its importance. Respondents who claimed there is no need for PECs, or that it would be safer without PECs, tended to provide local specificities to justify their answers.

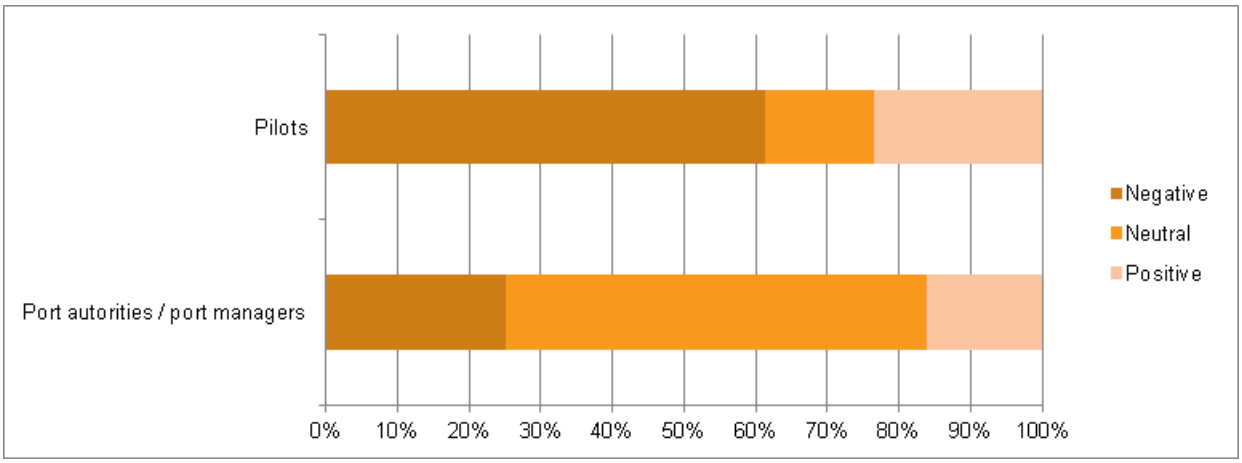
Most stakeholders are satisfied with the current status of PECs, while a minor – yet relevant – share of respondents consider the possibility to improve it: some – mainly pilots – through a more restrictive regime; others through a more easy access to PECs, as expressed by several shipping companies.

4.5.2 What impact do PECs have on safety?

Pilotage has an undoubted connection with safety. It was indeed highlighted by almost all stakeholders, and safety is often used as justification for those that sided against exemptions. Considering the relationship between pilotage and safety, respondents were asked to say whether they felt PECs had a positive, negative or neutral impact on safety levels.

Again, responses were far from univocal. In particular, pilots have shown to be the most conservative stakeholder category, with over 60% of respondents of the view that PECs have a negative impact on safety, while only 23% felt there is a positive impact. Fifteen per cent of respondents stated that PECs have no impact on safety.

Figure 39 – Opinions on how PECs impact (or would impact) on safety



Port Authorities are much more of the view that PECs do not have an impact on safety all (59% of respondents), though just under 25% of Port Authority respondents consider PECS to have a negative impact on safety.

National authorities, in general, consider that no major differences in safety could be expected through PECs. However, with respect to geographical areas, national authorities from the Mediterranean area are more reluctant to use PECs due to its negative impact on safety of navigation.

Shipping companies expressed a more positive view on the impact of PECs on safety. Indeed, they claim that exemption certificates are granted only when a certain level of experience has been gained by Masters, who

therefore are much less likely to be involved in accidents, and more able to avoid risks, as a result of their knowledge of specificities and limits of their ships. Overall, it was considered that PECs offer a safer alternative to pilotage.

Port Authorities/Harbour Masters and pilots reported that most issues concerning safety are related to communication (e.g. poor language knowledge leading to misunderstandings, etc.), experience and understanding of local/environmental specificities, and biases (e.g. Masters are affected by economic pressures that might compromise safety). Nonetheless, while most ports do not see any particular dis-benefit arising from PECs, pilots are almost unanimous in opposing their wider implementation.

Many dis-benefits were mentioned by the French Maritime Pilot Association, who stressed that the non-presence of a marine pilot may add to the workload and stress of Captain and that fatigue is identified as a main contributing factor of numerous accidents. Also, it considers that it may lead to major accidents due to the "single man error" accident. Moreover, they adverted that security may be affected by an increase in number of active PEC as the risk of terrorist attacks has significantly increased in the last decade and it is the pilot on board who can detect a potential threat.

However, other stakeholders argue that safety is not altered with PECs. For example, ECASBA considers the presence of PECs is irrelevant on safety levels, if granted transparently and objectively. Similarly, EMPA believes that with an efficient monitoring process, there should be no difference in safety levels between pilots and PEC holders.

Table 97 – Impact of PECs on safety levels

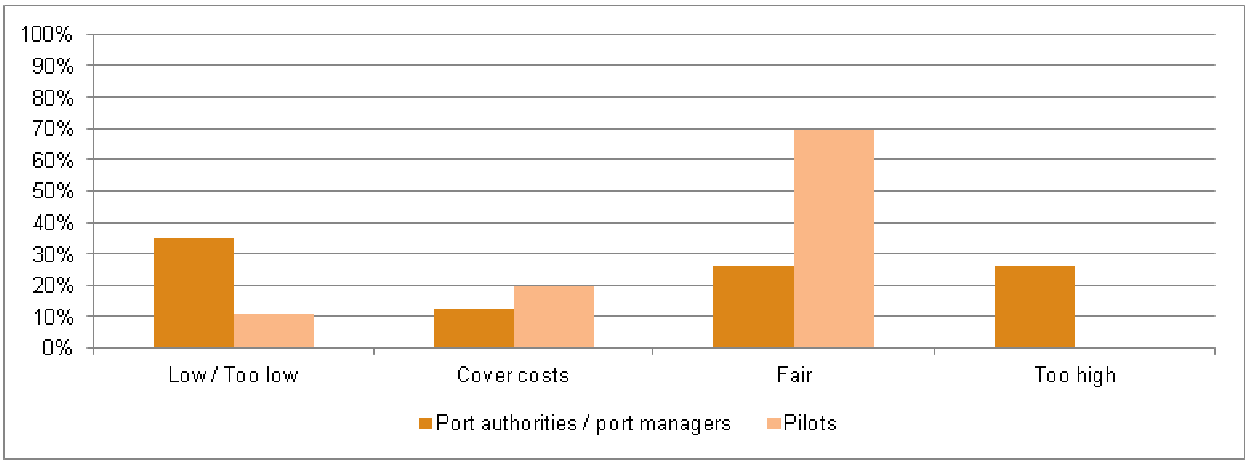
Stakeholder	Some relevant suggestions / opinions
	Positive
Pilot	There is a clear benefit from having PECs obligatory for all vessels navigating in a port rather than excluding vessels below a certain size from requiring compulsory pilotage. However, conversely, the PEC regime needs to be fair, robust, properly administered and policed in order to be effective otherwise it is an avenue for easy side-stepping of regulatory compliance with the obvious consequences for navigational safety. It is essential that the PEC holders are senior officers with authority on board the ship. In other words only the Captain and his second in command should be eligible to hold a PEC. Any lower rank will result in abuse and serious threats to navigational safety.
Port Authority / Harbour Master	The Master tends to know his own vessel better which has advantages during the docking stage of the operation.
Master	Masters holding a PEC have demonstrated to have knowledge of local circumstances. No pilot would ever know the specificities of their ships as they do. Coherently, safety is likely to increase when PECs are applied.
	Negative
FSA	It could be dis-beneficial, if inexperienced Master/PEC makes a wrong decision in the case that due to time or commercial pressure decide not to take a pilot.
IMPA	There is not any safety or navigation benefit arising from having a PEC in place. The whole debate about PECs is really a value judgment on the economic benefit to ship-owners set against possible increases in risk to environment/port/vessel. This is an opinion held by accident investigators who observe Masters unable to concentrate solely on the safe conduct of their vessel in pilotage waters because of other pressures.
Pilot	There are no safety benefits arising from having a PEC in comparison of having a pilot on board.
Pilot	Masters are subject to economic pressure from owners/charters and therefore they might face conflicts between economic interests and safety that pilots would not encounter.

4.5.3 PEC impact on issues other than safety

It was considered that PECs can have an impact on issues other than safety as well.

Stakeholders were firstly asked to give their opinions on the level of port pilotage dues. Most respondents (Port Authorities/Harbour Masters and pilots) considered pilotage dues to be fair (22%), to merely cover costs (23%) or to be particularly low for the service provided (24%). The remaining 31% of respondents are almost equally divided between stakeholders claiming that dues are too high for the provided service and those reporting that dues are set based on market conditions (Figure 40). Overall, there is little doubt whether PECs can positively impact on costs.

Figure 40 – Opinion on current level of port pilotage dues (Port authorities[110] and pilots)



Few ports raised the issue of pilotage service providers being profit making, or the presence of non-transparent tariffs.

On the matter, IMPA brings its experience, declaring that running pilotage as a profit making business has a negative impact on safety outcomes. However, ANAVE considers that PECs avoid unnecessary costs and, especially for short sea shipping services working with small margins, this costs saving is essential for offering competitive services versus transport by land.

Benefits on the adoption of PECs are seen from Port Authorities/Harbour Masters and pilots to be exclusively related to economic and/or time efficiency; nonetheless it is usually remarked that the counterpart is an intrinsic reduction in the level of safety (which is nonetheless considered by several Port Authorities to be so slight that it has no real relevance). Shipping companies share the same thoughts on benefits as other stakeholders, but do not share their views on safety reduction.

Apart from the economic benefit derived from the use of PECs, there are several other positive consequences that have been considered and presented by respondents. It was considered that pilotage is time-consuming and can contribute to delays when needed to wait for pilots to be available, therefore, PECs prevent bottlenecks that are frequent in critical hours/days and increase flexibility so that ships that really need the pilotage may receive a better service and the traffic is handled more fluently. PECs can also contribute to the environmental cause, since there would be less fuel consumption in port without (or with reduced number of) boats carrying pilots to and from vessels, reduced costs from a reduction of needs of water clerks to inform all parties in the port, etc.

Masters tend to be little interested in the economic benefit of PECs. They consider that the main positive consequences of holding a PEC are related to the possibility of avoiding restrictions (e.g. possibility to sail any time, any moment, any weather, not having to consider whether pilots are on strike or on holiday, etc.) and therefore perform their job more smoothly. It was nonetheless considered that PECs also lead to

[110] Includes Harbour Masters.

negative effects, such as fatigue, complex traffic regulation, etc. Indeed, as reported by IMPA, PECs increase the responsibility of those on the bridge, who are already under pressure.

The economic saving from PECs use varies from country to country. Shipping companies were asked to provide examples of PEC costs across the EU and to consider them in relation to pilotage costs. The cost of entering a port without a PEC can vary significantly between ports (see Table 98).

Table 98 – Summary of pilotage cost in the EU

Country	Cost of pilotage
Germany	Tariff based on GT. Varies between 47% – 64% of total port costs.
Portugal	Tariff based on GT. Varies between 30% – 50% of total port costs.
Spain	Varies between seven per cent and 17% of total port costs. In case of very large vessels two pilots are required.
France	Varies relevantly from port to port. Between nine per cent – 14% in Le Havre, and 30% – 38% in St. Nazare of total port costs.
Finland	Varies between 11% and 27% of total port costs.
Ireland	Varies between 16% and 18% of total port costs.
UK	Varies between 29% and 40% of total port costs.

Savings from PECs are usually relevant, but depend on ports and country-based policies. In some cases, PECs can lead to a 70% – 75% cost reduction (i.e. Zeebrugge, Hamburg, Rotterdam, Antwerp, etc.), while in some others, it only saves part of pilotage costs (part is still to be paid, regardless of whether the pilotage takes place or not, as in Grimsby, UK).

In very small ports where only a small number of ships call, granting of PECs can lead to financial troubles for pilotage service providers. ANAVE suggests in these cases, instead of imposing pilotage as an external service, with high cost, other systems should be explored, such as imposing to shipping companies benefiting from PECs: as a public service obligation, the provision of pilotage to other port users at reasonable rates and/or reduced fee to the pilotage service provider, to contribute to the service existence.

4.5.4 When (and if) to apply PECs

Apart from a few exceptions, Port Authorities/Harbour Masters and pilots are satisfied with the PEC regulations set in their country. In particular, apart from one single respondent, who claimed lack of precision in qualification requirements, all pilots are highly satisfied. Similarly, ports mostly agree with their country regulation, with a few (but still more relevant than for pilots) exceptions: these were mainly concerned with simplicity and comprehensibility of rules, and relatively low participation of Port Authorities/Harbour Masters in the definition of rules and regulations on PECs.

Some shipping companies, as well as ECASBA, claim that procedures for obtaining PECs are often cumbersome, with the aim to act as deterrent. Discordance is also present on the necessity to have homogeneous or heterogeneous procedures for the granting of exemptions. While pilots and Port Authorities tend to highlight the importance of having PECs responsibility falling on local authorities due to local specificities, shipping companies suffer the current differences in obtaining them. In general, it seems that most Port Authorities and pilots consider the current situation to be satisfactory, while shipping companies do not push for easier and homogeneous access to PECs. Coherently with our expectations, pilots are usually more conservative concerning the possibility of having PECs or any other form of pilotage exemptions

available. Masters have no shared position on PECs. Some follow a negative approach, and would like to have restricted rules to obtain exemptions (i.e. Master speaking local language, regularly travels to port, no dangerous cargo transported, etc.), while others that follow a positive approach, preferring a situation in which PECs are allowed in all cases that are not proved to specifically to require the mandatory use of pilots. All national administrations agree on the existence of exemptions (except Greece). Several also agree on the fact that rules should be more strictly regulated and they considered the need for a standard approach in order to ensure consistency, although some highlighted the need for flexibility to allow an adaptation at the port level.

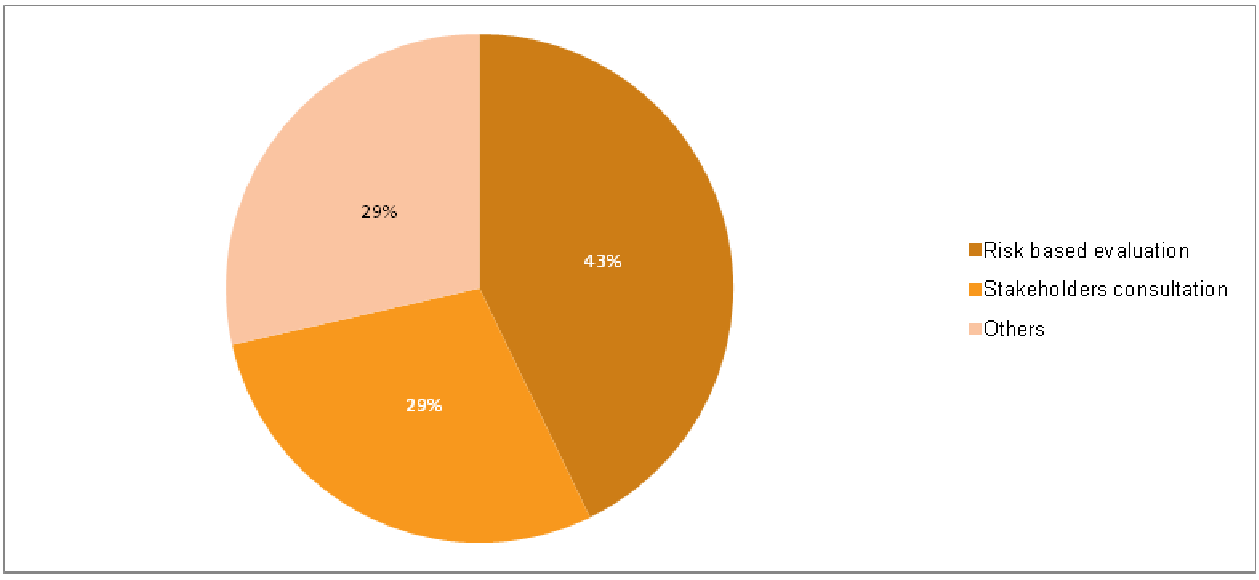
Most stakeholders, across all stakeholder categories, agree with the possibility for Masters to undergo a simplified examination for renewing a PEC. Nonetheless shipping companies are not in favour of – in the event of a PEC being negated – that Masters have to re-take all aspects of qualifications and/or examinations for a PEC. For example, ANAVE considers that the Master should not have to re-demonstrate port knowledge, but rather only has to fulfil the additional requirements for the new ship type. FSA notes that in cases of PEC expiry, the Master should undergo a simulator test to prove that he has not forgotten his skills and that he is aware of possible changes in reporting routines, etc.

4.5.5 *Specificities in the granting of PECs*

In general, PEC requirements are defined based on risk-based evaluation (43%), while in 29% of cases stakeholder consultation is employed and 29% from others, as shown in Figure 41.

According to IMPA, PEC requirements need to be based on risk evaluation, as stakeholder consultation, while useful, is likely to be strongly biased towards commercial considerations rather than the consideration of factors that are directly relevant to the navigation and safety of a vessel.

Figure 41 – Opinion on the basis for defining PEC requirements



Concerning the specificities for obtaining pilotage exemptions, the views of Port Authorities, pilots, and shipping companies are not aligned. Indeed almost all ports and pilots (except for a few British and Finnish ones) share the conviction that it is necessary to discriminate on the size and cargo of vessels and, in a relevant number of cases, that PECs should be relevant for or limited to specific vessel categories.

Shipping companies on the other hand are of the view that limitations associated with granting PECs are unrelated to safety issue, but are rather in place to limit the number of PECs granted, thus benefiting the business conducted by pilots.

IMPA agrees on the granting of exemption certificates limited to small craft or short/sea ferries, which make numerous calls over a short period of time, and EMPA adds that specific types of cargo should be excluded

ex-ante from the possibility of obtaining exemptions. ECASBA considers that it is impossible to implement a "one size fits all" policy on the matter, but stresses on the necessity to prevent market restriction when deciding how to grant PECs.

Masters are split between those who support a wider spread of PECs and those who are against the institution of exemptions. The first are mainly willing to overcome a series of issues related with pilotage organizations and pilots, such as the impossibility to enter ports during pilot strikes or non-working hours or the presence of another crew member which slows down the whole entering process while the Master holds enough experience of the port to be considered as knowledgeable as the pilot. The others expressed a view of feeling safer with an experienced pilot, but also of feeling less legally exposed in the event of an accident.

Table 99 – Stakeholder opinions on the impacts PECs have on safety

Stakeholder	Selection of relevant suggestions/opinions
ANAVE	Procedures to obtain a PEC as well as the conditions are often cumbersome and not relevant. As an example: a change of a vessel (similar type or even a sister vessel) quite often invalidates the existing PEC forcing Masters to retake all aspects of qualification and/or examination for a PEC. The granting of PECs should not be restricted to Masters but should be extended to Chief Officers, as they can (as the pilots do) advice the Master on the basis of his local knowledge.
ANAVE	Some specific maritime "jargon" in the local language may be required but the language and the basis of the examination should be admitted to be in English.
ANAVE	The granting of PECs should not be subject to the availability of shore-based pilotage, VTS systems, etc. which frequently are not available yet in all ports.
ECSA	The condition of a minimum number of calls per year can be hard to meet for short sea shipping companies that operate on the spot market and go where the cargo goes. They are frequent callers of the European harbours when measured over a prolonged period of time. For these enterprises, different requirements may be appropriate as long as safety is ensured.
ECSA	The Captain and duty officer are often left totally in the dark during pilotage due to not knowing the pilot's intentions. All ships are required to make a port-to-port passage plan according to IMO resolution A.893 (21). If the pilot chooses another passage than the bridge team have anticipated, they will spend most of the time correcting the inserted passage plan to avoid repeatedly off-course-alarms from the ECDIS. A pilot passage plan sent on board prior the pilot's embarkation would considerably enhance the safety during pilotage. With the correct pilot passage plan, the bridge team can insert the pilot's own waypoints and be able to supervise the pilot's action without any disturbance.
FSA	In some EU countries the candidates must be able to answer arbitrary questions of the examiners, who are usually local pilots. Simulators should be used instead of testing against specific information that the applicants are able to memorize only for the testing occasion.
Pilot	PEC should be allowed only if the minimum safe manning requirements for the vessel take into consideration the extra workload for the Master/Officer.
Port	Implementation of a new system consisting on the idea of several levels of PECs with differentiated requirements. A national framework should provide regional authorities the remit to execute their own risk assessment and to have their own criteria and norms. The Harbour Master would have a more relevant role in control, training and examination.
Port Authority / Harbour Master	PECs are only granted for sea paths, but not for waterways. It should be considered to apply them to waterway paths as well.
Shipping company	The procedures are often cumbersome, irrelevant and preconceived with the aim to act as a deterrent to obtaining a PEC. For example a change of a vessel quite often negates the existing PEC.
Shipping company	The granting of the PEC should not be restricted to Masters, but also be extended to Chief Mates.

Stakeholder	Selection of relevant suggestions/opinions
Master	It should not be possible to provide PECs if English is not spoken proficiently.
Master	Detailed knowledge is not necessary in many occasions, due to modern equipment.

4.6 Language requirements

In order to determine the second/alternative language used in the provision of pilotage services and for obtaining PECs, stakeholders were asked about their preference, and English was the language always desired. Although this common agreement, language seems to be a big issue in pilotage activities. Shipping companies and Masters reported several times that they have encountered difficulties in communicating with other users. The survey included a section on languages that are used for specific activities (i.e. VTS, pilotage, examinations for obtaining PECs, requirements for the use of PECs, and in-port communications).

Table 100 presents a summary of the current situation with regard to the usage of English alongside the desirable situation, based on stakeholders' stated preferences.

Table 100 – What languages are currently used and should be used in the following circumstances?

Situation	Respondent	Current situation		Desired situation	
		English is used	English is not used	English is used	English is not used
VTS	Port Authorities	95%	5%	100%	0%
	Pilots	100%	0%	99%	1%
Pilotage	Port Authorities	90%	9%	100%	0%
	Pilots	100%	0%	99%	1%
Obtaining PEC (examination)	Port Authorities	95%	5%	100%	0%
	Pilots	26%	74%	31%	69%
Using the PEC (requirement)	Port Authorities	95%	5%	100%	0%
	Pilots	26%	74%	42%	58%
In port	Port Authorities	95%	5%	100%	0%
	Pilots	33%	67%	32%	68%
Total	**Port Authorities**	**94%**	**6%**	**100%**	**0%**
	Pilots	**57%**	**43%**	**61%**	**39%**

At first sight it can be seen that there is a certain discrepancy between responses collected from Port Authorities[111] and pilots. The reason for this gap has to be seen in the fact that when it is stated that "English

[111] Harbour Masters and Port Authorities from the UK and Ireland have not been considered in the analysis, as their National language is English.

is used" it is not intended that only English is used. On the contrary, most of the time, it means that both English and national languages can be/are used.

The result points out that almost all Port Authorities have the ability to speak English. In particular, only a range from five per cent to nine per cent of them stated that they use national languages only, depending on the activities that are considered. Nonetheless, all those that do not use English expressed the wish to do so in the future, with 100% of respondents stating they should use English (either alone or together with national languages) for each of the analysed activities.

Pilots tend to use less English and more national languages, with the exception of VTS and pilotage services, where English is always used (usually together with other languages). Nonetheless, the main difference with Port Authorities resides in the fact that pilots wish for a higher use of national languages over English, while Port Authorities would prefer a wider spread of the use of English (Table 101).

Those stakeholders that have shown a discrepancy between the current status of language used and the desired one have been considered for each situation. On average, more than 92% of Port Authorities that do not speak English have stated that English should be spoken. On the contrary, the analysis of responses from pilots shows higher variation. Concerning VTS and pilotage services, almost all pilots agree with the current status (only around one per cent gap was calculated, representing those that speak English but would prefer to have only national languages spoken). The gap rises to around 2.7% with regard to in-port communications. On the contrary, for obtaining PECs and for their use, pilots that wish for a change are more directed towards a shift from national language to English (the gap is a little less than seven per cent for obtaining the PEC and 21.6% for the use of PECs, meaning that, respectively, on average seven per cent and 21.6% of those that are not satisfied with the current scenario wish for a higher use of the English language over national ones).

Table 101 – Analysis of stakeholders that would prefer other languages are spoken rather than those currently used

Situation	Percentage of stakeholders that speak English but are willing to speak national language		Percentage of stakeholders that do not speak English but are willing to	
	Port Authorities	Pilots	Port Authorities	Pilots
VTS	-	1%	91%	-
Pilotage	-	1%	95%	-
Obtaining PEC (examination)	-	-	91%	7%
Using the PEC (requirement)	-	-	91%	22%
In port	-	3%	91%	-

In particular, some nationalities (e.g. France and Spain) report that they prefer to use their own language. While several stakeholders, such as ship brokers and ship agents, shipping companies, as well as several ports and national administrations are pushing towards a common, unique language (i.e. English) to be used both for examinations and for communication between vessels and port. National administrations from several countries (e.g. Belgium) and ECABSA make the comparison with the aviation industry in which one common language with a number of standard phrases is used and argue that English should be the official language of seafaring. ANAVE recalls that a key requirement for safe navigation globally, the bridge language (including communication to shore) is the IMO English Standard Marine Communication Phrases (SMCP).

Others are more conservative and/or less keen to use English, to which they prefer local languages. Difficulties in communicating in local languages leads to an increased importance of pilots, which can more easily speak with ports than Masters, who are most of the time foreign to the language of the port. It comes with no surprise that almost all pilots participating in the survey agreed that national languages should be used (either alone or together with English) for pilotage, for obtaining and using PECs, and also for in-port communications.

Masters did not share a common viewpoint on language requirements for PECs. In particular some consider that all pilots and VTS officers should speak English, as accidents occurred due to misunderstandings or the inability to understand orders and/or information. The use of several different languages is presented as a cause of traffic slowing down, since the same information are usually repeated for vessels in different languages depending on their nationality (English and national language). Almost all ports agree that all involved actors – Master, Port Authority and pilot – should speak English proficiently. Nonetheless, a minority of respondents considers that knowledge of national language should be used for PEC examinations and required for PECs to be used. Others claim that, since the use of a common language is useless due to low level of knowledge of English, it is still necessary to use pilots as they can communicate with the port in their own language.

4.7 Shore-based pilotage

4.7.1 Use of shore-based pilotage

Most ports do not use shore-based pilotage. In the few cases in which shore-based pilotage is used, it is still not a common practice and it only occurs under certain circumstances and in the event of emergency. In general it is used only in the event of adverse weather conditions and reduced visibility. Some respondents also stressed that shore-based pilotage can only be an additional service, for example, supporting the pilotage of larger vessels alongside VTS – though not replacing on board pilotage.

Opinions on shore-based pilotage are discordant.

Pilots are clearly against the use of shore-based pilotage other than in bad weather conditions, and even this is not always acceptable. The opposite view is expressed by shipping companies and several Masters, who claim that if the use of shore-based pilotage is acceptable in the event of bad weather, when pilots would be most useful, why should it be denied in the event of good weather, when the role of pilot is less relevant?

According to ANAVE, technology concerning pilotage provided from ashore has developed at a high pace – therefore the rationale as to why shore-based pilotage cannot be applied in good weather is unclear. Also, FSA argues that this is especially so when considering that innovations such as electronic charts, much improved GPS systems and reliable VHF connections are available today and increasingly becoming the bridge equipment norm.

Ports do not consider shore-based pilotage as an alternative to regular, on board pilotage, but rather as an additional service to be used in specific situations when on board pilotage is impossible. Most responses from Masters tend to align with pilots and ports, considering that there is a substantial difference between shore-based and on board pilotage, and that the first does not guarantee the same levels of safety of the latter. National administrations are quite divided on the matter. In general, in southern Europe (except Spain) shore-based pilotage is considered as a useful practice, and in northern countries it is not seen as an attractive solution.

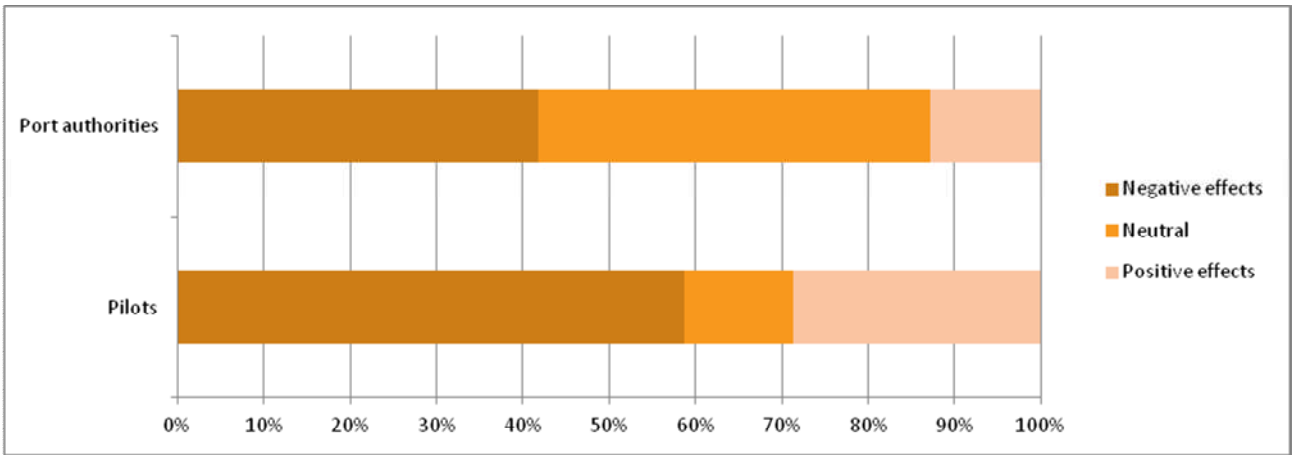
Table 102 – Stakeholder opinions on shore-based pilotage

Stakeholder	Selection of relevant suggestions/opinions
	Used under certain circumstances
Port	Shore-based pilotage is only carried out in adverse weather conditions for incoming vessels, and not for outgoing vessels. As a port we believe this is not logical and we feel that shore-based pilotage for outgoing vessels can be very useful since it diminishes the traffic density and it increases the fluidity of the vessel traffic handling.
Port	Shore assistance (radar consultancy) is provided to the Master/pilot during extreme weather conditions, reduced visibility, and is provided to very large ships in addition to VTS.
Port	Only a few ships, under special condition and highly planned circumstances, are being served during bad weather from ashore as a second best option. This is not preferable in normal weather conditions, since this highly planned operation is not very efficient.
Port	Shore-based pilotage is used in fog. It is designed to help Masters and pilots into the port when they have been caught out by fog or other restricted visibility on the approach. It is also used for assisting very large vessels during their approach.
	Not used
Pilot	There is no sense to allow a ship to enter port without a pilot in bad weather as far it is even more dangerous and difficult than in good weather.
Port	Shore-based pilotage in the UK has been judged in the courts as not lawful. As such any protection under the Pilotage Acts is void: therefore the risks to a port are great, and therefore we don't do it. In circumstances it is beneficial (like in bad weather – when the alternative is to put someone at considerable risk – boarding and landing), and I think it should be catered for.
Port	Our fairways are so narrow that I cannot see how shore-based pilotage is possible.

4.7.2 Impact of shore-based pilotage

As Figure 42 indicates, most respondents consider that shore-based pilotage has a negative impact. In this sense, pilots are less favourable to its use than ports.

Figure 42 – Views on impact of shore-based pilotage (Port Authorities[112] and pilots)



[112] Includes Harbour Masters.

Almost half of the respondents consider that shore-based pilotage has negative effects and do not accept this practice on the basis of safety risk. Efficiency is the second concern among stakeholders. For example, the French Maritime Pilot Association considers that a ship without a pilot on board is less fluid and hampers the global economic traffic flow. Due to this impact on efficiency, it is not considered by Port Authorities appropriate for every port, particularly for dense traffic zones. Negative effects other than safety concerns are: environmental risks, communication obstacles and added complexity for the Captain.

Regarding the positive effects, saving money was one of the reasons more often highlighted. Particularly, ANAVE mentioned that modern technology should stimulate pilotage from ashore in order to have substantial savings for maritime transport services and develop adequate traffic management systems. However, small ports consider that it requires specialized equipment that can be very costly, particularly for small ports.

Finally, a few respondents stressed the importance of training and the expertise required to provide shore-based pilotage.

Table 103 – Stakeholder opinions on impact of shore-based pilotage

Stakeholder	Selection of relevant suggestions/opinions
	Not suitable
Pilot	Decision makers (Captain and pilot) should be physically present on board.
Pilot	The expected benefits for the shipping industry compared with costs involved for the installation, maintenance and staffing of appropriate devices and with regard to the threat posed to the maritime environment as a whole is highly unfavourable.
Port	Permanent shore-based pilotage is not a wise idea. The only reason why the services of a pilot should be changed from services on board to services from ashore is to reduce costs. But cost cutting by changing the concept is only possible if all visiting ships could be served from ashore, including berthing operations. This is something which is only be trusted to Captains that are exempted (PECs) and it is not realistic to expect that all vessels and all Captains are able (and willing) to do so. If pilotage from ashore exists next to pilotage on board, there will be no benefits in terms of costs and there will be no reason to aim for permanent pilotage form ashore. Captains often suffer from fatigue and definitely need a pilot on board. Those few Captains and vessels that may be able to sail safely with pilot's advice from ashore, are also able to obtain for a PEC. So shore-based pilotage is not a solution. PEC's are.
Port	Shore-based pilotage requires the services of a qualified pilot, and the use of equipment which can be very expensive. This is not suitable for small ports.
Port	Would need a vast amount of shore-based infrastructure to ensure that the shore-based pilot can 'see' what is actually happening – this would be very expensive to install and maintain. Has anyone developed a replacement for the human involvement on ships?
Port	Not being considered on grounds of safety. Occasional navigational assistance given by VTS for emergency purposes.
Port	It can have its place but generally speaking the face to face contact of pilot and Master is too important to trust to a radio.
EMPA	With shore-based pilotage the pilot ashore is always looking at history. There is a crucial time delay to detect faulty execution on the pilot's advice. Shore-based pilotage makes less efficient use of the fairway capacity. Need to separate traffic with more distance between vessels and no overtaking, for example. Communication remains the weak link: limited number of VHF channels available, congestion channels, interference, undetected loss of contact with vessels. Due to the current limitation of AIS and RADAR technology the pilot on board has access to more reliable information.
Master	Radar picture never gives a true image of the reality

Stakeholder	Selection of relevant suggestions/opinions
	Neutral position
Pilot	Shore-based pilotage can be used for approaches, in clear waters or in large fairways; but never in restricted waters.
Pilot	It also depends on the ability to determine in real time the actions of the ship's staff and response of the vessel to instructions from the shore.
Port	Shore-based pilotage can be an aid for Masters who have a PEC, but is risky for Masters and Mates who do not know the area very well and who cannot communicate sufficiently with other ships in the fairway.
	Suitable
ANAVE	It could be a way forward when considering the expected shortage of serving Captains and senior officers over the next few years. This should be subject to further research and assessment.
Port	Shore-based pilotage is a valuable tool for both the port and the ship using the port, provided shore personnel are trained in all aspects of shore pilotage, the Master of the vessel must have a good understanding of the language used by the shore operator.
Port	If it is controlled, then it can be a good thing.

4.8 Technical innovation

All stakeholders that provided a response agree on the potential for technical innovations to improve and support pilotage activities. The majority of stakeholders welcome and appreciate innovative tools and provide comment on their potential to increase safety and efficiency.

Nowadays, with the aim of offering a reliable 24/7 service in all weather conditions, most pilot organizations fully embrace technological innovations such as: Portable Pilot Units and docking systems, specialised simulator or computer-based training, manned model courses and new types of pilot boats (SWATH, SLICE, jet propulsion).

Table 104 presents comments regarding innovative tools, their benefits and potential uses.

Table 104 – Stakeholder opinions on innovative tools that support pilotage services

Stakeholder	Relevant suggestions/opinions
	Portable Pilot Units (PPU)
Pilot	Portable Pilot Units (PPU's) are becoming increasingly popular and provide an independent source of data to the pilot. These systems are understood to be easy to set up and very reliable.
Port Authority/ Harbour Master	PPUs are already widely used.
Port Authority / Harbour Master	PPUs are now being developed which are reasonably priced and may improve the overall pilotage experience and information available to the pilot.
	Vessel Traffic Service (VTS)
Pilot	Real time telemetry of VTS radar pictures, currents and tides, made available on portable devices used by pilots.

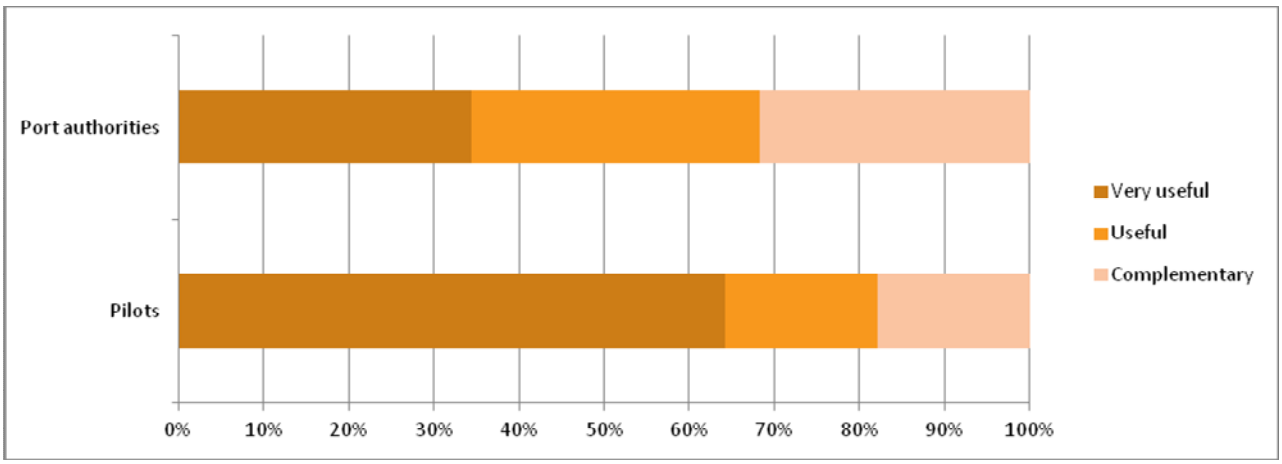
Stakeholder	Relevant suggestions/opinions
Port Authority Harbour Master	Emerging technology shows potential for further enhancement and the greater interaction between pilotage and VTS, which should be seen as complementary services.
Port Authority/ Harbour Master	A good and up-to- date system is vital. 3D VTS systems may be developed further and become useful.
Port Authority/ Harbour Master	The current development is that more and more traffic and navigational information from the VTS is being made available on board. This combined with extensive electronic navigation equipment makes it possible for a vessel Captain to be provided with the necessary information to safely navigate in the VTS area. In the future it may be possible to allow larger vessels to make use of a PECs. This will allow the regional authorities to make better use of the available pilots (in view of the declining numbers of available trained merchant marine officers).
	Others
ANAVE	Advanced bridge simulators are frequently used today both to train new pilots and for training existing pilots in the manoeuvring of large ships which enter a port or terminal for the first time. The use of advanced bridge simulators should be allowed to reduce the required number of calls.
ANAVE	In an area of e-communications and highly developed safety technology the present procedures need a full revision. Many practices are outdated.
IMPA	Advanced position-fixing equipment, better information on board systems, advanced simulators and models to prepare for vessels improve safety and operating parameters.
National administration	Integration of systems (e.g. radar/AIS/ECDIS) should improve 'real-time' situational awareness, for both Master and Port Authority.
National administration	At the moment there is no revolutionary technical innovation available, nonetheless the use of recent ones (e.g. AIS, ARPA, cameras with radars, etc.) can help increasing safety.
Port Authority/ Harbour Master	The SWATH pilot ships can improve the boarding of pilots on sea ships, but can also be a problem to use on small coasters with a low freeboard.
Port Authority/ Harbour Master	The use of independent (to vessel equipment) DGPS and accurate UKC assessment equipment can enhance the navigational safety of vessels (especially larger on the limits of port capability) in the pilotage area.
Port Authority/ Harbour Master	Similarly, real-time inputs e.g. tidal and environmental data into docking systems, should lead to enhanced safety.
Port Authority/ Harbour Master	Further developments, including 3D charting will further improve safety.
Port Authority/ Harbour Master	A key issue concerns carriage requirements and performance standards. Imposing similar standards to airlines (e.g. Mean Time Between Failure for navigational aids) would improve safety. Training of personnel is key: new equipment should have a defined training element to ensure familiarity.
Port Authority/ Harbour Master	Increased electronic navigation aids are likely. There are likely to be lessons learned from the airline industry.

It is the case, however, that 39% of respondents highlighted that technology should always be considered as a complementary instrument that helps the pilot and not as a substitute. Particularly, ports are more sceptical about the extension of its use and they stressed the importance of human skills. Traditional methods and visual navigation are considered the basis of pilotage, and therefore, essential and not replaceable by modern methods. They also emphasize the need for technical skills and the importance of training in order to make

use of these innovative instruments in an appropriate and safer manner without endangering the pilotage activities.

Figure 43 shows opinions of Port Authorities and pilots about the usefulness of technical innovation in the performance of pilotage activities.

Figure 43 – Views on technical innovation (Port Authorities[113] and pilots)



Few stakeholders, for example, shipping companies, expect an increase in the use of sophisticated technology which may lead to a reduction of pilotage services to those areas where pilotage is regarded as necessary for safety reasons.

A selection of relevant opinions is presented in Table 105.

Table 105 – Stakeholder opinions on technical innovation

Stakeholder	Selection of relevant suggestions/opinions
	Complementary to traditional methods
Pilot	New technologies promise to improve navigation safety. But to ensure safe maritime transit it is essential that information gathered via modern devices are complemented by, and validated through, traditional methods. This includes actual information exchanges between the Captain, bridge team and pilot and visual inspection of fixed/floating aids to navigation.
Pilot	Nowadays trends on board vessels are to rely solely on the indications showed by navigation instruments. Even if they are more accurate they are not 100% reliable 100% of the time.
Pilot	The electronic devices are only an aid for pilotage to decrease the risk.
Pilot	All innovations are improving safety but the basic visual navigation is the heart of the safety.
Pilot	Pilots have always tailored technical innovations but they also have developed their ability to do their assignment without these modern tools. It remains essential to look out of the window.
Port	Technological innovations may assist in making things better or safer, but I think they are unlikely to change the fundamental nature of pilotage.
Port	No instrument can replace the pilot's skill.
Port	Technical innovation may improve pilotage activities as long as it is in the hands of the pilot and

[113] Includes Harbour Masters.

Stakeholder	Selection of relevant suggestions/opinions
	Master on the bridge.
Port	All pilotage aids are important and necessary, but they should not replace the pilot on board.
Master	Upgrading of equipment definitely has a positive impact; however, there is always a question about good maintenance and reliability of the equipment.
	Useful
Pilots	Any technical innovations might be able to improve and support pilotage activities. We would like to have less economic pressures as this would enable us to consider using PPUs.
Pilots	PPUs are a welcome innovation in supporting pilotage activities.
Pilots	Technical innovation in itself is a good thing but it must be proven to be appropriate for the task and properly tested under the toughest conditions before approval and implementation. The training and retraining of all personnel involved with the use of new technology is paramount.
Ports	New technology is useful but needs a professional user. Most of the accidents are due to human errors.
Ports	Electronic aids are improving and becoming more resilient but should only be used when they provide added safety.
	Very useful
Pilots	Everything what can improve safety should be welcome in our activities.
Ports	We support all technical innovations which might improve pilotage services.
Ports	All modern navigational aids improve and support pilotage and I am sure that it will improve even more in near future.
Ports	They are invaluable and can improve safety and efficiency.
Ports	PPUs and AIS are wonderful tools that improve and support the pilots.

4.9 Need for future EU legislation on PEC

There are two clear opinions regarding the need for future EU legislation:

- Pilots are less in favour of common regulations (67% of pilots were of the view that there is no need for future EU legislation); and

- A considerable proportion of ports responding to the survey were of the view that there is a need for future EU legislation concerning PEC (58% of responding ports expressed this view).

In general, pilots consider that PECs should be regulated at a national or even local level given the specific local conditions and considerations that influence the use of PECs. Pilots argue that as each port is unique the decision regarding issue of PEC must be decided through risk assessment and based on specific criteria.

On the other hand, Port Authorities highlight the need for common and minimum standards. They argue that issues such as safety and protection of the environment should be regulated at EU level. They also would appreciate soft legislation, such as the establishment of best practices and noted the usefulness of EU guidance on the matter.

A neutral position would be that of those who consider that a common approach at EU level is desirable in order to have a transparent system with minimum standards creating a level playing field which should be adaptable and take into account the local and specific circumstances of the port.

Figure 44 presents a summary of opinion, with regard to the need for EU legislation.

Figure 44 – Opinion on the need for EU legislation (Port Authorities[114] and pilots)

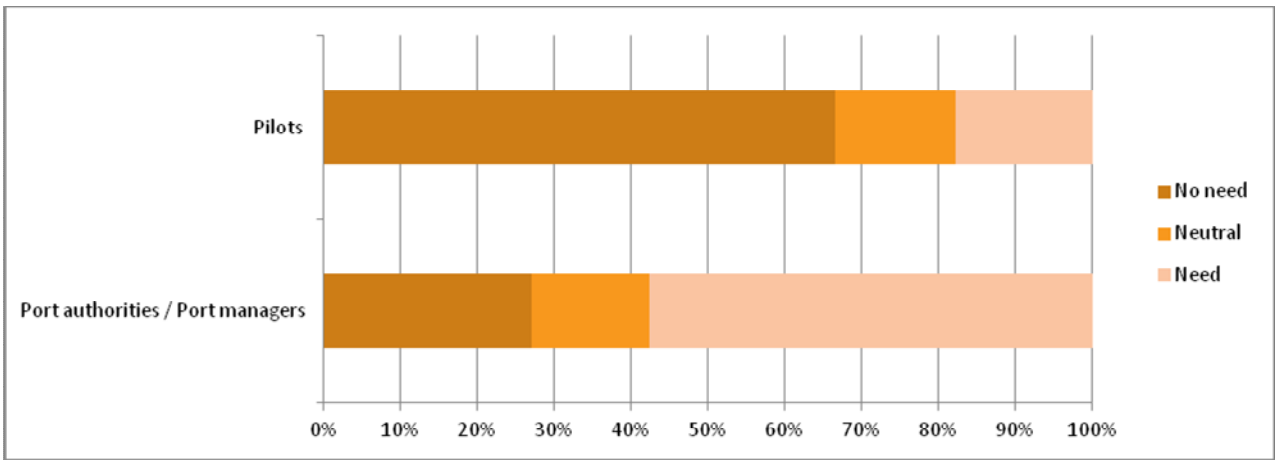


Table 106 presents a selection of stakeholder opinions reflecting the two overall views described in the preceding paragraphs.

Table 106 – Overview of stakeholders' opinions

Stakeholder	Selection of relevant suggestions/opinions
	No need for EU legislation
IMPA	Each pilotage area needs highly specialized experienced personnel with local knowledge. The State (e.g. national administrations) is the most appropriate entity for the prescription of safety requirements which are unique to their waters. A one-size-fits-all approach would not have any benefit and would indeed have a negative impact.
Pilot	There are so many different situations and ports that it seems very difficult to implement a global legislation for PEC applicable to all countries. Local knowledge and adaptation is much more important to deal with local and specific demands. The general rules exist in most countries and have to be applied with respect to the local situation which depends on ships size, type, local areas, local traffic and geographic situation.
Pilot	As IMO clearly stated in the preamble of Resolution A960 (Recommendations on training and certification and operational procedures for maritime pilots other than deep-sea pilots) 'noting that since each pilotage area needs highly specialized experience and local knowledge on the part of the pilot, IMO does not intend to become involved with either the certification or licensing of pilots or the systems of pilotage practiced in various States.' Therefore a regulation based on national and regional considerations is perfectly adapted to the local considerations of seaports (geographical situation, economic parameters, etc.).
Pilot	EU legislation on PECs is impossible to apply. For safety reasons, the PECs are well adapted to the local conditions and decisions pertaining to PECs must remain in the local domain.

[114] Includes Harbour Masters.

Stakeholder	Selection of relevant suggestions/opinions
Port	Exemptions are by principle risk-based and locally defined. Even at a national level there should be room for different criteria and outcomes of risk assessments for individual port areas. According to the principle of subsidiary policy development, the PEC policy should be developed and implemented on a regional port level.
	Need for EU legislation
ECASBA	There is a need for legislation to remove unnecessary and unwanted limitations and barriers to the availability of PECs to any qualified Master, irrespective of his country of domicile.
ECASBA	Legislation is needed to ensure that the only conditions applied are directly relevant and proportional to the safety needs of the port.
Port	EU Legislation should endeavour to create a level playing field taking into account the local and specific circumstances of the port and its approach using a risk-based analysis for which common standards should be used.
Port	EU Guidance could be useful in order to avoid random and diverging decisions by competent authorities.
Port	Regulations for obtaining PECs should be simpler and more flexible.
Port	Legislation would assist in ensuring that all adhere to a minimum standard.
Shipping company	Transparency and possibly guidance on PECs would be very helpful to get rid of existing monopolistic structures and anomalies.
	Neutral positions
Port	Some legislation could be useful, but individual ports need to be able to set their own criteria.
Port	The Commission should demand a transparent and risk-based approach to PEC and control it accordingly. Decision on specific PEC requirements has to be made locally (port level) considering the availability and responsibility for mitigating/dealing with incidents, etc.
Port	Any EU Legislation must be simple and basic. If the ports are not left with some scope to manage the PECs, then the safety of life at sea and the environment may be compromised.

Stakeholders provided opinion on where standard regulation at EU level might be applicable. Table 107 presents a selection of these opinions.

Table 107 – Views on potential areas for standard regulation at EU level

Stakeholder	Some relevant suggestions/opinions
Pilot	The EU needs to look at safety and the protection of the marine environment when regulating PECs.
Port	The EU should define an obligation to conduct all communications in English as in the aviation sector.
Port	Legislation needs to be tightened to ensure PECs are adequately trained, tested and paid to carry out the pilotage act.

Stakeholder	Some relevant suggestions/opinions
Port	The EU should establish that PEC should be available under circumstances that the port/region, etc. decides, that the qualification (or pre-qualification) should not be unduly onerous. Furthermore, the EU should provide some guidance as to what should be examined–as a baseline or minimum requirement.
Port	The EU could usefully contribute to the establishment of best practice on the use of PEC.
Master	There should be general legislation for number of trips to obtain a PEC.

Appendix A national administration: questionnaire

Appendix B Stakeholder questionnaires for on line survey

Appendix C Pilot and pilotage missions statistics

Pilots active in the EU

The number of active pilots has remained relatively constant between 2009 and 2011, although there have been some changes since 1995, both reductions and increases in pilot numbers.

The UK has a significant number of pilots (while the information provided by the sample of CHAs in the UK is not high, it can be assumed that there is a significant number of pilots present in the UK, given that there were 800 pilots in 1995 and 735 in 2010), as does Belgium, France, Germany, Norway, Sweden, Denmark and Finland. There is a clear prominence of pilots in northern Europe and in particular within the Nordic countries.

Table 108 – Number of pilots active across the EU, Norway and Croatia

Country	2011	2010	2009	1995
Belgium	424	423	430	350
Bulgaria	56	56	56	
Croatia	36	31	34	
Cyprus	10			
Denmark	191	198	199	150
Estonia	46			
Finland	155	161	174	.
France	340	340	340	353
Germany	873	879	810	940
Greece	55	55	55	63
Ireland	43	43	43	52
Italy	247	245	245	226
Latvia	44[115]			
Lithuania	23	23	23	
Malta	15	15	15	
Netherlands	450	466	464	650
Norway	286	288	284	
Poland	132	133	135	

[115] 28 in Riga, 16 in Ventspils, four of which operate 24/7.

Country	2011	2010	2009	1995
Portugal[116]	110	110	110	82
Romania	86	88	86	
Slovenia	6	6	6	
Spain	246	240	242	178
Sweden	210	210	210	
UK		735[117]		800
UK – Belfast	10	11	11	
UK – Forth	28	28	30	
UK – Tees	31	31	32	
UK – Dover	5			
UK – Southampton	43	44	44	

In most cases pilots are involved in seaport pilotage. Only a few responses indicated pilots defined by the type of pilotage services that they provided,

- Deep-sea pilotage (Sweden, France, Poland, Malta);
- Inland waterway transit (Romania, Sweden); and
- Shipyards (Poland).

For Greece the respondent stated that Greek pilots undertake a wide range of pilotage activities including sea pilotage, deep draft, docking, special transit and pilotage in specific areas.

In Denmark not all pilots are involved in sea pilotage – a small number of pilots only perform pilotage in the harbours (for example, in Skagen, Hirtshals, Hanstholm, Rønne, Frederikshavn and Århus Harbours).

4.9.1.1 Pilotage missions across the EU

Table 109 presents a summary of pilotage missions in each country. There is a significant volume of pilotage missions in Italy – much higher than in any other country. This is followed by Spain, Germany, the Netherlands, France and Belgium. The total number of pilotage missions in the UK is not known, but this is likely to be relatively high.

Table 109 – Number of pilotage missions

Country	2011	2010	2009
Belgium	59,735	59,734	54,990
Bulgaria	8,286	7,514	7,130

[116] Based on discussion with Associação dos Pilotos de Barra e Portos.

[117] Based on information presented in 'Port Employment and Accident Rates 2009/10' (DfT).

Country	2011	2010	2009
Croatia	11,778	12,380	12,085
Cyprus	4,180	4,225	4,710
Denmark	16,012	15,755	16,239
Estonia	11,784	11,439	10,325
Finland	30,073	29,385	25,706
France	91,391	92,498	88,618
Germany	181,617	171,391	162,112
Greece	20,000[118]	20,000	20,000
Ireland	20,530	22,547	22,111
Italy	266,127	274,104	264,153
Latvia	10789	10756	10877
Lithuania	8,530	8,160	8,224
Malta	7,917	7,863	8,855
Netherlands	88,413	87,600	84,377
Norway	44,980	44,708	41,168
Poland	15,605	16,086	15,523
Portugal	No information provided/available.		
Romania	10,723	11,157	10,307
Slovenia	4,080	4,098	3,936
Spain		200,000	
Sweden	37,783	38,207	35,366
UK	Statistics not available at national administration level.		
UK – Belfast	3,624	3,439	3,448
UK – Forth	6,091	6,353	6,149
UK – Tees	8,246	8,375	7,913
UK – Dover	447	587	629
UK–Southampton	8,721	8,181	8,718

[118] Circa.

Number of exemptions from pilotage

There are clear variations between countries – in some there are no or very few exemptions from pilotage, while in some it is commonplace.

Where a high number of exemptions are granted, these tend to be because the Master holds a PEC, although other reasons are cited.

Table 110 – Number of exemptions in 2011 and 2010

Country	Pilotage exemptions 2011			Pilotage exemptions 2010		
	Total	PEC	Other	Total	PEC	Other
Belgium	18,853	9,998	8,855	20,883	11,512	9,371
Bulgaria	300[119]	300	0	400	400	0
Croatia	0	0	0	0	0	0
Cyprus	5,014[120]	0	5,014	4,668	0	4,668
Denmark	4,570	4,570	0	5,050	5,050	0
Estonia	Statistics not available at national administration level.					
Finland	20,014	16,907	3,107	20,116	17,050	3,066
France	40,116	40,116	0	50,479	50,479	0
Germany	Statistics not available at national administration level. In Bremerhaven 39 Masters had PEC exemptions on 62 vessels in 2011, compared with 49 Masters on 75 vessels in 2010. In Hamburg there were 5,019 exempted missions in 2011 compared with 5,812 in 2010.					
Greece	Small number.	0	Small number.	Small number.	0	Small number.
Ireland[121]	11,846	11,254	592	13,227	12,566	661
Italy		0			0	
Latvia	1,530[122]	1,320[123]	0	1,370[124]	1,370	0
Lithuania	1,667	1,667	0			
Malta	2,570	0	2,570[125]	2,231	0	2,231

[119] The respondent indicated that there are three vessels with PEC in 2011 and four vessels in 2010. These comprise ferry and bunker vessels. The ferry vessels call on average once per week. While no data were provided for the frequency of bunker vessel movements, it is assumed for the purpose of this analysis that on average one call is made per week per vessel also.

[120] Based on ship movements (berthing/unberthing) at the Port of Limassol 'with no pilot' on board.

[121] Based on discussion with AMPI, the majority of exempted missions are due to PEC (estimated to be 95%).

[122] Riga – 210; Ventspils – 1,320.

[123] Information provided for Ventspils only.

[124] Ventspils.

[125] Respondent stated 'vessels <500 GT' (for 2011 and 2010) – it is assumed that this refers to all exemptions.

Country	Pilotage exemptions 2011			Pilotage exemptions 2010		
	Total	PEC	Other	Total	PEC	Other
Netherlands	18,853					
Norway	53,378	51,127	2,251	49,306	47,985	1,321
Poland	4,549	4,549	0	4,474	4,474	0
Romania	0	0	0	0	0	0
Slovenia	596	0	596[126]	562	0	562
Spain	Statistics not available at national administration level.					
Sweden	46,500[127]	46,500	0	46,500	46,500[128]	0
UK	Statistics not available at national administration level.					
UK – Belfast	6,900[129]	6,500	400	6,900[130]	6,500	400
UK – Forth	718	440	278	656	306	350
UK – Tees	2,426	1,278	1,148	2069	1154	915
UK–Southampton	52,267			55,974		

[126] Respondent stated 'vessels <500 GT' (for 2011 and 2010) – it is assumed that this refers to all exemptions.

[127] Respondent indicated that figure for 2011 was similar to that for 2010.

[128] 34,000 – passenger ships, 12,500 – merchant ships.

[129] Circa.

[130] Circa.