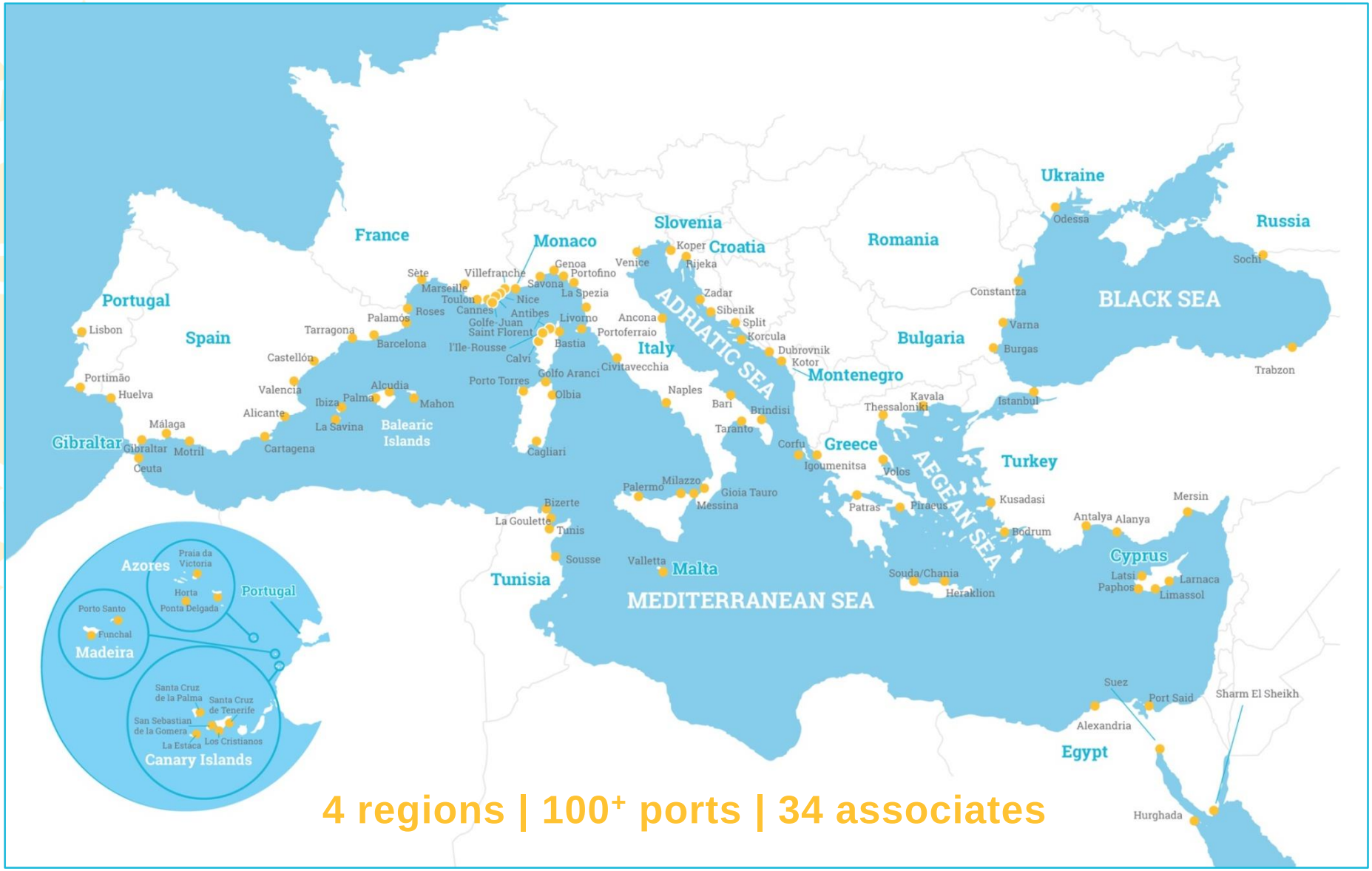
# Port- City  Relationships

**Valeria Mangiarotti - Medcruise**

**Port Network Authority of the Sardinian Sea**

# MedCruise ports




**4 regions | 100+ ports | 34 associates**

# GREEN COLLABORATION PORT - CITY

- **Why we decide to collaborate :**
- THE PORT ARE IN THE CITIES
- THE PORT ARE URBAN PORT
- PORT IMPACT ARE URBAN IMPACT

EMISSIONS,WASTE,LAND USE, TRAFFIC, GREEN GROWTH

# IMPACTS

- **Air Emissions : WE HAVE AN INCREASE OF EMISSIONS**

**Common air contaminants** **Greenhouse gases**

- **Water quality : one major source of water pollution**

**oil spills**

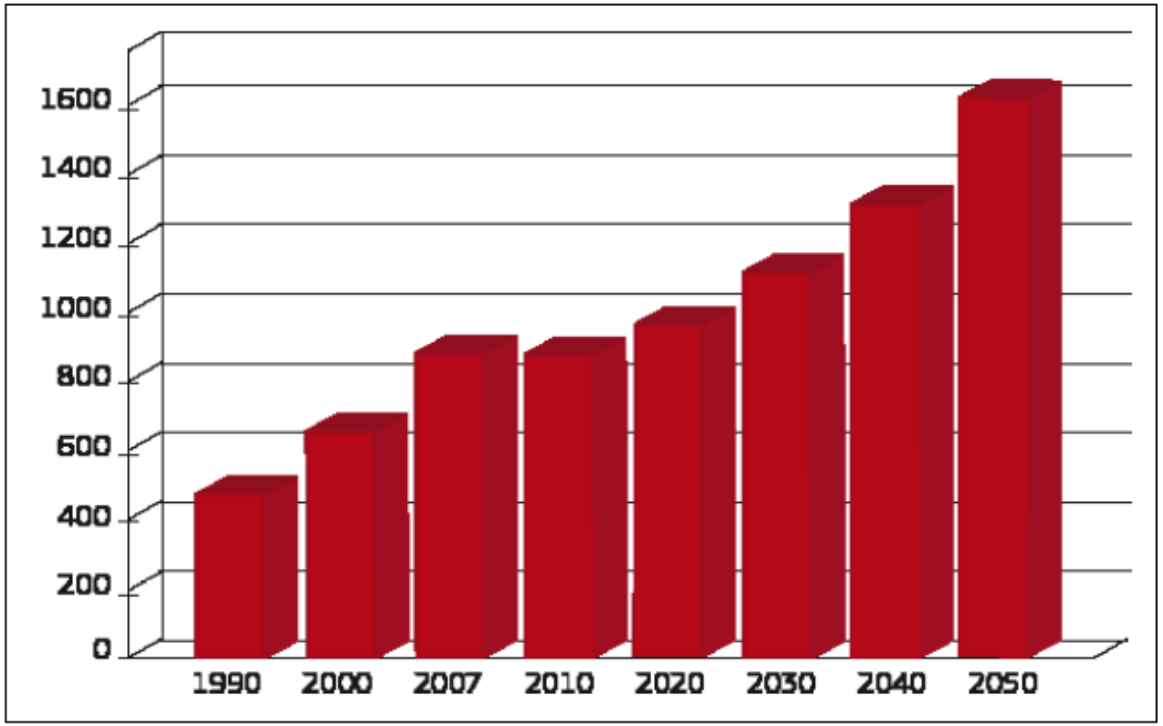
- **Waste : from ships , from dredging operation ,from port activities**
- **Soil pollution: from terrestrial activities in port areas**

**Discharge of oil on the soil / spill of technical demolition of ships/**

# IMPACTS

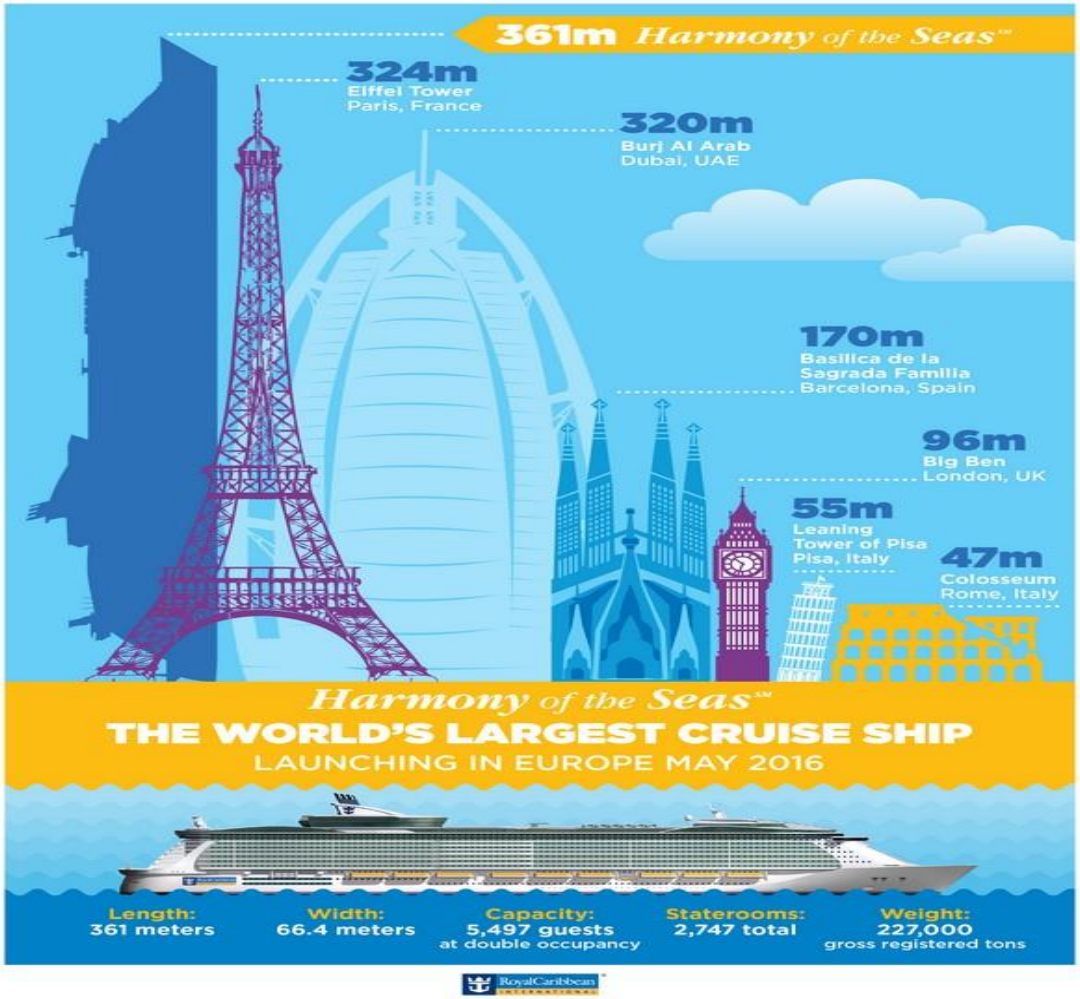
- **Air Emissions** : WE HAVE AN INCREASE OF EMI

Rapid growth in $CO_2$ emissions from international shipping




Estimated $CO_2$ emissions in million tonnes per year (data sources: 2nd IMO GHG study 2009 for emissions until 2007; MEPC 63/INF 2 for average scenario projections 2010-2050)

# CRUISES

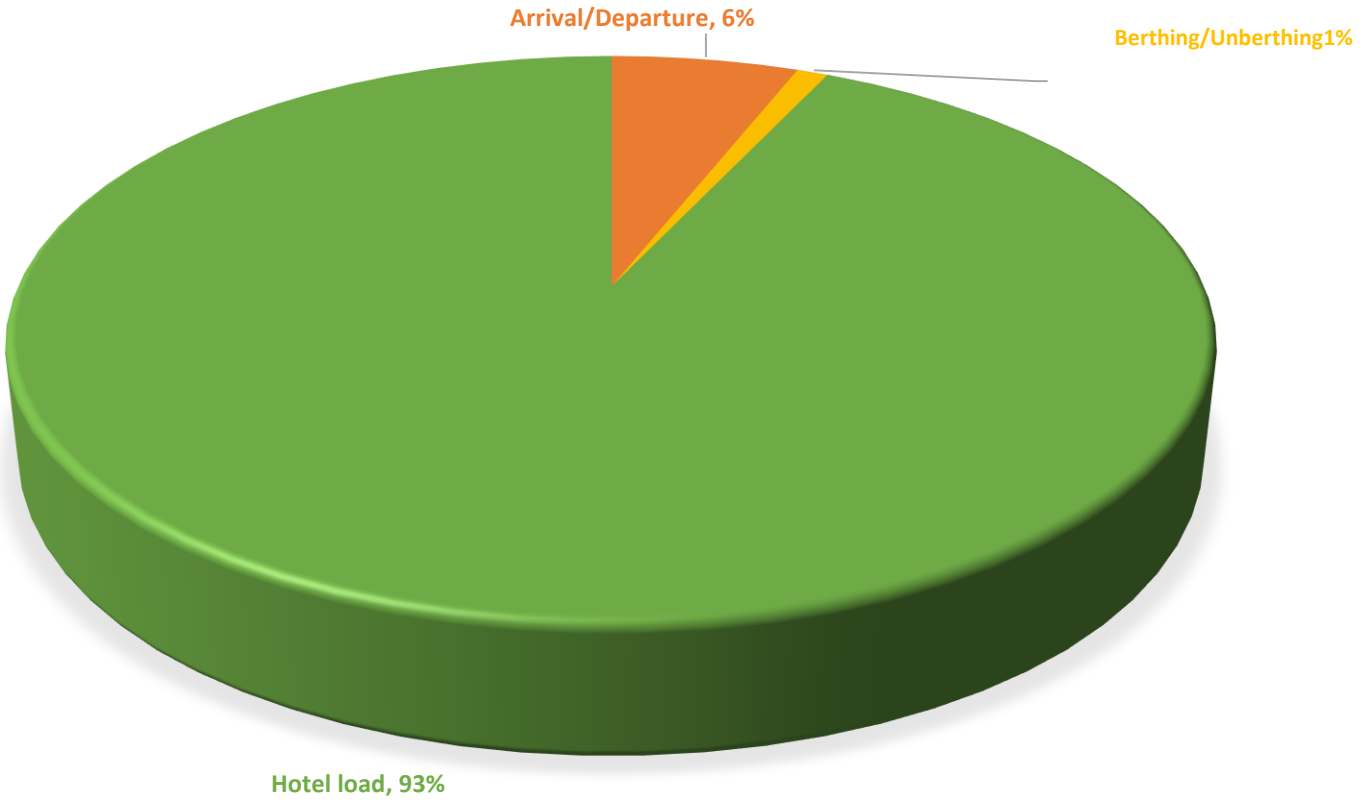

361m Harmony of the Seas℠
324m
Eiffel Tower
Paris, France
320m
Burj Al Arab
Dubai, UAE
170m
Basilica de la
Sagrada Familia
Barcelona, Spain
96m
Big Ben
London, UK
55m
Leaning
Tower of Pisa
Pisa, Italy
47m
Colosseum
Rome, Italy
Harmony of the Seas℠
THE WORLD'S LARGEST CRUISE SHIP
LAUNCHING IN EUROPE MAY 2016
Length:
361 meters
Width:
66.4 meters
Capacity:
5,497 guests
at double occupancy
Staterooms:
2,747 total
Weight:
227,000
gross registered tons
RoyalCaribbean

# SHIPS AT BERTH

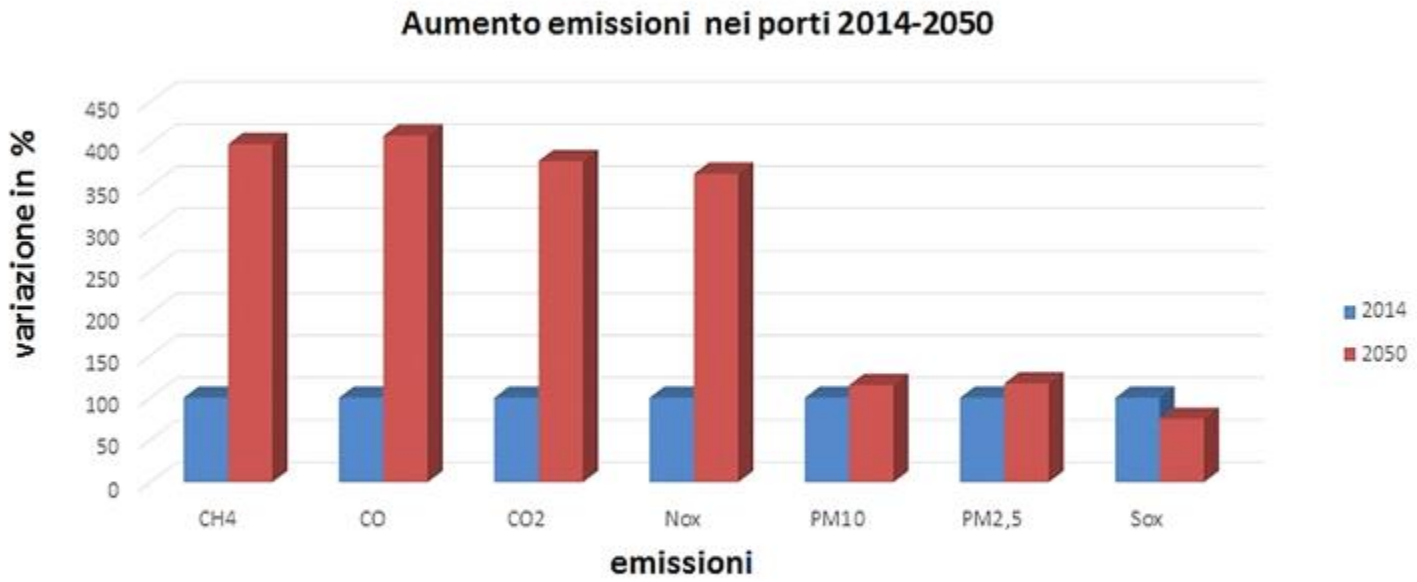
- **A large cruise ship in port for 10 hours, burning up to 20 tons of fuel and emits 60 tons of CO2 into the atmosphere**

# PERCENTAGE OF TOTAL EMISSIONS IN THE PORT OF AN AVERAGE CRUISE SHIP ABT. 2000 PAX (SOURCE: AIDA)

- On average cruise ship ( 2000 pax) caused about 93 % of the emissions during a typical stay in the port while it's lying at the berth



# INCREASE EMISSIONS IN PORTS 2014-2050



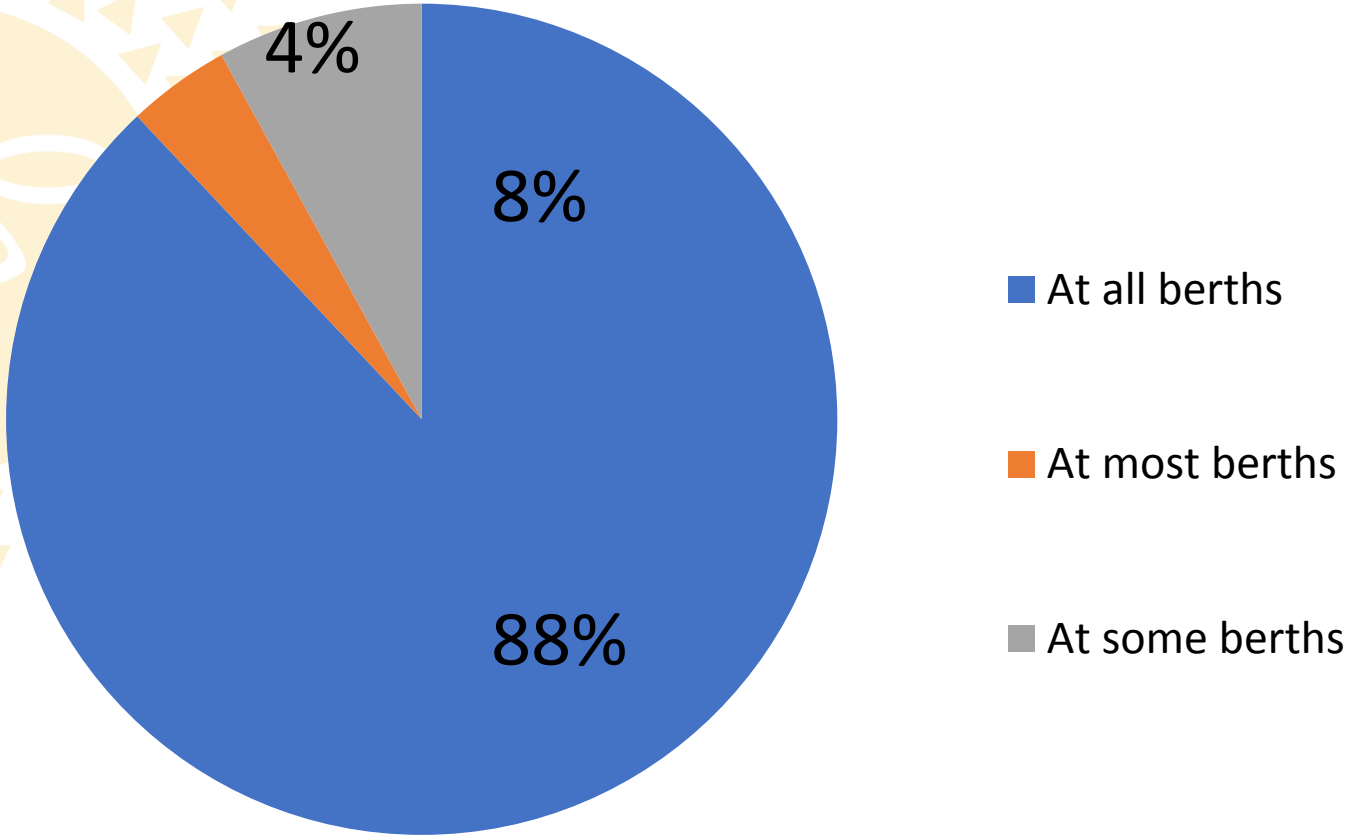
# IMPACT

- **WATER QUALITY** → **one major source of water pollution** **Oil spills**
- **Oil spills coming from normal activities, accident and illegal dumping practices**
- **Tanker accidents**
- **The normal shipping operations are responsable for over 70 % of the oil entering the sea from marine transportation**
- **The transfer of harnful aquatic organism due to the DISCHARGE OF BALLAST WATER used to stabilise vessels**
- **Pollution from slop ( resdiual of chemical products contained in the tanks)**

# IMPACT

## Waste : from ships , from dredging operation ,from port activities

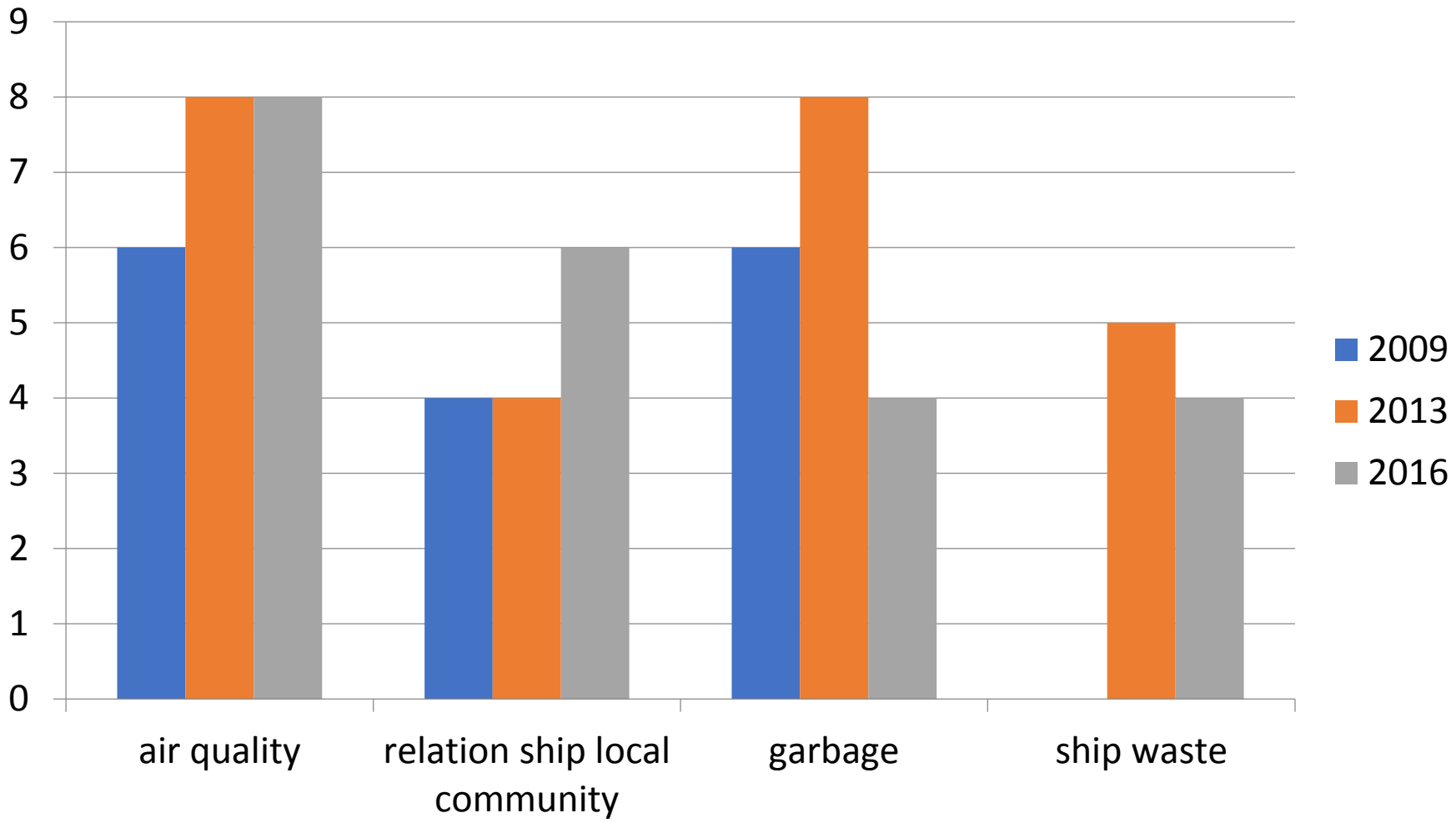
### Waste Reception Services : Location of garbage reception facilities at the port



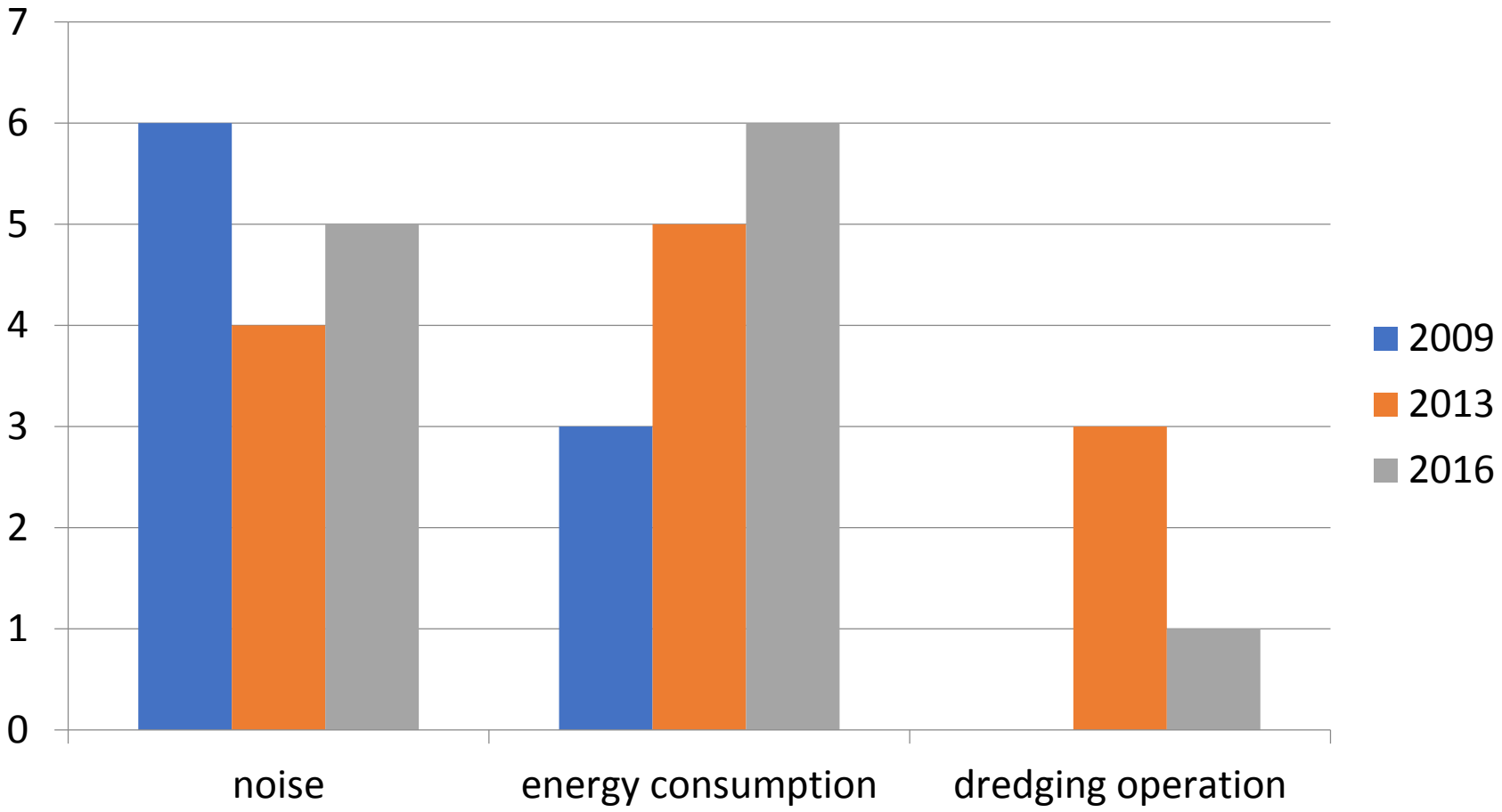
# IMPACTS

- **OTHERS IMPACTS :**
- **VISUAL IMPACT**
- **ODOUR**
- **DUST**
- **SOCIAL IMPACT**

# THE EVOLUTION OF ENVIRONMENTAL PRIORITIES OF PORTS



# THE EVOLUTION OF ENVIRONMENTAL PRIORITIES OF PORTS



# INSTRUMENTS

- **PORT AND CITY CAN USE INSTRUMETS**

- **Information**
- **Incentives**
- **Regulation**
- **Infrastructure upgrades**

# CONCLUSIONS

## THE RESULTS OF GOOD RELATIONSHIP PORT-CITY

- THE PORTS ARE MORE COMPETITIVE
- THE CITIES WITH THE GREENEST PORT POLICIES TEND TO BE THE GREENEST CITIES
- THE QUALITY OF LIFE BECAME MORE EASY
- MORE INTEGRATED APPROACH