



**INTERNATIONAL MARITIME STATISTICS FORUM  
IMSF ANNUAL MEETING 2016  
Athens 9 – 11 MAY**



**COMMON STANDARDS IN THE MEASUREMENT OF  
ECONOMIC EFFECTS BY CRUISE TOURISM**



**Urszula KOWALCZYK  
Maritime Institute in Gdansk  
Economics and Law Department**

# GLOBAL CRUISE INDUSTRY

- **Total worldwide (end 2015):**
  - 298** cruise ships deployed,
  - 486,400** passenger capacity
  - 525,000** passenger capacity expected by 2016 ,
- **6** new cruise ships with **18,800** passenger capacity deployed in 2015,
- **15** new cruise ships with **39 637** (+8.1%) passenger capacity expected (2017),
- **24** million passengers expected in 2018 and **25,3** million by 2019,
- **36,27** billion US\$ - revenues generated by the global cruise industry,
- **1728** US\$ - average revenue per cruise passenger,
- **185** US\$ - average profit per passenger

## Global sourcing of passengers (2015) - %:

- 58%, North America,
- 29% Europe,
- 13% Asia/Pac



# CRUISE INDUSTRY IN EUROPE

## 2014 highlights

- **42** cruise lines, operating **123** cruise ships of capacity **146,000** berths domiciled in Europe,
- additional **18** non-European lines, deployed **60** cruise ships of vessels capacity ca **89,000** berths in Europe,
- **6.4** million European residents booked cruises, (+ 0.5% v. 2013) – about 30% of worldwide cruise passengers,
- **5.85** million passengers embarked from a European port (of which 3.6% - 4.9 million European nationals),
- **29** million passenger visits at around **250** European port cities,
- **14.4** million crew arrived at European ports
- majority of cruises visited ports in Mediterranean, Baltic and other European regions.

Principles and objectives of EU cruise industry are set in the Europe 2020 Strategy EC Communication - *"A European Strategy for more Growth and Jobs in Coastal and Maritime Tourism"*

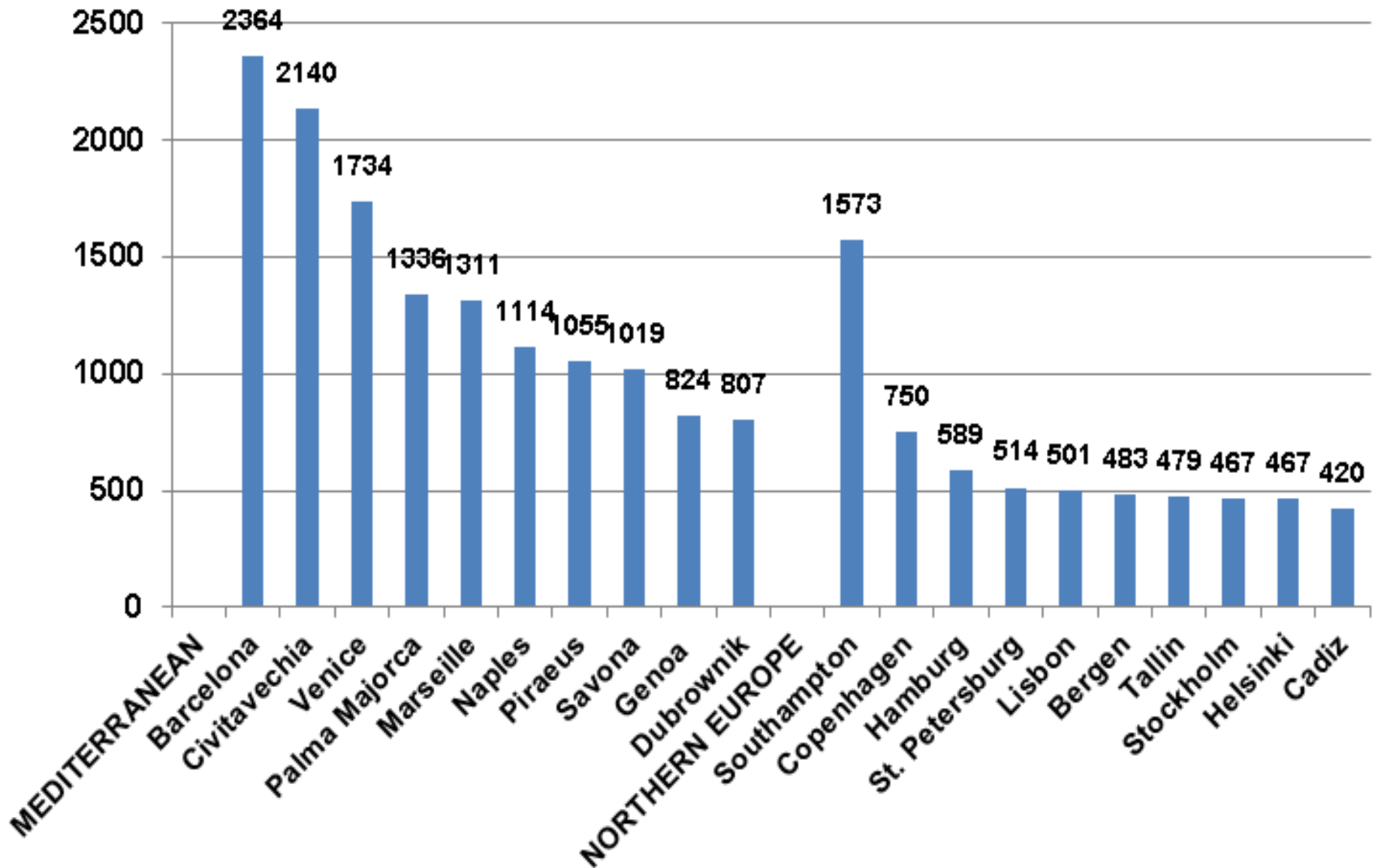
# MEDITERRANEAN AND NORTH EUROPEAN MARKETS

	Mediterranean	North Europe
<b>Fleet – No of ships</b>	<b>152</b>	<b>101</b>
<b>Capacity – berth (thous)</b>	<b>206</b>	<b>126</b>
<b>Av berths per ship</b>	<b>1353</b>	<b>1250</b>
<b>No of passengers (million)</b>	<b>3,6</b>	<b>1,52</b>
<b>No of cruises</b>	<b>2478</b>	<b>1184</b>
<b>Passenger-nights (million)</b>	<b>28,71</b>	<b>13,49</b>
<b>Av cruise nights duration</b>	<b>8</b>	<b>9</b>



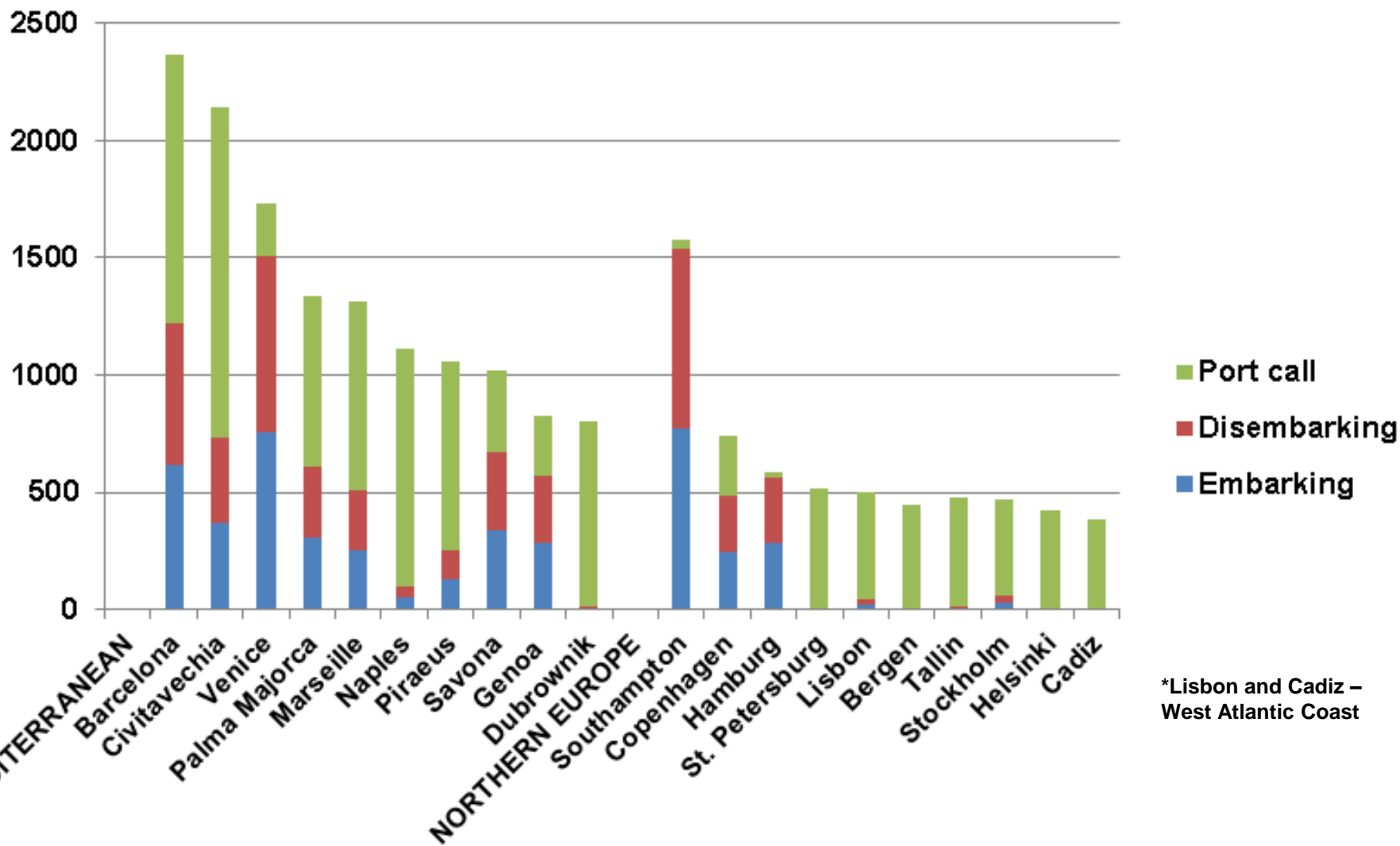
# LEADING EUROPEAN CRUISE PORTS IN 2014

– thous passengers



# CRUISE PASSENGERS IN SELECTED MEDITERRANEAN AND NORTHERN EUROPE PORTS

– thous passengers



# CRUISE SHIPS CALLING EU PORTS - BY COUNTRY

COUNTRY	NUMBER OF SHIPS	CAPACITY thous GT
<b>TOTAL</b>	<b>9291</b>	<b>495768</b>
<b>Greece</b>	<b>3852</b>	<b>186027</b>
<b>Spain</b>	<b>1689</b>	<b>112836</b>
<b>Croatia</b>	<b>3226</b>	<b>51679</b>
<b>Portugal</b>	<b>739</b>	<b>42997</b>
<b>Denmark</b>	<b>404</b>	<b>25138</b>
<b>Germany</b>	<b>401</b>	<b>24320</b>
<b>Sweden</b>	<b>388</b>	<b>21017</b>
<b>Estonia</b>	<b>344</b>	<b>19955</b>
<b>Finland</b>	<b>319</b>	<b>16904</b>
<b>United Kingdom</b>	<b>298</b>	<b>10422</b>
<b>Ireland</b>	<b>162</b>	<b>7736</b>
<b>Cyprus</b>	<b>104</b>	<b>4788</b>
<b>Poland</b>	<b>173</b>	<b>3638</b>
<b>Latvia</b>	<b>66</b>	<b>2738</b>
<b>Slovenia</b>	<b>54</b>	<b>2595</b>
<b>Romania</b>	<b>53</b>	<b>2144</b>
<b>Lithuania</b>	<b>40</b>	<b>1387</b>
<b>Netherlands</b>	<b>19</b>	<b>1301</b>
<b>Bulgaria</b>	<b>44</b>	<b>578</b>



# CRUISE SHIPBUILDING

## CRUISE ORDERS 2015–2018

Delivery schedule	Number of ships	Number of berths	Investment (million Euro)
<b>Total</b>	<b>31</b>	<b>93 308</b>	<b>16,957</b>
<b>2015</b>	<b>7</b>	<b>18,930</b>	<b>3,335</b>
<b>2016</b>	<b>11</b>	<b>28,546</b>	<b>5,475</b>
<b>2017</b>	<b>6</b>	<b>22,124</b>	<b>3,936</b>
<b>2018</b>	<b>7</b>	<b>23,708</b>	<b>4,211</b>

## OCEAN-GOING CRUISE SHIPS – SCHEDULED NEWBUILDINGS 2015–2018

Country of build	Number of ships	Thous GT	Number of berths	Cost (million Euro)	% share of cost
<b>Total</b>	<b>29</b>	<b>3502</b>	<b>86808</b>	<b>15957</b>	<b>100,0</b>
<b>Italy</b>	<b>15</b>	<b>1348</b>	<b>33420</b>	<b>6508</b>	<b>40,8</b>
<b>Germany</b>	<b>7</b>	<b>1126</b>	<b>27688</b>	<b>5142</b>	<b>32,2</b>
<b>France</b>	<b>4</b>	<b>735</b>	<b>18200</b>	<b>3112</b>	<b>19,5</b>
<b>Finland</b>	<b>3</b>	<b>295</b>	<b>7500</b>	<b>1195</b>	<b>7,5</b>



# CRUISE TOURISM AT THE BALTIC SEA

- **Baltic Sea region is the fastest growing cruise market in the world**
- **Baltic region is the second largest area for cruise tourism in Europe (after the Mediterranean),**
- **Baltic Sea region receives more than 350 cruise ships with over 2100 port calls each year**
- **40 cruise lines and 88 ships (2015), 4,3 million passengers (10 % of total cruise passengers),**
- **annual turnover of around € 443 mln and 5500–11500 jobs,**
- **Most of ports located to the city centers and attractions, many piers and terminals within walking distance,**
- **Variety of bigger and smaller ports – various itinerary opportunities.**



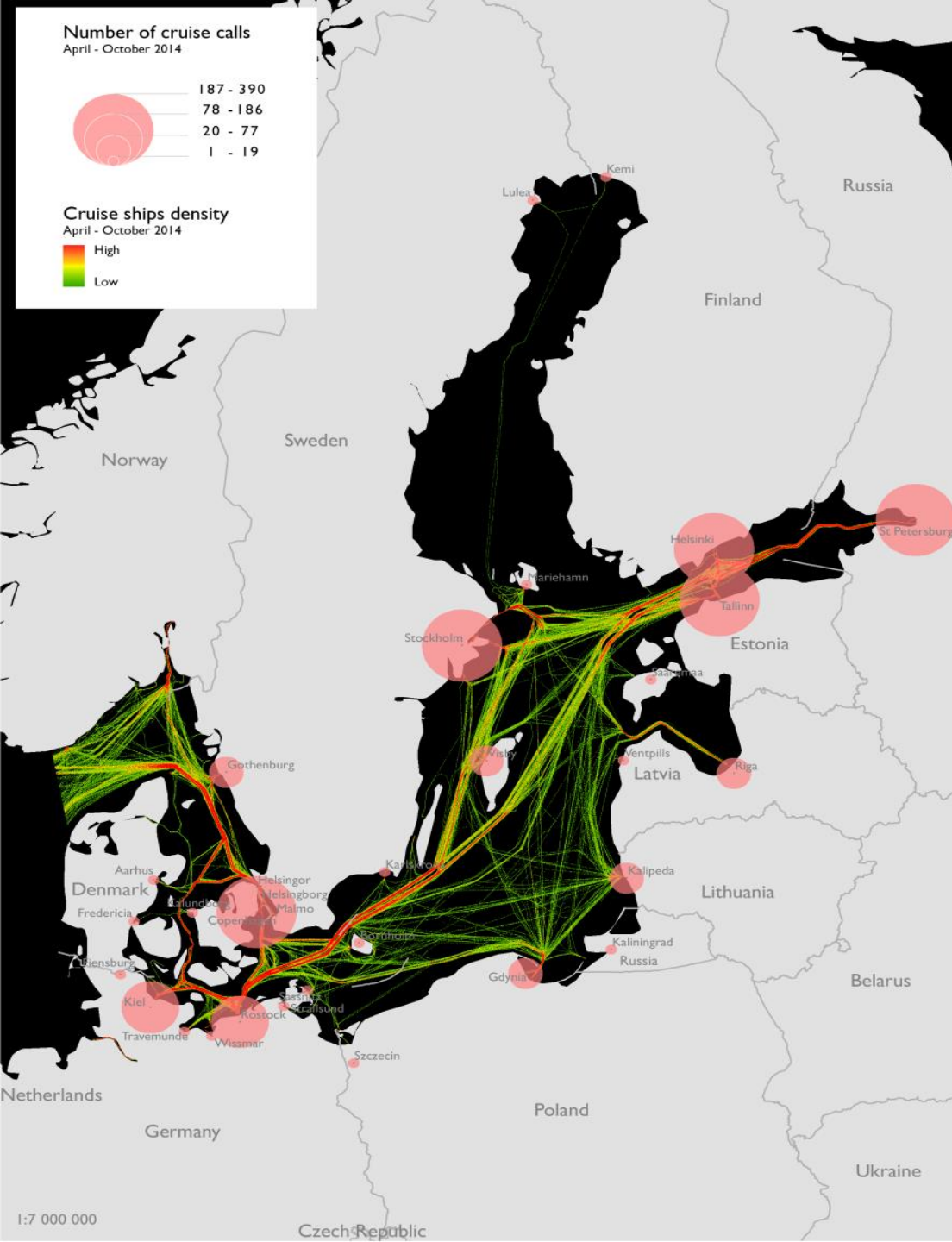
# CRUISE TRAFFIC DENSITY AT THE BALTIC SEA

- **77 different cruise ships owned by 37 operators sailed in the Baltic Sea during the cruising season 2014,**
- **Half of these were smaller vessels with a of 1,500 or less persons, including staff and passengers,**
- **8 vessels, or 10 %, were large vessels with a maximum capacity of 4,000 persons or more,**
- **5 main destinations St. Petersburg, Copenhagen, Tallinn, Helsinki and Stockholm – account for 67 % of the cruise ship traffic in terms of calls,**
- **Cruise ships visited 31 Baltic ports during 2014,**
- **In 3 ports, including Visby, large ships anchor outside the port and use shuttle boat transportation to the shore,**
- **Voyages between two ports lasted commonly between 8 and 20 hours at sea, and the cruise ships stayed usually in port between 8-10 hours,**
- **The international cruise ship voyages involved in total 6,55 million person-days, comparable to year-around habitation of 18 000 people.**

Number of cruise calls  
April - October 2014



Cruise ships density  
April - October 2014



# BALTIC SEA (2014)

CRUISE SHIP VISITS PER CITY  
AND TRAFFIC DENSITY

HELCOM provides information on port reception facilities for sewage (PRF) and their use by international cruise ships in the Baltic Sea area

- length of sea voyages
- frequency
- duration of port visits
- sewage facilities
- and traffic trends

Analyses of ship movements, passenger capacity and port facilities help to clarify what the real needs of cruise traffic might be in terms of sewage management in the Baltic Sea cruise ports.

# WASTE GENERATED ON BOARD OF PASSENGER SHIP

- GREY WATERS (from kitchen, laundry, dining)
- BLACK WATERS (from bathrooms, toilets)

Estimated amount of waste water: 2 m<sup>3</sup> - 4,3 m<sup>3</sup> /person/day

Total waste of 1 passenger/crew per day by type (est.):

- 1,5 kg garbage
- 150 l black water
- 40 l kitchen water
- 140 l gray water

Dumping the waste in the port or port entrance is forbidden (except grey waters). It must be removed by specialized equipment and companies

# VIKING STAR – STARTING 16 CRUISING IN PORT GDYNIA



**Viking Star is a small luxury cruise ship, in operation since June 2014, length 227 m, 930 berths. One of the most innovative cruisers recently completed (apart from standard facilities and 1:2 proportion of crew to passenger number, it offers 2 pools including an innovative "infinity pool,, at the aft. Viking Star will call at Gdynia 10 times this season. The av length od cruise ships visiting Gdynia this year is 237,8 m (225,15 in 2015).**

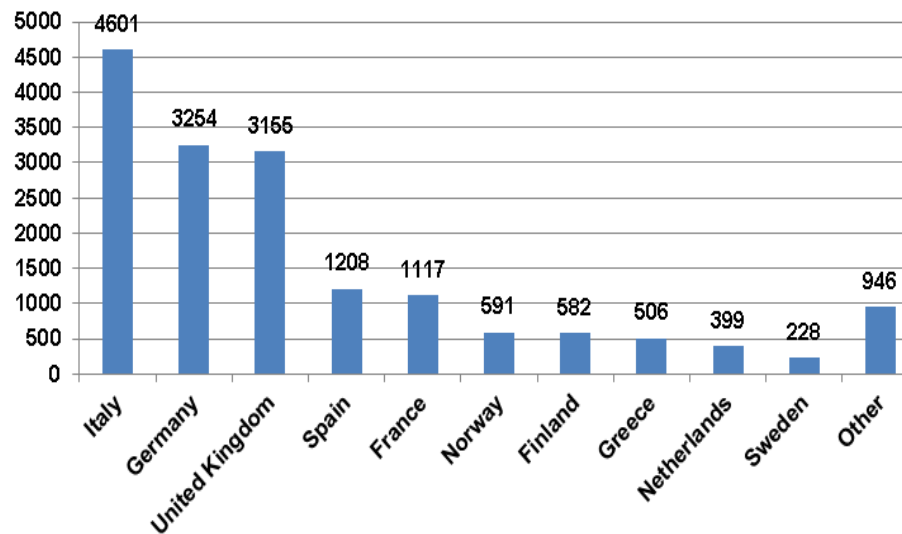
# ECONOMIC IMPACT OF CRUISE SECTOR

## IN EUROPE IN 2014

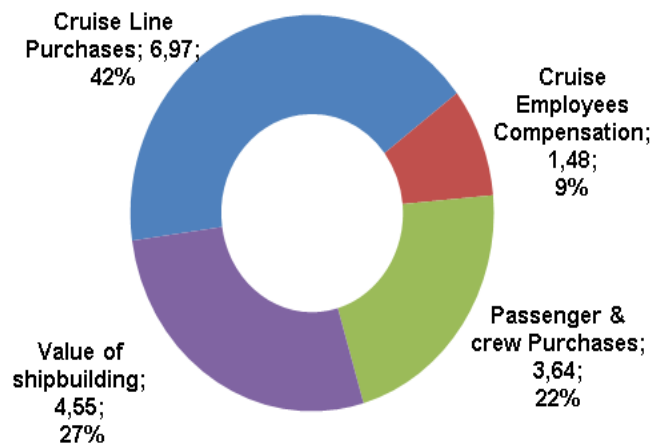
### Segments of the industry:

- Serving as major source and destination markets for cruise passengers,
- Maintaining headquarters facilities and providing crew,
- Providing shipbuilding and/or repair services (4,6 billion Euro),
- Provisioning and fuelling for cruise ships

Direct expenditure million Euro



Direct cruise industry expenditure  
16,6 billion Euro



# DIRECT EXPENDITURE BY COUNTRY

Country	Direct expenditure million Euro	%
<b>TOTAL</b>	<b>16,637</b>	<b>100,0</b>
<b>Italy</b>	<b>4,601</b>	<b>27,7</b>
<b>Germany</b>	<b>3,254</b>	<b>19,6</b>
<b>United Kingdom</b>	<b>3,155</b>	<b>19,0</b>
<b>Spain</b>	<b>1,208</b>	<b>7,3</b>
<b>France</b>	<b>1,117</b>	<b>6,7</b>
<b>Norway</b>	<b>591</b>	<b>3,6</b>
<b>Finland</b>	<b>582</b>	<b>3,5</b>
<b>Greece</b>	<b>506</b>	<b>3,0</b>
<b>Netherlands</b>	<b>399</b>	<b>2,4</b>
<b>Sweden</b>	<b>228</b>	<b>1,4</b>
<b>Other</b>	<b>946</b>	<b>5,7</b>

# ENVIRONMENTAL IMPACT OF CRUISE TOURISM

**Cruise ships have been described as 'floating cities', whose per capita pollution is generally worse than that of a similarly populated city.**

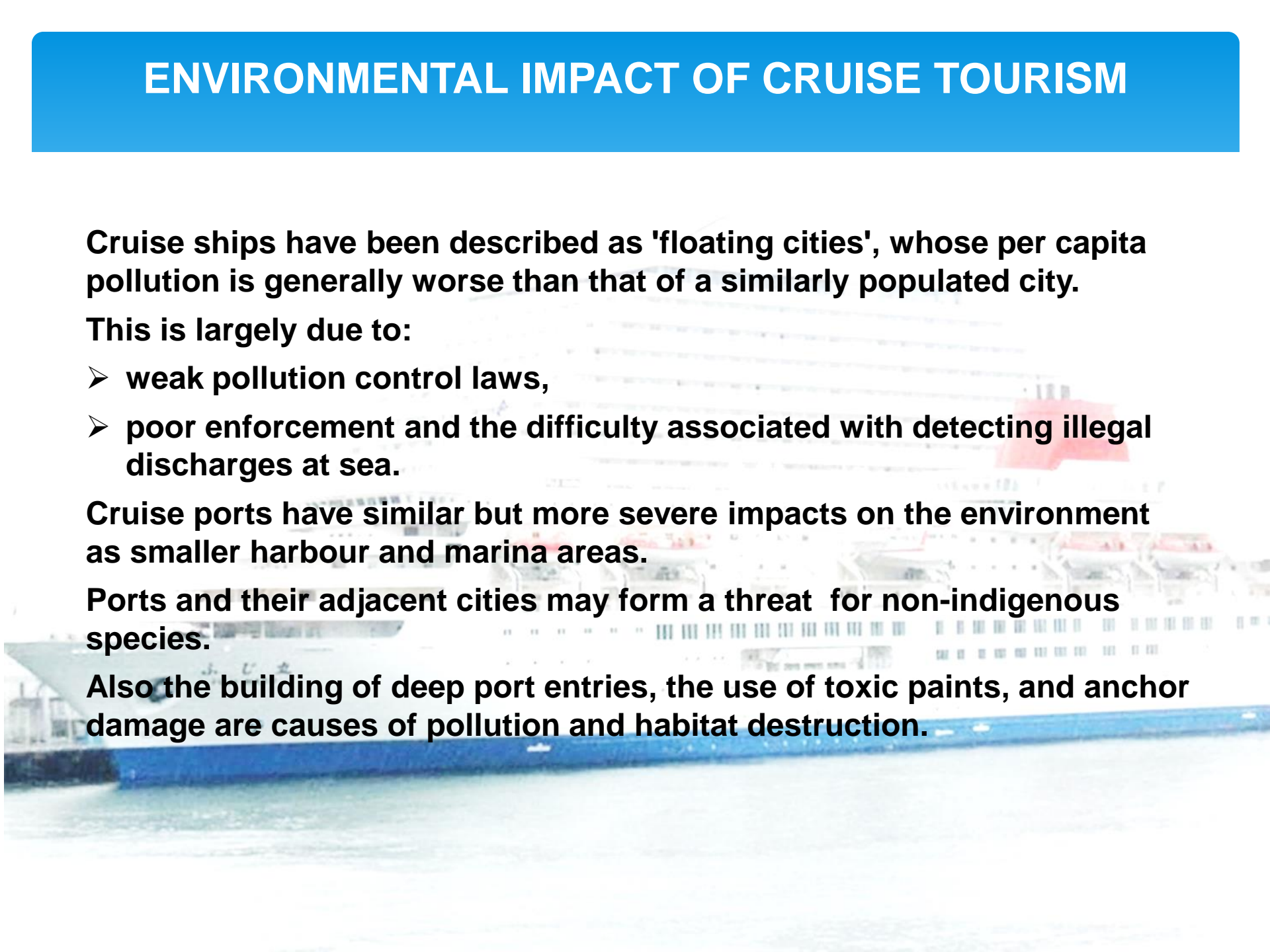
**This is largely due to:**

- **weak pollution control laws,**
- **poor enforcement and the difficulty associated with detecting illegal discharges at sea.**

**Cruise ports have similar but more severe impacts on the environment as smaller harbour and marina areas.**

**Ports and their adjacent cities may form a threat for non-indigenous species.**

**Also the building of deep port entries, the use of toxic paints, and anchor damage are causes of pollution and habitat destruction.**





# LNG FUELLED CRUISE SHIPS

**In January 2013 the first LNG-fuelled cruise ferry in the Baltic the VIKING GRACE of Viking Line, entered into service Turku-Mariehamn/Langnäs-Stockholm route.**

**The ship of 57 thous.GT and a speed of 22 knots can accommodate up to 2800 passengers and has 1275 metres cargo lane.**

**Important step towards LNG shipping in the Baltic Sea - the ship complies with the stricter sulphur regulations (in force across the Baltic from 1 January 2015).**

**Apart from gas carriers, it is the biggest ship running on LNG (ro-pax worth EUR 240 mln).**

**The Viking Line carried 6,53 million passengers in 2013 and nearly one-third of the total passenger traffic was performed by the new LNG-driven ferry Viking Grace (in tandem with Amorella).**

# CONCLUSIONS

- Ports play significant role in generating business opportunities and in protection of the marine environment and in avoidance of pollution from ships by providing adequate port reception facilities and suitable quayside energy infrastructure.
- Integrated approach between cruise industry, ports and coastal tourism stakeholders for cruise tourism at local, regional, national and European level is needed
- Solutions for common challenges - congestion in ports, provision of adequate services and facilities in ports, carrying capacity of destinations, connections from ports to touristic centres, coordinated implementation of legislation,
- Dedicated approach to different regional challenges should be considered,
- Need for environmental sustainability of cruise tourism - appropriate management of noise levels, waste, water, air quality and energy efficiency, in full application of existing legislation,
- Transparent and adequate standards enabling CBA required



## **MARITIME INSTITUTE IN GDANSK**

Długi Targ 41/42

80-830 Gdańsk, Poland

phone +48 58 301 16 41

fax +48 58 301 35 13

e-mail: [im@im.gda.pl](mailto:im@im.gda.pl)

Prepared by: Urszula KOWALCZYK  
Head of Economics and Law Department