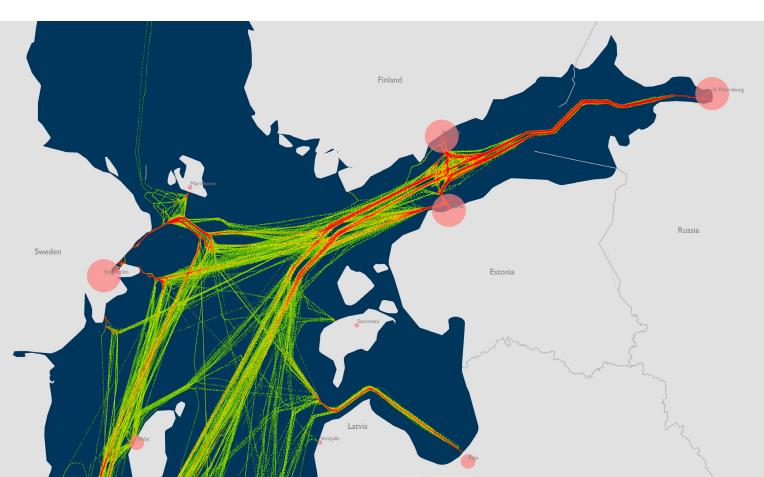


**Baltic Marine Environment Protection Commission** 

# HELCOM Overview 2014 Revised Second Edition

# Baltic Sea Sewage Port Reception Facilities



# Baltic Sea Sewage Port Reception Facilities HELCOM Overview 2014

**Revised Second Edition** 

Published by:

HELCOM

Baltic Marine Environment Protection Commission Katajanokanlaituri 6 B FI-00160 Helsinki, Finland www.helcom.fi

Note on this revised second edition (6<sup>th</sup> March 2015):

This revised version includes additional information and comments received after the publication of the original version on the 4<sup>th</sup> of February 2015 (see annex 4 for details).

Editors: Hermanni Backer, Manuel Frias, Florent Nicolas

For bibliographic purposes this document should be cited as: HELCOM, 2015, Baltic Sea Sewage Port Reception Facilities

HELCOM overview 2014 - revised second edition. 94 pp.

ISBN 978-952-67205-9-3 electronic publication

Credits: This publication has received financial support from Swedish Transport Agency Map-marker icon: Alex Kwa, licensed as Creative Commons BY 3.0. Map background: OpenStreetMap – Stamen. HELCOM AIS data provided by national maritime authorities.

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# Baltic Sea Sewage PRF HELCOM overview 2014

Revised second edition

# I. A regional sewage PRF overview - with focus on cruise ships

This report provides information on the status of sewage port reception facilities (PRFs) and their use in the Baltic Sea area in 2014, with a focus on international cruise traffic. Cruise traffic has been growing during recent years but up to now relatively little quantitative Baltic Seawide information has been available on what this might mean in terms of sewage PRF needs in the Baltic Sea cruise ports.

Ferry traffic and ports have been covered to some extent in previous HELCOM PRF overviews (e.g. HELCOM 2014). However, ferries were omitted from this updated report in order to enable focus on cruise ship information. Ferry traffic information based on AIS will be included in the future if resources are made available. The main international ferry lines in the Baltic Sea are listed in annex 2 for reference.

This document has been compiled by the HELCOM Secretariat mainly based on an analysis of regional AIS data from April-October 2014. Other important sources of information have been the shipping industry, port authorities and national administrations. During the period 2008-2014 these have provided HELCOM with regular updates on passenger traffic and port reception facilities.

# Information from national administrations and industry

Information from the national administrations has been provided via the national delegates of the HELCOM MARITIME group.

Information from the industry has been collected with the generous help of HELCOM industry Observers particularly Cruise Lines International Association (CLIA), including a joint online survey for cruise ships during 2014, but also European Community Shipowners Association (ECSA), Baltic Ports Organisation (BPO) and European Sea Ports Organisation (ESPO). These industry actors have cooperated within the regional Cooperation Platform on Port Reception Facilities (PRF) in the Baltic Sea established in 2010.

In May 2014, HELCOM and the Cruise Lines International Association (CLIA) launched a joint survey in the Baltic Sea region for summer 2014. The survey aimed to collect detailed data on sewage delivery needs and available facilities in the Baltic Sea ports. The survey was available for cruise ships stopping in Baltic Sea ports between May and October 2014. The question-naire was sent to ships and also to ports, but only a few ports answered. Answers from a total of 667 port calls, by 29 different cruise ships in 22 ports of the region, were received.

The results of the survey have been used in this document for showing the actual use of sewage PRFs in the biggest passenger ports in the Baltic Sea, as well as to document related comments by cruise ships crew.

Additional information sources for this publication have been an exchange of letters on sewage PRFs under the Nordic Council of Ministers (finalized in 2013), the *Baltic Port List* series published by the Turku University Centre for Maritime Studies, a 2013 compilation of statistics by the industry initiative Cruise Baltic (cruisebaltic.com) as well as a compilation of ferry line information from ferrylines.com.

# AIS data

AlS data from the regional HELCOM AlS network, covering the whole Baltic Sea area, was used in order to get coverage of the cruise traffic in the region. A list of 79 cruise ships in annex I, based on information from main passenger ports and Cruise Baltic, was used to separate international cruise ships from the rest of passenger traffic. Port calls were defined as stops of I hour or more.

# 2. General characteristics of cruise traffic in the Baltic Sea 2014

According to AIS data from April to October 2014 there were in total 2125 international cruise ship calls in the Baltic Sea. 1866 of those were intra -Baltic travels, or calls where both the previous port visited and the current port were in the Baltic Sea. In 2014 these international cruise ship voyages involved 7,15 million person days in the Baltic Sea region (at sea and in port, see annex 1).

The number of cruise ship calls has remained stable over the last ten years but the number of passengers has increased (see figure 1).

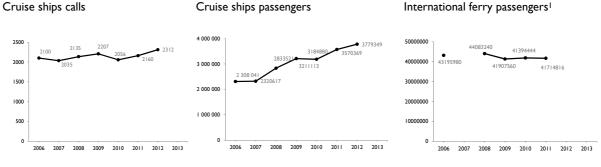


Figure 1 General passenger traffic trends in the Baltic Sea region 2006-2013

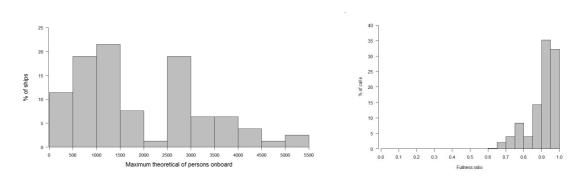
# Characteristics of cruise ships operating in the Baltic Sea

Based information from the industry initiative "Cruise Baltic<sup>2</sup>" and port authorities, there were 79 international cruise ships operating in the Baltic Sea in 2014. 80% of the cruise ships operating in the Baltic Sea have a maximum capacity of 3000 persons or less (Figure 2).

7,5%, or 6 international cruise ships are very large ships which can carry more than 4000 persons (passengers and crew). 30% (24) are small ships which can carry at most 1000 persons.

Based on the HELCOM-CLIA Survey the cruise ships operating in the region had an average fullness ratio<sup>3</sup> of 90,38 %.

More information on the ships operating in the region is available in annex 1.





<sup>&</sup>lt;sup>1</sup> This figure shows embarked and disembarked international passengers divided by two.

<sup>&</sup>lt;sup>2</sup> 3 ships operated by ferry companies with special arrangements for sewage delivery were excluded from the original "Cruise Baltic" list.

<sup>&</sup>lt;sup>3</sup> Fullness ratio = number of passengers onboard / max capacity.

# Ports visited by cruise ships

The ports visited by cruise ships in 2014 are presented in the map and figure below. Detailed information for each port is included in section 3 of this publication. The main destinations for cruise ships include St. Petersburg, Copenhagen, Tallinn, Helsinki and Stockholm. These five ports alone account for 65% of the cruise ship traffic in terms of calls.

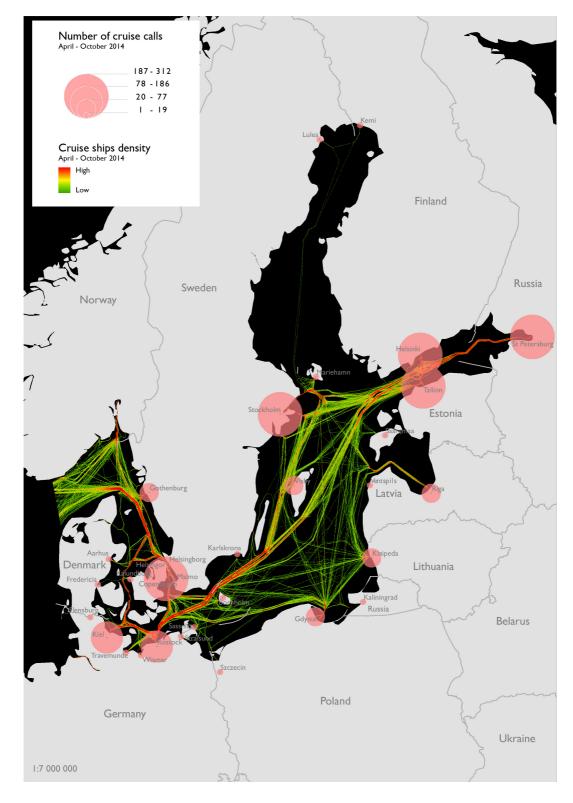


Figure 3 Routes and destination ports of cruise ships 2014

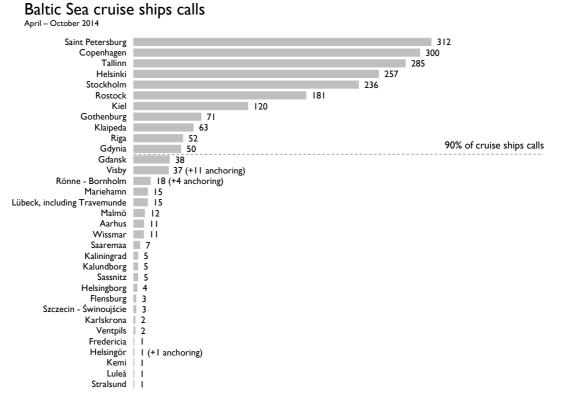


Figure 4 Ports visited by cruise ships in 2014, sorted according to number of ship calls<sup>1</sup>. Figures in parentheses indicate additional visits by anchoring.

In addition to ports listed in figure 4, there are three ports (Vaasa, Kotka and Turku) in the region which have had international cruise traffic during previous years, but not during 2014.

Please note that the number of calls listed above result from an analysis of AIS signals from cruise ships listed in annex I. Due to the method, mainly the definition of "cruise ship", the figures in some ports do not match exactly with statistics compiled by port authorities or by the industry (Cruise Baltic).

### Anchoring

According to the AIS data cruise ships do not always enter some small ports. Instead, the ships anchor outside the port and have tender, or shuttle boat, to transfer passengers to the shore. In addition to the visits at berth (figure 4), anchoring stops with a duration of more than 5 hours were observed outside Visby (11 calls), Rönne - Bornholm (4 calls), Kalmar (3 calls) and Helsingör (1 call).

<sup>&</sup>lt;sup>1</sup> Please note that Aalborg (1 call), in the Limfjord, Northern Jylland (Denmark), was not included in this report.

# Cruising season in the Baltic Sea

The cruising season in the Baltic Sea stretches from late April until October. The peak season is during the period June-August (Figure 5).

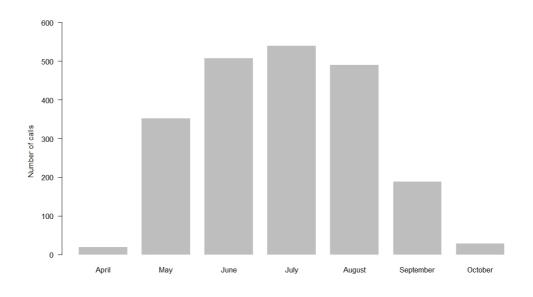


Figure 5 Monthly number of cruise ship calls in the Baltic Sea 2014

# Duration of cruise ship voyages within the Baltic Sea

70% of cruise ship voyages between two ports in the Baltic Sea lasted from 8 to 20 hours at sea in 2014 (Figure 6). Another cluster of voyage durations was between 30 and 42 hours (23% of trips). After trips of more than 30 hours at sea the ships stay mostly in ports in the eastern part of the Baltic Sea (Tallinn, Stockholm, St Petersburg and Helsinki) but also in Copenhagen.

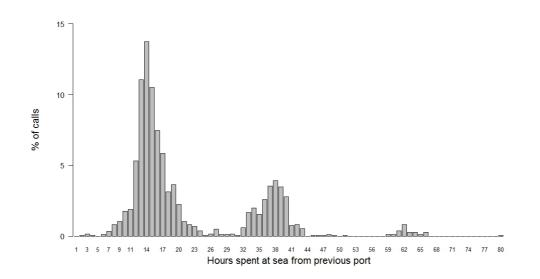


Figure 6 Duration of cruise ship voyages in the Baltic Sea during 2014

# Duration of stay in ports

Most frequently international cruise ships stop for 8-10 hours in the ports of the Baltic Sea (Figure 7). Another minor peak in duration of berth time is between 30 and 40 hours, which comes mainly from longer stays in Saint Petersburg.

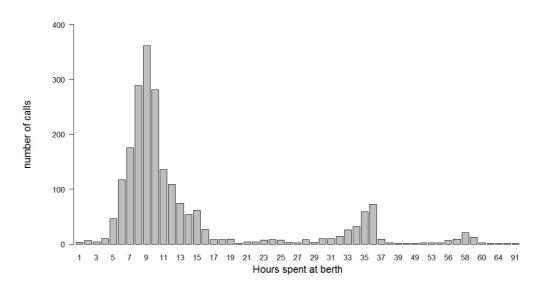


Figure 7 Duration of cruise ship calls 2014, in hours

# Use of Sewage PRFs in the Baltic Sea 2014

Based on the HELCOM CLIA joint survey 2014 (667 answers) 30% of the cruise ships used sewage PRF when available (see figure 8).

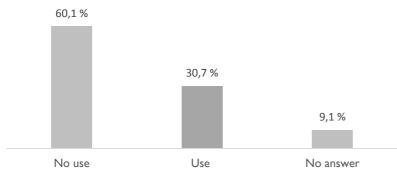


Figure 8 Usage of available sewage PRFs by cruise ships 2014

# Estimated maximum theoretical discharge need of cruise ships

This report provides estimated port-wise maximum theoretical sewage discharge needs of cruise ship calls. This is useful to have an overview of the needs of cruise ships in terms of sewage PRFs when MARPOL annex IV Special area is enforced in the Baltic Sea region.

Such a theoretical discharge need of cruise ship calls can be estimated by calculating person x days from previous port in the Baltic Sea. This figure can be divided by time (in hours) at berth in current port to estimate the capacity need per hour at berth. For such estimates one needs to know the time from previous port, the maximum number of passengers and crew on board and time spent at berth:

# Days at sea (days from previous port) × Persons(maximum capacity of ship) Time (hours spent at port – 30 minutes)

All this information was available from AIS data. Figure 9 illustrates the overall Baltic Sea situation of such theoretical discharge estimations for 2014.

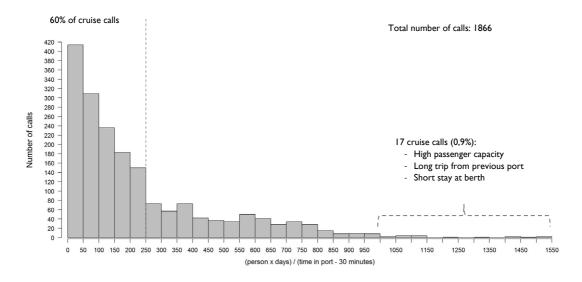


Figure 9 Estimated discharge needs of all calls to Baltic Sea ports in 2014

#### Assumptions

It should be noted that the above estimation assumes:

### Completely full ships

Cruise ships are always filled to 100% capacity both in terms of passengers and crew.

#### Sewage discharge time = berth time -30 minutes

Thirty minutes were deducted from total berth time to give the available time for sewage PRF discharges, in order to account for arrival and departure preparations.

#### 100% sewage discharged to port

The calculations assume the ships will discharge all their sewage, both black and grey, to the port.

#### No route planning

No route planning, such as doing more stops to avoid long legs or extending the time in port to accommodate for sewage discharge, is assumed.

#### Short technical visits not included

Port calls less than five hours were not used for sewage discharge need calculations. Short calls have been assumed to be technical stops (e.g. refueling), not regular cruise visits.

#### Discharge needs in m<sup>3</sup>/h

In order to use the above calculated values to get estimations of theoretical discharge needs of cruise ships in volume per time unit, such as m<sup>3</sup> of sewage/hour, one needs to have an estimation of the generation of sewage per person per travelled day.

This is less straightforward as such estimates of sewage generation on board a ship depend on various factors including the technology used on board a given ship (e.g. vacuum or gravitation toilets or the waste water treatment system in use).<sup>1</sup>

For instance, on board the overnight ferries between Helsinki and Stockholm in the Baltic Sea the total sewage generation has been observed as around 0,1 m<sup>3</sup> sewage per person per day.<sup>2</sup> The results of the HELCOM-CLIA survey results indicate an average calculated total production of sewage around 0,17 m<sup>3</sup> sewage per person per day. The Port of Copenhagen considers sewage volumes exceeding 0,13 m<sup>3</sup> per person per travelled day from previous port as disproportionately large.<sup>2</sup>

Due to the large variation of such sewage production estimations this report does not include ready calculated figures of discharge needs in m<sup>3</sup>/hour.

Instead, the estimations are presented as a value which gives the reader estimated total discharge need in volume per time unit, if multiplied with a sewage generation estimation of choice such as those listed above.

#### Work in upgrading PRF facilities in the Baltic Sea 2010 onwards

The 2010 HELCOM Sewage PRF Roadmap<sup>3</sup> states that Helsinki, St. Petersburg, Stockholm, Visby and Klaipeda have adequate port reception capacity for sewage.

The 2010 roadmap also lists eight ports (Tallinn, Rostock, Copenhagen, Riga, Gdynia, Helsingör, Rödby ferry terminal and Swinouscje/Szczecin) as first priority ports where the Baltic Sea countries should take all appropriate measures to upgrade port reception facilities to a standard sufficient for large passenger ships. In addition the document lists a number of second priority ports where the needs of further upgrade measures should be investigated.

Since 2010 several ports in the Baltic Sea region have had ongoing activities to upgrade their facilities according to the roadmap as well as national priorities.

The HELCOM PRF cooperation platform, consisting of ports (e.g. BPO & ESPO), shipowners (e.g. CLIA, ECSA & Interferry), WWF and national administrations has identified and provided answers to a number of challenges related to availability and use of sewage PRFs in the region.

<sup>&</sup>lt;sup>1</sup> Huhta, Hanna-Kaisa, Jorma Rytkönen, and Jukka Sassi. 2007. Estimated Nutrient Load from Waste Waters Originating from Ships in the Baltic Sea Area. 58 Pp. ISBN 978-951-38-6899-4 (URL: <u>http://www2.vtt.fi/inf/pdf/tiedotteet/2007/T2370.pdf</u>). VTT.

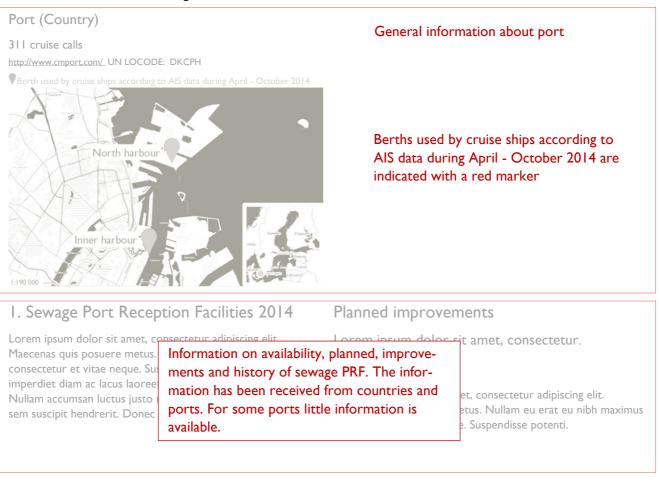
<sup>&</sup>lt;sup>2</sup> See port description for Copenhagen in section 3 of this report.

<sup>&</sup>lt;sup>3</sup> HELCOM 2010.Roadmap for upgrading port reception facilities for sewage in passenger ports of the Baltic Sea area.

# 3. Port-specific information

This report provides detailed information on all ports visited by cruise ships in 2014, in total 33 ports.

The information of each is organized as follows:



# 2. Passenger traffic trends in Port

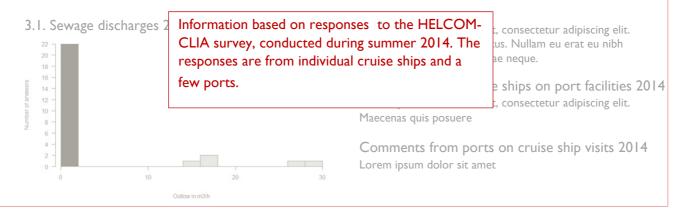
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# 3. Cruise ship visits in Port - 2014

#### Information received from industry

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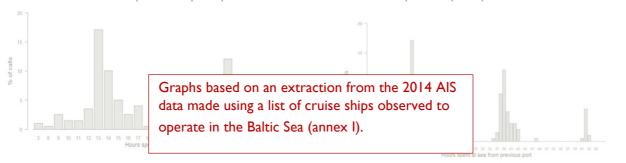


#### AIS based statistics (total calls: 311)

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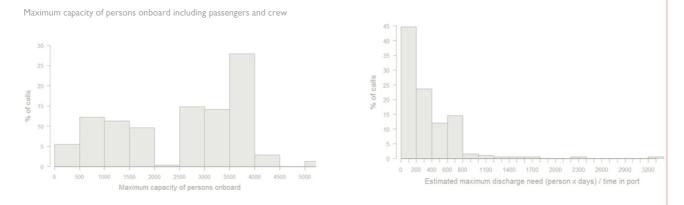


3.3. Time spent at port per call



#### 3.4. Maximum number of persons on board per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>. Days at sea (days from previous port)×Persons(maximum capacity of ship) Time (hours spent at port = 30 minutes)

# Saint Petersburg (Russia)

312 cruise calls

http://www.pasp.ru UN LOCODE: RULED



#### I. Sewage Port Reception Facilities 2014

The Saint Petersburg area includes in total five harbours serving passenger traffic.

The new passenger port "Marine Façade" (Marine Passenger Terminal on Vasiljevskiy Island, St. Petersburg) has fixed standard connections to the municipal wastewater system with capacity.

Other quays of Port St. Petersburg have no direct discharge to municipal wastewater system. The sewage at these quays is collected by tankers operated by three different companies:

Direct fee collected in accordance with the national rules and according to volumes is applied for collection wastes, including sewage, from passenger ships.

#### **Planned** improvements

No information provided for 2014.

# Before 2014

Saint Petersburg was listed as having adequate PRF for sewage in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

In 2009, the capacity of the sewage collection was up to 1,000  $\rm m^3$  per day. The investment for port reception facilities was around 1 million USD.

In 2010, when three new quays in Marine Façade were put into operation the capacity of sewage collection was 2,700 m<sup>3</sup> per day. During second stage of construction the planning of investments was around 2 million USD.

In 2011, after the completion of terminal construction and putting into operation of two new quays, the capacity of sewage collection was  $4,745 \text{ m}^3$  per day.

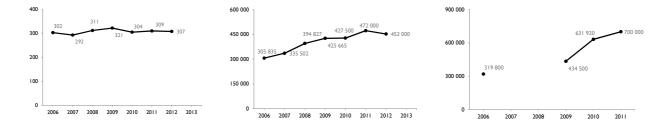
# 2. Passenger traffic trends in Saint Petersburg

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

#### Cruise ships calls

#### Cruise ships passengers

International cruise and ferry passengers

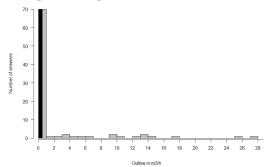


# 3. Cruise ship visits in Saint Petersburg - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

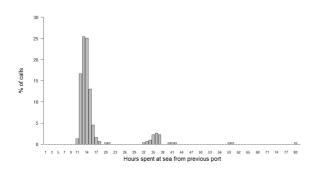
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

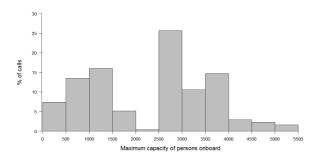
#### AIS based statistics (total calls: 312)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

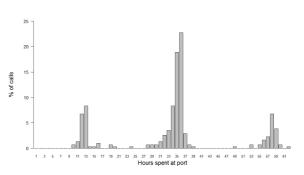
#### 3.2. Time at sea from previous port per call



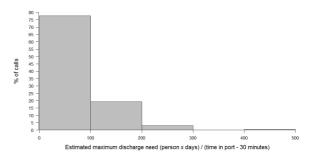
**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Pays \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Copenhagen (Denmark)

300 cruise calls

http://www.cmport.com/ UN LOCODE: DKCPH



#### Berth used by cruise ships according to AIS data during April - October 2014

# I. Sewage Port Reception Facilities 2014

Direct discharge to sewer system is available on the new 1,1 km quay which has been operational from 2014 onwards with capacity 250-300 m3 sewage per hour per berthing place. The system is equipped with the possibility of flushing with rain water to avoid clogging.

Otherwise Copenhagen Port's reception facilities for sewage utilise the tankers of a haulage company. There is a possibility to utilise three tankers per delivery. After collection, the sewage is pumped via a pump station and sewer system to the municipal sewage treatment plant.

Collection of sewage and grey water pursuant to the 'no special fee' system is made on condition that:

- The ship can deliver the sewage at the shipside at a pump capacity of 50 m3 per hour. A charge will be made for the collection of disproportionately large amounts (i.e. more than 130 liters per person for each 24-hour period since the last port of call), or for collection outside normal working hours, as specified in the list of charges.
- Tankers can obtain unhindered access to and from the place of collection without delay.

The ship is fitted with a standard flange.

#### Planned improvements

No information provided for 2014.

### Before 2014

Copenhagen was one of the eight ports listed as first priority ports in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

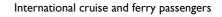
### 2. Passenger traffic trends in Copenhagen

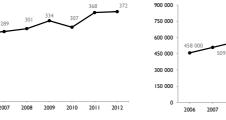
A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

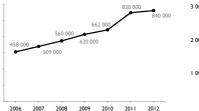
#### Cruise ships calls

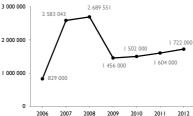
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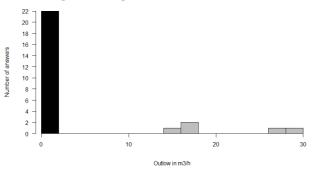


# 3. Cruise ship visits in Copenhagen - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

Comments from cruise ships on port facilities 2014 "Because of the presence of passengers, the use of road tankers can be a safety issue."

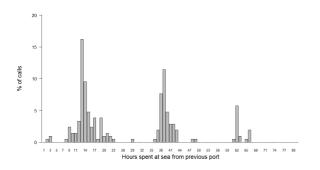
"There are unreasonable charges for the use of the facilities for sewage."

Comments from ports on cruise ship visits 2014 No information provided for 2014.

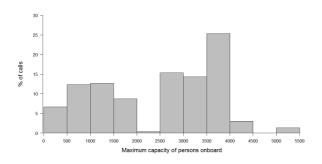
#### AIS based statistics (total calls: 300)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

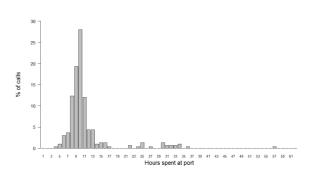
#### 3.2. Time at sea from previous port per call



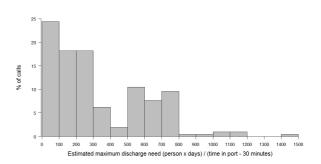
**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



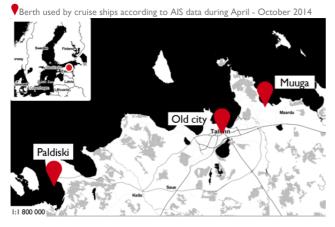
#### 3.5. Estimated theoretical max. discharge need<sup>1</sup>



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Tallinn (Estonia)

285 cruise calls http://www.portoftallinn.com UN LOCODE: EETLL



# I. Sewage Port Reception Facilities 2014

Fixed reception points connected to public sewage system are available at Tallinn Old City Harbour quays number 1 and 3. (max capacity 60m3/h), number 13-16, number 26-27 (new cruise quay, max capacity 100m3/h). Max capacity depends how many ships are discharging at the same time (max 60m3/h or 100m3/h is per 1 ship).

In other quays there is no direct discharge to sewer system – i.e. the quays are served by tank trucks  $(7-17m^3)$  if requested.

A standard waste fee is charged from every ship with some exceptions. Sewage volumes exceeding 7m<sup>3</sup> are subject to extra payment.

### **Planned** improvements

Port of Tallinn is constructing PRF connected to public sewage system at Old City Harbour quays no 24-25 (old cruise quay, max capacity 100m3/h, depends how many ships are discharging at the same time). The sewage receiving capacity (100 m3/h) of the main route is not enough to receive the sewage simultaneously from multiple ships. Port of Tallinn plans to construct the new microtunnel which has a perspective to receive sewage up to 1000 m3/h and it is planned to connect the microtunnel to the deep collector of public sewage company. Start of construction works - 2015

### Before 2014

Tallinn was one of the eight ports listed as first priority ports in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

Fixed reception points connected to public sewage system at Old City Harbour have been available for a longer time for quays no. I and 3.

# 2. Passenger traffic trends in Tallinn

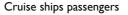
A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

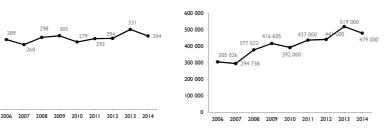
#### Cruise ships calls

300

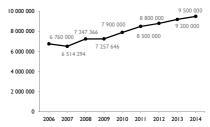
200

100





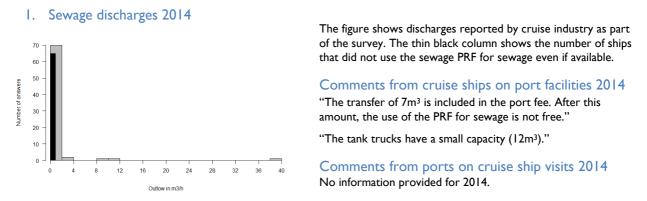
#### International cruise and ferry passengers



### 3. Cruise ship visits in Tallinn - 2014

#### Information received from industry

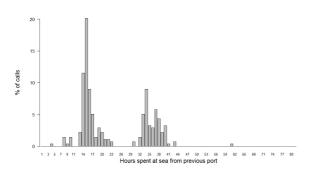
Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).



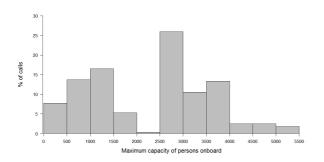
#### AIS based statistics (total calls: 285)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area according to the cruising industry initiative "Cruise Baltic" (www.cruisebaltic.org). The dataset covers the whole cruising season (April to October 2014).

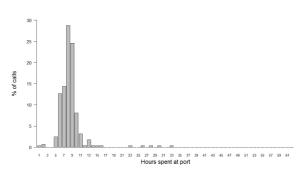
#### 3.2. Time at sea from previous port per call



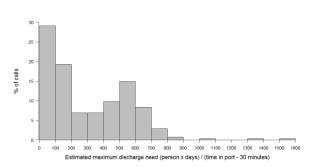
# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



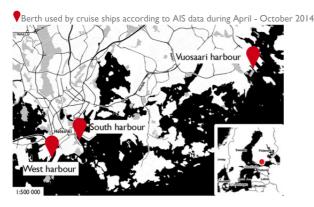
#### 3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Pays \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Helsinki (Finland)

257 cruise ships calls (261 according to official port statistics) http://www.portofhelsinki.fi/ UN LOCODE: FIHEL



### I. Sewage Port Reception Facilities 2014

At all three ports grey and black water is discharged from the vessels directly to the city waste water system. The ship service person of the port connects the hose at the appointed time. The vessel must use its own pump for discharging and the vessel must have the possibilities to flush the hoses after discharging. This service is free.

**West Harbour:** 11 berths incl. ice breakers. Discharge points are located every 40-60m. Sewer pipes have been renovated recently. Capacity of the PRF: 100 m<sup>3</sup>/h (possibility to double the capacity if two pipes are used simultaneously).

**South Harbour:** 12 berths incl. ice breakers. Discharge points are located every 40-60m. Sewer pipes have been renovated recently. Capacity of the PRF: 100 m<sup>3</sup>/h (possibility to double the capacity if two pipes are used simultaneously).

**Vuosaari cargo port**: 17 quays for roro ships and 1500m of container pier. Waste water discharge points are every 40-60m. A pre-treatment facility for waste water has also been installed in this port area.

### Planned improvements

A new quay for cruise vessels is planned to be built in Hernesaari area (West harbour) with sewage port reception facilities. If the decision to build the new quay will be made, the new facilities would be available in 2017-2018.

### Before 2014

The first fixed sewage pipelines in South Harbour quays were installed in 1990, and during 1999–2009 the pipelines were assembled on all existing quays in South and West Harbours. During recent years, installations of PRF for sewage have been made when new quays have been built for cruise ships. The new Vuosaari cargo port was completed in the end of 2008 and it is equipped with sewage pipelines in all quays and piers. Helsinki was listed as having adequate PRF for sewage in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

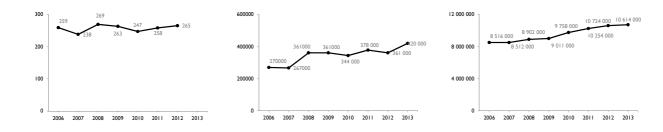
## 2. Passenger traffic trends in Helsinki

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organisations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

#### Cruise ships calls

Cruise ships passengers

#### International cruise and ferry passengers

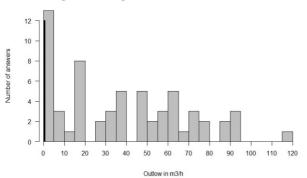


# 3. Cruise ship visits in Helsinki - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

Comments from cruise ships on port facilities 2014

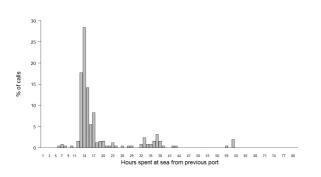
West Harbour: "Due to the size of the hose provided to deliver sewage waters, the back pressure generated reduced the discharge flow rate."

Comments from ports on cruise ship visits 2014 No information provided for 2014.

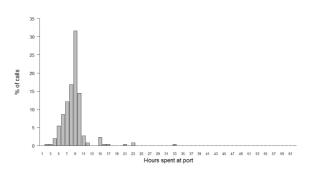
#### AIS based statistics (total calls: 257)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

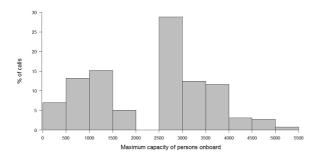
#### 2. Time at sea from previous port



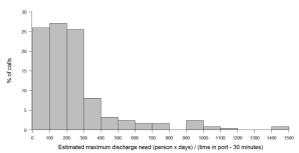
#### 3.3. Time spent at port per call







#### 3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Stockholm (Sweden)

236 cruise calls (280 according to official port statistics) http://www.stockholmshamnar.se/\_UN\_LOCODE: SESTO



### 1. Sewage Port Reception Facilities 2014

Fixed reception points for black and grey water are available at all piers used by cruise ships. Port of Stockholm has recently upgraded the PRF in Stadsgården/Masthamnen to increase the capacity of the facilities for roro/ropax (Viking Line) but also cruise vessels.

Where stationary reception facilities are not available, the Port can provide tank trucks or a barge with a capacity of  $550 \text{ m}^3$  to collect waste water if needed.

The disposal of black- and greywater in port is included in the port fee. It is thus a general fee, based on the number of passengers, regardless of if the vessel offload black- and grey water or not.

#### **Planned** improvements

No information provided for 2014.

#### Before 2014

The Port of Stockholm has a long history with sewage reception. The first PRFs for ropax was constructed 1995. Direct discharge to municipal sewage system available at all quays in 2013.

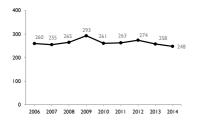
Stockholm was listed as having adequate PRF for sewage in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

Direct discharge to municipal sewage system available at all quays in 2013.

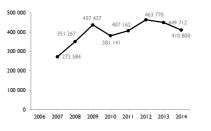
## 2. Passenger traffic trends in Stockholm

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

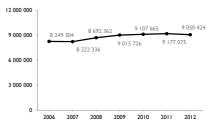
#### Cruise ships calls



#### Cruise ships passengers



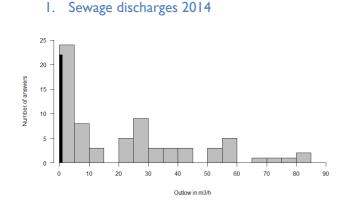
#### International cruise and ferry passengers



# 3. Cruise ship visits in Stockholm - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

#### Comments from cruise ships on port facilities 2014

"The distance to PRF depends on which side and berth the ship berths. The distance to the PRF can generate back pressure due to the length of the hose which reduces the discharge flow rate." "The discharge can take time because the pumping rate is too low."

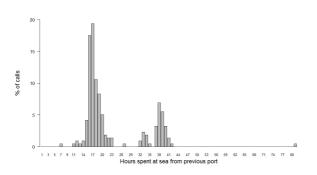
#### Comments from ports on cruise ship visits 2014

Vessels normally deliver with flow rates 60 -100 m<sup>3</sup>/h which during an average stay of 8 hours is enough. No need for stipulated 300 m<sup>3</sup>/h.

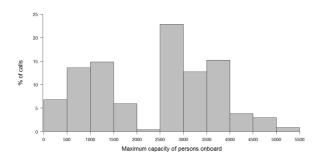
#### AIS based statistics (total calls: 236)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

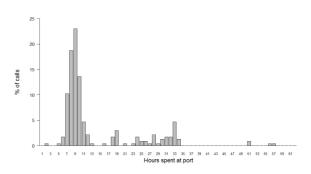
#### 3.2. Time at sea from previous port per call



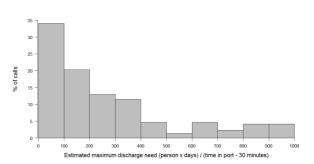
# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days at sea (days from previous port) \times Persons(maximum capacity of ship)}{Time (hours spent at port – 30 minutes)}$ 

# Rostock (Germany)

181 cruise calls (182 according to official port statistics) http://www.rostock-port.de/ UN LOCODE: DERSK



Berth used by cruise ships according to AIS data during April - October 2014

# I. Sewage Port Reception Facilities 2014

The cruise port of Rostock-Warnemünde is equipped with a direct connection of the berths to the municipal sewer system (144m3/h as a sum for all berths). Tank trucks are available in the cargo port. Up to 300m3 of sewage is included in the "no-specialfee" system. Sewage volumes exceeding 300m<sup>3</sup> are charged with 3EUR/m<sup>3</sup>.

Sewage from cruise ships (incl. grey water) is accepted only within the defined and published sewage quality parameters. The sewage quality is monitored during the sewage transfer process. In case of a divergency from the published sewage quality the transfer process will be interrupted.

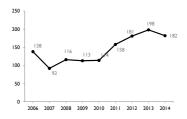
### Planned improvements

Improvements in the coming seasons will focus on organizational matters and smaller adjustments to the sewer system at the berths. By now, no option is available to raise the max. the flow rate into the municipal sewer system is above 144m<sup>3</sup>/h.

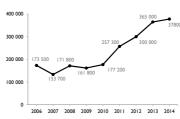
# 2. Passenger traffic trends in Rostock

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

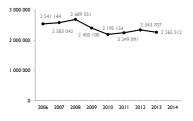
#### Cruise ships calls



#### Cruise ships passengers



#### International cruise and ferry passengers



### Before 2014

In 2012 a fixed link to the municipal sewer system became operative at the cruise berths in Warnemünde. While in 2013 the municipal treatment plant accepted sewage with a maximum intake rate of 90m3/h this rate could be raised to 144m3/h in 2014. The acceptance of sewage disposal in Rostock developed as follow:

2012 19.120 m<sup>3</sup> during 71 out of 181 calls 2013 29.284 m<sup>3</sup> during 111 out of 196 calls 2014 20.724 m<sup>3</sup> during 88 out of 182 calls

Rostock is one of the eight ports listed as first priority ports in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

### 3. Cruise ship visits in Rostock - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

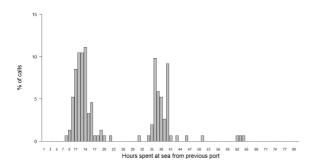
Comments from cruise ships on port facilities 2014 "A ship can only discharge 300m<sup>3</sup> for free per port of call."

Comments from ports on cruise ship visits 2014 A total of 20.724m<sup>3</sup> sewage discharged during 88 ship calls (out of 182). The maximum sewage disposal quantity per call was 306m<sup>3</sup>. The minimum sewage disposal quantity per call was 4m<sup>3</sup>.

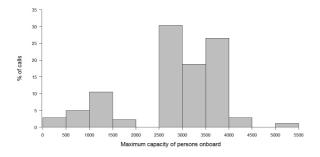
#### AIS based statistics (total calls: 181)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

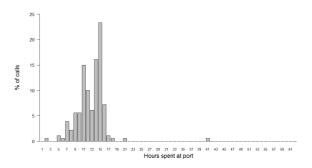
#### 3.2. Time at sea from previous port per call



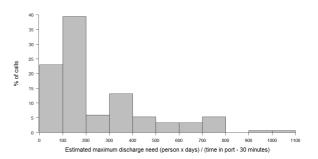
# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



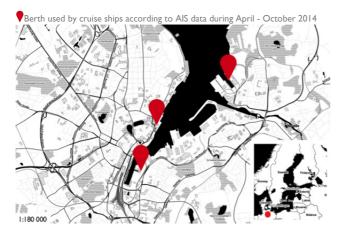
#### 3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Pays \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Kiel (Germany)

120 cruise calls http://www.portofkiel.com/ UN LOCODE: DEKEL



# I. Sewage Port Reception Facilities 2014

Port of Kiel has reception facilities on every cruise/ferry berth except terminal ostuferhafen. Direct connection to the municipal waste waters treatment plant has a capacity of  $35-50 \text{ m}^3/\text{h}$ , depending of the berth.

Ship's tonnage is used as a basis for ships' sewage charges. Large volumes are subject to extra payment.

The seaport has separate suction devices and takes only a transit function. According to practical experience the disposal of the sewage capacity is currently unproblematic in the Port of Kiel.

### Planned improvements

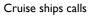
Planning process for extension of PRF at cruise terminal Ostseekai in progress. New capacities are planned to reach up to 300 m<sup>3</sup> per hour and approximately 1000 m<sup>3</sup> per berth and day.

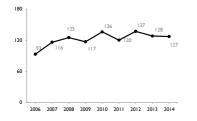
# Before 2014

All passenger terminals in the city centre have been equipped with a direct connection to the municipal waste water system during the last years.

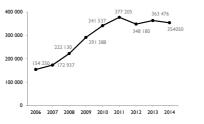
# 2. Passenger traffic trends in Kiel

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

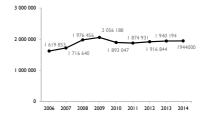




Cruise ships passengers



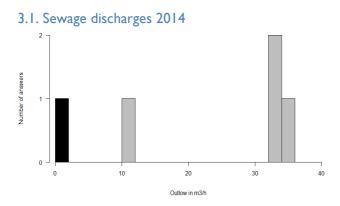
#### International cruise and ferry passengers



# 3. Cruise ship visits in Kiel - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

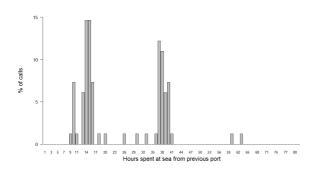
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

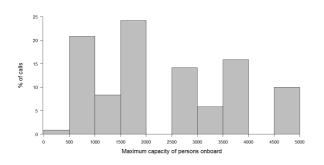
#### AIS based statistics (total calls: 120)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

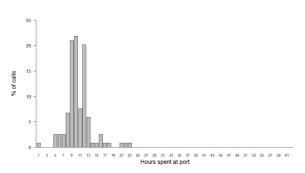
#### 3.2. Time at sea from previous port per call



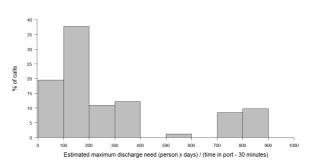
# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



#### 3.5. Estimated theoretical max. discharge need 1

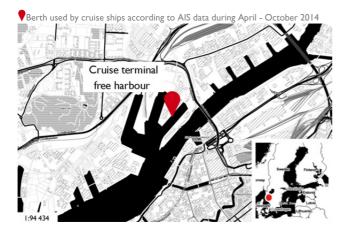


<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Gothenburg (Sweden)

71 cruise calls

http://www.goteborgshamn.se/ UN LOCODE: SEGOT



### I. Sewage Port Reception Facilities 2014

Cruise ship berths are available at free harbour (Frihamnen) pier 107, Stigbergskajen 35-37 and Arendalskajen 751-752. In all locations direct connection to the municipal waste-water treatment plant is available with capacity of 40-45 m<sup>3</sup>/h. Barges and tank trucks are also available for smaller quantities.

Ferry traffic has their own piers from where they have arranged their sewage discharge.

The use of PRF for discharging sewage at port is free. According to the statistics of the port of Gothenburg there were 73 cruise ship calls in 2014, 42% of which used sewage PRFs.

#### **Planned** improvements

No information provided for 2014.

# Before 2014

Direct connection, trucks and barges.

# 2. Passenger traffic trends in Gothenburg

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ES-PO), the publication "Baltic Port List" and the Nordic Council of Ministers.

#### Cruise ships calls

2006

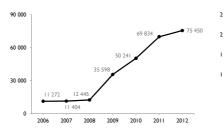
2007

2008 2009 2010 2011 2012

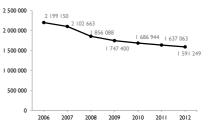
80

4(

#### Cruise ships passengers



#### International cruise and ferry passengers

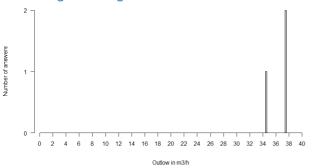


# 3. Cruise ship visits in Gothenburg - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014



The figure shows discharges reported by cruise industry as part of the survey.

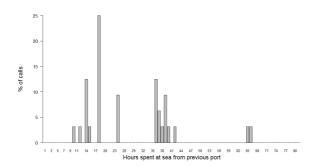
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

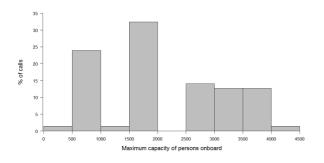
#### AIS based statistics (total calls: 71)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

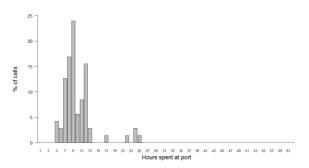
#### 3.2. Time at sea from previous port per call



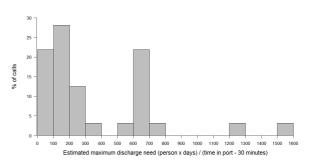
# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



#### 3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Klaipeda (Lithuania)

63 cruise calls

http://www.portofklaipeda.lt/ UN LOCODE: LTKJL



### I. Sewage Port Reception Facilities 2014

Port administration has contract with operator which collects sewages from ships by trucks and barges.

No special fee for the use of the facilities.

Klaipeda State Seaport has made a feasibility study for PRF of sewage collecting in 2014. Scope of the study covered adequacy of the PRF, demand for necessary investments and constructions.

#### **Planned** improvements

No information provided for 2014.

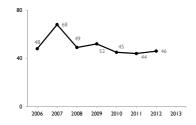
# Before 2014

Klaipeda was listed as having adequate PRF for sewage in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

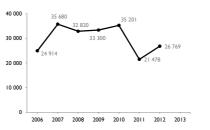
# 2. Passenger traffic trends in Klaipeda

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

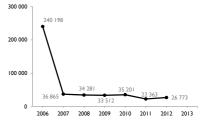
#### Cruise ships calls



Cruise ships passengers



International cruise and ferry passengers

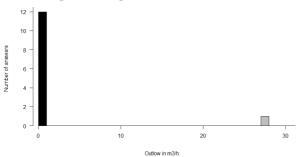


# 3. Cruise ship visits in Klaipeda - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

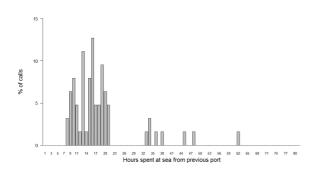
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

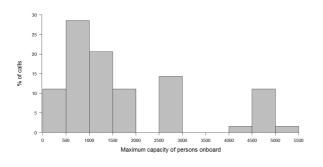
#### AIS based statistics (total calls: 63)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

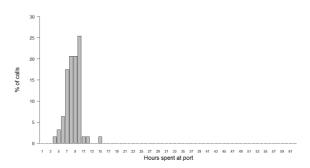
#### 3.2. Time at sea from previous port per call



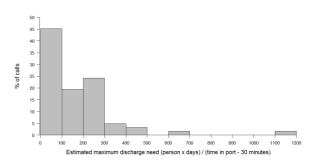
# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call



#### 3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Riga (Latvia)

52 cruise calls (58 according to official port statistics) http://www.rop.lv/en UN LOCODE: LVRIX

Berth used by cruise ships according to AIS data during April - October 2014

# I. Sewage Port Reception Facilities 2014

Tank trucks are used. Two tank trucks max. quantity: 30m<sup>3</sup> each. No direct discharge to sewer system available.

Sewage from passenger ships is charged at fixed rates per m<sup>3</sup>.

### **Planned** improvements

No information provided for 2014.

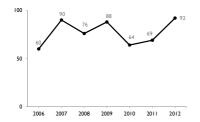
# Before 2014

Riga is one of the eight ports listed as first priority ports in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

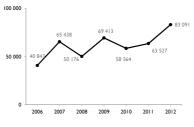
# 2. Passenger traffic trends in Riga

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

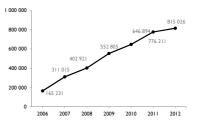
#### Cruise ships calls



Cruise ships passengers



#### International passengers



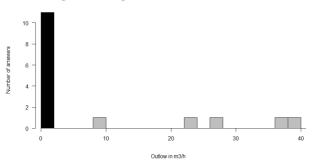
30

## 3. Cruise ship visits in Riga - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014



The figure shows discharges reported by cruise industry as part of the survey. The black bar shows the number of ships that did not use the sewage PRF for sewage even if available.

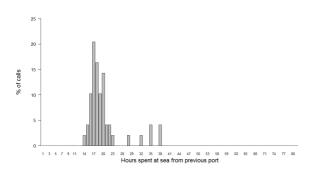
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

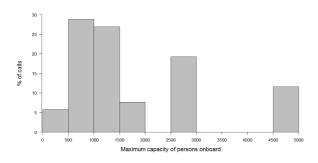
#### AIS based statistics (total calls: 52)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

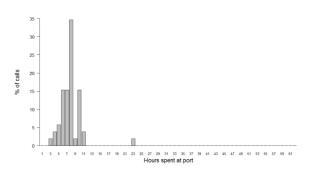
### 3.2. Time at sea from previous port per call

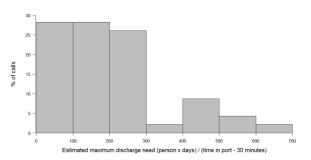


# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call

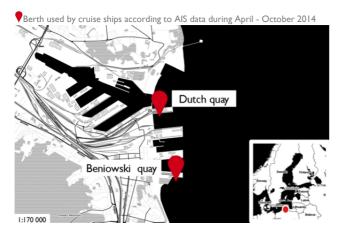




<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Gdynia (Poland)

50 cruise calls http://www.port.gdynia.pl/\_UN\_LOCODE: PLGDY



## I. Sewage Port Reception Facilities 2014

Tank trucks are used for cruise ships. 3 tank trucks  $(4.5 \text{ m}^3, 5.2 \text{m}^3, 10 \text{m}^3)$ , 1 vat  $(30 \text{m}^3)$ , max. quantity  $- 40 \text{ m}^3$ .

Two inlets are adjusted for receiving sewage form ferry "Stena Vision" (Stena Line). 2014-2016: Swedish and Danish quays 2-4 have a maximum capacity of 20 m<sup>3</sup>/h. Bulgarian and Closing quays have a maximum capacity of 35 m<sup>3</sup>/h. The Romanian quay has a maximum capacity of 40 m<sup>3</sup>/h.

One third of all delivered amount of sewage from ferries and cruise ships are received without additional fee. In connection with tonnage fee, the following limits of ship-generated waste to be collected without additional fees have been set for sewage delivery. Total sewage discharges from passenger ships in  $m^3$ : 2012 – 3488; 2013 – 4007; 2013 – 4803.

### **Planned** improvements

1. French Quay - for cruises - to be finished by 1st January 2017. The maximum capacity will be 200  $m^3/h$ .

2. Polish Quay - for the new ferry terminal - to be finished by 1 st January 2017 (maximum capacity of 105 m<sup>3</sup>/h. Upgrading works on other quays will be done gradually, according to Port of Gdynia implementation schedule.

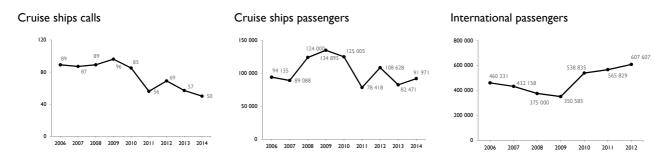
### Before 2014

A preparatory study "Conception of sewage collecting in the Port of Gdynia" was completed in 2012.

Gdynia is one of the eight ports listed as first priority ports in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

### 2. Passenger traffic trends in Gdynia

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



### 3. Cruise ship visits in Gdynia - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014

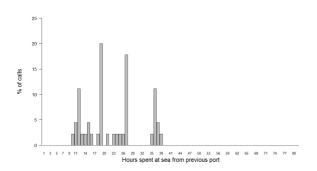
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

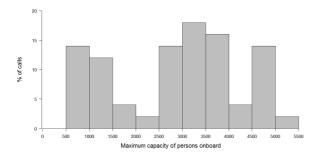
### AIS based statistics (total calls: 50)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

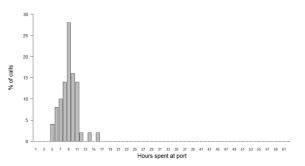
### 3.2. Time at sea from previous port per call

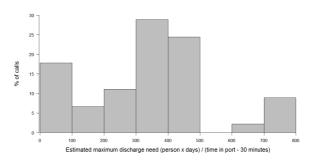


3.4. Maximum number of persons on board per call Maximum capacity of persons onboard including passengers and crew



### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Gdansk (Poland)

38 cruise calls <u>http://www.portgdansk.pl/en\_UN\_LOCODE: PLGND</u>



## I. Sewage Port Reception Facilities 2014

Currently, the reception of sewage from passenger ships is being conducted by the tank trucks. Passenger ships entering Port of Gdansk are allowed to discharge 1/3 of their sewage in accordance with the tonnage tariff. The rest of the sewage is charged at fixed rates that can be found on the port's website: http://www.portgdansk.pl/shipping/types-of-waste.

### **Planned** improvements

1. The study for the future handling of sewage from passenger ships has been prepared. It is supplemented by the survey data from the ships that called at Port of Gdansk during spring/summer 2014. Based on the results of the above mentioned study, the decisions will be made concerning the extent to which port's infrastructure will be developed so that new requirements of MARPOL annex IV for handling of sewage are met.

2. There are currently two piers that are being adjusted in order to enable to accommodate the passenger ship's. The adequate reception facilities are going to be arranged so that sewage discharge is possible if required. Both investments are being conducted within the TEN-T Programme. Construction should be ready by 2020.

3. By the time the construction of fixed PRFs is finished, Port of Gdansk considers, if necessary depending of the ships operator's needs, provision of other mobile facilities like, barges that will supplement reception of sewage from passenger ships which is currently operated by the tank trucks.

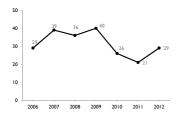
## Before 2014

No information provided for 2014.

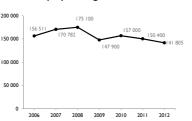
### 2. Passenger traffic trends in Gdansk

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

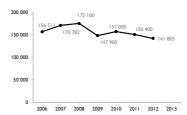
#### Cruise ships calls



#### Cruise ships passengers



# International cruise and ferry passengers



### 3. Cruise ship visits in Gdansk - 2014

### Information received from industry

Based on information from 34 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

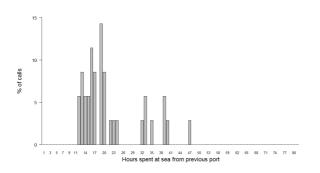
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

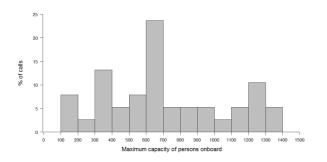
### AIS based statistics (total calls: 38)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area according to the cruising industry initiative "Cruise Baltic" (www.cruisebaltic.org). The dataset covers the whole cruising season (April to October 2014).

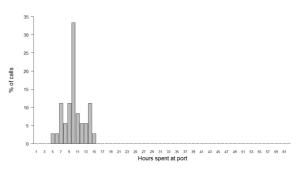
#### 3.2. Time at sea from previous port per call

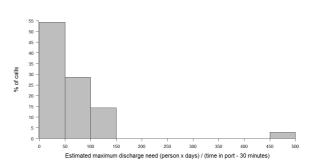


**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Visby (Sweden)

37 cruise calls (+ 11 visits at anchoring site) http://www.gotland.se/portofvisby UN LOCODE: SEVBY



## I. Sewage Port Reception Facilities 2014

At al the main berths (4, 5, 6, 7), PRF facilities connected to the municipal sewage system are available with a capacity of ca 16-20 m<sup>3</sup> per hour.

General waste fee of 0,40 SEK/GT, included in the vessel fee.

There is no statistics on all international passengers but regular ferry traffic to Oskarshamn and Nynäshamn carries around I 500 000 passengers/ year (they use berth 5 and 6, the cruise ships 4 and 7).

### Planned improvements

No information provided for 2014.

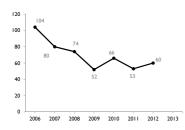
### Before 2014

Visby was listed as having adequate PRF for sewage in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

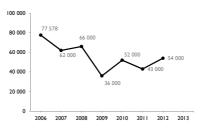
### 2. Passenger traffic trends in Visby

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

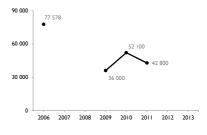




Cruise ships passengers



International cruise and ferry passengers



### 3. Cruise ship visits in Visby - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

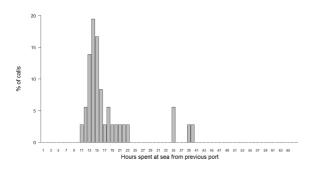
Comments from cruise ships on port facilities 2014 "Several ships were at anchor when visiting Visby. None of them discharged sewage to the port. "

Comments from ports on cruise ship visits 2014 No information provided for 2014.

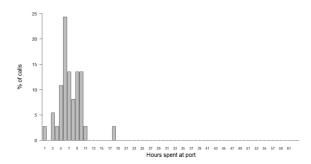
### AIS based statistics (total calls: 37 + 11 at anchoring site)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area according to the cruising industry initiative "Cruise Baltic" (www.cruisebaltic.org). The dataset covers the whole cruising season (April to October 2014).

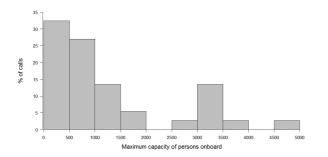
#### 3.2. Time at sea from previous port per call



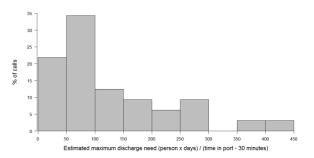
### 3.3. Time spent at port per call



# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew







<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days at sea (days from previous port) \times Persons(maximum capacity of ship)}{Time (hours spent at port – 30 minutes)}$ 

# Rönne - Bornholm (Denmark)

18 cruise calls (+ 4 visits at anchoring site)
http://www.roennehavn.dk/site/Frontsite/ UN LOCODE: DKRNN



## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

### **Planned** improvements

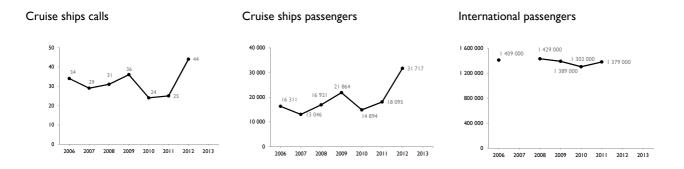
No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Rönne - Bornholm

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



### 3. Cruise ship visits in Rönne - Bornholm - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

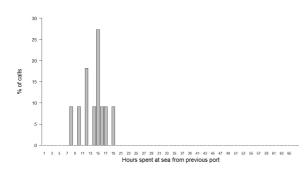
Comments from cruise ships on port facilities 2014 No information provided for 2014.

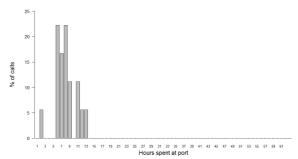
Comments from ports on cruise ship visits 2014 No information provided for 2014.

### AIS based statistics (total calls: 18)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

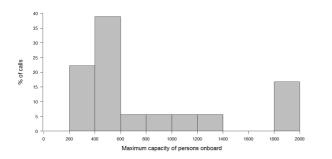
### 3.2. Time at sea from previous port per call

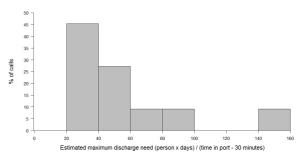




3.3. Time spent at port per call

**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Mariehamn (Finland)

15 cruise calls

http://www.mariehamNo information provided for 2014.x/naringsliv/hamn/in-english/\_UN LOCODE: FIMHQ



### I. Sewage Port Reception Facilities 2014

Sewage PRF facilities available and adequate with a pumping capacity of  $30m^3/h$ .

The use of the facilities is free.

### **Planned** improvements

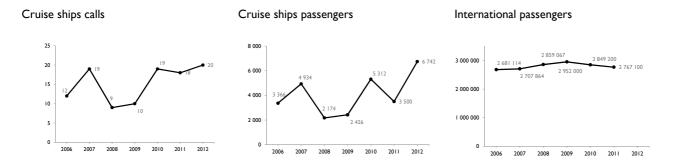
No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Mariehamn

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



## 3. Cruise ship visits in Mariehamn - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

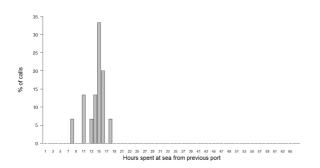
Cruise ships have so far not used Mariehamn sewage PRF facilities even if available according to port information reported to Nordic Council (Nordiska Rådet) in 2013. Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

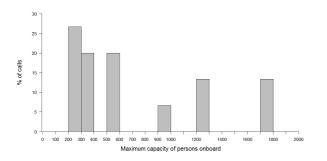
### AIS based statistics (total calls: 15)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

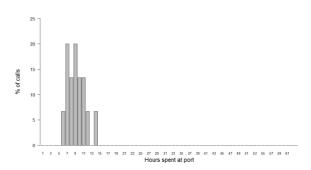
### 3.2. Time at sea from previous port per call

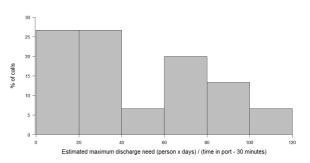


#### **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Lübeck, including Travemünde (Germany)

15 cruise calls UN LOCODE: DELBC



### Berth used by cruise ships according to AIS data during April - October 2014

# I. Sewage Port Reception Facilities 2014

At the port of Lübeck sewage can be collected by tank trucks or barges (private operators) and discharged at the central sewage treatment plant. No direct discharge to sewer system.

The "no-special-fee" contains a part of 0,001€/GT for waste water (black water). On presentation of a receipt for disposal of waste water, this fee is paid back by the Port Operator.

### **Planned** improvements

A technical solution has been planned to connect the sewage PRF in port to the sewage treatment plant Kläranlage Priwall. If needed, additional basins to store sewage at Priwall could be built, but this storage could produce unpleasant odor for the nearby residential area.

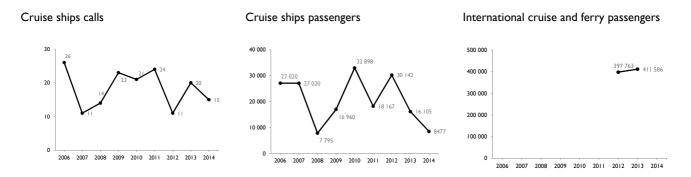
The planned construction project has been estimated to cost between I and 2 million € for both Skandinavienkai and Ostpreussenkai and will take from 3 to 4 years.

### Before 2014

No information provided for 2014.

## 2. Passenger traffic trends in Lübeck (incl. Travemünde)

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



## 3. Cruise ship visits in Lübeck (including Travemünde) - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

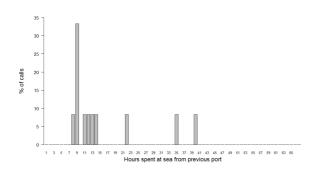
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 There is enough capacity, but little demand.

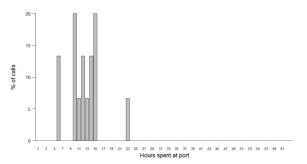
### AIS based statistics (total calls: 15)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

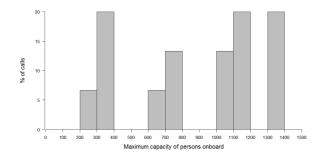
### 3.2. Time at sea from previous port per call



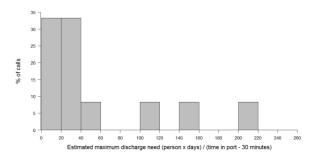
### 3.3. Time spent at port per call



# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Malmö (Sweden)

12 cruise ships

http://www.cmport.com/ UN LOCODE: SEMMA



# I. Sewage Port Reception Facilities 2014

Tank trucks are available.

No special fee for discharging sewage to the facilities.

Planned	improvements
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No information provided for 2014.

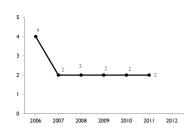
# Before 2014

No information provided for 2014.

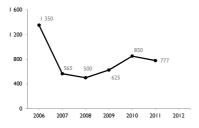
# 2. Passenger traffic trends in Malmö

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

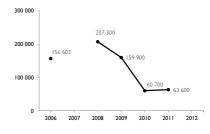
### Cruise ships calls



Cruise ships passengers



International cruise and ferry passengers



### 3. Cruise ship visits in Malmö - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

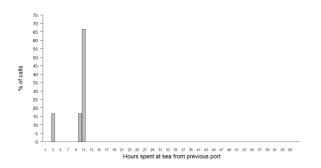
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

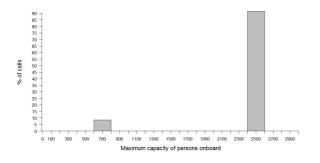
### AIS based statistics (total calls: 12)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

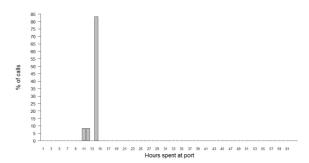
#### 3.2. Time at sea from previous port per call

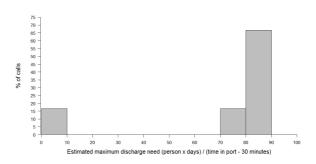


**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call

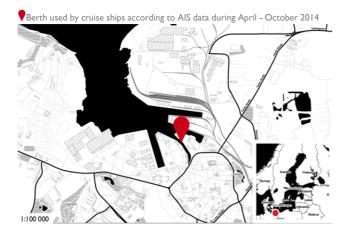




<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Wismar (Germany)

II cruise calls http://www.hafen-wismar.de/\_\_UN LOCODE: DEWIS



# I. Sewage Port Reception Facilities 2014

No information provided for 2014.

### **Planned** improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Wismar

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International cruise and ferry passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

## 3. Cruise ship visits in Wismar - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

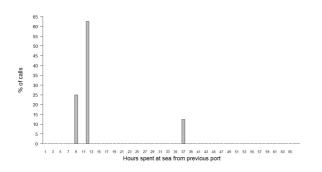
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

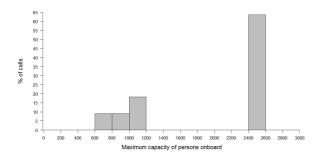
### AIS based statistics (total calls: 11)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

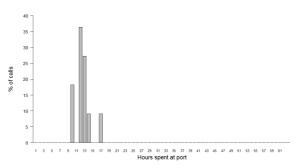
### 3.2. Time at sea from previous port per call

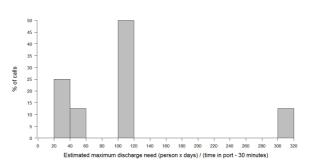


**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Aarhus (Denmark)

II cruise calls http://www.aarhushavn.dk/\_UN LOCODE: DKAAR



# I. Sewage Port Reception Facilities 2014

No information provided for 2014.

### **Planned** improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Aarhus

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International cruise and ferry passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

### 3. Cruise ship visits in Aarhus - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

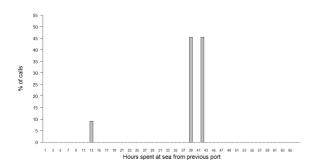
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

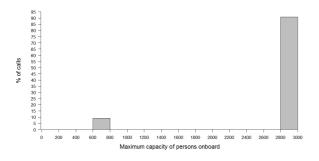
### AIS based statistics (total calls: 11)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

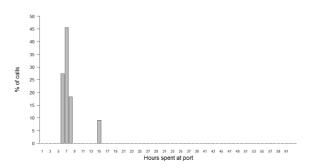
3.2. Time at sea from previous port per call

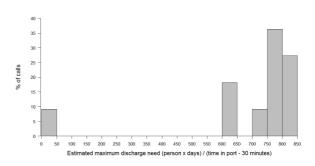


**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Saaremaa (Estonia)

7 cruise calls

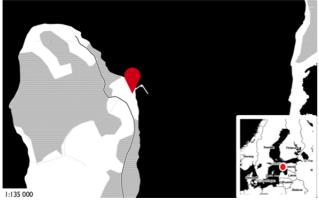
http://www.portoftallinn.com/saaremaa-harbour UN LOCODE: EESMA

Berth used by cruise ships according to AIS data during April - October 2014



Tank trucks. No direct discharge to sewer system.

Waste fee charged on every ship with some exceptions. Sewage exceeding 7m<sup>3</sup> subject to extra payment



# A port on the North side of Saaremaa island (Küdema Bay). Operated by the Tallinn port authority.

### Planned improvements

No information provided for 2014.

## Before 2014

No information provided for 2014.

1 000

# 2. Passenger traffic trends in Saaremaa

2006 2007 2008 2009 2010 2011 2012 2013 2014

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



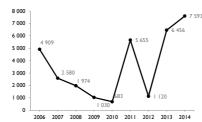
15

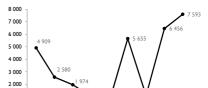
10

5

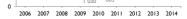
0

Cruise ships passengers





International cruise and ferry passengers



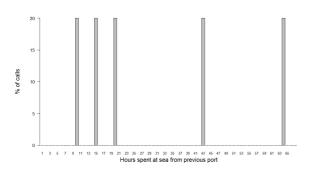
## 3. Cruise ship visits in Saaremaa - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM -CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided f or 2014.



### Comments from cruise ships on port facilities 2014

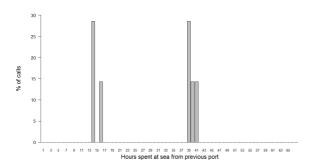
"When the tank truck was not available, the ship had the authorization to off-load the sewage on the next day during the port of call in Tallinn with no extra cost. No ship delivered sewage to the port of Saaremaa."

Comments from ports on cruise ship visits 2014 No information provided for 2014.

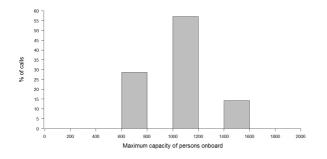
### AIS based statistics (total calls: 7)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex I). The dataset covers the whole cruising season (April to October 2014).

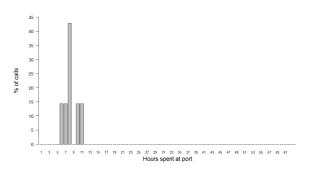
### 3.2. Time at sea from previous port per call

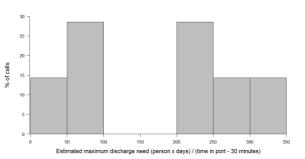


3.4. Maximum number of persons on board per call 3.5. Estimated theoretical max. discharge need 1 Maximum capacity of persons onboard including passengers and crew



#### 3.3. Time spent at port per call

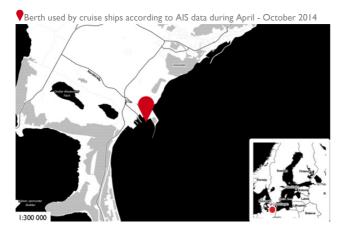




<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>. Time (hours spent at port - 30 minutes)

# Sassnitz (Germany)

5 cruise calls http://www.faehrhafen-sassnitz.de/en/\_ UN LOCODE: DESAS



## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

# Planned improvements

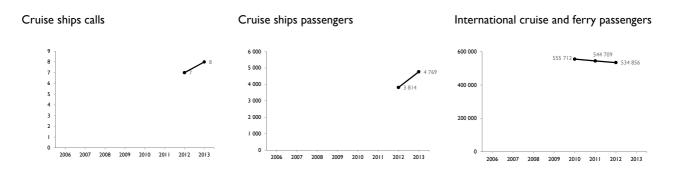
No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Sassnitz

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



### 3. Cruise ship visits in Sassnitz - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

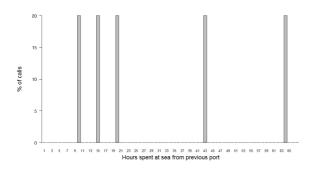
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

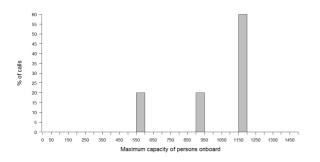
### AIS based statistics (total calls: 5)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

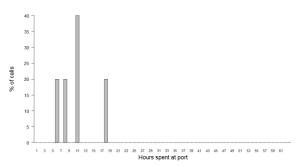
3.2. Time at sea from previous port per call

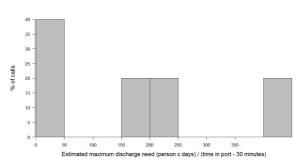


**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Kaliningrad (Russia)

5 cruise calls UN LOCODE: RUKGD



# I. Sewage Port Reception Facilities 2014

No information provided for 2014.

### **Planned** improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Kaliningrad

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

### 3. Cruise ship visits in Kaliningrad - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

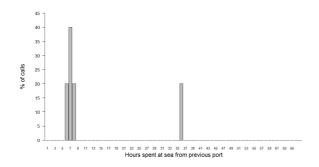
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

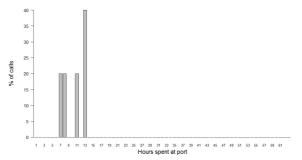
### AIS based statistics (total calls: 5)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

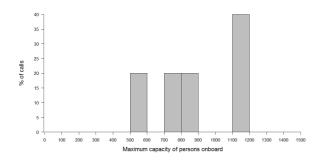
### 3.2. Time at sea from previous port per call

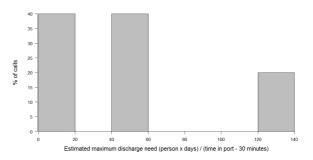


3.3. Time spent at port per call



**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



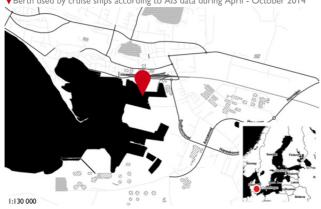


<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Kalundborg (Denmark)

5 cruise calls

http://www.cruisekalundborg.dk/ UN LOCODE: DKKAL



Berth used by cruise ships according to AIS data during April - October 2014

## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

### **Planned** improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Kalundborg

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International cruise and ferry passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

## 3. Cruise ship visits in Kalundborg - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

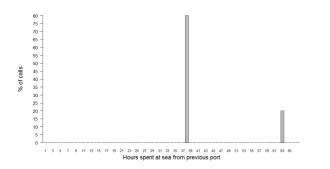
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

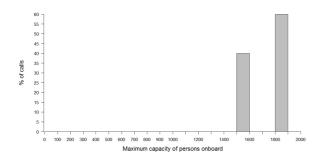
### AIS based statistics (total calls: 5)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

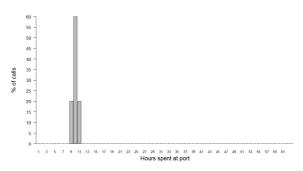
3.2. Time at sea from previous port per call

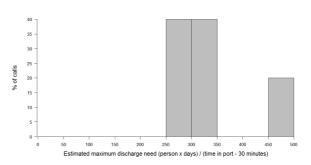


### **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Helsingborg (Sweden)

4 cruise calls

http://www.port.helsingborg.se/ UN LOCODE: SEHEL



### I. Sewage Port Reception Facilities 2014

Tank trucks are available for cruise ships.

Ferry companies arrange for their PRF for sewage at their own pier, which is a direct connection to municipal waste-water treatment plant.

The discharge of sewage to the port is free.

Mostly ferry traffic. A few cruise ships per year, most of them anchor in the roads.

### **Planned** improvements

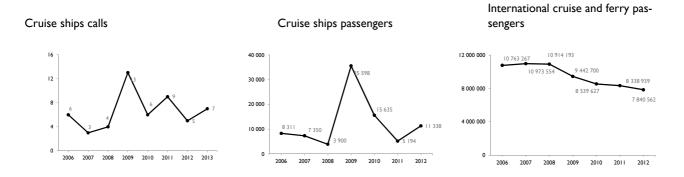
No information provided for 2014.

### Before 2014

No information provided for 2014.

### 2. Passenger traffic trends in Helsingborg

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



### 3. Cruise ship visits in Helsingborg - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM – CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

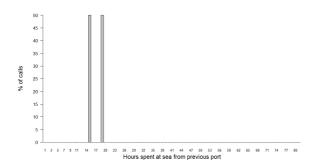
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

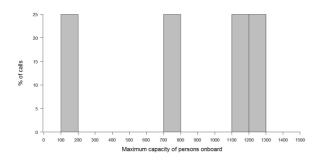
### AIS based statistics (total calls: 4)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

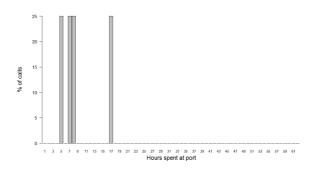
### 3.2. Time at sea from previous port per call

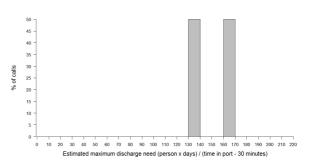


# **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



### 3.3. Time spent at port per call





<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Szczecin, including Świnoujście (Poland)

3 cruise calls

https://www.port.szczecin.pl http://www.sft.pl UN LOCODE: PLSZZ



## I. Sewage Port Reception Facilities 2014

Uptake of sewage from cruise ships is currently carried by the tank trucks which transport sewage to municipal WWTP (3 trucks of capacity  $3 \times 6 \text{ m}^{3}$ ).

### **Planned** improvements

Szczecin and Świnoujście Seaports Authority prepared the scheme for the construction of the PRF for sewage at the Ferry Terminal in Świnoujście.

For the implementation of this project the SSSA intends to apply for EU funding from the Cohesion Fund under the Operational Programme Infrastructure and Environment in the financial perspective 2014 - 2020r.

The construction works for PRF are planned to commence in January 2018 and will be completed in February 2020.

Before starting the operation of the fixed prf installation in the Port of Świnoujście, the collection of the sewage from ferries will be ensured by the specialized barge or/and tank trucks depending of the ships operators needs.

### Before 2014

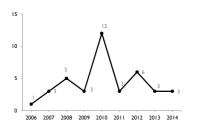
Świnoujście was listed as first priority port in the 2010 Helcom Roadmap for upgrading PRF for sewage in passenger port of Baltic Sea Area.

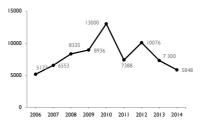
## 2. Passenger traffic trends in Szczecin, including Świnoujście

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

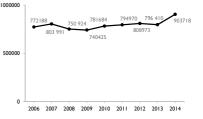
Cruise ships calls

### Cruise ships passengers





#### International cruise and ferry passengers



# 3. Cruise ship visits in Szczecin, including Świnoujście - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

Comments from cruise ships on port facilities 2014

In 2014 cruise ship has visited port of Szczecin only three times. The cruise ships have not delivered any sewage at the port.

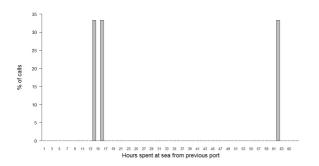
Comments from ports on cruise ship visits 2014

Cruise ship visit only the Port of Szczecin. In Port of Świnoujście only ferries are operated.

### AIS based statistics (total calls: 3)

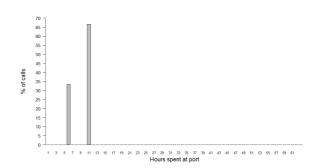
Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

3.2. Time at sea from previous port per call

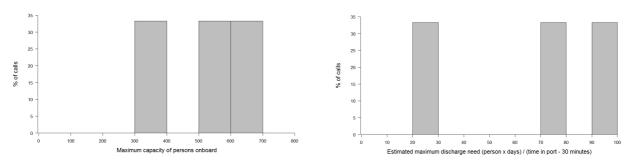


3.4. Maximum number of persons on board per call Maximum capacity of persons onboard including passengers and crew





3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Flensburg (Germany)

3 cruise calls UN LOCODE: DEFL



## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

# **Planned** improvements

No information provided for 2014.

## Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Flensburg

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

### 3. Cruise ship visits in Flensburg - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM -CLIA survey. The dataset covers the whole cruising season (April to October 2014).

### 3.1. Sewage discharges 2014

No information provided for 2014.

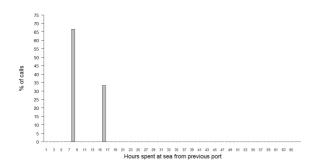
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

### AIS based statistics (total calls: 3)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

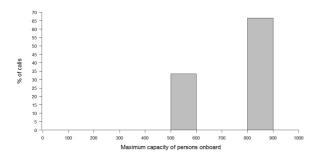
### 3.2. Time at sea from previous port per call



25 calls 20 % of 15 1 3 5 7 9 11 13 15 17 19 21 23 25

3.3. Time spent at port per call

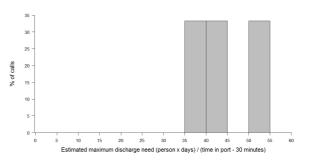
3.4. Maximum number of persons on board per call Maximum capacity of persons onboard including passengers and crew



3.5. Estimated theoretical max. discharge need 1

27 29 31 33 35 37 Hours spent at por

41 43 45 47 49 51 53 55 57 59 61



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in  $m^3h^{-1}$ . Time (hours spent at port - 30 minutes)

# Karlskrona (Sweden)

2 cruise calls http://www.karlskrona.se/ UN LOCODE: SEKAA



## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

# Planned improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Karlskrona

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

### Cruise ships calls

10

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0

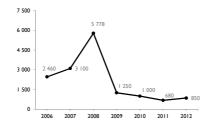
2006 2007

2008

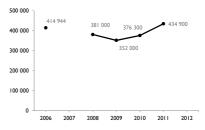
2009

2010 2011 2012

Cruise ships passengers



International passengers



### 3. Cruise ship visits in Karlskrona - 2014

### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

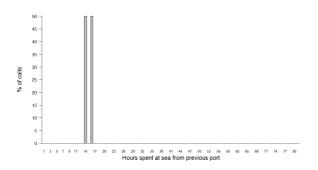
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

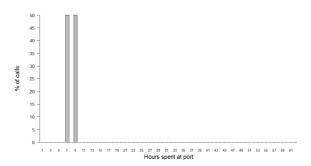
### AIS based statistics (total calls: 2)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

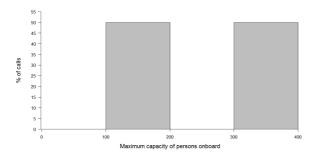
### 3.2. Time at sea from previous port per call

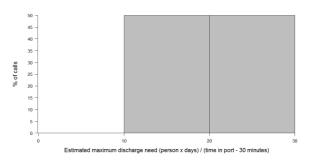


### 3.3. Time spent at port per call



#### **3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew

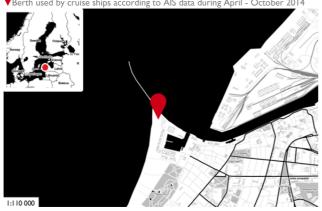




<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Ventspils (Latvia)

2 cruise calls (3 according to official port statistics) http://www.portofventspils.lv/\_UN LOCODE: LVVNT



Berth used by cruise ships according to AIS data during April - October 2014

# I. Sewage Port Reception Facilities 2014

I barge with a maximum discharge rate of 70 m<sup>3</sup>/h, maximum quantity of sewage that can be delivered by a ship  $- 86 \text{ m}^3$ . No direct sewage discharge connection available.

Sewage from ships is delivered and treated in Ventspils municipality wastewater treatment plant. Sewage discharge time at port per call is 7 hours. The time spent at port per call: 13h, 10h05 and 10h40.

## **Planned** improvements

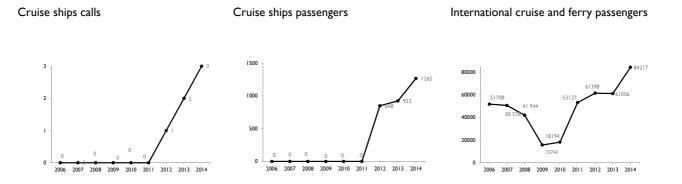
No information provided for 2014.

## Before 2014

Tank trucks are used. One tank 30m<sup>3</sup>. Barge are used. One tank 86m3. Capacity 20m3/h. From trucks and barges sewage are discharged to municipal treatment facilities.

# 2. Passenger traffic trends in Ventspils

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



### 3. Cruise ship visits in Ventspils - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

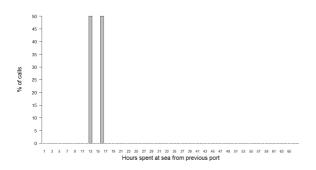
Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

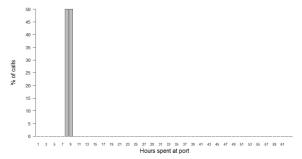
#### AIS based statistics (total calls: 2)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area (annex 1). The dataset covers the whole cruising season (April to October 2014).

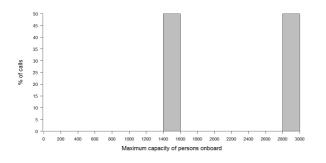
#### 3.2. Time at sea from previous port per call



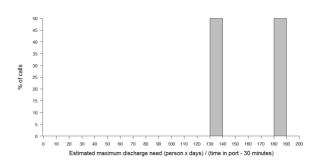
# 3.3. Time spent at port per call



**3.4. Maximum number of persons on board per call** Maximum capacity of persons onboard including passengers and crew



#### 3.5. Estimated theoretical max. discharge need 1



<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Stralsund (Germany)

I cruise call

http://www.seehafen-stralsund.de/ UN LOCODE: DESTL



## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

#### **Planned** improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Stralsund

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International cruise and ferry passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

## 3. Cruise ship visits in Stralsund - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

#### AIS based statistics (total calls: I)

Time at sea from previous port	10
Time spent at port during the call	10
Maximum number of persons onboard	372
Estimated theoretical maximum discharge need	20,2

<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Kemi (Finland)

I cruise call http://www.keminsatama.fi/en/home.html UN LOCODE: FIKEM



I. Sewage Port Reception Facilities 2014

No information provided for 2014.

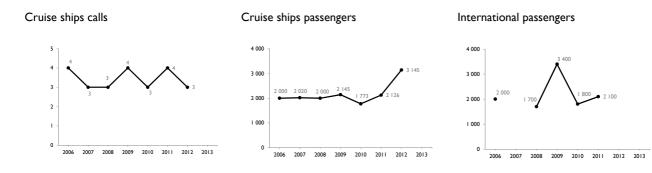


Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Kemi

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



## 3. Cruise ship visits in Kemi - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

#### AIS based statistics (total calls: I)

Time at sea from previous port	7 hours
Time spent at port during the call	11 hours
Maximum number of persons onboard	916 persons
Estimated theoretical maximum discharge need	24,3

<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h-1.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Helsingör (Denmark)

I cruise call (+ I visit at anchoring site) UN LOCODE: DKHLS



## I. Sewage Port Reception Facilities 2014

No information provided for 2014.

#### **Planned** improvements

No information provided for 2014.

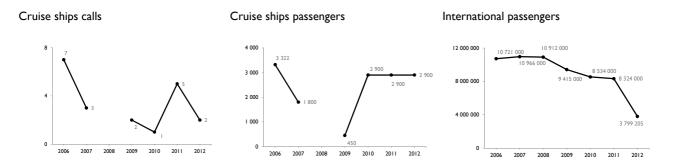
# Before 2014

Helsingör is one of the eight ports listed as first priority ports in the 2010 HELCOM Roadmap for upgrading PRF for sewage in passenger ports of the Baltic Sea area.

No information provided for 2014.

## 2. Passenger traffic trends in Helsingör

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.



## 3. Cruise ship visits in Helsingör - 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

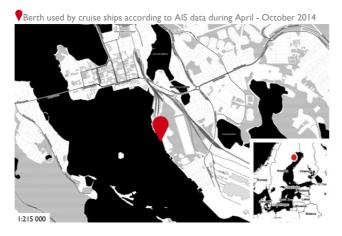
#### AIS based statistics (total calls: I)

Time at sea from previous port	43 hours
Time spent at port during the call	7 hours
Maximum number of persons onboard	510 persons
Estimated theoretical maximum discharge need	130,5

<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Luleå (Sweden)

I cruise call UN LOCODE: SELLA



# I. Sewage Port Reception Facilities 2014

No information provided for 2014.

#### **Planned** improvements

No information provided for 2014. Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Luleå

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

## 3. Cruise ship visits in Luleå - 2014

#### Information received from industry

Based on information from 34 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

#### AIS based statistics (total calls: I)

Generated from AIS data from the regional HELCOM AIS network covering the whole Baltic Sea area. The AIS data used includes all cruise ships operating in the Baltic Sea area according to the cruising industry initiative "Cruise Baltic" (www.cruisebaltic.org). The dataset covers the whole cruising season (April to October 2014).

Time at sea from previous port	24 hours
Time spent at port during the call	12 hours
Maximum number of persons onboard	916 persons
Estimated theoretical maximum discharge need	76,3

<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Fredericia (Denmark)

I cruise ship call UN LOCODE: DKFRC



# I. Sewage Port Reception Facilities 2014

No information provided for 2014.

## **Planned** improvements

No information provided for 2014.

# Before 2014

No information provided for 2014.

# 2. Passenger traffic trends in Fredericia

A compilation based on statistics from the Baltic Sea coastal countries national administrations, regional ports organizations (BPO, ESPO), the publication "Baltic Port List" and the Nordic Council of Ministers.

Cruise ships calls

Cruise ships passengers

International passengers

No information provided for 2014.

No information provided for 2014.

No information provided for 2014.

## 3. Cruise ship visits in Fredericia- 2014

#### Information received from industry

Based on information from 29 CLIA-affiliated cruise ships, received by HELCOM Secretariat as a reply to a joint HELCOM –CLIA survey. The dataset covers the whole cruising season (April to October 2014).

#### 3.1. Sewage discharges 2014

No information provided for 2014.

Comments from cruise ships on port facilities 2014 No information provided for 2014.

Comments from ports on cruise ship visits 2014 No information provided for 2014.

#### AIS based statistics (total calls: I)

Time at sea from previous port	10 hours
Time spent at port during the call	10 hours
Maximum number of persons onboard	2796 persons
Estimated theoretical maximum discharge need	116,5

<sup>&</sup>lt;sup>1</sup> Estimated total discharge capacity needs of cruise ship calls during summer 2014, assuming all wastewater generated after leaving last port of call will be discharged in the port. The presented figures are based the following calculation. Multiplying this figure with a waste water production estimation in m<sup>3</sup> sewage per person per day gives you the estimated total discharge need in m<sup>3</sup>h<sup>-1</sup>.  $\frac{Days \ at \ sea \ (days \ from \ previous \ port) \times Persons(maximum \ capacity \ of \ ship)}{Time \ (hours \ spent \ at \ port - 30 \ minutes)}$ 

# Annex I - Cruise ships operating in the Baltic Sea April to October 2014 – Listed in alphabetic order of the operator

Name of ship	Year	Operator	Flag	Tonnage (GT)	ІМО	MMSI	Total persons onboard†	Passengers†	Crew†	Total persons onboard‡	Maximum theoretical persons onboard	Days spent at sea between ports in the Baltic Sea	Days spent in the Baltic Sea ports	Total time spent in the Baltic Sea #
Aidabella*	2008	Aida Cruises	Italy	69203	9362542	247229700	3146	No info for 2014	No info for 2014	2689	3146	74,8	49,11	123,9
Aidacara*	1996	Aida Cruises	Italy	38557	9112789	247117300	1556	No info for 2014	No info for 2014	1639	1639	30,7	17,4	48,2
Aidamar*	2012	Aida Cruises	Italy	71304	9490052	247312900	2801	2194	607	No info for 2014	2801	95,1	39,9	135,0
Asuka II	1989	Asuka Cruise	Japan	50142	8806204	432545000	1240	800	440	No info for 2014	1240	2,8	3,1	5,9
Azamara journey	2000	Azamara Club Cruises	Malta	30277	9200940	256204000	1013	694	319	No info for 2014	1013	12,3	16,6	28,9
Celebrity Constella- tion*	2002	Celebrity X Cruises	Malta	91000	9192399	249046000	3390	2449	941	3168	3390	40,3	21,4	61,7
Celebrity Eclipse*	2010	Celebrity X Cruises	Malta	122000	9404314	249666000	4421	3150	1271	4146	4421	24,2	15,1	39,3
Celebrity infinity	2001	Celebrity X Cruises	Malta	90940	9189421	249048000	3169	2170	999	No info for 2014	3169	5,3	1,7	7,0
Club med 2	1992	Club Med	France	14983	9007491	227194000	594	394	200	No info for 2014	594	16,3	10,7	26,9
L'austral	2011	Compagnie du Ponant	Wallis and Futuna Islands	10 944	9502518	578000700	403	264	139	No info for 2014	403	8, 1	6,9	15,0
Le Boréal	2010	Compagnie du Ponant	Wallis and Futuna Islands	10944	9502506	578000500	403	264	139	No info for 2014	403	16,8	13,4	30,1
Costa Classica*	1991	Costa	Italy	52926	8716502	247819000	2297	1680	617	No info for 2014	2297	3,5	2,5	6,0
Costa Fortuna*	2003	Costa	Italy	102587	9239783	247094800	3747	2720	1027	3878	3878	39,7	17,0	56,8
Costa neoromantica*	1993	Costa	Italy	53000	8821046	247817000	1956	1356	600	1908	1956	16,1	9,8	25,9
Costa pacifica*	2008	Costa	Italy	114500	9378498	247258100	4880	3780	1100	4116	4880	49,9	24,9	74,8
Costa luminosa*	2008	Costa	Italy	92700	9398905	247257900	3181	2260	921	3384	3384	41,3	14,7	56,0
Astor	1987	Cruise & Maritime Voyages	Bahamas	20704	8506373	308214000	856	578	278	No info for 2014	856	17,8	10,9	28,7
Discovery	1971	Cruise & Maritime Voyages	Bermuda	20216	7108514	310382000	1048	698	350	No info for 2014	1048	6,9	4,7	11,6
Marco polo	1965	Cruise & Maritime Voyages	Bahamas	20080	6417097	308693000	1176	820	356	No info for 2014	1176	21,0	15,2	36,2
Crystal Symphony	2003	Crystal Cruises	Bahamas	68870	9066667	309168000	1467	922	545	No info for	1467	12,1	18,9	31,0

Name of ship	Year	Operator	Flag	Tonnage (GT)	ІМО	MMSI	Total persons onboard†	Passengers†	Crew†	Total persons onboard‡	Maximum theoretical persons onboard	Days spent at sea between ports in the Baltic Sea	Days spent in the Baltic Sea ports	Total time spent in the Baltic Sea #
										2014				
Queen Victoria*	2007	Cunard	Bermuda	90000	9320556	310624000	2914	2014	900	2922	2922	22,2	12,8	32,0
Balmoral*	1988	Fred Olsen Cruise Lines	Bahamas	43537	8506294	308785000	1900	1400	500	1992	1992	6	7,1	13,1
Black Watch	1972	Fred Olsen Cruise Lines	Bahamas	28613	7108930	311166000	1198	868	330	No info for 2014	1198	11,9	7	18,9
Boudicca*	1973	Fred Olsen Cruise Lines	Bahamas	28551	7218395	309964000	1159	839	320	1094	1159	5,3	1,9	7,2
Braemar*	1993	Fred Olsen Cruise Lines	Bahamas	24344	9000699	311541000	1389	989	400	1247	1389	8,3	6,7	15,0
Bremen	1990	Hapag-Lloyd	Bahamas	6752	8907424	308429000	255	155	100	No info for 2014	255	0,6	0,5	1,1
Europa	1999	Hapag-Lloyd	Bahamas	28890	9183855	308007000	683	408	275	No info for 2014	683	16,3	13,2	29,5
Europa 2	2010	Hapag-Lloyd	Malta	42830	9616230	229378000	886	516	370	No info for 2014	886	7,8	3,2	11,0
Eurodam	2008	Holland America Line	Netherlands	86273	9378448	245206000	3033	2104	929	No info for 2014	3033	48,7	43,4	92,2
Prinsendam	1988	Holland America Line	Netherlands	39051	8700280	244126000	1236	793	443	No info for 2014	1236	15,2	11,1	26,3
Rotterdam	1997	Holland America Line	Netherlands	61849	9122552	246167000	2004	1404	600	No info for 2014	2004	11,0	9,0	20,0
Ryndam	1994	Holland America Line	Netherlands	55819	8919269	245026000	1860	1258	602	No info for 2014	1860	15,9	13,4	29,3
Sea Explorer	1991	International Shipping Partners	Marshall Islands	4200	8802882	538004274	192	120	72	No info for 2014	192	1,9	0,6	2,5
Louis Aura	1968	Louis Cruises	Malta	15781	6821080	215467000	1310	910	400	No info for 2014	1310	9,0	5,1	14,1
Ocean Majesty	1966	Majestic International Cruises	Madeira	10417	6602898	255717000	1148	621	527	No info for 2014	1148	12,8	7,0	19,8
Msc Opera*	2004	Msc Cruises	Panama	59058	9250464	357627000	2440	1712	728	2811	2811	7,1	4,7	11,9
Msc Orchestra*	2007	Msc Cruises	Panama	92409	9320099	372497000	3537	2550	987	3761	3761	53,6	20,7	74,3
Msc Poesia*	2008	Msc Cruises	Panama	92627	9387073	355931000	4000	3013	987	3793	4000	49,8	23,5	73,4
Norwegian Star*	2001	Norwegian cruise line	Bahamas	91740	9195157	311082000	3431	2348	1083	3546	3546	76,1	50,2	126,3
Marina*	2011	Oceania Cruises	Marshall Islands	66084	9438066	538003668	2050	1250	800	2599	2599	29,7	27,1	56,8
Nautica*	2000	Oceania Cruises	Marshall Islands	30277	9200938	538001665	1210	824	386	1041	1210	14,5	14,5	29,0
Adonia*	2001	P&O Cruises	Bermuda	30277	9210220	310530000	1113	740	373	1166	1166	23,1	12,1	31,3
Arcadia*	2005	P&O Cruises	Bermuda	83781	9226906	310459000	2836	1968	868	2906	2906	9,2	4,8	14,0

Name of ship	Year	Operator	Flag	Tonnage (GT)	ІМО	MMSI	Total persons onboard†	Passengers†	Crew†	Total persons onboard‡	Maximum theoretical persons onboard	Days spent at sea between ports in the Baltic Sea	Days spent in the Baltic Sea ports	Total time spent in the Baltic Sea #
Aurora*	2000	P&O Cruises	Bermuda	76152	9169524	310556000	2800	1950	850	No info for 2014	2800	3,6	2,6	6,2
Azura*	2010	P&O Cruises	Bermuda	115055	9424883	310610000	4300	3100	1200	4223	4300	4,2	2,8	7,0
Oriana*	1995	P&O Cruises	Bermuda	69840	9050137	310529000	2722	1928	794	5004	5004	11,5	7,8	19,4
Delphin	1975	Passat Kreuzfahrten	Bahamas	16214	7347536	311067500	640	No info for 2014	No info for 2014	No info for 2014	640	20,3	15,7	36,0
Deutschland	1996	Peter Deilmann Cruises	Germany	22496	9141807	211274670	760	500	260	No info for 2014	760	12,8	10,9	23,7
Albatros	1973	Phoenix	Bahamas	28518	7304314	308784000	1152	812	340	No info for 2014	1152	8,7	6,5	15,2
Amadea	1991	Phoenix	Bahamas	29008	8913162	308445000	916	624	292	No info for 2014	916	13,8	8,7	22,5
Artania	1982	Phoenix	Bermuda	44588	8201480	310456000	1797	1260	537	No info for 2014	1797	14,7	9,4	24,1
Hamburg	1997	Plantours	Bahamas	15067	9138329	309908000	590	420	170	No info for 2014	590	17,3	9,7	27,0
Azores	1948	Portuscale Cruises	Portugal	16144	5383304	255801380	556	No info for 2014	No info for 2014	No info for 2014	556	14,1	9,0	23,0
Funchal	1961	Portuscale Cruises	Madeira	9563	5124162	255971000	679	524	155	No info for 2014	679	5,3	3,5	8,8
Emerald Princess	2010	Princess Cruises	Bermuda	113561	9333151	310531000	4280	3080	1200	No info for 2014	4280	12,7	8,4	21,2
Ocean Princess	1999	Princess Cruises	Bermuda	30277	9187899	310505000	1043	670	373	No info for 2014	1043	8,6	5,3	13,9
Royal princess	2013	Princess Cruises	Bermuda	139000	9584712	310661000	4946	3600	1346	No info for 2014	4946	79,6	41,4	121,0
Empress	1990	Pullmantur	Malta	48563	8716899	249056000	2518	1850	668	No info for 2014	2518	41,5	28,5	70,0
Horizon	1990	Pullmantur	Malta	47427	8807088	249727000	2542	1900	642	No info for 2014	2542	5,5	2,2	7,7
Seven Seas Voyager*	2003	Regent Seven Seas Cruises	Bahamas	42363	9247144	311513000	1147	700	447	1208	1208	41,3	34,5	75,7
Adventure of the seas	2001	Royal Carribean International	Bahamas	137276	9167227	311263000	4294	3114	1180	No info for 2014	4294	4,6	3,3	7,9
Brilliance of the Seas*	2002	Royal Carribean International	Bahamas	90090	9195200	311361000	3349	2501	848	3160	3349	25,0	17,1	42,1
Legend of the Seas*	1995	Royal Carribean International	Bahamas	69472	9070620	311378000	2796	2076	720	2624	2796	36,7	28,5	65,2
Saga Pearl II	1981	Saga	Malta	18627	8000214	256878000	822	602	220	822	822	N.A	N.A	N.A
Saga Sapphire	1981	Saga	Malta	37049	7822457	256208000	1564	1158	406	No info for 2014	1564	19,2	11,7	30,9

Name of ship	Year	Operator	Flag	Tonnage (GT)	IMO	MMSI	Total persons onboard†	Passengers†	Crew†	Total persons onboard‡	Maximum theoretical persons onboard	Days spent at sea between ports in the Baltic Sea	Days spent in the Baltic Sea ports	Total time spent in the Baltic Sea #
Sea Cloud II	2001	Sea Cloud Cruises	Malta	3849	9171292	248953000	159	96	63	No info for 2014	159	12,1	7,9	20,1
Seadream I	1984	Sea Dream Yatch Club	Bahamas	4333	8203438	308908000	207	112	95	No info for 2014	207	25,3	23,1	48,4
Seabourn Legend	1992	Seabourn	Bahamas	9961	9008598	311085000	372	208	164	No info for 2014	372	36,8	25,3	62,1
Seabourn Quest	2010	Seabourn	Bahamas	32477	9483126	311038900	785	450	335	No info for 2014	785	27,7	23,5	51,2
Serenissima	1960	Serenessima Cruises	Saint Vincent & Grenadines	2598	5142657	376439000	148	100	48	No info for 2014	148	11,6	9,0	20,6
Silver Cloud	1994	Silversea	Bahamas	16927	8903923	309027000	518	296	222	No info for 2014	518	13,8	15,0	28,9
Silver Whisper	2001	Silversea	Bahamas	28258	9192179	308322000	684	382	302	No info for 2014	684	42,2	42,8	85,1
Minerva	1989	Swan Hellenic	Bahamas	12449	9144196	309477000	510	350	160	No info for 2014	510	6, I	3,8	9,9
Thomson Spirit	1981	Thomson Cruises	Malta	33930	8024014	248368000	1870	1350	520	No info for 2014	1870	18,9	10,9	29,9
Mein Schiff	1996	TUI Cruises	Malta	76998	9106297	249051000	2779	1870	909	No info for 2014	2779	4,2	1,9	6,0
Mein Shiff II*	1997	TUI Cruises	Malta	77302	9106302	249053000	2786	1886	900	2775	2786	42, I	27,9	70, I
Explorer	2002	V-Ships	Bahamas	24318	9183518	311705000	1280	800	440	No info for 2014	1280	13,9	26,2	40, I
Voyager	1988	Voyages of Discovery	Bahamas	15396	8709573	309695000	765	550	215	No info for 2014	765	9,2	6,7	15,9
Windsurf	1989	Windstar Cruises	Bahamas	14745	8700785	309242000	471	308	163	No info for 2014	471	13,2	13,8	27,0

\* Included in the survey

† Different sources
‡ Average survey 2014
# Between Baltic Sea ports only

ountry Of estination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
iermany	Ahlbeck (Usedom)	Swinoujscie	PL		2-8/w	February - January	P	Adler-Schiffe
	Ahlbeck (Usedom)	Swinoujscie	PL	١,6	2-8/w	February - January	Р	Adler-Schiffe
	Bansin (Usedom)	Swinoujscie	PL	I	2-8/w	February - January	Р	Adler-Schiffe
	Bansin (Usedom)	Swinoujscie	PL	I	2-8/w	February - January	Р	Adler-Schiffe
	Binz (Rügen)	Sassnitz (Rügen)	DE	0,7	I-4/d	February - January	Р	Adler-Schiffe
	Heringsdorf (Usedom)	Swinoujscie	PL	1,3	2-8/w	February - January	Р	Adler-Schiffe
	Heringsdorf (Usedom)	Swinoujscie	PL	١,3	2-8/w	February - January	Р	Adler-Schiffe
	Kiel	Klaipeda	LT	21	6/w	January - December	RP	DFDS Seaways
	Kiel	Göteborg	SE	14,5	I/d	January - December	CF	Stena Line
	Kloster (Hiddensee)	Schaprode (Rügen)	DE	1,2	4-5/d	January - December	CF	Reederei Hiddensee
	Koserow (Usedom)	Swinoujscie	PL	2,5	I-2/w	April - October	Р	Adler-Schiffe
	Koserow (Usedom)	Swinoujscie	PL	2,5	I-2/w	April - October	Р	Adler-Schiffe
	Lübeck-Travemünde	St. Petersburg	RU	61	l/w	January - November	RP	TransRussiaExpress
	Lübeck-Travemünde	Tallinn	EE	30	I/d	January - December	2xCF	Viking Line combi rou
	Lübeck-Travemünde	Helsinki	FI	28-31	6-7/w	January - December	RP	Finnlines
	Lübeck-Travemünde	Helsinki	FI	30	I/d	January - December	2xCF	Viking Line combi rou
	Lübeck-Travemünde	Helsinki	FI	28-3 I	6-7/w	January - December	RP	Finnlines
	Lübeck-Travemünde	Helsinki	FI	30	I/d	January - December	2xCF	Viking Line combi rou
	Lübeck-Travemünde	Turku	FI	25	2/d	January - December	2xCF	Viking Line combi rou
	Lübeck-Travemünde	Liepaja	LV	28	5/w	January - December	RP	Stena Line
	Lübeck-Travemünde	Ventspils	LV	24-26	2/w	January - December	RP	Stena Line
	Lübeck-Travemünde	Malmö	SE	9	2-3/d	January - December	RP	Finnlines (Nordö Link
	Lübeck-Travemünde	Trelleborg	SE	7.elo	2-4/d	January - December	RP	TT Line
	Neuendorf (Hiddensee)	Schaprode (Rügen)	DE	0,5	3-5/d	January - December	Р	Reederei Hiddensee
	Puttgarden (Fehmarn)	Helsinki	FI	25	I/d	January - December	3xCF	Viking Line combi rout
	Puttgarden (Fehmarn)	Helsinki	FI	25	I/d	January - December	3xCF	Viking Line combi rout
	Puttgarden (Fehmarn)	Turku	FI	20	2/d	January - December	3xCF	Viking Line combi rout
	Rostock	Helsinki	FI	32-36	l/w	January - September	RP	Finnlines

# Annex 2 - International ferry lines operating in the Baltic Sea

Country Of Destination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
	Rostock	Helsinki	FI	32-36	l/w	January - September	RP	Finnlines
	Rostock	Gedser (Falster)	DK	1,8	8-10/d	January - December	CF	Scandlines
	Rostock	Helsinki	FI	26	I/d	January - December	3xCF	Viking Line combi route
	Rostock	Helsinki	FI	29	I/d	January - December	2xCF	Viking Line combi route
	Rostock	Helsinki	FI	26	I/d	January - December	3×CF	Viking Line combi route
	Rostock	Helsinki	FI	29	I/d	January - December	2xCF	Viking Line combi route
	Rostock	Turku	FI	24	2/d	January - December	2xCF	Viking Line combi route
	Rostock	Turku	FI	21	2/d	January - December	3xCF	Viking Line combi route
	Rostock	Trelleborg	SE	6-7,5	2-3/d	January - December	CF	Stena Line
	Rostock	Trelleborg	SE	5-7	2-3/d	January - December	RP	TT Line
	Sassnitz (Rügen)	Rønne (Bornholm)	DK	3,5	2-8/w	April - October	CF	BornholmerFærgen
	Sassnitz (Rügen)	Baltijsk	RU	24	l/w	January - December	RP	Trans-Exim
	Sassnitz (Rügen)	Ust Luga	RU	56	I/w	January - December	RP	Trans-Exim
	Sassnitz (Rügen)	Trelleborg	SE	4,2	I-2/d	January - December	CF	Stena Line
	Sellin (Rügen)	Sassnitz (Rügen)	DE	1,3	I-5/d	February - January	Р	Adler-Schiffe
	Vitte (Hiddensee)	Schaprode (Rügen)	DE	0,8	4-8/d	January - December	CF/P	Reederei Hiddensee
	Zinnowitz (Usedom)	Swinoujscie	PL	3	I-2/w	April - October	Р	Adler-Schiffe
	Zinnowitz (Usedom)	Swinoujscie	PL	3	I-2/w	April - October	Р	Adler-Schiffe
Denmark	Anholt (Anholt)	Grenaa	DK	2,8	4-8/w	January - December	CF	Anholt Færge
	Frederikshavn	Göteborg	SE	2-3,5	3-7/d	January - December	CF/FF	Stena Line
	Gedser (Falster)	Rostock	DE	1,8	8-10/d	January - December	CF	Scandlines
	Grenaa	Varberg	SE	4-5	I-2/d	January - December	CF	Stena Line
	Køge (Sjælland)	Rønne (Bornholm)	DK	5,5	I/d	January - December	CF	BornholmerFærgen
	Nexø (Bornholm)	Darlowo	PL	4,5	l/w	July - August	FF	KZP
	Nexø (Bornholm)	Kolobrzeg	PL	4,5	I-7/w	April - October	FF	KZP
	Rønne (Bornholm)	Sassnitz (Rügen)	DE	3,5	2-8/w	April - October	CF	BornholmerFærgen
	Rønne (Bornholm)	Køge (Sjælland)	DK	5,5	I/d	January - December	CF	BornholmerFærgen
	Rønne (Bornholm)	Køge (Sjælland)	DK	5,5	I/d	January - December	CF	BornholmerFærgen
	Rønne (Bornholm)	Ystad	SE	1,3	3-8/d	January - December	FF	BornholmerFærgen
	Vesterø Havn (Læsø)	Frederikshavn	DK	1,5	3-7/d	January - December	CF	Læsø-Line

Country Of Destination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
Estonia	Aegna (Aegna)	Tallinn	EE	I	6-15/w	May - October	P	Kihnu Veeteed
	Paldiski	Hanko	FI	3,5	6/w	January - December	F	Navirail
	Paldiski	Kapellskär	SE	II	6/w	January - December	CF	DFDS Seaways
	Tallinn	Helsinki	FI	1,5	6-7/d	April - October	FF	Linda Line
	Tallinn	Helsinki	FI	1,5	6-7/d	April - October	FF	Linda Line
	Tallinn	Lübeck-Travemünde	DE	30	I/d	January - December	2xCF	Viking Line combi routes
	Tallinn	Helsinki	FI	3	2/d	January - December	CF	Eckerö Line
	Tallinn	Helsinki	FI	2-2,5	6-7/d	January - December	CF	Tallink Silja
	Tallinn	Helsinki	FI	2,5	2-3/d	January - December	FF	Viking Line
	Tallinn	Helsinki	FI	3	2/d	January - December	CF	Eckerö Line
	Tallinn	Helsinki	FI	2-2,5	6-7/d	January - December	CF	Tallink Silja
	Tallinn	Helsinki	FI	2,5	2-3/d	January - December	FF	Viking Line
	Tallinn	Mariehamn (Aaland)	FI	9	I/d	January - December	CF	Tallink Silja
	Tallinn	Stockholm	SE	16	I/d	January - December	CF	Tallink Silja
	Tallinn	Helsinki	FI		I-2/w	January - December	CF	St. Peter Line
	Tallinn	St. Petersburg	RU		I-2/w	January - December	CF	St. Peter Line
	Tallinn	Stockholm	SE	16	I-2/w	January - December	CF	St. Peter Line
Finland	Hanko	Paldiski	EE	3	6/w	January - December	F	Navirail
	Helsinki	Rostock	DE	32-36	l/w	January - September	RP	Finnlines
	Helsinki	Tallinn	EE	1,5	6-7/d	April - October	FF	Linda Line
	Helsinki	Lübeck-Travemünde	DE	28	6-7/w	January - December	RP	Finnlines
	Helsinki	Lübeck-Travemünde	DE	30	I/d	January - December	2xCF	Viking Line combi routes
	Helsinki	Rostock	DE	29	I/d	January - December	2xCF	Viking Line combi routes
	Helsinki	Tallinn	EE	3,5	2/d	January - December	CF	Eckerö Line
	Helsinki	Tallinn	EE	2-2,5	6-7/d	January - December	CF	Tallink Silja
	Helsinki	Tallinn	EE	2,5	2-3/d	January - December	FF	Viking Line
	Helsinki	Mariehamn (Aaland)	FI	10	I/d	January - December	CF	Tallink Silja
	Helsinki	Mariehamn (Aaland)	FI	10	I/d	January - December	CF	Viking Line
	Helsinki	Stockholm	SE	17	2/d	January - December	CF	Tallink Silja
	Helsinki	Stockholm	SE	16	I/d	January - December	CF	Viking Line

Country Of Destination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
	Helsinki	Tallinn	EE		I-2/w	March - December	CF	St. Peter Line
	Helsinki	St. Petersburg	RU	13	4/w	March - December	CF	St. Peter Line
	Helsinki	Gdynia	PL	25	2/w	November - December	RP	Finnlines
	Långnäs (Aaland)	Turku	FI	4,5	I/d	January - December	CF	Tallink Silja
	Långnäs (Aaland)	Turku	FI	4	I/d	January - December	CF	Viking Line
	Långnäs (Aaland)	Kapellskär	SE	3,5	I/d	January - December	RP	Finnlines (Finnlink)
	Långnäs (Aaland)	Stockholm	SE	7	I/d	January - December	CF	Tallink Silja
	Långnäs (Aaland)	Stockholm	SE	6	I/d	January - December	CF	Viking Line
	Mariehamn (Aaland)	Tallinn	EE	П	I/d	January - December	CF	Tallink Silja
	Mariehamn (Aaland)	Helsinki	FI	П	I/d	January - December	CF	Tallink Silja
	Mariehamn (Aaland)	Helsinki	FI	10	I/d	January - December	CF	Viking Line
	Mariehamn (Aaland)	Helsinki	FI	П	I/d	January - December	CF	Tallink Silja
	Mariehamn (Aaland)	Helsinki	FI	10	I/d	January - December	CF	Viking Line
	Mariehamn (Aaland)	Turku	FI	5,5	I/d	January - December	CF	Tallink Silja
	Mariehamn (Aaland)	Turku	FI	5,5	I/d	January - December	CF	Viking Line
	Mariehamn (Aaland)	Kapellskär	SE	2,5	2-3/d	January - December	CF	Viking Line
	Mariehamn (Aaland)	Stockholm	SE	6,5	2/d	January - December	CF	Tallink Silja
	Mariehamn (Aaland)	Stockholm	SE	6	3/d	January - December	CF	Viking Line
	Naantali	Kapellskär	SE	8-9	2-3/d	January - December	RP	Finnlines (Finnlink)
	Turku	Lübeck-Travemünde	DE	25	2/d	January - December	2xCF	Viking Line combi rout
	Turku	Rostock	DE	24	2/d	January - December	2xCF	Viking Line combi rout
	Turku	Rostock	DE	21	2/d	January - December	3×CF	Viking Line combi rout
	Turku	Mariehamn (Aaland)	FI	5,5	I/d	January - December	CF	Tallink Silja
	Turku	Mariehamn (Aaland)	FI	5,5	I/d	January - December	CF	Viking Line
	Turku	Stockholm	SE	12	2/d	January - December	CF	Tallink Silja
	Turku	Stockholm	SE	11	2/d	January - December	CF	Viking Line
	Vaasa	Umeå	SE	4	7-8/w	January - December	CF	Wasaline
aroe slands	Tórshavn (Faroe)	Hirtshals	DK	31-44	I-2/w	January - December	CF	Smyril Line
sland	Seyðisfjörður	Hirtshals	DK	46-66	l/w	April - October	CF	Smyril Line

Country Of Destination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
Lithaunia	Klaipeda	Kiel	DE	21	6/w	January - December	RP	DFDS Seaways
	Klaipeda	Karlshamn	SE	14	I/d	January - December	RP	DFDS Seaways
	Smiltyne (Kursiu Nerija)	Klaipeda	LT	0,2	25-40/d	January - December	CF	Smiltyne
	Liepaja	Lübeck-Travemünde	DE	28	5/w	January - December	RP	Stena Line
Latvia	Riga	Stockholm	SE	17	3-4/w	January - December	CF	Tallink Silja
	Ventspils	Lübeck-Travemünde	DE	24-26	2/w	January - December	RP	Stena Line
Norway	Bergen	Hirtshals	DK	16	6-7/w	January - December	CF	Fjord Line
	Kristiansand	Hirtshals	DK	2,3	2-3/d	May - July	FF	Fjord Line
	Kristiansand	Hirtshals	DK	3,2	I-2/d	January - December	FF	Color Line
	Langesund	Hirtshals	DK	4,5	6-7/w	January - December	CF	Fjord Line
	Larvik	Hirtshals	DK	3,8	I-2/d	January - December	FF	Color Line
	Oslo	Kiel	DE	20	I/d	January - December	CF	Color Line
	Oslo	Frederikshavn	DK	8-9s	6-7/w	January - December	CF	Stena Line
	Sandefjord	Strömstad	SE	2,5	2-4/d	January - December	CF	Color Line
	Sandefjord	Strömstad	SE	2,5	2/d	January - December	CF	Fjord Line
	Stavanger	Hirtshals	DK	10-12	I/d	January - December	CF	Fjord Line
	Darlowo	Nexø (Bornholm)	DK	4,5	l/w	July - August	FF	KZP
Poland	Gdynia	Baltijsk	RU	5,5	l/w	January - December	FF	Zegluga Gdanska
	Gdynia	Karlskrona	SE	10-12	I-3/d	January - December	CF	Stena Line
	Gdynia	Helsinki	FI	25	2/w	November - December	RP	Finnlines
	Gdynia	Helsinki	FI	25	2/w	November - December	RP	Finnlines
	Hel	Gdansk	PL	1,9	I-3/d	Mai - July	FF	Zegluga Gdanska
	Hel	Gdynia	PL	1,1	I-3/d	Mai - July	Р	Zegluga Gdanska
	Jastarnia	Gdynia	PL		-		-	MZKZG
	Kolobrzeg	Nexø (Bornholm)	DK	4,5	I-7/w	April - October	FF	KZP
	Swinoujscie	Trelleborg	SE	7	I-2/d	January - December	RP	TT Line
	Swinoujscie	Trelleborg	SE	7	2-3/d	January - December	RP	Unity Line
	Swinoujscie	Ystad	SE	6,5	I-2/d	January - December	CF	Polferries
	Swinoujscie	Ystad	SE	7-9	2/d	January - December	CF	Unity Line
	Baltijsk	Sassnitz (Rügen)	DE	24	l/w	January - December	RP	Trans-Exim

Country Of Destination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
	Baltijsk	Gdynia	PL	5,5	l/w	January - December	FF	Zegluga Gdanska
	Baltijsk	Ust Luga	RU		?	January - December	F	AnRussTrans
	Baltijsk	Ust Luga	RU	40-108	l/w	January - December	RP	Trans-Exim
	St. Petersburg	Lübeck-Travemünde	DE	61	I/w	January - November	RP	TransRussiaExpress
	St. Petersburg	Tallinn	EE	15	I-2/w	March - December	CF	St. Peter Line
	St. Petersburg	Helsinki	FI	13	4/w	March - December	CF	St. Peter Line
	St. Petersburg	Helsinki	FI	13	4/w	March - December	CF	St. Peter Line
	St. Petersburg	Stockholm	SE	36	I-2/w	March - December	CF	St. Peter Line
	Ust Luga	Sassnitz (Rügen)	DE	48	l/w	January - December	RP	Trans-Exim
	Ust Luga	Baltijsk	RU		?	January - December	F	AnRussTrans
	Ust Luga	Baltijsk	RU	44-88	l/w	January - December	RP	Trans-Exim
Sweden	Aspö -S- (Aspö -S-)	Karlskrona	SE	0,4	I 5-20/d	January - December	CF	Trafikverket Färjerederiet
	Göteborg	Kiel	DE	14,5	I/d	January - December	CF	Stena Line
	Göteborg	Frederikshavn	DK	2-3,5	3-7/d	January - December	CF/FF	Stena Line
	Kapellskär	Paldiski	EE	11	6/w	January - December	CF	DFDS Seaways
	Kapellskär	Mariehamn (Aaland)	FI	2,5	2-3/d	January - December	CF	Viking Line
	Karlshamn	Klaipeda	LT	14	I/d	January - December	RP	DFDS Seaways
	Karlskrona	Gdynia	PL	10-12	I-3/d	January - December	CF	Stena Line
	Malmö	Lübeck-Travemünde	DE	9	2-3/d	January - December	RP	Finnlines (Nordö Link)
	Nynäshamn	Ventspils	LV	10-12	5-7/w	January - December	RP	Stena Line
	Nynäshamn	Gdansk	PL	18	5-6/w	January - December	CF	Polferries
	Stockholm	Tallinn	EE	16	I/d	January - December	CF	Tallink Silja
	Stockholm	Helsinki	FI	17	2/d	January - December	CF	Tallink Silja
	Stockholm	Helsinki	FI	16	I/d	January - December	CF	Viking Line
	Stockholm	Helsinki	FI	17	2/d	January - December	CF	Tallink Silja
	Stockholm	Helsinki	FI	16	I/d	January - December	CF	Viking Line
	Stockholm	Mariehamn (Aaland)	FI	5	2/d	January - December	CF	Tallink Silja
	Stockholm	Mariehamn (Aaland)	FI	5,5	3/d	January - December	CF	Viking Line
	Stockholm	Turku	FI	10	2/d	January - December	CF	Tallink Silja

Country Of Destination	Port	Port Of Origin	Country Of Port Of Origin	Sailing Duration	Frequency	Months	Ferry Type*	Operator
	Stockholm	Turku	FI		2/d	January - December	CF	Viking Line
	Stockholm	Riga	LV	17	3-4/w	January - December	CF	Tallink Silja
	Stockholm	Helsinki	FI	17	I-2/w	March - December	CF	St. Peter Line
	Stockholm	Helsinki	FI	17	I-2/w	March - December	CF	St. Peter Line
	Stockholm	St. Petersburg	RU	37	I-2/w	March - December	CF	St. Peter Line
	Trelleborg	Lübeck-Travemünde	DE	7-8	2-4/d	January - December	RP	TT Line
	Trelleborg	Rostock	DE	6-7,5	2-3/d	January - December	CF	Stena Line
	Trelleborg	Rostock	DE	5-6	2-3/d	January - December	RP	TT Line
	Trelleborg	Sassnitz (Rügen)	DE	4,2	I-2/d	January - December	CF	Stena Line
	Trelleborg	Swinoujscie	PL	7	I-2/d	January - December	RP	TT Line
	Trelleborg	Swinoujscie	PL	7-9	I-3/d	January - December	RP	Unity Line
	Trelleborg	Swinoujscie	PL	7	I-2/d	January - December	RP	TT Line
	Trelleborg	Swinoujscie	PL	7-9	I-3/d	January - December	RP	Unity Line
	Umeå	Vaasa	FI	4	7-8/w	January - December	CF	Wasaline
	Varberg	Grenaa	DK	4-5	I-2/d	January - December	CF	Stena Line
	Ystad	Rønne (Bornholm)	DK	1,3	3-8/d	January - December	FF	BornholmerFærgen
	Ystad	Swinoujscie	PL	7	I-2/d	January - December	CF	Polferries
	Ystad	Swinoujscie	PL	7	2/d	January - December	CF	Unity Line
	Ystad	Swinoujscie	PL	7	I-2/d	January - December	CF	Polferries
	Ystad	Swinoujscie	PL	7	2/d	January - December	CF	Unity Line

Conventional Ferry Fast Ferry Passenger Ferry \* CF

FF P

RP RoPax

Freight Ferry with limited cabins Camping Ferry F C

# Annex 3 - List of ports with LOCODE, number of calls

Country	Port	LOCODE	Number of calls (Apr Oct. 2014)	Page
Denmark	Aarhus	DKAAR	11	48
	Copenhagen	DKCPH	300	14
	Fredericia	DKFRC	T	76
	Helsingor	DKHLS	I	72
	Kalundborg	DKKAL	5	56
	Rönne - Bornholm	DKRNN	18	38
Estonia	Saaremaa	EESMA	7	50
	Tallinn	EETLL	285	16
Finland	Helsinki	FIHEL	257	18
	Kemi	FIKEM	I	70
	Mariehamn	FIMHQ	15	40
Germany	Flensburg	DEFL	3	62
	Kiel	DEKEL	120	24
	Lübeck - Travemünde	DELBC	15	42
	Rostock	DERSK	181	22
	Sassnitz	DESAS	5	52
	Stralsund	DESTL	I	68
	Wismar	DEWIS	П	46
Latvia	Riga	LVRIX	52	30
	Ventspils	LVVNT	2	66
Lithuania	Klaipeda	LTKJL	63	28
Poland	Gdynia	PLGDY	50	32
	Gdansk	PLGND	38	34
	Szczecin - Świnoujście	PLSZZ	3	60
Russia	Kaliningrad	RUKGD	5	54
	Saint Petersburg	RULED	312	12
Sweden	Gothenburg	SEGOT	71	26
	Helsingborg	SEHEL	4	58
	Karlskrona	SEKAA	2	64
	Luleå	SELLA	I	74
	Malmö	SEMMA	12	44
	Stockholm	SESTO	236	20
	Visby	SEVBY	37	36

# Annex 4 – List of revisions

Based on new port visit information received from Finland, Sweden, Russian Federation and Denmark, new ships have been included to the list of ships used in the analysis (annex I).

Based on comments from Copenhagen and St. Petersburg port operators and Finland, a number of short movements within ports have been excluded in this revised second edition.

As a result of these two modifications the number of recorded calls in 16 Baltic Sea ports have changed. The updated cruise call numbers for these 16 ports are detailed in the table below:

Port	Cruise calls in the first version (February 2015)	Number of identified short movements	Calls of ship not included in the first version	Cruise calls in this revised version (March 2015)
Copenhagen	311	5	6	312
Gdansk	38	5	5	38
Gdynia	50	1	I	50
Gothenburg	77	7	1	71
Helsingborg	3	0	I	4
Helsinki	259	8	6	257
Karlskrona	L	0	1	2
Kiel	131	12	1	120
Klaipeda	60	0	3	63
Mariehamn	19	4	0	15
Riga	52	2	2	52
Rostock	186	7	2	181
Saint Petersburg	390	85	7	312
Stockholm	247	18	7	236
Tallinn	285	5	5	285
Visby	45	8	0	37
TOTAL		169	48	

Please note that the number of calls listed above result from an analysis of AIS signals from cruise ships listed in annex 1. Due to the method, mainly the definition of "cruise ship", the figures in some ports do not match exactly with statistics compiled by port authorities or by the industry (cruisebaltic.com) even after the revisions.

The following changes have been made to the text according to the new numbers and other input received:

- Section "2. General characteristics of cruise traffic in the Baltic Sea 2014":
  - Revised figures on page 3 (general characteristics of cruise traffic in the Baltic Sea).
  - Revision of the figure 3 on page 4.
  - Revision of the proportion of the cruise ship traffic in terms of call for the main destinations in the Baltic Sea (page 4).
  - $\circ$  Revision of the figure 4 on page 5, figures 5 and 6 on page 6 and figure 7 on page 7.
  - Revision of the figure 9 on page 8.
- Revision of information displayed in the part "3. Port-specific information" for 16 ports (cf. table above).
- Revision of passenger traffic trends in Riga and Ventspils following comments received from Latvia.
- Revision of the information in the annex I for the additional five cruise ships.
- Revision of the annex 3 List of ports with LOCODE, number of calls.
- Drafting of this new annex (annex 4) including a list of revisions.



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