Organization and development of cruise shipping in the Baltic sea

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1. Introduction

The Cruise Industry is one branch of the tourism industry that is expanding at a fast pace. Cruise shipping has become a separate branch of shipping, fully attributed to the tourism industry, as the main difference from the liner-it's a journey with no particular destination, including recreational travel type, whose main purpose is leisure, short excursions in port cities, capitals and other various locations. In ten years, the number of passengers has doubled and the industry has maintained an average growth rate of 8%. The Cruise Industry consists of producers and suppliers of cruise ships and cruise lines, cruise corporations and passengers, as well as destinations (Dowling, 2006).

Europe represents only a quarter of the world cruise market, but its relative market share grows because the European market is catching up. Cruise passengers accounted for around 2 % to 3 % of all maritime passengers in the European Union. The dominance of the Mediterranean Sea basin is clear, representing approximately two thirds of all cruise passengers in the EU. Passenger growth has not only occurred in core cruise markets such as the Mediterranean, but also in secondary markets such as Baltic Sea. The share of the Baltic Sea is about 10 % for cruise passengers, less than half of its share of all maritime passengers, which is dominated by ferry transport.

The cruise industry in the Baltic Sea has changed in recent years. Today, the Baltic Sea is the largest segment in the Northern Europe market, generating traffic of around 4.3 million passengers in 2012. The development of the Baltic Sea Destination started in the 1990s, at the time tourism had limited importance but the economic ties between the nations grew stronger than the trade and traffic was liberated. Nowadays, the concept of cruising in the Baltic Sea is well developed, both seasonally and geographically but still leaving good opportunities for development.

The paper focuses on the emerging Sea Cruise in the Baltic Sea, a form of tourism which was not very common in the region 20 years ago. The main objective of this article is to assess the state of development of cruise tourism in the Baltic Sea, to describe fleets, cruise routes, visited ports and elements of cruise organization. The article also presents main homeports and ports of call and shows the most important cruise shipowners. Moreover, there are analyzed available statistical data on cruise passengers in the region. The research was realized using a method of desk research, a critical and comparative analysis of available statistical reports and publications and also other scientific materials. The impact of cruise tourism for the different destinations is also discussed but in a rudimentary way. In order to get a broader picture of cruise tourism, some observations of the passengers have also been made.

2. Baltic cruise market

In 2012, the share of the Baltic Sea was just 10.2 % for cruise passengers. So, The Baltic Sea is the largest segment in the Northern Europe market, generating capacity of around 4.85 million passenger nights in 2012 and around 5.14 million in 2013 (CLIA, 2013).

2.1. A fast growing market

The Baltic Sea is a growing market but has long traditions within cruising tourism. Before World War I, cruise traffic was substantial between the eastern coast of the Baltic on one hand and Sweden/Denmark on the other hand. St Petersburg in particular was of great interest. During the interwar period, Leningrad (St Petersburg) disappeared as a target for cruising because of the Russian revolution but, since the Baltic States became free nations, they remained popular destinations especially for Swedes (Nilsson P.A. et al, 2005). Rügen and the southern Baltic coast were also very popular (Helfer, 2004). World War II and the iron curtain during the Cold War made cruising to the eastern coast of the Baltic Sea impossible. The period after the fall of the Soviet Union in December 1991 has seen a recovery of the situation, making it similar to that before World War I & II, with St Petersburg again a leading port.

The main modification is the fast opening of the Baltic Sea to cruises since the collapse of the Iron Curtain (Charlier J., 2009). The Baltic cruise industry has grown very fast since 2000. In 2011 and 2012, the Baltic was still experiencing substantial growth, with 13% more cruise visitors in 2011. Despite the global economic slowdown in 2013 the Baltic Sea region remained a popular destination among tourists, with more than 70 ships operated by 42 companies making over 400 round trips.

One major reason for the Baltic Sea Region (BSR) being an attractive cruise destination is the fact that it is the sole region in northern Europe with six capital cities situated on the coasts and within overnight sailing distances. The BSR offers a large range of culture and history. In addition of the rich regions history, the fact that the cities are safe and the level of spoken English is high among the natives is something, which is highlighted in the marketing. Both factors are very appreciated by the American passengers (Cruise Baltic, 2013).

According, to the cruise shipping in the Baltic Sea region, the global cruise industry as well as, development trends over the period 2000-2012, the lowest cruise industry rates were recorded in 2000 (Table 1) year after the end of the cruise shipping season (Valioniene E, Pletkauskaite G. & Starodubcevaite V., 2013).

Table 1: Top 15 cruise destinations in the Baltic Sea from 2000 to 2012

	2000	**2012**
Copenhagen	166000	840000
Stockholm	157000	470000
St. Petersburg	149252	452000
Tallinn	109511	440504
Rostock	52622	385800
Helsinki	140000	368000
Kiel	48033	348180
Gdynia	57610	108628
Gothenburg	3400	83000

Riga	-	83000
Visby	48339	54158
Aarhus	12868	39436
Rønne	12000	31717
Klaipeda	4613	26769
Helsingborg	6266	11300
Total	**967 514**	**3 742 492**

Source: Cruise Baltic, 2013, Wełnicki M., 2013, Port authorities.

The number of passengers to the region has increased by an average annual rate of 11.6% - from 1.1 million in 2000 to 4.2 million in 2012 (Table 1). During the same period, the number of calls has increased by an average annual rate of 4.3% per year (Table 2). Therefore, in the 15 most visited cruise ports, 2216 port calls were made in 2013 when there was only 1350 calls in the same ports in 2000.

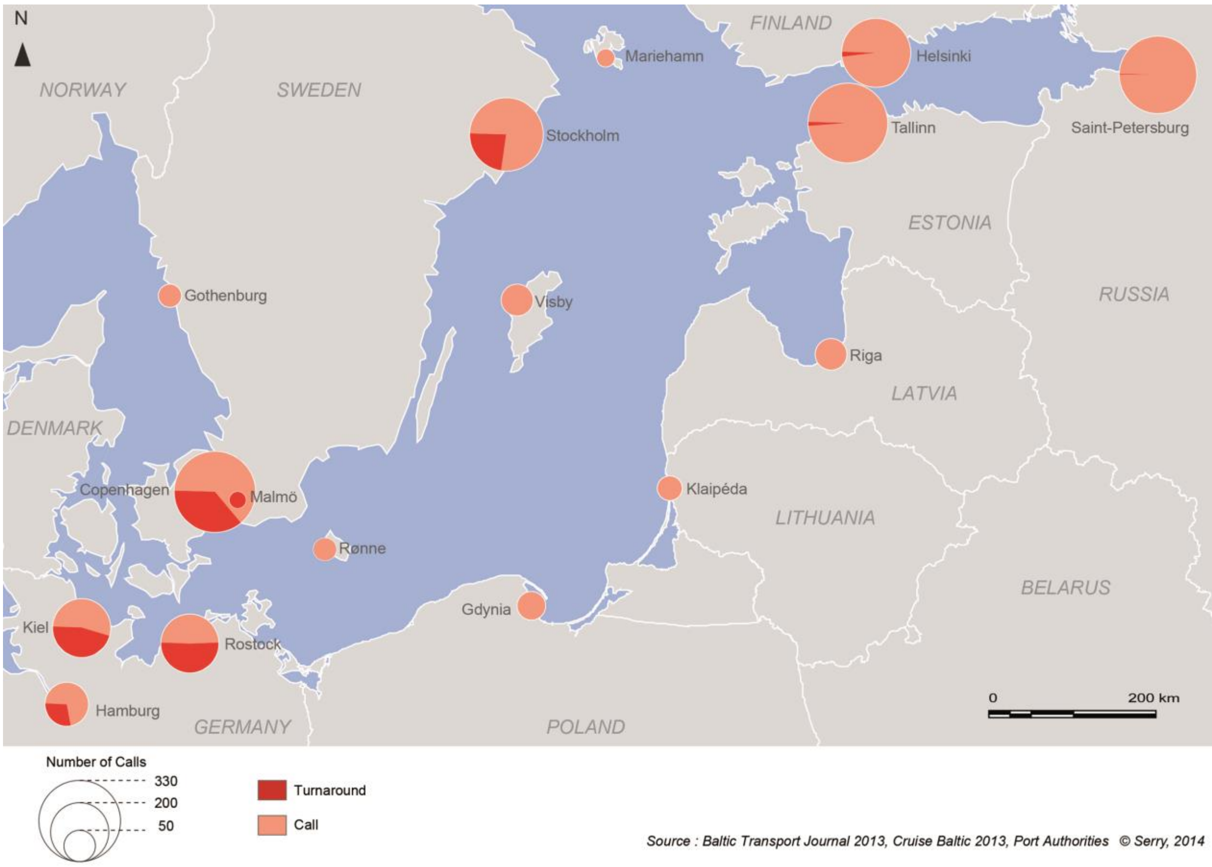
Table 2: Cruise calls in the Baltic Sea from 2000 to 2013

	2000	**2011**	**2012**	**2013**
Number of calls	1350	2108	2281	2213

Source: Cruise Baltic, 2013, Wełnicki M., 2013, Port authorities.

These numbers really do impress, especially if you consider that they only take into account cruise liner traffic (not taking into account short cruises and cruises by ferries). For 2013, although the figures are preliminary: growth is on-going but it is less important than expected at the beginning of the year (Figure 1). According to Cruise Baltic, cruise tourism market is divided into four main segments, i.e.: the X-large segment over 200 calls (5 ports in 2013), the large segment from 50 to 199 calls (8 ports), the medium segment from 25 to 49 calls (3 ports), and the small segment from 0 to 24 calls (14 ports).

Figure 1: Calls to the most visited cruise ports



A particularity of the Baltic Sea cruise market is its seasonality: because of the climate, market potential in the region is short compared to other cruising destinations: the season stretches from April to September with a peak in mid-summer. In the wintertime, there is hardly any offer of cruising at all in the Baltic Sea area (Charlier & McCalla, 2006). Natural conditions and sufficiently formed short cruise seasons are not particularly favourable for Baltic Sea Cruise Industry.

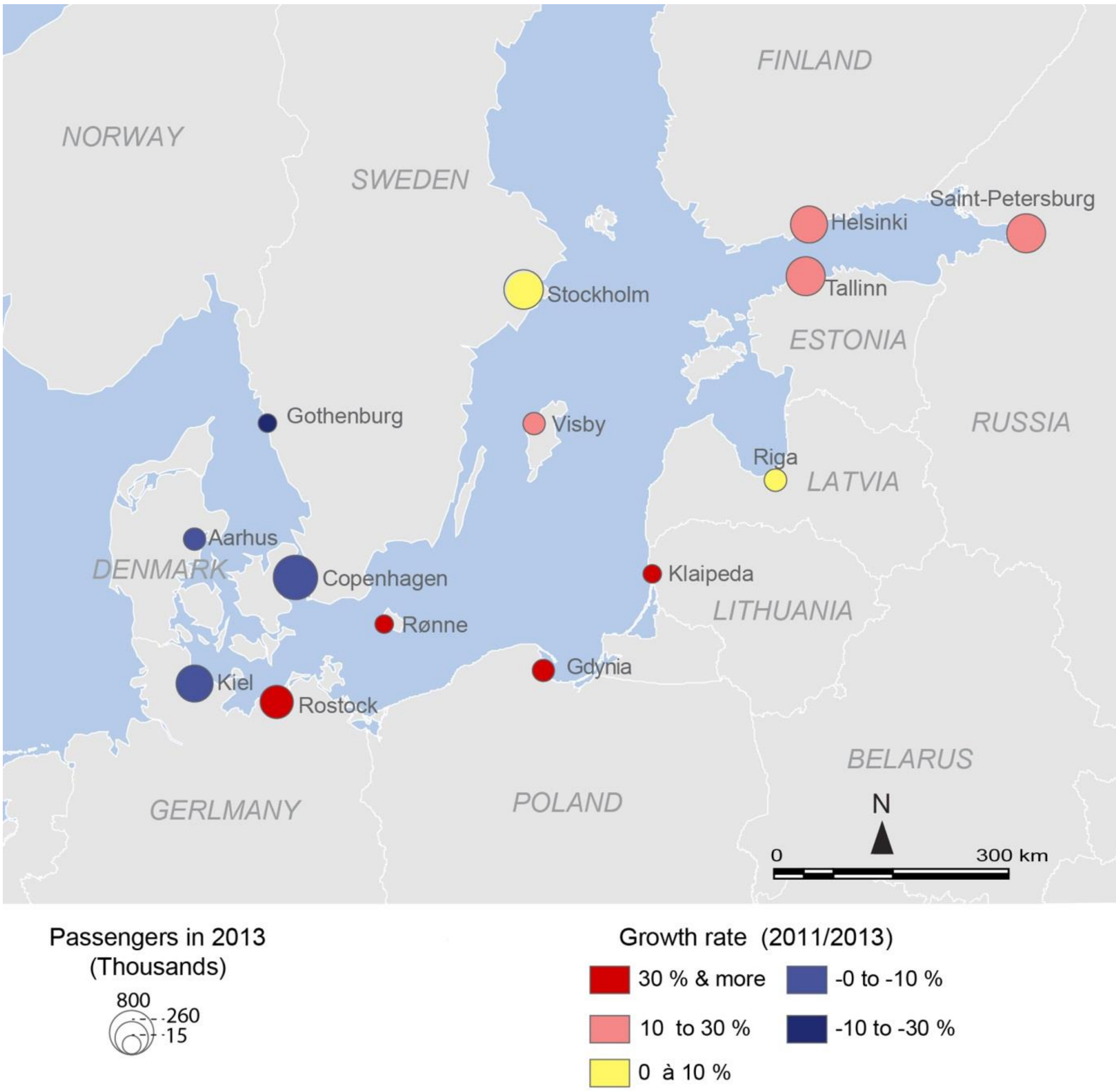
In reality, if it is commonly accepted that three main types of itineraries can be found (Rodrigue J-P Notteboom T., 2013), the Baltic Sea itineraries are mainly seasonal ones. It is an important differentiating factor as many cruise ports are only active during a specific period of the year while others are perennial cruise ports. This high seasonality implies that all the cruise visits take place within a few months (Rodrigue JP., Comtois C., Slack B., 2013).

2.2. Baltic cruises geography

The geographical design of the cruise itinerary varies, but consists of mostly short triangular cruises or longer loop cruises. The longer cruises can vary in length, from one to two weeks (Fogelberg M., Lindgren M. & Udo R, 2007. There are still only few towns in the region which benefit substantially from cruise business. The major ports in the Baltic sea region are Copenhagen, St Petersburg, Stockholm, Tallinn, and Helsinki (Lundgren, 2006). These five ports are stalwart highlights of any cruise originating both in the BSR as well as in some foreign port like the German port of Hamburg.

Baltic route offered by almost every operator goes like this: Rostock, Copenhagen, Tallinn, St. Petersburg, Helsinki, Stockholm (Figure 2), with very little variation, mostly adding one small or medium Baltic Sea region port or a European one, which is also likely to be a turnaround port and not a destination. In fact the most popular ports that were considered the most successful in 2011 (i.e. attracting the most visitors) remained so in 2012 and continue their streak in 2013 (Figure 2).

Figure 2: Cruise ports in the Baltic Sea in 2013



Source : Port Authorities, Cruise Baltic, Baltic Transport Journal © Serry, 2014

There are several ways to classify cruise ports. Rodrigue and Notteboom (2013) divided ports of calls in to three categories depending on the reason for the stop in the particular port. The first category is *Destination Cruise Port*. According to their study the cultural amenities of the destination cruise ports are world class, the particular port is the main attraction of the itinerary, and the passengers are rarely taking daytrips away from the destination. Generally speaking homeports are usually located in the areas with a concentration of a tourist demand, with unique tourist attractions, high standard of tourist amenities and with suitable communication accessibility (Kizielewicz J., 2013). In the Baltic region, St Petersburg and also Stockholm and Copenhagen to some extent, fall into this category. *Gateway Cruise Port* is the second classification, it is often technical stops in ports, which does not offer any significant attractions or amenities to the passengers but serves a major destination. Malmö could be a Baltic example of a Gateway Cruise Port, if the passengers go straight to Copenhagen instead of staying in Malmö. The last category is *Balanced Cruise Ports*, which is a mix between the two previous categories. Gothenburg might be classified in to this category as it is not a main destination of a cruise itinerary and one of the most popular tours for the passengers of Aida Cara is the tour in the archipelagos. In addition, Haga is a very popular part of the city for the passengers to visit as well as museums and cafés (Andersson T. & Rehnberg L., 2013).

Between 2000 and 2012, the number of turnarounds increased by an average annual rate of 9.4%. There is an important cruise passenger number in the Danish capital city region and the German region of Kiel. Copenhagen is a gateway port to both the Baltic Sea and Norwegian Fjords (Figure 1). Stockholm is also an important cruise port in the Baltic Sea. St. Petersburg competes with other Baltic capitals which are considered the Baltic's cornerstone itineraries. St. Petersburg, the only major port city on Russia's Baltic, is the only opportunity to visit Russia without visa. Also to be noted the high position of Kiel, which over the past few years has seen a dramatic increase in the number of passengers and calls mainly due to its perfect location as a turnaround port for the German market. Another phenomenon of the Baltic cruises is the large total number of outside turnaround ports. Hamburg is the most important due to its nearness, but there were 23 other outside ports in 2012 (14 among them are in the United Kingdom). This is due to the nature of those ports, as they serve as junction points, offering several main destinations in addition to the BSR. A special note has to be done regarding Rostock which popularity comes from its relative proximity to the German capital of Berlin. This is one of those universal constants: people have been flocking to these major cities in the past and it seems they will continue to do. The middle tier ports, Kiel, Riga, Gdansk and Gdynia benefit from being located on the main route from Copenhagen to St. Petersburg. The only medium ports that seem to be on the verge of “breaking into” the mainstream (or have in fact done so in the past couple of years) are Visby, Rønne and Gothenburg.

It furthermore becomes apparently clear that some of the largest ports in the BSR, serviced by cruise liners (specifically Helsinki, Tallinn and St. Petersburg), are strictly on the receiving end of the traffic and they are almost never ports of origin for cruises themselves.

While analysing cruise market in the Baltic Sea region, it can be noticed that there is a differentiation between ports. Cruise lines are already established and used to Cruise roads. The analysis of the Baltic coastal ports and cruise ships coming to roads can be discerned little and a lot of connections with ports. Kiel, Copenhagen, Visby, Stockholm, Helsinki, St. Petersburg, Tallinn, Riga, Klaipeda, Gdansk sea ports are one way cruise with ports and Tallinn, which looks in cruise shipping map like a central point, which turns five cruise routes (Valioniene E, Pletkauskaite G. & Starodubcevaite V., 2013). The capital cities in the Baltic Sea tend to be visited by the same ships, on the same cruises, whereas the noncapitals tend to be visited by the ships, which also call at a nearby capital or other major city. In general, ports in the Bothnian Arc (Gulf of Bothnia) can only hope to attract cruise ships which call at Stockholm (Marcussen C-H., 2004).

However, the cruise shipping seems to be spreading and the projects of cruise terminal are proliferating, including in ports that are not yet really concerned by this activity, such as Kaliningrad. Nowadays, cruise shipping in the BSR continues to diversify in order to capture and retain new customers: short itineraries, therefore more affordable in terms of price, thematic trips like festival cruises, handset Baltic Sea or Norwegian Fjords.

3. Important actors within cruise tourism

Important actors in the distribution of sea cruises to tourists are travel agents, cruise lines and their ships, shipping agents, ports and hinterland network including shore excursions and shore infrastructure. Actors are numerous and try to cooperate in order to meet the needs and trends of tourism.

3.1. Cruise lines & ships

There are more than 40 cruise line operators in the BSR, but the 15 largest are responsible for over 85% of all traffic. The number of cruise companies offering Baltic cruises is growing (Table 3) and the first cruise operator is Aida Cruises. Celebrity Cruises, Costa Cruises, Crystal Line, Cunard Line, Holland America Line, Norwegian Cruise Line, Oceania Cruises, Orient Lines, Princess, Regent Seven Seas, Hapag-Lloyd, MSC (Figure 4), Aida, Silversea, and Seabourn deploy their vessels in the region.

Table 3: Top 15 cruise line operators in the BSR

No.	Operator	Cruises	Days on the Baltic Sea	Ports of call	Estimated pax (thou.)
1	Aida Cruises	48	385	218	120
2	MSC Cruises	22	151	86	68
3	Costa Cruises	17	129	85	50
4	Royal Caribbean International	20	199	111	46
5	Princess Cruises	13	149	104	39
6	Norwegian Cruise Line	15	135	75	35
7	Celebrity X Cruises	12	154	77	28
8	Holland America Line	15	214	93	23
9	Fred Olsen Cruise Lines	20	252	100	21
10	Pullmantur	10	70	50	19
11	Carnival Cruise Lines	8	96	48	17
12	P&O Cruises	10	158	77	17
13	TUI Cruises	7	51	36	16
14	Cunard	8	90	45	16
15	Oceania Cruises	10	120	83	12
	Total	**235**	**2347**	**1284**	**523**

Source: *Wełnicki M., 2013*

As elsewhere, standardization, simplification and homogenisation of cruise products for mass tourism (Dehoorne O. & Petit-Charles N., 2011) characterize the changes in BSR. The industry is getting more consolidated. The size of cruise ships is increasing. The demand on new itineraries rises. Some years ago it used to be that most vessels cruising in the Baltic Sea were older, mid-sized members of cruise lines' fleets. The vessels have become bigger and bigger each year (Figure 4). For example, in 2004 there were 65 ships cruising the Baltic Sea from 43 cruise lines compared to 70 ships in 2003. So, slightly fewer, but larger cruise ships made a total of more calls, and brought 18 % more passengers to ports in the Baltic Sea in 2004 (Nilsson P-A. et al., 2005).

Figure 4: MSC Poesia in the Bay of Kiel (May 2013)

There are also some other types of cruise operators which offers a different kind of services. As smaller ports are considered more luxurious, the lesser companies try to capitalise on this trend of “small = deluxe” as well. The likes of Windstar Cruises and Star Clippers cater to a specific, affluent demographic, which demands something extra. For example, the vessels used by Star Clippers are modelled after old sailing ships and are relatively small – compared to some of the cruise liner behemoths – offering a quiet, more natural way of voyaging. So, we have cruising that takes place completely outside the mass cruise market, for example on luxury, chartered yachts, “floating universities”, or on sailing vessels registered as training or historic ships.

When the cruise liners chose their ports there are several factors which are important and they differ whether it is a homeport or a port of call. For a home port, hub port or turnaround port it is important to be well connected by air- and land-transport in order to reach an as large market as possible and to bring down the prices for the visitors (Rodrigue J-P. & Notteboom T., 2013).

3.2. Baltic cruise port-cities strategies

The growth of cruises participates in the regional dynamic and therefore constitutes some constraints but also opportunities for the coastal port-cities. For example, the increase of hosting capacities is often associated to urban renewal projects. Good value for money and easy port accessibility are playing key roles for cruise lines and their passengers choosing the Baltic Sea region. Majority of ports are easily accessible by air and earth transportation (e.g. Copenhagen, Tallinn, Helsinki etc.). Furthermore, the ports of call have good access to the downtowns and port areas.

All the port-cities try to perfect their cruise installations and their attractiveness. In the BSR, Stockholm was the first city to build a dedicated cruise terminal. In the same logic, Tallinn in Estonia opened a new dock for cruise ships in 2008. In total, the economic revenue from cruise tourism in Stockholm is estimated at about 2 % of the revenue of the total tourism industry. In order to position Stockholm as one of the leading cruise destinations around the Baltic Sea, a Stockholm Cruising Capital Network has been established. Partners are Stockholm Visitors Board, the ports of Stockholm, the Swedish Civil Aviation Administration, Arlanda Airport, SAS, ship’s agents, incoming operators, transport entrepreneurs, hotels and shops. The objective is to promote and market Stockholm. Copenhagen is constructing a new cruise ship quay which will mainly be used for turnaround ships that change passengers and crew in Copenhagen. This is a joint project involving CMP and the owners of the port, CPH City & Port Development. Cooperation is, in fact, a common way chosen by port-cities to promote and develop cruises.

Small harbours face a rising challenge posed by technology itself. Cruise ships are getting bigger and their routes are highly standardized. This is a trend that has gained traction over the years – the difference between the costs of seeing the “old” and “new horizons” is still getting wider. This means that smaller ports, which at the turn of the century were prophesized to come into the forefront, have become luxurious destinations. Some, like Luleå and Kemi, depend on inland excursions for their traffic (Wełnicki M., 2013).

An interesting phenomenon is the cruise traffic load of the ports, related to ships arriving and their tourists. The number of ships and tourists is comparable in such different port cities as St Petersburg (five million inhabitants) and Tallinn (400,000 inhabitants). At the ports visited the tourists may take part in optional excursions. There is a need for coaches and guides speaking in different languages in each of the cities. This is a much greater problem for Tallinn, a small city, than for the huge St Petersburg. The offer of excursions guided in French in St Petersburg is impressively wide, and includes not only visiting the most interesting historical monuments and the Hermitage, but also going to a ballet performance and a folklore evening (Ptaszycka-Jackowska D., 2012).

As we already said, the reorganization process affecting the Baltic space bring constraints but also opportunities for ports. The rise of cruises is part of this dynamic. The Oresund and the Gulf of Finland regions are particularly affected. For instance, the hanseatic cities still have strong similarities. They are using their intense heritage to develop tours or cruises on the theme "pearls of the Hanseatic League”. Many shops and businesses exploit for advertising purposes the word "Hanse".

Most cruise ships home ports are capitals cities. However, other ports such as Rostock see a source of possible conversion. The port-city lost its exclusivity with the fall of the iron curtain. The cruise sector represented 1181 annual passengers in 1990, against 177 000 passengers today. Today, the city seeks to capture those tourists and avoid that they make excursions to Berlin. Indeed, in 2011, only 30% of cruise passengers in Rostock visited the old town. New urban development projects try to attract some tourists: development of the waterfront at near the historic city centre, development of a mini-cruises port in the heart of downtown, better accessibility of the terminal of Warnemünde (Escach N. & Serry A., 2013).

Nevertheless, in order to attract ships and their passengers, destinations must challenge to the cruise line executives who make the decisions as to where their ships will go.

3.3. Passengers in Baltic Cruises

It can be observed that the typology of tourists is changing and in the BSR, there is a change of passenger’s nationalities, with a growing number of European passengers. A passenger’s decision to cruise is based on a complex matrix of many factors such as whether to go on a cruise in the first place, where to go, the choice of cruise line and the choice of ship (Petrick, Li & Park S-Y., 2007). That decision can be motivated by diverse factors as a desire to return to a familiar destination; own research; the influence of friends, family and travel agents; brand loyalty to a cruise line; or even preference for a particular ship. Cruise destinations must both understand and address these factors in order to attract not only cruise passengers but also the type of passenger who will make a positive economic contribution to the destination. Otherwise, the destination risks attracting passengers who spend very little whilst onshore (London W-R., 2007).

The typical cruise passenger used to be older, wealthy and predominantly North American. Today, the cruise market caters for all types of needs, ages and purchasing abilities. The sea voyage with entertainment and leisure facilities within the ship is more important than the destinations reached. The excursions at the port are more important trip elements than the places visited. New types of products with smaller cruise ships have emerged for regional itineraries (Nilsson P-A. et al., 2005). In 2003, about 239,000 people cruised the Baltic Sea. Americans accounted for 44 %. The German share is 22 % of the total Baltic Sea cruise market, Britons 20 %, Swedes/Finns 6 % (mostly Swedes, weekend cruises), others 8 %. The Baltic Sea accounted for 5 % of the total sea cruises for Britons, and as much as 10 % for Germans.

Americans traditionally accounted for the largest share of the Baltic Sea cruise market. The typology of tourists is changing and in the Baltic rim there seems to be a radical change of nationalities. The North Americans have decreased in number and estimated figures point to a more or less dramatic drop during 2004. The Germans are keeping their grip on the market and Britons are also relatively frequent passengers.

To summarize, in 2012, a total of more than 40 nationalities around the world have cruised in the BSR. American passengers only account for 23.7 % (Cruise Baltic, 2013). New nationalities enter the Baltic market, for instance the Italians (10.9 % in 2012) and French (6.4 % in 2012). In fact, there are more and more passengers coming from the EU.

Furthermore, the cruise passengers' demographics (age limits, nationalities etc.) expand rapidly. Family cruising is getting more popular as well since all major ports of call are family-oriented cities to visit, with amusement parks and nature-oriented adventures.

3.4. The Cruise Baltic network

In 2004, in order to develop cruise tourism in the BSR, the network Cruise Baltic was founded with a focus of developing the Baltic Sea region as a competitive cruise destination and of attracting cruise tourism to the region.

The Cruise Baltic network consists of 10 countries and 28 destinations around the Baltic Sea, which have joined together to create a set of consistent standards to support cruise passenger operations between ports and cities. Curiously the members have a dual identity, each can be seen both as a partner involved in the collaboration process and competitor engaged in competitive activities (Lemmetyinen A., 2010).

The Cruise Baltic project started in September 2004 as a development project between 12 ports in 10 countries in the Baltic Sea region (Fogelberg M., Lindgren M. & Udo R., 2007).

The Cruise Baltic Project is a development project with the intention to create a strong international brand for the Baltic Sea Region as a cruise destination. Today, the Cruise Baltic Project includes not only 10 countries and 28 destinations but also 35 partners such as Scandinavian Airlines. The collaboration including diverse destinations with different historical backgrounds and economic and social preconditions affects the collaborative destination marketing process. At the same time, the destinations are competing to attract arriving cruise ships and visitors.

The network can be defined as collaboration. The management of the project is carried out by a steering committee consisting of people from each partner organization. The steering committee meets twice biannually, when the progress of the project is evaluated and developed. The headquarters of the project are located in Copenhagen. One of the goals of the Cruise Baltic Project is to exchange knowledge and information to be able to develop and promote the region as a cruise destination (Cruise Baltic, 2013). The aim is to encourage a growth in the number of cruise passengers, in addition to increase the region's share of the global cruise market, and convince the cruise passengers to return and to increase the competitiveness of the Baltic Sea Region.

The network faced some problems with the Eastern European cities, which were not used to collaborating in the same way as for example the Danish cities. The Eastern European cities were mainly focused on individual outcomes rather than on the collaboration as a whole.

Although the destinations within the Cruise Baltic Project collaborate, they also compete. The destinations mainly compete with port-cities that have similar offers or are located in the same geographical area. Since the destinations collaborate and compete simultaneously, a competitive relationship has been identified. This relationship is marked by collaboration through the input activities, sharing of financial resources and knowledge, and competition through the output activities, marketing and reception of cruise tourists.

4. Cruising the Baltic Sea : specificities and impacts

The Baltic Sea has a unique features.. Few seas in the world are as vulnerable as the Baltic Sea. The significant and recent growth of marine transportation in the region reinforces interrogations about the future of this enclosed sea (Serry A., 2013). For example , intra-baltic shipping is very important in the BSR, mainly using ro-ro vessels and ferries.

4.1. The case of cruise ferries

In the strictest sense, a cruise is a voyage of at least 60 hours by a seagoing vessel, mainly for pleasure. Only passengers with tickets that should include accommodation and all meals are transported. The Cruise voyage must include at least two visiting ports apart from the starting and ending port.

Here, the cruise ferries have to be mentioned. This appellation “cruise ferry”, which is increasingly used in both the ferry and cruise industries, has its origins firmly in the Baltic where a new market, initially unexpected, has developed into one of the major traffic generators and revenue earners in the passenger shipping industry. About 10 million passengers a year travel across the Baltic Sea between Finland and Sweden, most on high quality ferries offering many of the facilities of conventional cruise ships. Such ships combine the features of a cruise ship with a Ro-Pax. For example, two vessels of Color Line plying between Kiel and Oslo, although their cargo capacity is relatively small (1,270 lane metres), are meanwhile the biggest cruise ferries in the world. The size of Baltic cruise ferries is limited by various narrow passages, meaning ships must not excess 200 meters. Baltic routes are mostly trafficked by new ships purpose-built for the routes. Older cruise ferries from the Baltic serve as ferries on other seas, or in some cases, as cruise ships. A quite significant number of passengers use ferries only for cruise purposes, and do not disembark during the voyage because of the short stay at berth.

The Baltic Sea is crossed by several cruise ferry lines. Specially, Northern Baltic is a domain of cruise ferries and long routes across the whole sea are dominated by typical ro-paxes. On the Baltic Sea region, there are 11 larger ferry fleet owners. They realize connections between 38 ports in ten countries (Wiskulki T & Bar-Kolelis D., 2012). Some important shipping companies are Viking Line, Silja Line and Tallink. The busiest cruise ferry route in the Baltic is the 50 miles voyage between Helsinki and Tallinn. In the ferry market, there are some pure passenger lines (e.g. Linda Line between Helsinki and Tallinn) or short cruises (like Birka Line from Stockholm to Alands).

The expansion of the European Union has limited the growth of the industry as duty-free sales on intra-EU routes are no longer possible. However, as the Åland Islands are outside the EU customs zone, duty free sales are still possible on routes making a stop at Mariehamn or other harbours on the islands. Another popular destination is Estonia with its lower taxes on alcohol. Thus, the Silja Symphony, operated by Silja Lines, has an aquatic spa centre, and brings in a real shopping street, seven restaurants, four bars, two nightclubs and six shops with evocative names like the "Bon vivant Wine shop” (Escach N. and Serry A., 2013). The ferries have been criticized because of the low prices of alcoholic beverages which encourage passengers to become drunk and act irresponsibly.

At least, trips from St. Petersburg to neighbouring capitals are taken into account in the statistics for the ferry market, although they are similar to cruises from Florida to the Bahamas or from Cyprus to the surrounding destinations. All total cruise figures for the main northern destinations (Helsinki, St. Petersburg, Stockholm and Tallinn) are lower than they are in reality, due to a traditional method of counting that obscures the phenomenon of the new and expanding Russian cruise market. The Gulf of Finland is served round year by a vessel registered formally as a ferry, adding about 90,000 real cruise passengers in aforementioned ports’ results.

4.2. Economic and social impacts of the cruise sector

Cruise ship tourism generates revenues for a port mainly through passenger spending, taxes per cruise passenger. Passenger spending is considered as the benefit of highest importance in support of cruise tourism. However, not only economic benefit, but also big investments are related to cruise industry. As cruise ships continue to grow larger, further investment may be required for the ports.

In Europe, for turnaround passenger expenditures, research shows that the average expenditure per passenger visit is around 100 euro, but the results vary significantly. For crew and ship expenditures a similar approach was adopted. Crew tend to spend €25 per call. By cruise value added, Copenhagen is the first Baltic port but only 15th European (European Commission, 2009). Being a turnaround port is more profitable as the passengers tend to stay for longer using other services such as hotels, restaurants and transportation services.

In 2009, it was estimated that the total direct value added of the cruise tourism in the BSR was around 73 million euros (European Commission, 2009). In the BSR, on average one cruise passenger spends about €75 to 100 at one port (Table 4). In addition to local port user fees, head taxes, cruise ships purchase services such as pilots, tugboats, waste disposal, fuel and water at ports. Variability is also very important. According to a survey carried out by Gothenburg Cruise Network in 2011, cruise passenger in Gothenburg spent on average €55 euro while visiting the city. In Stockholm the passengers spend €100 during a day trip including excursion tickets and €300 when Stockholm is the port of embarkation, the turnaround port (Andersson T. & Rehnberg L., 2013).

The spending figure also depends on the nationalities of tourist. For instance, if there are no American passengers, the average spending in Kalmar will be only about €15 against €75 in case of presence of American passengers (Andersson T. & Rehnberg L., 2013). For Klaipeda, the figure presented by the authorities is €220 but that must include the total income for the port (Source: Interview Kristina Gontier, Port of Klaipeda, Marketing Director in May 2013). The figure of €50/75 seems more realistic (Table.

Table 4: Economic impact of cruise industry in Baltic Sea region in 2006/2007*

Port	*Money spent by one passenger (€)*	*Total income, millions (€)*	*People employed in cruise industry*
Copenhagen	100-150	87-129	700-1810
Tallinn	50-75	17.5-21.2	352-709
St. Petersburg	125-150	108.9-127	3082-5990
Stockholm	75-105	27.9-38.1	253-575
Helsinki	125-150	41.6-49.6	410-816
Oslo	50	18.5	149-248
Rostock	50-75	10.2-14.5	103-242
Gdynia	100-125	11.9-14.7	268-551
Riga	50-75	4.8-7.3	114-286
Visby	75-125	7.4-12.1	67-183

Klaipeda	50-75	2.1-2.9	51-114
Helsingborg	100-125	2.3-2.9	20-40
Ronne	75-100	1.4-2.4	12-34
Gothenburg	50-75	0.8-1.2	8-18
Mariehamn	100-120	0.4-0.5	4-8

Source: European Union, 2009; Port ok Klaipeda; Interviews.

** It was impossible to find common recent data for all ports.*

Cruise activity generates different economic benefits. These effects are generated not only by cruise passengers but also by crew members and the cruise ship itself (Brida J-G et al, 2013). There are also other stakeholders in the economic system of cruising: cruise line companies, ports, shipping agents, incoming agents, destination tourist organisations, local commercial life, and so on.

An assessment of the industry also needs to take into account the social impact of the cruise industry on local communities as it might be negative as [i]well as positive. Although cruise tourism can increase economic activity, cruise ship destinations are finding that the cultural impacts can be substantial. The social impacts are particularly noticeable in small destinations, e.g. small towns and islands. Cruise tourism expands tourism sector, what effects in more jobs created, especially in hospitality sector. In terms of employment, the cruise benefits stay minor in the BSR (Table 4). At the first place, about 1000 direct jobs are linked to cruise in Estonia (European Commission, 2009).

Environmental disturbance is a negative impact of cruise tourism both with regard to nature but also to society. When big ships arrive at small ports, congestion will arise and this should have an impact on nature but also on traditions and social behaviour among local residents.

4.3. Environmental considerations

The Baltic Sea region is a unique ecosystem because of its location at northern latitude, its narrow connection to the North Sea and its relatively low salinity. This makes the Baltic Sea much more sensitive to water pollution compared to other seas.

Shipping pollutes but Baltic Sea pollution is principally from land-based origin. Although cruise ships represent less than 20% of the world's ocean-going fleet, they receive the most public attention for the waste they leave behind (Nilsson *et al* 2005, p 38; Brida & Aguirre 2008, p 3).

Environmental considerations play a role, particularly when calling at ports. About one third of cruise-ship-generated air pollution is actually from emissions while docked in a port. As a cruise ship carries several thousand passengers and crew in an enclosed facility, an array of municipal utilities such as water supply, electric generation, sewers and waste management are found on board (Rodrigue J-P.**,** Comtois C.**,** Slack B., 2013). The level of emissions is dependent on the distribution of turnaround and transit calls in a port. A turnaround call tends to be longer than a transit call, making the environmental footprint of a cruise ship higher in these ports.

Since the cruise industry is expanding, the European Commission is looking for new measures how to ensure the environmental protection in regard to the increasing number of cruise vessels operating in the seas and oceans. The Baltic Sea region countries accomplish all standards and requisitions promoted by European Commission. The European Community is a contracting partner to regional conventions covering regional seas around Europe, e.g. Helsinki Convention.

In 2011 International Maritime Oragnization (IMO) designated the Baltic Sea as a ”special area” for passenger ships in terms of MARPOL Annex IV (on sewage from ships). An important contributor to environmental impact of cruise tourism is also the sulphurous content in ship fuel oil. The coastal countries shall report to IMO (MEPC) once the sewage reception facilities in the Baltic Sea ports fulfill the criteria of adequacy, before the “special area” regulations will take effect on 2016, at the earliest. The Baltic was also declared a SOx Emission Control Area (SECA) under MARPOL Annex VI (Polack S-R., 2012). While the new IMO, Helsinki Commission (HELCOM) regulations affect all areas of the shipping industry, cruise ship operators face a particular challenge when it comes to compliance; it is a challenge for cruise operators to keep up with the continual changes in environmental laws that vary from region to region.

There are some environmental challenges in the BSR like port reception facilities developments, changing sewage composition treatment and of course the growth of the number of ships and passengers. The Baltic Sea is responding fast to the challenges posed by a huge increase in cruise traffic. All cruise ship operators, the big ones who operate worldwide and the other local (Baltic) ones, are taking environmental responsibilities seriously because they know that their livelihood depends on the environment. Ports actually upgrade their infrastructure and put in place adequate facilities to deal with the rise in passengers and the challenge of waste water disposal for instance. Some of them like the Port of Stockholm are classed as one of the leading green ports in Europe.

It is easy to describe the increasing environmental legislation on the Baltic as a threat in the eyes of the Cruise operators in the Baltic. But, this increasing legislation is required to preserve the Baltic environment as a cruise destination not only the next decade but for generations to come as well.

5. Conclusion

The cruise shipping industry in the Baltic Sea is evolving. The Baltic Sea countries are visited by about 10 per cent of the world’s cruise tourists. So, cruise shipping is of major importance for various ports around the Baltic Sea. It also becomes an important economic development factor in the BSR over the last decades.

Cruise operators expand their offer by providing new capacities and itineraries. In the Baltic Sea, activity is seasonal, cruise ships sail mainly between Easter and October and call mainly at larger cities, like Copenhagen or Riga. Furthermore the German ports of Kiel and Rostock attract an important number of cruise ships, because of their connectivity with larger urban centres. Furthermore, German ports act together with Copenhagen as starting points for cruises. This may be explained by the higher population density in southern parts of the BSR and the existence of relevant target groups for cruises in Western Europe which contribute to the growing majority of cruise passengers in the BSR.

The Baltic Sea continues to be one of the most popular cruise destinations and is responding fast to the challenges posed by a huge increase in cruise traffic. With increased traffic comes an additional pressure on port infrastructure, an issue that is being handled better than average in northern Europe. Ports actually upgrade their infrastructure and put in place adequate facilities to deal with the rise in passengers and forthcoming challenges.

The analysis of the cruise ship tourism in the Baltic Sea shows that, it is an area of great potential providing strong competition for other marine areas in Europe. The Baltic Sea is an emerging area, but there are still only few towns in the region which benefit substantially from cruise shipping industry. Sea cruises as a developing branch in the BSR, brings the tourists benefits which are difficult to assess, but also gives economic and social benefits to the country of origin of a given cruise company and foreign markets.

Cooperating in networks is common within the tourist sector. The regional networks are equally important as the cruise lines see the whole region as a destination, instead of single ports and also to take into account the social and environmental impacts.

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