Study on Blue Growth and Maritime Policy within the EU North Sea Region and the English Channel

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Annex III F - Sector Analysis - Cruise Tourism

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1. Analysis of the cruise sector in Region of the North Sea and the English Channel

The cruise sector in the North Sea and English Channel region is growing fast. CLIA Europe mentions an average annual growth in terms of passengers of cruise industry in Northern Europe (which also includes the Baltic) from 2007-2012 of 15.4%. Separate figures for the North Sea alone are not available, but based on a comparison of passenger numbers in a large sample of major cruise ports in the region, the annual average annual growth from 2006-2012 should be estimated at roughly 14%. The region has long been an important source region of cruise passengers, particularly the UK and Germany. In recent years the region is developing as a cruise destination, with both locals taking cruises in and from the region, as well as passengers originating from outside the region.

1.1 Performance of the sector

The performance of the sector in terms of employment and gross value added (GVA) is indicated in the following table. In case countries have coastlines in multiple regions only the coastline along the North Sea and English Channel is taken into account.

It should be noted that these data in the table is indicative only, as the figures come from various sources and represent different calendar years. Low estimates are generally based on narrow definitions taken from Eurostat (including cruise shipping sector operations but excluding on-shore activities and shipbuilding), high estimates from the European Cruise Council and include wider definitions including these other associated activities.

Table 1 **Indicative figures on GVA and employment in the cruise sector in the North Sea and English Channel**

Country	Regions	GVA € m	Employment 1000 jobs	Source
France	Nord-Pas de Calais	0	0	Conseil National du Tourisme (2010)
United Kingdom	North East, Yorkshire-Humber, East Midlands, East of England, South East England, Scotland	270-2,410	2.75-55.6	Eurostat (2010) (low estimate); European Cruise Council (2010) (high estimate)
Norway	Entire coastline	32-420	0.28-10.9	Menon Business Economics (2010); European Cruise Council (2010) (high estimate)
Sweden	Västsverige (West Sweden)	60	0.12	A study for the Economic and Social Analysis of the Initial Assessment of the Marine Strategy Framework Directive

Country	Regions	GVA € m	Employment 1000 jobs	Source
				2012:2
Denmark	Midtjylland (Central Jutland)	30	0.26	Eurostat (2010)
Germany	North Sea	110	1.53	Eurostat (2010)
	Total Germany including Baltic Sea	1,920	31.4	European Cruise Council (2010) (high estimate)
Netherlands[1]	North Sea	300	4.30	European Cruise Council, 2012
Belgium	North Sea	131	0.83	Eurostat (multiple years)

Source: country fiches

1.2 Value chain

For the value chain of cruise tourism it is necessary to make a distinction between the demand side and the suppliers of products and services necessary for cruise tourism. This supply side of the cruise tourism consists of[2]:

- Shipbuilding and marine equipment;
- Operation of ships – shipping passengers;
- Port services and logistics – operating terminals, port management;
- Other maritime services (bunkering, ship repair, pilotage, etc.);
- Maritime works – constructing ports, maintaining access channels;
- Providers of tours and other touristic and hospitality services.

A major difference between other maritime sectors and the cruise sector is the involvement of tour operators and companies active in the tourism and hospitality sector.

1.3 Environmental and social impacts

The environmental impacts of cruise holidays increasingly receive attention. In general, there are increasing concerns about emissions and waste from cruise ships.

In the North Sea and English Channel in particular, the emissions of SOx are a hot topic. As the entire North Sea and English Channel have been declared an Emission Control Area (ECA), as of 2015 there will be stricter regulations on sulphur contents of maritime fuel than the IMO regulations that are valid outside ECAs. Per 2015, the maximum fuel content within ECAs goes down to 0.1% instead of the current 1%. Waste is increasingly recycled on board cruise ships, but adequate reception facilities in ports are sometimes lacking. These topics are discussed in section 3.4

[1] These figures refer to direct expenditures and include shipbuilding
[2] Based on Ecorys (2011), Blue Growth, Scenarios and drivers for sustainable growth of the oceans and the seas, first interim report

(cruising and the environment). The main conclusion is that most emission and waste issues are not unique to the North Sea region. The exception is the ECA status of the North Sea and English Channel (which also applies to the Baltic), which will have its effects on the cruise market as cruise ships need to comply with stringent SOx emission regulations. These may be positive due to a decrease in average distance between ports (to save on fuel) or negative due to a greater focus of cruise companies on other regions. Given the growth and potential of the market the latter is not very likely.

The discussion on social impacts is mostly limited to the economic spin off of cruising, centering around the question of jobs and value added created in cruise ports. This is discussed in section 3.3 (economic benefits). The main conclusion is that it is important that passengers come ashore and that a well designed range of services and tours catering to various passenger profiles is needed.

1.4 Competitive position of the sector

Compared to more traditional cruise destination markets, the North Sea region is still very small. It is however developing rapidly. The cruise sector already has a strong position in the region as a source market of passengers (mostly the UK and Germany), which means marketing and sales are well established. There is a growing interest in developing cruising in the region, both from cruise companies and ports. This development is aimed both at developing the region as a point of departure for cruises, so that passengers can embark near their domiciles (a good example is the port of Southampton), as well as developing the region as a destination. There is a trend of short-break cruises, which tend to stay within the region. The region has a long maritime tradition and other maritime sectors are well established, which is advantageous for developing a cruise market. The North Sea region as a cruise market is discussed in sections 3.2 (market).

Product innovation and cooperation between ports, stakeholders and cruise companies will be key in further developing the cruise market, aiming at joint marketing of the region and its attractions, developing a cruise terminal infrastructure network and developing a variety of shore excursion offerings.

1.5 Key strengths and weaknesses of the sector in the North Sea and English Channel region

The key strengths of the cruise sector in the North Sea and English Channel region are:

- The market is growing: there is a large group of relatively wealthy citizens that are increasingly discovering cruise as a holiday option;
- The area is an important source market for cruise passengers, who increasingly are interested in embarking near their homes rather than flying to a port of embarkation;
- The area offers a good potential as destination market for cruise companies, as there is still room for growth compared to more traditional cruise destinations as the Caribbean and Mediterranean;
- The countries along the North Sea and English channel are generally perceived as safe and politically stable destinations.

The key weaknesses of the region are:

- The climate is generally perceived as cold and windy by both cruise companies and holiday makers;
- The region lacks a clear identity as a cruise region and is still mostly considered as a connection between other cruise regions.

2. Analyse the sector's potential to achieve Blue Growth during 2014-2020

The cruise sector in the North Sea and English Channel offers opportunities for further growth, and for further added value. The cruise sector is expanding in the region, both as a source market and as a destination market. Cruising is rapidly becoming a well established holiday option, for shorter breaks as well as longer holidays, aiming at mass markets as well as more exclusive markets.

The added value of the cruise sector will be seen in ports, where cruise terminals attracting a certain traffic of cruise ships will generate added value. However this added value will be limited as the investments in terminal infrastructure are usually fairly large. Most of the added value may therefore be expected in the tourism sector: companies catering to the cruise visitors, for instance tour operators, transport companies, hospitality sector (bars, restaurants, hotels), outdoor activity centers, museums, etc. Another element of added value to the tourism sector may be in repeat visitors: people that have visited a city or region as a cruise tourist and that return for a longer holiday at a later stage.

As will be argued in the next chapter, it is most important that cruise passengers will go ashore during a cruise ship call in a port. It does not matter so much what type of activity they undertake, whether it is an organised tour or a self-organised exploration. As long as passengers go ashore and undertake activities there is a potential for the creation of local added value. The most successful ports and regions will be those that bring together stakeholders from the port and tourism sector to jointly present and market themselves to the cruise industry, and that jointly offer an onshore programme of tours and activities. Most cruise ports/terminals seem to understand this and have joint forces with local tourism boards. There are many examples in the UK, such as Dover with Visit Kent, Edinburgh with Visit Scotland and Edinburgh Inspiring Capital, the Norwegian cruise ports with Visit Norway, etc. Many cruise terminals offer suggestions for tours on their site[3].

Another important aspect in this development will be joint efforts by ports. A cruise port cannot be sold to the cruise industry by itself, it needs to be part of an attractive itinerary with ports located not too far apart, which the cruise industry can sell to its partners. Ports that are able to cooperate and suggest such itineraries, either with a mix of port with different characters or developed around a theme, will be more successful in attracting cruise traffic.

Finally, the North Sea region as a whole needs to be marketed, as it lacks a clear identity (as the Mediterranean and Caribbean have). This is well understood, and is for instance tackled in the INTERREG IVB project Cruise Gateway North Sea (see box 2 in chapter 3).
The cruise sector will thus contribute to the growth of the tourism sector in the North Sea and English Channel region, and to a lesser extent to the port sector too. Opportunities are in cross-border cooperation will help to put the region on the map as a cruise destination and in cooperation between cruise terminals and stakeholders from the tourism sector will help developing cruise ports as attractive destinations. The fact that fuel price economy will be an increasingly important factor to the cruise industry may well be advantageous to the region, as cruises will center around smaller regions with shorter distances between ports.

[3] See for instance: http://www.cruiseedinburgh.com/attractions-and-excursions.asp

Threats are formed by the lack of a clear identity (thought projects are organised to improve this), and in the image of the region as having a windy and rainy climate. Whereas the climate cannot be changed, the image might be changed through keen marketing, and the creation of ‘weather-proof’ activities.

3. Growth drivers and barriers to growth for the selected sector

This section describes the potential of the sector, how it may grow and what issues are important in the next few years.

3.1 Key drivers and barriers

Table 2 Drivers and barriers to growth

	Driver	Best practice example	Barriers for Growth: Barrier	Barriers for Growth: Best practice
Development and innovation			Cruise terminals need to see cruise industry more as clients ECA preparation (availability of low sulphur fuels, limited preparedness amongst cruise liners)	Two cruise lines are testing scrubbers (Royal Caribbean and HAL)
Maritime clusters	Cooperation to promote the region and its ports as cruise destinations	Cruise Gateway North Sea, Cruise Europe		
Integrated local development	Cooperation between terminals and tourism stakeholders	Dover & Visit Kent Edinburgh & Visit Scotland		
Public engagement	Minimising environmental effects: cleaner fuel, onshore power supply, waste reception facitlities	Gothenburg (onshore power since 2000)		

3.2 Market development

The cruise market is growing fast in the North Sea and English Channel region. This development is fairly recent, see table, which shows the development of cruise ports with more than 50 thousand passengers in 2012. All cruise ports in the table have grown considerably in the years 2006-2012 and most of them have realised most of this growth in the period 2009-2012.

Table 3 **Number of cruise passengers per major cruise port (x 1000)**

Country*	Port	2006	2009	2012	Source
Norway	Honnigsvåg (Nordkapp)	75	95	121	www.cruise-norway.no
	Tromsø	56	78	107	www.cruise-norway.no
	Leknes (Lofoten)	35	52	61	www.cruise-norway.no
	Trondheim	31	52	69	www.cruise-norway.no
	Ålesund	42	66	143	www.cruise-norway.no
	Geiranger	140	218	312	www.cruise-norway.no
	Olden (Nordfjord)	53	75	108	www.cruise-norway.no
	Flåm	115	143	200	www.cruise-norway.no
	Bergen	218	283	447	www.cruise-norway.no
	Eidfjord	43	33	67	www.cruise-norway.no
	Stavanger	62	147	277	www.cruise-norway.no
	Kristiansand	38	24	65	www.cruise-norway.no
	Oslo	206	270	300	www.cruise-norway.no
Sweden	Göteborg	12	36	83	2006: estimated from graph at www.portofgothenburg.com, 2009, 2012: www.cruiseeurope.com
Germany	Hamburg	63	127	400	www.hamburgcruisecenter.eu
Netherlands	IJmuiden	-	5	66	www.cruiseeurope.com
	Amsterdam	135	182	290	2006: www.portofamsterdam.nl, 2009, 2012: www.cruiseeurope.com
	Rotterdam	-	50	65	2006: terminal not existing, 2009: www.cruiseeurope.com, 2012: estimate based on number of calls
Belgium	Zeebrugge	120	155	333	Estimated from graph at www.portofzeebrugge.be
UK	Southampton	700	1000	1500	2006, 2009: estimated from graph in report**, 2012: Port of Southampton profile 2013/2014
	Dover	unknown	259	265-280	2009: www cruiseeurope.com, 2012: estimated from number of calls

Country*	Port	2006	2009	2012	Source
	Harwich	unknown	135	85	www cruiseeurope.com
	Edinburgh	unknown	58	80	www cruiseeurope.com
	Invergordon	unknown	49	77	www cruiseeurope.com

* The West coast of Denmark and the coast of Nord-Pas de Calais in France do not have cruise ports of over 50,000 passengers

** Southampton City Council (2011) *Cruise industry enquiry*

The table shows that Norway is the more established cruise destination in the North Sea and English Channel region. Besides the ports in the table, there are about 20 other ports which received less than 50,000 passengers in 2012. In Norway, the growth is remarkable just as in the rest of the North Sea area: from 1.1 million passengers in 2006 to 2.5 million passengers in 2012.

The rest of the North Sea area only has a few established cruise ports, and a number of upcoming ports. This shows that, besides Norway, the sea-basin is still developing as a cruise destination region. The established ports are for a large part depending on embarking passengers: Southampton, Hamburg and to a lesser extent Amsterdam, which are mostly turn ports. Only the port of Zeebrugge mostly has visiting rather than departing/arriving passengers: nearly exclusively a port of call[4]. This position is due to the fact that Zeebrugge serves as an access point to Brugge, a city of which the complete centre is listed as a UNESCO world heritage site. As such, Zeebrugge is a so-called marquee port, a port with (access to) a must-see attraction.

The region as a passenger source market

The North Sea and English Channel region has been an important source market of cruise passengers for some time. Particularly in the UK and Germany cruising is quite established as a holiday option, and its market share is still growing. More recently, the share of cruise in the holiday market is increasing in other countries too. This is partly related to demographics: the traditional target group of cruise holidays, people in the age of 55+, is growing and is increasingly able to afford cruise holidays, as they have become more affluent and as cruise holidays have become more affordable compared to their 'for the happy few only' image a couple of decades ago. Another part of the growth comes from the cruise industry's successful expansion into other (often younger) target groups, amongst which families.

There is a trend of passengers embarking on cruise holidays near home, as opposed to flying to a cruise port and embarking there. This is the so-called drive and cruise concept, as opposed to fly and cruise. Currently, a good share of the growth of the North Sea as a cruise region is related to the growth of its turn ports, those ports where cruises start and end. A good example of this development is the port of Southampton, which successfully developed itself as a cruise turn port with the slogan "capital of cruise". Passenger numbers in 2012 were around 1.5 million, up from some 0.5 million in 2004[5]. These passengers are nearly exclusively embarking or disembarking passengers. Southampton has developed long term parking facilities with coach connections to its cruise terminals, similar to facilities seen at airports. Cruise embarkation and disembarkation statistics of UK cruise ports underline the trend of "starting closer to home": in 2004 316 thousand UK nationals embarked on a cruise in a UK port. In 2012, this figure was 807 thousand. By

[4] The typology of cruise ports (turn ports and ports of call) is based on: Rodrigue (2013), The Geography of Transport Systems
[5] Port of Southampton (2013), Port of Southampton 2013/2014

comparison: in the same period the number of embarkations of non UK nationals through UK ports grew from 112 thousand to 155 thousand[6].

Another example is the port of Hamburg, where 88% of the 315 thousand passengers in 2011 were turn port passengers[7]. Many cruises from Hamburg have Norway or the Baltic as a destination.

On a smaller scale, the ports of Rotterdam, Amsterdam and IJmuiden are developing as turn ports. Amsterdam and IJmuiden attract a fair amount of port of call traffic too (respectively 40% and 60%), but the cruise traffic in the port of Rotterdam almost exclusively consists of turn port calls.

This trend in embarkations near home is one of the major drivers of the growth of the cruise sector in the North Sea and English Channel region.

The region as a destination market

The development of the region as a destination market is more recent. There are several drivers of this development, each discussed below.

1. Search for additional capacity. The cruise industry is expanding worldwide, adding new cruise ship capacity every year. It is very much a push industry: available capacity needs to be employed. The two traditional cruise regions, the Caribbean and the Mediterranean, are increasingly scratching the limits of port capacity, in terms of ship berthing capacity and ability to absorb large numbers of passengers. This is particularly seen in the marquee ports, which are those ports with must-see attractions. Well known examples of such busy cruise ports are Civitavecchia (access port to Rome), Barcelona and Venice. One reaction of the industry is to develop itineraries with so-called discovery ports: less well known ports, with more limited cruise facilities and not near touristic hotspots. Itineraries now often provide a combination of marquee and discovery ports[8].

   Another reaction of the cruise industry is to seek new destination regions. In Europe, the Baltic Sea and the North Sea regions are good examples. Cruise traffic in these regions is growing faster than the Mediterranean nowadays. Whereas the number of passengers in the Mediterranean grew with an annual average of 7.6% in the period 2007-2012, Northern Europe (Baltic and North Sea) grew with on average 15.4% per year in the same period[9]. Again, in the northerly regions itineraries usually are a mix of marquee and discovery ports. Examples of marquee ports in the North Sea region are Amsterdam and Zeebrugge (access to Brugge). Examples of discovery ports are Harwich and Edinburgh (see also box 1). It should be noted however that the North Sea as a cruise destination is still in its infancy. A far larger share of the growth of cruise traffic in the North Sea region is related to the increase in embarkations, see previous section.

Box 1 Cruise port Harlingen[10]

The double digit growth of the cruise market has triggered port cities not yet attracting cruise ships to explore this market. The municipality of Harlingen, located in the Dutch province of Fryslân is one of them.

Harlingen is a relatively small town with about 15.000 inhabitants. Its monumental harbor and city centre are located near the Wadden Sea, a UNESCO World Heritage Site. The city has explored its attractiveness by

[6] Cruise Britain (2013), Cruise port statistics
[7] Hamburg Cruise Center at www.hamburgcruisecenter.eu
[8] The typology of cruise ports (marquee ports and discovery ports) is based on: Rodrigue (2013), The Geography of Transport Systems
[9] CLIA-Europe (2013), Statistics and markets 2012
[10] Based on www.cruiseportharlingen.com and Ecorys (2013) Economic implications cruiseport Harlingen (in Dutch)

interviewing a number of cruise operators, who indicated that Harlingen could be an attractive cruise port due to its attractive look and feel and the cultural and recreational offer of the city and the surrounding region. The city already has a well-developed tourism sector and considers itself able to serve cruise visitors as well. Training courses to serve particular cruise visitor groups were prepared to further enhance skills within the city's tourism sector. Developing cruise tourism also provide additional turnover for retailers in the town and create employment. Estimates of this however indicate that direct revenues accruing to the city and region will remain fairly limited.

As a follow-up step, the municipal government has launched the "Cruise Port Harlingen" initiative, in which it a/o developed possible packages to offer to cruise operators and cruise visitors. One of the key factors for cruise operators is the ability to provide shore excursions. Excursions proposed include visits to museums in the city itself, the Wadden Sea, other famous museums in the province of Fryslân, the Afsluitdijk which is part of the Dutch conquering the water, or trips to more traditional locations like Amsterdam or the Keukenhof. Information is made publicly available through www.cruiseportharlingen.com.

Before being able to receive cruise ships however, a number of hurdles need to be taken. They include investments in the port to create a suitable, tide-independent and ISPS worthy cruise terminal which would cost several millions of investment, as well as revision of the access regime for the Wadden Sea entrance channel to the port, now limited to a length of 160m, which implies cruise ships of around 300 passengers and 200 crew.

Harlingen has sought partnership with other potential cruise ports in the North Sea basin, including Oostende in Belgium. It is understood that while first-time cruise passengers may opt for marquee ports such as Amsterdam or Hamburg (or even for Mediterranean sites like Rome or Barcelona), return travelers may want alternative, so-called discovery ports, a model in which Harlingen would fit well. The port would need to become part of a network of this type of ports and would need to offer a complete range of tours catering to different passenger profile needs.

For the short term, a number of 10-20 cruise ships per season is aimed for. The first cruise ships are already announced for the 2014 season.

2. Increase variation of cruise offering. In order to keep offering new experiences to the more experienced cruise guests, the cruise industry is including new ports and new regions. Many cruise companies have a high ratio of return passengers, even ships have a fair share of return visitors. Understandably, these people will not want to do the same itineraries, but will want to explore new ports and regions. The search for new destinations is another reason why the North Sea is starting to develop as a cruise region. This effect is also the reason why many ships tend to rotate between regions or itineraries season to season.

   Yet, it should be noted that there are large differences in the region. The Norwegian coast is quite established as a cruise destination, offering a combination of interesting cities such as Oslo and Bergen and of natural beauty in its fjords. The Norwegian ports together attracted 2.53 million passengers in 2012, divided over 2063 calls. In 2006, there were only 1.14 million passengers and 1504 calls. Apart from a strong growth in passengers, these statistics also demonstrate the increase of the average ship size: from 757 passengers per call in 2005 to

1224 passengers per call in 2012. Norwegian Cruise ports are very different in size: from 447 thousand passengers in Bergen and 300 thousand in Oslo (both figures 2012) to small ports with only a few thousand passengers[11].

The coastlines of Belgium, the Netherlands and the German North Sea are less developed as a cruise destination. There are a few larger ports:

- Zeebrugge: 333 thousand passengers in 91 calls (2012). Zeebrugge is the gateway for visits to Brugge. The port attracts mostly port of call traffic;
- Amsterdam: 290 thousand passengers in 144 calls (2012). The share of port of call visitors is between 35% and 40% in the last years. Amsterdam should be considered jointly with the port of IJmuiden, which recently is becoming a cruise gateway for Amsterdam. For this reason, the cruise terminals of Amsterdam and IJmuiden have decided to join forces in their marketing efforts as from October 1st 2013[12]. IJmuiden served 66 thousand passengers in 43 calls (2012) of which 60% port of call passengers;
- Hamburg: 314 thousand passengers in 118 calls (2011). Of these passengers, 88% are turn port passengers.

In the UK, Southampton is by far the largest port in the North Sea and English Channel region. As indicated it serves almost exclusively turn port traffic. Another notable cruise port is Dover (307 thousand passengers and 167 calls in 2010). Other ports, such as Tilbury, Harwich, Edinburg, Aberdeen and Lerwick are all beneath 100,000 passengers.

The coastline of Nord-Pas de Calais in France and the Danish West Coast do not have any notable cruise ports. On the Swedish West coast, Gothenburg is a rapidly developing discovery port.

3. Trend in short cruises[13][14]. Whereas the basic cruise holiday on a ship with a fixed homeport is in multiples of 7 days, there is an ongoing trend of shorter cruises, particularly from the UK. These are cruises of 2 to 4 days, often with themes. The cruise industry also sees these short trips as tasters for first time cruisers, hoping these will book longer cruises later on. In fact this trend combines the North Sea region as a source and destination market, as these short cruises are aiming at cruisers from the region and have the region as destination.

A positive characteristic of the North Sea and English Channel region is that the area is generally considered safe and politically stable. Even though cruise companies where quite flexible in their reaction to the Arab Spring events, which temporarily or on a more prolonged timeframe blocked out several key destinations in the Mediterranean, there is still a strong preference for predictability. The ports and countries in the North Sea region offer this predictability and stability. A negative characteristic of the North Sea and English Channel is that the climate is generally perceived as cold and windy. Another negative aspect is that the region lacks a clear identity, such as the Mediterranean and Caribbean have[15]. This could be changed by joint marketing efforts.

Future development of the region as a destination market

It is clear that cruise traffic in the region is on the increase. Yet a large share of this traffic is generated by turn port traffic, of cruises starting in the North Sea Region but going elsewhere. The

[11] Statistics taken from Cruise Norway at www.cruise-norway.no
[12] Cruise Europe (2013), *Amsterdam and IJmuiden: Cruise Terminals Amsterdam*
[13] Cruise Critic (2013) – Cruise trends 2013: UK lines embrace short-break cruises, on www.cruisecritic.co.uk
[14] Travelweekly (2009) – Cruise: cash in on trend for short break voyages, on www.travelweekly.co.uk
[15] Cruise Gateway North Sea (2012), Decision criteria for cruise port selection in the North Sea Region

exception are cruises starting in North Sea and English Channel ports such as Southampton, Amsterdam and Hamburg going to Norway, and the short-break cruises which usually stay within the region. Besides these itineraries, there are not many cruises with the North Sea and English Channel region as a destination. In some cases, a port in the region is only called at to bridge the distance between two other ports outside the region.

This may be expected to change however. Cruise ports have become quite active in marketing themselves and increasingly understand the needs of cruise companies and their passengers. Three elements are important for the development of the region as a cruise destination:

1. First and foremost the terminal facilities and services are important. A clean and safe terminal with good inland connections (to local attractions and/or major transport hubs) and guaranteed berthing are important to cruise companies. Cruise terminals that have learned to treat cruise companies as clients are among the most successful cruise terminals. This is particularly important for turn ports, as the process of getting to the terminal and boarding the ship strongly influences a passenger's satisfaction with both the cruise company and the port.;
2. To cruise companies, shore excursions are very important as they generate most of the profit nowadays. The reason why cruise liners call at the city of Zeebrugge, not particularly known for its touristic charm, is that they can sell excursions to Brugge or Gent. Cruise terminals therefore should cooperate with local or regional tourism promotion boards, and with tour operators. A good example is the partnership between the cruise terminal of Dover and Visit Kent, which was awarded the Cruise Insight award for Best Destination Experience (Organised Tours) in 2011[16][17]. However there are more examples, most UK cruise ports have a cooperation with local or regional tourism promotion boards;
3. A single cruise destination is not very interesting to cruise companies. It is much more interesting if they can build itineraries of ports located not too far apart. These itineraries can be a combination of marquee and discovery ports aimed at first time cruisers, or can center around a specific theme such as Hanseatic cities more geared towards repeat cruisers. Rather than simply competing with each other, cruise ports therefore need to join forces in their approach to cruise companies. This effect becomes increasingly important as fuel costs are rising and cruise companies seek to economies on their fuel bills by reducing the distances between ports.

The second and third element mentioned above require a form of cooperation, between the cruise port, other stakeholders at the destination and/or the cruise companies. Forming partnerships to develop cruise destinations will be important to develop cruise tourism in the North Sea region. Not surprisingly, this is also one of the key recommendations of the Best Practices Guide of the INTERREG IVB Project: Cruise Gateway North Sea[18] (see box 2).

Box 2 Cruise Gateway North Sea[19]

Europe's cruise tourism sector has recorded high growth rates in recent years – but the focus has been very much on the Baltic and Mediterranean Seas, while the North Sea Region is still looking for recognition as a major cruise destination in its own right. There are real issues to be tackled in the NSR, where there is a shortage of homeports, multimodal links are lacking, regional economic effects are underdeveloped and cruise 'circles' are missing.

On the plus side, climate change may well be helping to increase the attractiveness of the NSR as a holiday destination, and cruise operators are looking for new ports of call in the region. The Cruise Gateway North Sea

[16] Port of Dover (2013), Annual report and accounts 2012
[17] Cruise Europe (2012), Dover Cruise Port and Visit Kent Win joint award in the USA
[18] Cruise Gateway North Sea (2013), Sustainable cruise tourism in the North Sea region, a best practices guide.
[19] Based on www.cruisegateway.eu and Cruise Gateway North Sea (undated), Project flyer

project, has been set up to consider ways of encouraging and promoting much more cruise activity in the NSR.

The project partners will look at a broad range of topics linked to cruise and cruise potential, including joint lobbying and marketing, the creation of a regional maritime identity and innovative ideas for passenger excursions. The common thread through all of this will be sustainability – including the promotion of environmental awareness and eco-friendly transport structures, and avoiding congestion.

Cruise Gateway North Sea is working to develop and promote the cruise industry in the North Sea Region. It is a three-year project with 14 cruise-related partners from six countries, co-financed by the EU-Interreg IVB North Sea Region Programme. Lead by a cooperation of Hamburg Port Marketing and Hamburg Cruise Center, the project has partners from all North Sea region countries.

The project's main objectives are to:

- Encourage sustainable growth of cruise shipping in the NSR – always considering environmental issues;
- Emphasise the unique attractions offered by the NSR as a cruise destination;
- Build up a marketing strategy and create a 'Cruise Destination North Sea' identity;
- Establish an integrated approach among all stakeholders, promoting reliable, high-quality services across all NSR cruise ports and ensuring accessibility;
- Exchange knowledge and experience between partners through a programme of conferences, workshops, surveys and studies.

The partners are:

- Port of Hamburg Marketing (lead)
- Hamburg Cruise Center (joint lead)
- Port of Kiel (Germany)
- Columbus Cruise Center Bremerhaven (Germany)
- Bremen Senate Department for Economy and Ports (Germany)
- Cruise Destination Hardangerfjord (Norway)
- City of Gothenburg (Sweden)
- Copenhagen Malmö Port AB (Denmark / Sweden)
- Port of Esbjerg (Denmark)
- City of Antwerp / Tourism (Belgium)
- Port of Oostende (Belgium)
- Cruise Port Rotterdam (The Netherlands)
- Haven Gateway Partnership (UK)
- Aberdeenshire Council (UK)
- Shipbuilders and Shiprepairers Association (UK)

3.3 Economic benefits of cruising

Cruise shore excursions bring up an important topic: the economic benefits of cruising, or rather, who benefits the most? In whose pockets do passenger expenditures end up, those of the cruise companies, in the form of profits on shore excursions, or those of local tour operators and SMEs active in the tourist industry? The answer is not univocal. The latest report on the contribution of cruise tourism to the economies of Europe mentions that an average port of call passenger spends 62 Euro per port call and the average turn port passenger € 77 Euro (excluding air fares). Additionally, crew members spend on average 21 euro per port[20]. However, these figures may be on the positive side. They have not been corrected for 'leaking', in order words it is not clear how

[20] CLIA Europe (2013), The Cruise Industry: contribution of the cruise tourism to the economies of Europe 2013

much actually accrues to the local economy and how 'leaks away' to foreign investors[21]. In the example of the shore excursion, the margin of the cruise company does not accrue to the local economy, but the turnover and margin of the tour operator carrying out the excursion do, as well as other expenditures to food, drinks and souvenirs made during the excursion.

A much debated issue is the statement that sales of shore excursions by cruise companies do not leave much room for benefits to the local economy, but is this really true? The spending pattern of a passenger will depend on his profile. Assume two extremes: a passenger looking for comfort and safety and a passenger looking for a more personal experience. The first passenger is likely to book a shore excursion and will hop on a bus at the cruise terminal to be taken to a place of touristic interest. The latter will prefer to go into town or make his way to a tourist attraction by himself. It is apparent that the passenger on the excursion partly fills the pockets of the cruise company, whereas the latter will not. However, the passenger on the excursion may be much more inclined to buy souvenirs, jewellery or other gifts in the shops he encounters on his tour, whereas the passenger making his own exploration might only have a sandwich in a local cafeteria.

It is clear that cruise tourism is contributing to local economies. Maybe less so than claimed by the reports that are commissioned by the cruise industry, but the contribution is significant. Well developed shore excursions are just as important as options to individually explore a destination, such as connections by public transport or hop on-hop off buses. As long as passengers will go ashore to spend some time, be it on an organised excursion or exploring by themselves, the local economy will be able to benefit. The more successful ports will be those that have been able to organise effective partnerships with other stakeholders from the tourism sector.

A development that may help increase the contribution to the local economies is the introduction of cruises with late departures, aimed at passengers that want to enjoy their evenings in the cities they visit. The ship leaves by the end of the evening rather than end of the afternoon, allowing for time to have dinner in the city or to visit a theatre. Similarly there are cruises with overnight stays, allowing multiple day visits to a city[22]. Whether the passenger actually dines in the city or on board will depend on whether he has book an all inclusive package or not, which, in turn, depends on his profile.

3.4 Cruising and the environment

Just as in other tourism sectors, there are increasing concerns about the environmental effects of cruise tourism. These are mostly targeted at cruise ship emissions and on the waste they generate. The issue of emissions is not very different from the rest of the maritime transport sector. SOx emissions, but also CO_2, NO_x and PM are a cause of concern. The declaration of the North Sea and English Channel into an Emission Control Areas (ECA)[23], will certainly influence the cruise industry sector. As regards emissions the cruise industry is different to some extent; contrary to many cargo ships cruise ships spend their entire journey or large parts of it in emission control zones and cruise ships often berth in or near city centers, areas with dense population. For this reason, the emissions of cruise ships while manoeuvring in and out of the port and while berthed receive more attention than those of ships calling at port areas at more remote locations.

[21] Christy Loper (2005), Overview of the socioeconomic impacts of cruise tourism
[22] Chris Owen (2012), Overnight stays in port a popular cruise option
[23] www.imo.org, Special areas under MARPOL Annex VI

In terms of waste, a cruise ship partly generates the same waste as other ships do (such as bilge water and sludge). Again there is a difference: cruise ships generate much more waste (garbage, special waste) and sewage water (gray water, black water)[24].

Emissions in ports

Solutions to reducing (cruise) ship emissions in ports are receiving increased attention. Some cruise ports are investing in shore based power (also known as cold ironing), so that while berthed the ships auxiliary engines can be shut off. Other ports require or promote the use of cleaner fuels, such as marine diesel, which has lower sulphur content than heavy fuel oil. Critics of cold ironing claim that 80% of a ship's emissions are caused when manoeuvring to and from the berth and only 20% whilst the ship is at berth. Cold-ironing facilities require considerable investments in onshore infrastructure. Yet, as many cruise terminals are in a city center, there are many ports offering or developing onshore power. Examples are Gothenburg (since 2000) and Hamburg (from 2014 onwards). In Dutch ports, onshore power is available for river cruise ships, but not for seagoing cruise ships[25]. The in port manoeuvres can be cleaner if done with the help of clean technology powered tugs[26], however most cruise ships are equipped to manoeuver to and from berth without the help of tugs, thus saving costs and time. Using cleaner fuel or cleaning the exhaust gases seems the only option to reduce emissions during port manoeuvring. See also next section.

The issue of cruise exhaust gas emissions in ports is not unique for the North Sea and English Channel area; this is an issue elsewhere too.

Emissions at sea

The emissions at sea are a hot topic in the North Sea and may well change cruise tourism in the region. As the North Sea and English Channel have been declared an Emission Control Area (ECA) for SOx, ships sailing in this region are subject to more stringent emission rules than are valid outside ECAs. The emission rules are also tightened according to a more progressive schedule than outside ECAs. As per January 1st 2015, ships operating within an ECA need to reduce SOx emissions to 0.1%[27]. In practice this means either using fuel with a maximum of 0.1% sulphur content or applying technologies to clean exhaust gases (so called scrubbing). Marine diesel with 0.1% sulphur content is a refinery product, contrary to heavy fuel oil. The costs of marine diesel are therefore significantly higher. For example, on October 25th 2013, Bunkerworld quotes a price of 599 USD/ton for intermediate fuel oil with 1% sulphur content (IMF LS380) in Rotterdam, whereas Low Sulphur Marine Gas Oil (LSMGO) cost 884 USD/ton[28]. A study on the consequences of low suplhur fuel requirements mentions a long term price increase when going from 1.5% LS380 grade to 0.1% MGO grade fuel of 70 to 90%[29].

Apart from the price there are concerns about availability. As LSMGO is a refinery product, there has to be enough refining capacity to provide this fuel. Supporters and opponents are still debating whether low sulphur marine fuel will be sufficiently available by 2015. There are particular concerns for regional availability in high demand areas: the ECAs. It is expected that these will be limited to the initial period after 2015 and will gradually be solved[30].

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[24] CLIA (2013), The need for world class port reception facilities
[25] Cruise Gateway North Sea (undated), Incorporating sustainability in the branding strategy for cruising in the NSR
[26] TEFLES project (2013), Introduction to emission reductions of ship operations in ports, presentation at Workshop 2, July 2011.
[27] www.imo.org, Sulphur oxides (SOx) – Regulation 14
[28] www.bunkerworld.com,
[29] ITMMA (2010), Analysis of the consequences of low sulphur fuel requirements
[30] European Commission, FAQs on low sulphur fuel requirements

Other options to comply with the emission regulations are using alternative fuels, such as LNG, or fitting the ship with exhaust gas scrubbers that clean the emission gases of sulphur. LNG is being explored by some cruise ports (such as Stockholm[31]), but it would only be a valid solution in case a good distribution infrastructure can be in place, encompassing several ports. LNG is generally considered as a solution for newbuild vessels only, though retrofitting is only about 30% more expensive than installing scrubbers[32]. Some cruise companies, such as Royal Caribbean Cruises and Holland America Lines, are testing the use of scrubbers but are not yet near commercial application[33].

The North Sea is not yet a NECA (NOx Emission Control Area) but may become so in the future. This would mean ships in the North Sea would have to comply with the NOx emission Tier III standard, which means a maximum of 1.96 g/KWh at engine speed of 2000 RPM. By comparison, the Tier II standard currently valid in the North Sea region allows for 7.7 g/KWh at 2000 RPM[34].

The main question for the North Sea and English Channel is: what will be the effect of the SOx emission regulations per 2015 (and potentially of NOx emission restrictions) on cruise tourism in the region? It is clear that the cruise companies will be faced with an additional cost factor, either by having to use more expensive fuel or by retrofitting LNG tanks or scrubbers. These costs may be offset by reducing the average distance between ports and/or slower steaming. This trend is already visible in reaction to increases in heavy fuel oil prices, and could well be intensified once the more stringent emission regulations become valid. This may offer a chance to the North Sea, as it is a relatively small region with ports close to one another.

The costs of compliance may be (partly) transferred to cruise passengers, depending on the market. It is not clear at this stage whether this will be a regional effect only, or whether cruise companies will raise prices overall.

It is not very likely that cruise ships will be taken out of the region and moved to other regions. A Danish study of the costs of introducing a NECA in the North Sea concluded that it is very unlikely that maritime routes will change[35]. Even though the cruise sector is different from other maritime sectors, a major shift of ships away from the North Sea is not expected. One reason is that the two major alternative markets may well become ECAs or NECAs too. The US Caribbean Sea will become a NECA by 2014, affecting at least the large turn ports in Florida. The Mediterranean Sea may well become an ECA or NECA in the future too; though it is likely that it will take some years before compliance in this heavily trafficked area is possible[36]. Another reason is that the market is growing and still has ample potential of further growth. A third reason is that cruise companies will want to have ships that are as flexible as possible and that can be employed anywhere in the world. This means they will probably make sure all ships are compliant or can be made compliant (such as using heavy fuel oil where allowed and low sulphur fuel where required).

The North Sea and English Channel ECA will have an effect on the cruise industry in the region, but it is not unique in Europe: the Baltic Sea is an ECA too. It is not yet clear what the effect will be; there will be positive side effects and negative side effects for the North Sea region.

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[31] Cruise Europe (2013), Stockholm supplies LNG and shore power to ferries, next stop cruise
[32] www.greenship.org (2012), Vessel emission study: comparison of various abatement technologies to meet emission levels for ECAs
[33] Travelweekly (2012), Low-sulfur fuel shortages a challenge for cruise lines
[34] www.dieselnet.com, IMO NOx emission standards
[35] Danish Ministry of the Environment, Environmental Protection Agency (2012), Economic Impact Assessment of a NOx Emission Control Area in the North Sea
[36] Gossett, Tim (2012), North American ECA Will Change Shipping Forever, on America Nautical Services

Waste reception facilities

Waste reception facilities in ports are needed for black water (water from toilets, medical facility wash, basins and drains), bilge water and sludge, most garbage (except food waste, which can be grinded and discharged to sea), and special waste (chemicals, light bulbs, batteries, paints/thinners, etc). There are some particular issues for cruise liners[37]:

- Some wastes can only be discharged at open sea (grey water, treated black water, treated bilge water, food waste), and not when the ship is on a near shore route. Holding tanks on ships are not always sufficient if a ship operates a large part of its journey near shore;
- Turnaround time is important. A ship typically spends 8 or 9 hours in a port, which, allowing for mobilisation of waste reception facilities, gives 6 to 7 hours time to discharge waste;
- Large ships of up to 6000 passengers (and around 2000 crew) lead to peak demand for waste facilities. CLIA experts mention that waste water discharge should have a capacity of 200 to 300 m^3 per hour;
- During waste discharge operations there are passengers on board, who should notice as little as possible from these operations.

Facilities in ports are not always adequate, and port waste plans are not always up to date or do not sufficiently take the particularities of cruise ships into account. However the waste reception issue is not particular for the North Sea, it is valid in all ports. There are no indications that the issue is more prominent, or less prominent, in the North Sea region than elsewhere.

Table 4 **Key impacts of the expected trends on the sector**

Type	Key questions	Extent of impact
Economic		
Competitiveness	The cruise sector is increasingly carving out market share in the tourism industry, but competition with other sectors is still limited. It may also help boosting the tourism industry (in the form of return visitors).	Limited
Operating costs and conduct of business/Small and Medium Enterprises	The North Sea as ECA imposes additional costs on the cruise sector, either as cost of low sulphur fuel or in the form of abatement technologies. This will affect the sector, probably it will result in changes in itineraries, shorter sailing distances between ports, slow steaming. The cruise sector is not expected to leave the region.	Medium
Administrative burdens	No specific trends	No effect
Innovation and research	Innovation is limited. The ECA regulations may lead to some innovations in the form of abatement technologies, or in some case alternative fuel (LNG). This is not on a large scale, however.	Limited to medium
Social		

[37] Cruise Lines International Association (2013), The need for world class port reception facilities, presentation at Sustainable Ocean Summit, Washington DC April 2013

Type	Key questions	Extent of impact
Employment and labour markets	Growth of the cruise sector will create additional jobs in ports and terminals, but mostly in the tourism sector. The number of jobs is not very high (in the thousands), however.	Limited
Social inclusion		No effect.
Access to educational systems		No effect
Environmental		
Impact on climate	The cruise sector emits greenhouse gases and generates waste. Partly forced by the IMO regulations, partly forced by the particular ECA regulations and partly forced by the public opinion, the cruise industry and cruise terminals are working on improvements. This process is relatively slow. The cruise industry mostly follows regulations but is not the instigator or innovator.	Medium
Transport and usage of energy	The cruise sector will have to use cleaner fuel in the North Sea from 1 January 2015 (ECA regulations). This will somewhat affect the energy mix, but no major shift to alternative fuels is foreseen.	Limited
Impacts on biodiversity	The impact of the cruise sector on biodiversity is more limited than the impact of the maritime transport sector, as ships stay longer within one region and thus contribute less to the migration of non-native species.	Limited
Impacts on water quality and resources	The cruise sector impacts water quality at see through wastewater discharges, through increasingly wastewater is treated and/or received on land.	Limited to medium extent.
Likelihood and scale of environmental risks	The environmental risks are limited. Environmental disasters are not likely (for instance the capsizing of the Costa Concordia did not create a major environmental disaster).	Limited

Uncertainties

It is still uncertain what the effect of the SOx emission regulations in the North Sea ECA (per 2015) will be. It is unclear whether low sulphur fuel will be sufficiently available in the region. Some cruise companies are testing abatement technologies (scrubbers), but it is not clear if these will be applied on a large scale. It is therefore not clear whether the cruise industry will be able to fully comply by 2015.

Most probably, the increasing costs of either using low sulphur fuel or of fitting scrubbers will not be transferred to passengers, due to the competitiveness of the market. It is likely that there will be an effect on itineraries and distances between ports: we will probably see shorter distances between ports so that fuel can be saved, and itineraries concentrating on smaller regions as before. This might be an advantage for the North Sea region.

Synergies

There are synergies between the development of cruise destinations and other tourism sectors: they can profit of the same touristic developments (tours, attractions). Moreover cruise tourism can stimulate local tourism in the form of return visitors; people having visited a place on a cruise and returning on a longer holiday at a later stage. This is not unique for the North Sea region.

Tensions

There are some tensions in the field of environmental impacts (greenhouse gas emissions and waste generation), but these are not unique for the North Sea region, nor for the cruise sector. The SOx emissions will become an important issue from 2015 onwards, when the 0.1% sulphur emission regulation will become valid. It is not clear if the cruise industry will be able to comply by 2015. On the other hand, they will not want to loose an attractive and growing market.

4. Overview of growth scenarios for the sector at Sea-basin level

4.1 Description of the nature of the economic activity and value chain

The cruise sector has shown rapid growth worldwide in the last two decades. More recently, the cruise sector in the North Sea has started growing rapidly. It is now growing faster than the sector worldwide, but in terms of passenger volume the sector is still relatively small compared to the traditional cruise regions Caribbean and Mediterranean.

The North Sea region, particularly the UK and Germany, was already established as a passenger source market. It is now developing itself as a destination market too. There are several trends that cause this growth:

- The cruise industry is looking for new destination regions, as the traditional regions and in particular the marquee ports in these regions are starting to become congested. Besides this effect, the cruise industry is seeking to offer new destinations to repeat customers who already have seen most of the more traditional destinations. Norway is the most developed and largest cruise destination within the North Sea region;
- There is an increasing trend of near home embarkation on a cruise, rather than flying to a destination and boarding the cruise ship. The development of the port of Southampton as a cruise port is almost exclusively due to this effect. Other ports in the region have a high share of embarkations (as opposed to port of call passengers) too: Hamburg, Amsterdam, Rotterdam;
- The share of short break cruises (trips of a few days) is increasing in the region. The cruise industry offers short breaks as alternative to weekend breaks and as cruise tasters, hoping that short break cruisers will return on longer cruises;
- With rising fuel prices and with the additional costs of compliance with the North Sea ECA 0.1% sulphur fuel regulation coming up per 2015, cruise companies are seeking to reduce their fuel bills. Shortening the distances between two ports of call is on of the options, which can be quite positive for further cruise development in the North Sea region.

The value chain of the cruise sector is quite similar to that of maritime transport. The sectors of shipbuilding and marine equipment, operation of ships, port services and logistics, other maritime services and construction and maintenance of maritime works are all involved. A major difference is the involvement of another sector: the providers of tours and other touristic and hospitality services, which in the cruise sector value chain is the most important sector in terms of GVA and job creation.

4.2 Potential development: Description of economic and infrastructural scenario

The overall GVA of the cruise sector in the North Sea region is estimated to be in the range of 800-1,000 million Euro and number of jobs is estimated at around 10,000[38].

[38] Figures are indicative as they have been compiled from several sources referring to 2010, 2011 and 2012 data

The main trends are:

- Increasing numbers of source passengers from the region, as the cruise industry is expanding into different target groups (no longer elderly only, but also younger couples and families);
- Increasing number of destination passengers in the region (as discussed in section 4.1 resulting from more near home embarkations, more short break trips, shorter distances between ports);
- The cruise market is increasingly segmented into various market segments (large scale versus small scale, affordable versus luxurious, highlights versus discovery, etc). This offers further opportunities for cruise sector development in the North Sea.

The cruise industry is a very concentrated market. There are several cruise brands but these belong to just a handful of companies, mostly American. By contrast, the cruise port sector is very fragmented. There are some forms of such cooperation, mostly per sea basin. Many North Sea ports are part of Cruise Europe (together with European Atlantic and Baltic ports), and several ports have cooperated in the INTERREG North Sea region IVB project Cruise Gateway North Sea, which has just organised its final conference[39]. The cruise shipbuilding market is very concentrated. A handful of European yards, including a German yard, produce nearly all cruise ships ordered worldwide. Asian yards are beginning/preparing to enter the market.

4.3 Uncertainties: external drivers and requirements

Uncertainty resulting from environmental regulations

It is still uncertain what the effect of the SOx emission regulations in the North Sea ECA (per 2015) will be. It is not yet clear whether the cruise industry will be able to fully comply by 2015. It is likely that there will be an effect on itineraries and distances between ports: we will probably see shorter distances between ports so that fuel can be saved, and itineraries concentrating on smaller regions as before. This might be an advantage for the North Sea region.

Requirements for market development

The sale of shore excursions is key to cruise companies. They are not just looking for terminals to berth their ships, they are looking for attractive destinations where they can offer tours to their passengers. More cooperation between ports and stakeholders from the local tourism sector will help selling the North Sea Region cruise ports as cruise destinations. Such cooperation already takes place (good examples found around the region), but could be increased particularly for small and upcoming ports.

Cooperation across the region to market the region as a cruise destination could help overcome the main negative perceptions about the region, which are a lack of clear identity and the idea that climate is generally wet and cold. A good example of such regional cooperation is the INTERREG funded Cruise Gateway North Sea project.

[39] Cruise Gateway Final Conference, 12 & 13 September 2013, Rotterdam, synopsis see: http://www.cruisegateway.eu/content/cruise-gateway-closing-conference-sustainability-focus-north-sea-cruise

4.4 Synergies and tensions: potential environmental consequences and spill-over impacts to other sectors

The SOx emission regulations in the North Sea ECA will be a major issue for the cruise sector in the North Sea region as cruise ships will have to comply. How the sector will comply is not yet clear. Abatement technologies such as scrubbers, for which a number of manufacturers are present in the region, are tested in the cruise sector but are not near commercial implementation. Low sulphur fuel availability may be an issue. However these issues are not unique for the cruise sector. The answer of the cruise sector is most likely to reduce the average distances between ports in order to save costs (creating shorter itineraries with ports closer to one another). This may have a positive effect on the growth of the sector in the North Sea. It is not likely that the sector will shrink in the region and send ships elsewhere, as the demand will still exist in the North Sea region and as other regions (Baltic, US part of the Caribbean) will have similar emission restrictions. Furthermore the region should be able to benefit from the availability of a well developed green technology manufacturing base present.

Waste generation is an issue too, but to a lesser extent than the emission regulations. Not all ports yet offer sufficient waste reception facilities at cruise terminals. A key issue here is handling relatively large amounts in a short period (the few hours that a cruise call lasts), without disturbance/nuisance to passengers. In particular smaller terminals receiving one or a few calls per week will have difficulties to offer cost-effective waste reception facilities.

4.5 Framework conditions: regulatory environment of the economic activity

Further cooperation may be instrumental to developing the region as a cruise destination. This cooperation should be at two levels:

1. At a local level: cruise ports/terminals and the local tourism sector should jointly develop a package of terminal and tours and present themselves as a destination. The better developed this cooperation, the better the local economy will be able to profit from economic spin-off;
2. At a regional level: port/destination combinations could join forces and jointly present themselves to cruise companies, as is done in the Cruise Gateway project. It is worthwhile to investigate if this type of cooperation can be taken one step further: could a few ports join hands and present themselves as an itinerary to a cruise company, rather than leaving the formation of itineraries up to the cruise companies? Or at least develop itineraries jointly with cruise companies? There are various themes which could be developed in the cruise market: the maritime history of the region, the Hanseatic cities, scenic beauty at the Wadden Islands (UNESCO heritage site) along the Dutch, German and Danish coastline.

5. Joint actions leading to growth and jobs

Joint action is important to help further develop the North Sea Region as a cruise destination. A recent review held by Cruise Gateway North Sea amongst cruise liners revealed that the region lacks a clear identity, is generally perceived as having a rainy and windy climate, and that cruise companies are not always treated as clients by cruise ports or terminals[40]. On the positive side, the region is considered to offer a great cultural heritage and diversity, and is generally considered a politically stable and safe travel destination. The Cruise Gateway North Sea project itself is a good example of joint action and representation of the region. All North Sea countries have ports or other stakeholders taking part in this project (see box 2 in chapter 3).

Joint action of cruise ports and stakeholders can help to improve the image of the region, to give it a clear identity as a cruise region. On a more local level, there are already many examples of cruise ports cooperating together with tourism boards and other stakeholders to present themselves as cruise destinations and to jointly create an attractive selection of tours. Jointly promoting this with the cruise industry will help making the cruise port more attractive and will certainly create a feeling of being approached as clients. This is particularly important for discovery ports that, unlike marquee ports, do not have obvious places of interest to back them up. Marquee ports will have the advantage that cruise passengers will want to visit their places of interest, so that cruise operators are more inclined to include them in their itineraries.

Turn ports should focus on cooperation with the cruise companies, in order to deliver to passengers a smooth process of getting to the terminal and boarding the ship (and vice versa on their return). This experience strongly influences passenger satisfaction with both the port and the cruise company.

[40] See: Cruise Gateway North Sea (2013), Sustainable cruise tourism in the North Sea region, a best practices guide.

6. Conclusion

Potential actions:

- Continue/intensify of the cooperation across the region to promote the region as a cruise sector. Perhaps as INTERREG projects, as is done in the Cruise Gateway North Sea project;
- further stimulation of cooperation between ports/terminals and local tourism sector;
- investigate whether the cruise industry would be interested in ports joining forces and presenting themselves as an itinerary (rather than the current way of working in which ports present themselves individually and the cruise industry establishes the itineraries);
- Increase of homeporting in the region is a driver of the growth of the cruise sector. Homeporting also tends to generate more economic spinoff locally than port of call traffic. Perhaps homeporting can be expanded in the region, for instance for passengers from outside the region by using the large airport hubs (London airports, Amsterdam airport) and the good transport links to the cruise terminals. An increase for passengers from within the region may be achieved by offering the convenience of starting a cruise near home (which seems to be the success factor behind the growth of Southampton as a cruise port.

Cooperation:

- Cooperation between ports and local tourism sector is key, particularly for discovery ports. The cruise industry is looking for places where they can safely and efficiently berth their ships and where they can sell shore excursions. This will help the sector to grow.

Other issues:

- Compliance to SOx emission regulations: most cruise ships are already able to switch between fuels (i.e low sulphur fuel within ECA and heavy fuel oil outside) and will be able to increase the use of low sulphur fuel if large parts or entire voyages are within an ECA. It is however very much the question whether sufficient low sulphur fuel will be available. Refining capacity and distribution capacity may be a problem. Alternative compliance options, such as installing scrubbers, are being tested but are not near commercial exploitation. If these will be fitted on a large scale then production and installing capacity may be insufficient;
- Waste reception seems to be an issue; not all ports offer sufficient capacity. It is not clear to what extent this is a problem for the cruise industry. Do cruise ships need to discharge waste in every port or is once in a few ports acceptable? A key element is time: a cruise ship generates a peak of waste (sewage water, or household waste) that needs to be received. In ports with little cruise traffic and little other maritime traffic it may not be feasible to invest in facilities that can cope with these peaks. Would it be possible to organise waste disposal in ports that receive relatively high amounts of cruise calls, and to temporary store waste whilst calling in ports with little traffic? This would allow for cost effective use of reception facilities in busy ports and would relieve small ports of the necessity to invest in waste reception facilities that are underutilised. Perhaps a project jointly with terminals, cruise operators and representatives from the waste collection, removal and recycling sector could shed more light on these issues. If organising between ports would turn out to be a solution, than this is another call for cooperation between cruise ports/terminals;
- Seasonality of cruise. Whereas seasonality is not specific for cruise tourism, it is an important effect in the North Sea. The season is shorter than in the Mediterranean. Cruise ships tend to be moved to other regions during off season periods (such as to the Caribbean in the European winter months), but North Sea terminal facilities are not utilised in this period.

Perhaps there are other functions that can be conceived for cruise terminal facilities during the off season period? An example is the cruise terminal in Rotterdam, which (around the year) is used to host conferences, expositions, parties and other social gatherings.

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