



topic: environment & ecology

problem/solution: reduction of noise

example/best practice case: Bremerhaven, Weddewarden, Germany: passive noise protection

#### **SHORT DESCRIPTION**

The ports of Bremen and Bremerhaven are Germany's 2nd biggest ports and they are located in north western Germany at the estuary of the river Weser into the North Sea. In 2008 Bremen and Bremerhaven had a cargo turnover of 74,647 mio t and 5.5 mio TEU. This makes the port the fourth biggest port in Europe. Bremen/Bremerhaven belongs to the northern range ports. Weddewarden is a residential area of a district of Bremerhaven.

Bremerhaven decided to expand their container terminals up to four terminals. The new "CT 4" is an extension of the existing "Stromkaje" thence ships are loaded and unloaded. After the extension in 2007 the "Stromkaje" has a length of about 4,700 metres. "CT 4" is positioned in front of the district Weddewarden. The minimum distance between railroad terminal and a dwelling house is about 250 metres.

An official approval has been penned so that the existing residential buildings were modernized with noise absorbing windows, doors and roofs. The noise level of the port is thereby reduced down to a maximum of 35 dB(A) in the houses.

The terminal operator makes organizational dispositions so that container handling is performed as far as possible dislodged from residential area. In addition to that the terminal operator also instructed employees to handle containers as far as possible without emerging noise for the residents.



photo: bremenports GmbH & Co. KG



position plan: bremenports GmbH & Co. KG

# EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The official approval for solving noise conflicts by implementation of passive noise protection has positive effects for both sides: On the one hand the population of Weddewarden is protected against the noise of port facility like handling of containers and additional sounds like traffic of trucks. Judicially fixed by planning approval is the right to passive noise protection for all relevant people of Weddewarden. In particular the people living as close to terminal operation benefit from new windows that were build in their homes. And on the other hand the terminal operator gets the guarantee to carry out the going concern without the risk to be encountered by legally complaints.

#### **FURTHER INFORMATION**





topic: environment & ecology

problem/solution: green buffer zone

example/best practice case: Algeciras, Spain: Parque del Centenario

#### **SHORT DESCRIPTION**

The port of Algeciras is Spain's number one port. Algeciras is located at the South of the country strategic advantageous between the Atlantic Ocean and the Mediterranen Sea where shipping routes from Asia, West Africa, America and Northern Europe cross. In 2008 Algeciras had a cargo turnover of 74.7 mio tons and 3.3 mio TEU.

The expansion of the port took place to the bay of Algeciras. Several small green buffer zones have been constructed but the most important buffer zone between port and city is the "Parque del Centenario". "Parque del Centenario" is located at the south western entrance of Algeciras bay. The former military place has been given up and a green zone with spectaculous view to the bay was generated. An area with a size of about 100.000m² asks for recreation and look-out of the bay and Gibraltar that is very near.



## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The triple function of "Parque del Centenario" can be characterized as follows. First of all the "Parque del Centenario" is a buffer zone between the residential area of St. Garcia and the shipping route passing the park to reach the port of Algeciras. Because it is a green buffer zone that is allowed to enter people use "Parque del Centenario" as recreational area. This is a main aspect and it creates acceptance of the port by residents. The third aspect is that the park has an integrating function between port and city because the park allows views on the daily activities of the port.





photos: Puerto Bahia de Algeciras

#### **FURTHER INFORMATION**

www.apba.es





problem/solution:

example/best practice case:

environment & ecology

reduction of noise

HafenCity Hamburg, Germany: sound power level limitation

#### **SHORT DESCRIPTION**

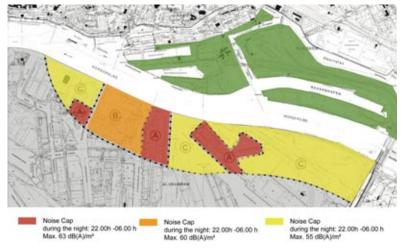
Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports. Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

The HafenCity Hamburg is being developed on a former port area of 155 ha located at the interface of port and city and directly next to the inner city of Hamburg. The land area covers about 123 ha and it has been preferentially designed for homes and business premises. The port redevelopment project "HafenCity" at the interface of lively city and pulsating port activity divided by the River Elbe has been completed partially. It is supposed to finish planning and building activity of the biggest urban planning project in Germany in about 10 or 15 years.

HafenCity is partly located directly opposite to port area that legally may emit up to 70 dB(A) (maximum noise emission for industrial area in Germany) in the case of no limitation of noise emissions. The incompatibility with HafenCity was resolved by different noise caps. These noise caps are constructed that existent use of port area is still warranted.



photo: HafenCity GmbH



position plan: fotofrizz

As one can see in the enclosed image most of the area opposite of the HafenCity have a noise cap of maximum 55 dB(A) during the night (22.00h–06.00h). But some areas have the concession to have a noise cap of 63 dB(A) during night hours. The noise levels are part of a planning ordinance for the port area.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Residential use in the near of port activity is filled with conflicts. Therefore it was Hamburg's idea to restrict noise emissions by law, especially during the night. The planning ordinance covers noise caps that are not allowed to exceed. This is very important for the live at the interface of city and port. The agreement for the noise caps facilitate the living together.

#### **FURTHER INFORMATION**





topic: environment & ecology

problem/solution: reduction of noise

example/best practice case: HafenCity Hamburg, Germany: soundproofing windows

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports.

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photo: Claudia Großweischede



photo: HafenCity Hamburg GmbH

resolved by different noise caps. These noise caps are characterized in another best practice case. Besides noise caps there was a set up of building licence for residential buildings with the obligation for noise protection at window area and the location of sleeping rooms. Soundproofing windows have to be build in so that sound emissions are stopped even by toppled opened window.

### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The close proximity of port activity and a growing new district with housing space generate conflicts that have to be minimized as far as possible. The planners' decision was to implement soundproofing windows in the houses so that unavoidable noise of the port will be diminished for the inhabitants. These windows allow the opening and reduce the noise of the port. Together with noise caps the noise emissions are decreasing generally.

#### **FURTHER INFORMATION**

www.hafencity.com, Mr Schneider





problem/solution:

example/best practice case:

environment & ecology

construction of buffer areas between port activities & urban area

Vuosaari, Helsinki, Finland: noise buffering hill and noise buffering wall

#### **SHORT DESCRIPTION**

Helsinki is located in the South of Finland at the Baltic Sea. In 2008 Helsinki had a cargo turnover of 11.8 mio t and 0.42 mio TEU. Helsinki is the main port for international trade in Finland and it is a port of call for national and international ferry and cruise lines. Significant destinations for ferries from Helsinki are Tallinn (Estonia), Stockholm (Sweden), Travemünde, Rostock (both Germany) and Gdynia (Poland).

Vuosaari is an Eastern district of Helsinki. In 1966 the first step for an extension of the port of Helsinki was made by annexing the village Vuosaari to Helsinki. This future oriented thinking was a good basis for requirements nowadays. Huge areas for terminal handling and logistics are needed. Parallel to port extension Vuosaari itself has developed in great dimension. A new residential area was built with about 24,000 inhabitants by now. It is expected that in 2010 about 39,000 people will live in Vuosaari.







photos: Port of Helsinki

Soft port activity like cruise operation takes place in the South Harbour of Helsinki. While moving terminal operations from North and West Harbour to Vuosaari, 14 km from Helsinki, North and West Harbour area will be developed for non-port usages like offices and residential areas. The new port in Vuosaari had a construction time from 2003–2009.

The noise buffering wall is located at the Eastern border of the Vuosaari Terminal. The construction of the wall was one of the first elements of the new terminal so that bordering regions were not disturbed by construction noise of the terminal. The noise buffering wall is a massive wall. The dimensions of the noise barrier wall are: width: appr. 950 m, height: 13 m from sea level (MW), depth: 4 m

The Western side of the wall is used for port operation; the Eastern side is assembled with stones and partially planted with shrubbery. Thereby the sight of the wall is landscaped although there is no urban use with public nearby. Please note that there is another best practice case of Vuosaari for noise reduction. The South Western part of port area is bordered by a golf course.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

In combination with the golf course at the South Western border of the new Vuosaari Terminal the port area is nearly completely surrounded by noise protection. This reduces conflicts with surrounded areas.

#### **FURTHER INFORMATION**

www.portofhelsinki.fi Ari Piispanen Kari Noroviita



position plan: Port of Helsinki





problem/solution:

example/best practice case:

communication & marketing view to the port and acceptance of the port

Genoa, Italy: Bigo

#### **SHORT DESCRIPTION**

Genoa is located in the North western of Italy at the Mediterranean Sea. The Port of Genoa has a great position as it is close to the most industrialized zone of Italy. It has access to the different European markets and represents therefore one of the biggest sea ports of Italy. There was a cargo turnover of 54.2 mio t and 1.76 mio TEU in 2008 in Genoa. Besides container activities port of Genoa features great cruise and ferry activity.

Some streets and buildings of the renaissance and baroque in the centre of the old town were declared to world cultural heritage by UNESCO in 2006.

Genoa is a good example for early waterfront development. A new port was built west of the old port area under protection of breakwater. This port complies with requirements of modern port facilities. The difficult geographical situation and the lack of available space for further port development of the old port were reasons to build a new port. Besides active cruise and ferry traffic the old port harbours marina and the "Bigo".



photo: AIVP

Inspired by a ship crane and designed by architect Renzo Piano this elevator gives a panoramic view over the old port and the city of Genoa. The cabin comes up to a level of 40 meters. The "Bigo" was built in 1992 for festivities for the discovery of America 500 years ago. Now it is a town's landmark and makes sure for social acceptance and integration of the port in the city.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The "Bigo" is an attraction for tourists and interested people. The arms of the constructions rise from the water into the height. From there a panoramic view over the old port activity of Genoa and the interface of city and port is given. It shows the short distance between port activities with container handling, cruise ships, ferries, marina and urban usages.

The "Bigo" is an element to overcome the interface of port and city by "flying".

## FURTHER INFORMATION

www.porto.genova.it





topic: planning strategy & land allocation

problem/solution: new public and urban facilities with specific architecture

example/best practice case: Barcelona, Spain: Port Vella

#### **SHORT DESCRIPTION**

Barcelona is Spain's second biggest city and second biggest seaport of the country being located at the Mediterranean Sea. In 2008 Barcelona had a cargo turnover of 50.5 mio t and 2.5 mio TEU.

Barcelona is a famous example for developing and redevelopment of waterfront and port areas. Initial for this kind of extensive development were the Olympic Games in 1992. Several projects were implemented whose economically realisation was only possible in conjunction with big events. Available fallow land and other regenerative city districts were used.

Until then the city was closed to the sea, there was no access from the city to the coastal area. Barcelona was an upcoming provincial town and during organizing the Olympic Games provided the economical basis to redevelop the costal area, to open the city to the sea and to relocate port facilities.

The coastal line was structured newly. In past times the coastal line was affected by the old port. The North-eastern and Barceloneta now accommodate beach areas. Port Vell shelters a modern shopping mall and leisure centre "Maremagnum" with discos, shops, cinemas and aquarium. In the South new terminal areas were constructed with modern standard. The old port area "Port Vell" changed to an attraction for residents and tourists now.





photos: Autoritat Portuaria de Barcelona

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The restructuring of Port Vell was the beginning of a new life in Barcelona. After the Olympic Games in 1992 the city was completely filled with public life. The opened areas at the sea and the new usages in Port Vell were accepted by the population.

Cruise terminals, cinemas, aquarium are just a few of several attractions the Port Vell now harbours. The interface of city and port in Barcelona got a new vision. People and their urban life are now connected with working life at port areas.

#### **FURTHER INFORMATION**





topic: environment & ecology

problem/solution: noise reduction: construction of buffer areas

between port activities & urban area

example/best practice case: Vuosaari, Helsinki, Finland:

golf course

#### **SHORT DESCRIPTION**

Helsinki is located in the South of Finland at the Baltic Sea. In 2008 Helsinki had a cargo turnover of 11.8 mio t and 0.42 mio TEU. Helsinki is the main port for international trade in Finland and it is a port of call for national and international erry and cruise lines. Significant destinations for ferries from Helsinki are Tallinn (Estonia), Stockholm (Sweden), Travemünde, Rostock (both Germany) and Gdynia (Poland).

Vuosaari is an Eastern district of Helsinki. In 1966 the first step for an extension of the port of Helsinki was made by annexing the village Vuosaari to Helsinki. This future oriented thinking was a good basis for requirements nowadays. Huge areas for terminal handling and logistics are needed. Parallel to port extension Vuosaari itself has developed in great dimension. A new residential area was built with about 24,000 inhabitants by now. It is expected that in 2010 about 39,000 people will live in Vuosaari.



position plan: Port of Helsinki

Soft port activity like cruise operation takes place in the South Harbour of Helsinki. While moving terminal operations from North and West Harbour to Vuosaari, 14 km from Helsinki, North and West Harbour area will be developed for non-port usages like offices and residential areas. The new port in Vuosaari had a construction time from 2003–2009.

An interesting use of a buffer zone is the golf course at the South-Western border of Vuosaari Terminal that detains noise of port activity to opposite situated residential area. This kind of green buffer between port and city combines urban usage and environmental aspects with its function to reduce noise conflicts. People of near the residential area can use the golf course for leisure time. The location of the golf course is a space saving, environmental friendly and efficient buffer. The licensee of the golf course is Vuosaari Golf Oy.

Please note that there is another best practice case of Vuosaari for noise reduction. The Eastern part of port area is bordered by a noise buffering wall.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

A buffer zone between contrary usages means a reduction of conflicts. The golf course in Vuosaari is a buffer zone between the residential area of quarter Vuosaari and the new port area of Vuosaari which is in operation since November 2008. The golf course combines the function of buffer zone and recreational activity area for residents.

#### **FURTHER INFORMATION**

www.portofhelsinki.fi Ari Piispanen Kari Noroviita

golf course: toimisto@vuosaarigolf.fi





problem/solution:

example/best practice case:

infrastructure & transportation public infrastructure in the port

Hamburg, Germany: Hafenfähren (harbour ferries)

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports.

Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

Harbour ferries in Hamburg are a daily used public means of transportation for people living and/or working in and near the port. The ferries are integrated in the network of public transportation. The usage doesn't cost any extra fees. Special routes are only for employees, e.g. Airbus.

The construction of HafenCity Hamburg enlarged the transport network for one station and doubtless it will be more extended by completion of the HafenCity.

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The piers of harbour ferries are located in the port. Employees use harbour ferries to cross the port and reach the working station or use the next connection point for next public transportation e.g. rapid train railway. Besides the aspect of public transportation harbour ferries in Hamburg are a tool to experience parts the port. The time-saving harbour ferries are environmentally friendly, too. Harbour ferries operate at regular intervals and transit the interface of port and city.





photos: Claudia Großweischede

### **FURTHER INFORMATION**

www.hadag.de www.hvv.de

position plan:

http://www.hadag.de/hafenfaehren.php

http://www.hvv.de/pdf/fahrplaene/produktplaene/HVV\_Produktplan\_Faehren.pdf





topic: infrastructure & transportation

problem/solution: surround friendly dedicated access to port activities (terminals)

example/best practice case: Vuosaari Terminal, Helsinki, Finland: tunnel

#### **SHORT DESCRIPTION**

Helsinki is located in the South of Finland at the Baltic Sea. In 2008 Helsinki had a cargo turnover of 11.8 mio t and 0.42 mio TEU. Helsinki is the main port for international trade in Finland and it is a port of call for national and international ferry lines. Significant destinations for ferries from Helsinki are Tallinn (Estonia), Stockholm (Sweden), Travemünde, Rostock (both Germany) and Gdynia (Poland).

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photo and position plan: Port of Helsinki

needed. Parallel to port extension Vuosaari itself has developed in great dimension. A new residential area has been built with about 24,000 inhabitants by now. It is expected that in 2010 about 39,000 people will live in Vuosaari.

Soft port activity like cruise operation takes place in the South Harbour of Helsinki. While moving terminal operations from North and West Harbour to Vuosaari, North and West Harbour area will be developed for non-port usages like offices and residential areas. The new port in Vuosaari had a construction time from 2003–2009.

"Environmental friendly" and "sustainable" were important aspects during planning and construction time of Vuosaari Terminal. The Port of Helsinki paid attention to a compatible and efficient transport connection. The characteristic of the dedicated access to the terminals is the bundling of different modes of transport. Railroad and expressway for trucks and cars run parallel from the North to the terminal area. This is space-saving. Another important aspect is the environmental friendly tunnel for cars so that interference in the nature and costs and complexity were optimized.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Vuosaari had built an efficient transport connection for the port that is disentangled from local city traffic. The combination of road and railroad is a space saving effect for the environment. The tunnel itself accommodates development of nature. Furthermore the tunnel has an effect of noise reduction which is also a positive effect for the environment and ecology of the port and the interface of port and city. Traffic procedure is very friendly for surrounding and neighbouring area.

#### **FURTHER INFORMATION**

www.portofhelsinki.fi Ari Piispanen Kari Noroviita







problem/solution:

example/best practice case:

environment & ecology architecture in the port

A Coruña, Spain: coal terminal "Medusa"

#### **SHORT DESCRIPTION**

The port of A Coruña is located at the Atlantic Ocean at the Northwest coast of Spain. A Coruña had a cargo turnover of 12,429 mio t and 4.2 mio TEU. A Coruña is a coal importing port.

The "Medusa" was built on existing wharf "centenary quay". "Centenary quay" wasn't a coal terminal before. In addition to coal there was grain directly unloaded on the wharf. Because of the location of the wharf in the centre of the port and the very near to the urban area with residential usage it was an important aim to reduce air pollution during turnover and storage of coal. The coal now is covered by "Medusa" and therefore a reduction of dust an d smell is occured.

The expansion of bulk terminals is always a very unattractive matter. The construction of the coal terminal in A Coruña has an architectural aspect for the port and the surrounding. The "Medusa" in its halfround form reminds to a jellyfish ("medusa"). The affinity between the name and architecture the building is not dismissed. A kind of sympathy is given to the port and this special building by calling is "Medusa".

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The important effect of the "Medusa" is to reduce air pollution of the coal terminal. The architectural effect of the "Medusa" is to have a symbol of the new Coruña. People like this building and it becomes an architectural highlight for the port and the city.

### **FURTHER INFORMATION**

www.puertocoruna.com, Mr Luis Pedreira Freire, lpedreira@puertocoruna.com





photos: Puerto de A Coruña





problem/solution:

example/best practice case:

planning strategy & land allocation temporary use of less used port areas

Amsterdam, The Netherlands: student homes

#### **SHORT DESCRIPTION**

Amsterdam is the capital of the Netherlands. It is located in the East of the country at the estuary of the rivers Amstel and Ij into the Ijsselmeer. Amsterdam is connected with the North Sea by the Nordzeekanaal that is also the waterway merchant ships have to take. In 2008 Amsterdam had a cargo turnover of 94.7 mio t and 0.43 mio TEU.

Some port areas in Amsterdam were less used and there was a great demand for student homes. The concept of temporary housing has established a new way of living for students. The students live in fully appointed containers with chambers to learn and sleep.

The idea of building student homes was formed because there is a lack of student homes in Amsterdam. These student homes are located on former port areas near to the city. These areas are not interesting for port activity anymore. But due to Dutch rules they are too close to port activities to allow housing development. Temporary housing with temporary inhabitants e.g. students was the solution.



photo: AIVP

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Student homes are a special way of living. Students are relatively inured to noise; they "create" their own noise. "Special locations" are gladly taken and students generate their own way of life even in areas that are fallow or that does not accord to an average utilisation neither for port nor for urban utilisation.

A temporary use of areas for student homes can be enlarged to a durable arrangement when disposition of student homes was friendly with the surround neighbouring area and the area is not used for other utilisation.

#### **FURTHER INFORMATION**

www.aivp.com





topic: planning strategy & land allocation

problem/solution: temporary use of port areas

example/best practice case: Hamburg, Germany: musical theatre in the port

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports.

Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

Beginning of 1990ies there was erected a musical tent for 1.000 on an unused port area. This unused area is located across the Hamburg touristic attraction "St. Pauli Landungsbrücken". Specific characteristic of the musical theatre in the port is that it is a kind of tent that is used as a temporary building: The area between several dockyards is used for the theatre since 1994. It



photo: Claudia Großweischede

started with "The Buddy Holly Show" and now it is "King of Lions" on the playing schedule. But as time shows the theatre is working and besides the musicals it is the location of the theatre in-between operating port activity that makes the visit of the musical to an experience. The tent was reconstructed for medium usage and it is in discussion to construct a real theatre on that place. The access to the event area is primarily by harbour ferries before and after the show.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The musical theatre is nationally and internationally known as "Hafentheater" (harbour theatre). The shipping to the theatre bypasses several docks and shows the port. At the same time it is promotion for the port and that creates acceptance.

The allocation of the theatre was a big discussion because this kind of usage is not intended in the port. So it was scheduled firstly as short term usage in a tent. The interface of pulsating port activity and cultural city life seems to decrease. From the south bank of the river Elbe one can see the skyline and several touristic attractions of Hamburg.

This interaction is also a positive effect for the marketing of the port and the city of Hamburg.

#### **FURTHER INFORMATION**

www.theaterimhafen.de www.stage-entertainment.de www.hamburg-port-authority.de





topic: planning strategy & land allocation

problem/solution: public area with view to the port

example/best practice case: Hamburg, Germany: ViewPoint HafenCity

#### **SHORT DESCRIPTION**

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One of the objectives during the early stages of the project was to get public acceptance for the attractive location. The ViewPoint as a look-out amidst the building lot to the construction area of several buildings, parks of the HafenCity and to the activity of the near port area on the opposite side of the River Elbe gives an impressive view and additional information about the project and the port area.

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The ViewPoint is an important feature to involve people in this important urban project located at the waterfront of Hamburg. The allocation was moved one time when the working field as used. The position of the ViewPoint is directly at the interface of port and city and people realize and get part of the closeness between these usages with very corresponding characters, the port and the city.







photos: Claudia Großweischede





topic: communication & marketing

problem/solution: acceptance of the port/
European Maritime Day (special port days)

example/best practice case: Klaipėda, Lithuania: port surveys by ship

#### **SHORT DESCRIPTION**

The European Commission declared 20th of May as annually European Maritime Day. Aim of the European Maritime Days is to show the importance of maritime regions and sectors that have great influence of Europe's economic, social and cultural well-being. Since 2007 the European Maritime Day is one important measure of the integrative maritime politics. Annual conferences take place and several other events are held in the member states of the EU like workshops, projects and open port days. Idea of open port days is to present activities of the port, to show the developments and give an example of how the maritime field acts and maritime traditions are arranged and retained.

As one of several examples of the open port days is Klaipėda. Klaipėda is the biggest sea port of Lithuania and it is located at the Baltic Sea, at the estuary of River Dange into the Courland Lagoon. In 2008 Klaipėda had a cargo turnover of 12.9 mio t and 0.14 mio TEU. Klaipėda belongs to the Eastern Baltic region together with Saint Petersburg, Primorsk, Tallinn, Ventspils, Riga, Kaliningrad and Liepaja.



photo: SE Klaipėda State Seaport Authority

The Port of Klaipėda has guided port surveys by ship. It is a one-hour-tour with the "Forelle". These tours named "discover Klaipėda port" don't take place only on 20th of May. They are arranged more often during the year.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Port surveys by ship give large information about the port to several social stratums. Especially cities and ports with almost unknown characteristics and properties benefit from these events. This means for Klaipėda giving an example of Klaipėda and Lithuania as a marine state.

By presenting the port the interface of port and city becomes more permeable for visitors, it stops to be a visual and mental barrier and it increases acceptance of the port.

#### **FURTHER INFORMATION**

www.ec.europa.eu/maritimeaffairs

Geda Marozaitė www.portofklaipeda.lt





problem/solution:

example/best practice case:

infrastructure & transportation public infrastructure in the port

Copenhagen, Denmark: Havnebussen

#### **SHORT DESCRIPTION**

Copenhagen is the capital of Denmark. It is located in the Øresund region of the Baltic Sea. The ports of Copenhagen and Malmoe (Sweden) work together in "Copenhagen Malmoe Port". In 2008 there was a cargo turnover of 18 mio t and 0.19 TEU.

The requirements for port activity changed and the port areas of Inner Harbour in Copenhagen didn't fulfil the requirements of port utilization. The demand for wide port areas was not given anymore. The naval port activity moved outside the city in 1996. The demand of a public usage came closer. Characteristic of a public usage on former port area at the interface of city and port is that is has to be compatible with both neighbouring parties.

The city quarter Holmen (an island) was a former area used by the Navy and a Naval Dockyard near to the city centre of Copenhagen. To support transformation process a number of public facilities were settled there. Now several schools and colleges have moved there, e.g. School of Architecture of the Royal Danish Academy of Fine Arts, the Danish Film School and the Danish National Theatre, the Rhythmic Music Conservatory and the Danish National School of Contemporary Dance.



photo: Ireneusz Cyranek, Woco Wonderful Copenhagen



position plan: moviatrafik.dk

The local public transport from old town to Holmen is an important infrastructural facility in Copenhagen. The ferry line "Havnebussen" connects the big attractions on both sides of the Inner Port. There are 2 lines that operate in that area. "Havnebussen" also act as tool to experience the waterfront development.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Since 1996 the Inner Harbour has no active port activity any more. Terminals for container handling and other turnovers are located in the east of the city at the Baltic Sea. Therefore this area near to the inner city in the old town had been redeveloped. The waterfront of Copenhagen changes to a modern urban quarter. Special attractions like the floating theatre consult people to former port areas because now usage is "opened". Public transports like "Havnebussen" afford experience in port and city and that is a positive effect for port and city and that glares over the interface of port and city to both areas.

#### **FURTHER INFORMATION**

www.moviatrafik.dk position plan:

http://www.moviatrafik.dk/oversigtskort/Byens\_Net/Documents/Byens\_netguide\_2008\_010408.pdf





problem/solution:

example/best practice case:

infrastructure & transportation

surround friendly dedicated access to port activities (terminals)

Leixões, Portugal: VILPL (Via Interna de Ligação ao Porto de Leixões)

#### **SHORT DESCRIPTION**

Leixões is located in the Northwest of Portugal at the Atlantic Ocean. Leixões is the biggest artificial port of Portugal near the city Porto. In 2008 Leixões had a cargo turnover of 15.6 mio t and 0.45 mio TEU.

The VILPL (Via Interna de Ligação ao Porto de Leixões) is an internal road link to the port of Leixões. According to the philosophy of "arriving & casting off" the traffic is managed to arrive the port of Leixões at a great speed. The VILPL is connected to motorways in the hinterland. The road is only used by heavy duty vehicles and equivalent goods.

The new road is environmental friendly and was built to reduce traffic in neighbouring villages like Matosinhos that were afflicted with traffic of trucks.

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The dedicated access of VILPL (Via Interna de Ligação ao Porto de Leixões) has the aim to operate friendly for the surrounding. Control stations allow a dedicated access for trucks with destination "Port of Leixões". The traffic does not have to pass the city centre of Matosinhos. A positive effect is the reduction of traffic in the surrounding villages and a reduction of noise and air pollution.

The construction of VILPL is a space and time saving infrastructural accommodation.

#### **FURTHER INFORMATION**

www.portofleixoes.com





photos: APDL - Administração dos Portos do Douro e Leixões, SA





topic: planning strategy & land allocation

problem/solution: living on the water

example/best practice case: Copenhagen, Denmark: floating theatre

#### **SHORT DESCRIPTION**

Copenhagen is the capital of Denmark. It is located in the Øresund region of the Baltic Sea. The ports of Copenhagen and Malmoe (Sweden) work together in "Copenhagen Malmoe Port". In 2008 there was a cargo turnover of 18 mio t and 0.19 TEU.

The requirements for port activity changed and the port areas of Inner Harbour in Copenhagen didn't fulfil the requirements of port utilization. The demand for wide areas was not given anymore. The naval port activity moved outside the city in 1996. The demand of a public usage came closer. Characteristic of a public usage on former port area at the interface of city and port is that is has to be compatible with both neighbouring parties.

The city quarter Holmen (an island) was a former area used by the Navy and a Naval Dockyard near to the city centre of Copenhagen. Now several schools and colleges have moved there, e.g. School of Architecture of the Royal Danish Academy of Fine Arts, the Danish Film School and the Danish National Theatre, the Rhythmic Music Conservatory and the Danish National School of Contemporary Dance.

The new Royal Theatre is the most eye-catching building. The floating sidewalks and the interesting roof are part of an attractive waterfront of the Inner Harbour of Copenhagen and it establishes a living on the water.



photo: Woco, Wonderful Copenhagen



position plan: moviatrafik.dk

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Since 1996 the Inner Harbour is no active port area any more. Terminals for container handling and other turnovers are located in the east of the city at the Baltic Sea. Therefore this area near to the inner city in the old town had been redeveloped. The waterfront of Copenhagen changes to a modern urban quarter. Special attractions like the floating theatre consult people to former port areas because now usage is "opened". Port activity in most cases, especially now after introduction of ISPS code, is closed for people. Public usages for redeveloped areas are a positive effect in Copenhagen because urbanity could spread and port areas are newly constructed with modern equipment outside city quarter.

#### **FURTHER INFORMATION**





problem/solution:

example/best practice case:

planning strategy & land allocation major events as catalyst for port development

Lisbon, Portugal: EXPO area

#### **SHORT DESCRIPTION**

Lisbon is the capital of Portugal. It is located in the Southwest of Europe at the estuary of the River Tejo in to the Atlantic Ocean. In 2008 there was a cargo turnover in the port of Lisbon of 12.9 mio t and 0.55 mio TEU.

Lisbon is the biggest city and the political, economical and cultural centre of the country.

In 1998 the EXPO with topic "Os oceanos: um património para o futuro" ("our oceans: a heritage for the future") took place. The location for EXPO area was a 50ha big fallow port area "Doca dos Olivais" in district "Santa Maria dos Olivais" in the Western part of the city. It was industrial waste land and therefore a good area to prepare for exhibition area. All buildings of the EXPO should be used at later time. In association with construction project "EXPO" other infrastructure projects were realised: Vasco-da-Gama-Bridge across River Tejo, a new metro line from EXPO area to the city centre and a new mainline station "gare do oriente".



photo: AIVP

The buildings on the EXPO area are constructed with association to ocean and sea: the former "ocean pavilion" is now the oceanarium with several sea animals. Other pavilions are used e.g. for casino and museum of science. Today the former EXPO area is used as "Parque das Nações" and it is a destination for tourists.

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The EXPO was a chance for Lisbon to redevelop former industrial waste land. The interface of non-used port area and liveable city area has been override and the "Parque das Nações" has been established to an important tourism district. The execution of a mayor event like the EXPO is a catalyst for development and this has been achieved in Lisbon, too.

An architectural attraction has been founded and the aim to create a sustainable quarter in the city was successful. This kind of redevelopment has a positive effect for port, city and the interface of port and city because the area is now in use and does not decay and mark a blemish in the city. The EXPO area is used for leisure and scientific interests. The interface of city and port has moved and this area became urban.

#### **FURTHER INFORMATION**

www.portaldasnacoes.pt

position plan: www.portaldasnacoes.pt





problem/solution:

example/best practice case:

planning strategy & land allocation

architecture for double use

Marseille, France: Euroméditerranée area "Silo d'Arenc" and "Les Terasses du Port"

#### **SHORT DESCRIPTION**

Marseille is the biggest port in France. It is located at the Mediterranean Sea near the estuary of the River Rhône. Marseille had a cargo turnover of 95.9 mio t and 0.85 mio TEU in 2008. Marseille is an import port for shipment to Asia and Arabia. Competing with other ports in the Mediterranean Sea Marseille advertises with good hinterland transports by inland navigation vessel via River Rhône.

Marseille is a lively city with dynamic development. The project "Euroméditerranée" is placed at the interface of city and port at the coastal near to city centre. The history of "Euroméditerranée" began in 1995 with regional cooperations between city of Marseille and several partners to develop these port areas.

Because parts of the port activities have moved from Marseille to terminals in Fos, huge port areas threatened to decay but part of the areas were still in use, like for ferry lines and cruise ships. In 1999 the partnership between Euromediterranean development agency and Port of Marseille Authority started with redevelopment of port areas near the city. The aim of the project "Euroméditerranée" is to sustain port

operation in the area while opening some of these areas to the city. The development at the interface of port and city appears in the double use of buildings. The compatibility of different usages is united in one architectural interesting building. "Les Terrasses du Port" are one example for architecture with double use. The new buildings will shelter new cruise and passenger terminals and retails and also a restaurant and a promenade. The view to the city and port activities is inclusive. Another example is the "Silo d'Arenc". This "port heritage" houses a concert hall and a business centre while the ground floor is kept as the way for the ferry and cruise passengers. The adjacent wharfs are used for cruise ships.

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The double use of buildings shows a kind of transparency at the interface of port and city. Urban activities are marked off but port activity is not affected. The lack of space at a small coastal line and the wish so solve port heritage was the intention to redevelop this part of "Euroméditerranée" and settle double usages. "Soft" port facility and urban activity join in the "Silo" of Marseille.

#### **FURTHER INFORMATION**

www.marseille-port.fr, Régine Vinson www.euromediterranee.fr position plan: www.euromediterranee.fr



photos: Port of Marseille Fos Authority





problem/solution:

example/best practice case:

environment & ecology reduction of air pollution

A Coruña, Spain: coal terminal "Medusa"

#### **SHORT DESCRIPTION**

The port of A Coruña is located at the Atlantic Ocean at the Northwest coast of Spain. A Coruña had a cargo turnover of 12,429 mio t and 4.2 mio TEU. A Coruña is a coal importing port.

The "Medusa" was built on existing wharf "centenary quay". "Centenary quay" wasn't a coal terminal before. In addition to coal there was grain directly unloaded on the wharf. Because of the location of the wharf in the centre of the port and the very near to the urban area with residential usage it was an important aim to reduce air pollution during turnover and storage of coal. The coal now is covered by "Medusa" and therefore a reduction of dust and smell is occured.

The translation for "Medusa" is "jellyfish". The affinity between the name and architecture the building is not dismissed.

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The important effect of the "Medusa" is to reduce emissions of the coal terminal. Stopping air pollution is a basic condition for an acceptable coexistence of city and port. The port of A Coruña is located between residential areas and these areas need to be protected against emissions of the port. Grown structures of port and city can't be broken when there is no alternative surface for one usage. So the living and working side by side of port and city has to be aspired.

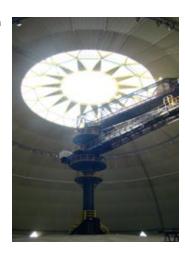
#### **FURTHER INFORMATION**

www.puertocoruna.com, Mr Luis Pedreira Freire, Ipedreira@puertocoruna.com





photos: Puerto de A Coruña







problem/solution:

example/best practice case:

environment & ecology

nature protection area in the port: fauna

Le Havre, France: bird island, "Ilot Reposoir"

#### **SHORT DESCRIPTION**

Le Havre, the "gateway to Northern Europe", is located at the English Channel. Le Havre is the southernmost port of the North Range ports. In 2008 Le Havre had a cargo turnover of 80.1 mio t and 2.45 mio TEU.

The port is dynamical in its development. Port 2000 is a great individual project of port expansion in Le Havre. The new deepwater port in the south of the existing port area will reach parallel into the estuary of the River Seine. The first phase is operational; the second phase is under construction.

This project is a massive intervention into the nature so the compensatory measure had to be realized. The "llot Reposoir" (little altar island) is an island to serve the bird habitat and in equal measure a resting place for migratory birds.

Compensatory measures are judicially provided in Europe when interventions take place in the ecological environment.



photo: Port of Le Havre Authority

The acceptance for the extensions of ports by the population is successful when compensatory measures are executed as famous projects in favour of the development of the nature and more than the judicial obligation.

### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The "llot Reposoir" is one of the environmental compensatory measures for Port 2000. The aim is to give birds a new resting place.

Compensatory measures in general show the important relationship between constructions and environmental aspects. The aim of these measurements are ecological enhancement and to sustain a long-lasting ecological valorisation. Accordingly compensatory measurements have positive effects for the port and the interface of city and port.

#### **FURTHER INFORMATION**

www.aivp.com www.havre-port.fr





problem/solution:

example/best practice case:

planning strategy & land allocation

architecture in the port

Caen, France: music hall "Le Cargö"

#### **SHORT DESCRIPTION**

The port of Caen-Ouistreham ("Le port de commerce de Caen-Ouistreham") is a fusion of the ports of Ouistreham and Caen, that is located about 15 km away in the inland. Both ports are connected by a channel whose watersides are used for different handlings. Caen-Ouistreham is an important port for trading with the hinterland and for ferry traffic to Great Britain. There was a cargo turnover of 0.64 mio t in 2008, mostly cereals, fertilizer and scrap.

The way of traffic in Caen-Ouistreham has changed and areas near to the city of Caen fallowed. Caen generated a conception to fill fallow land with public usages. Especially fallow areas at the interface of port and city.

"Le Cargö" is a music hall with two big halls and a very agile institution with different social aspects. The modern architecture of "Le Cargö" is similar to warehouses. The assimilation of the name "Le Cargö" to "cargo" is intended.

The location of "Le Cargö" is near to the centre of Caen and the "Port de plaisance de Caen", the marina of Caen.



photo: M. Follorou - Ville de Caen

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Fallowed areas of the port and former port areas need to be filled with new life. The nearness to the city and the new dimensions of ports and the infrastructure require for innovative solutions. The music hall in Caen is one example to redevelop former port areas and switch the usage from port activity to urban activity in the neighbourhood of the port. The interface of port and city changes and architectural influence becomes more interesting in combination with the new use. By moving urban activity to former port area in most cases a relation to the port is given by the architecture of the new buildings. Please note example of science centre "Nemo" in Amsterdam.

#### **FURTHER INFORMATION**

www.lecargo.fr www.ville-caen.fr www.caen.port.fr www.caen-plaisance.com





topic: planning strategy & land allocation

problem/solution: living on the water

example/best practice case: Copenhagen, Denmark: torpedo shipyard housing

#### **SHORT DESCRIPTION**

Copenhagen is the capital of Denmark. It is located in the Øresund region of the Baltic Sea. The ports of Copenhagen and Malmoe (Sweden) work together in "Copenhagen Malmoe Port". In 2008 there was a cargo turnover of 18 mio t and 0.19 TEU.

The requirements for port activity changed and the port areas of Inner Harbour in Copenhagen didn't fulfil the requirements of port utilization. The demand for wide areas was not given anymore. The naval port activity moved away in 1996. The demand of a public usage came closer. Characteristic of a public usage on former port area at the interface of city and port is that is has to be compatible with both neighbouring parties.



The city quarter Holmen (an island) was a former area used by the Navy and a Naval Dockyard near to the city centre of Copenhagen. Now several schools and colleges have moved there

Holmen changes with this example to an interesting residential area. The conversion of 1953 built torpedo hall to residential building in 2001–2003 show the variety of what can be used of former handling and transform it to new required usage. Holmen has become a living quarter with modern architecture.

The torpedo halls are a relict of former usage and the interface of port and city becomes visualized but overcome. There is no border any more. The effect of the transformation is the extraordinary way of living that makes it interesting for people being and living there. The "torpedo shipyard housing" was built by architects Tegnestuen Vandkunsten.



photos: Jens Lindhe

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Since 1996 the Inner Harbour has no active naval port activity any more. Terminals for container handling and other turnovers are located in the east of the city at the Baltic Sea. Therefore this area near to the inner city in the old town and the island Holmen had been redeveloped. The waterfront of Copenhagen changes to a modern urban quarter.

The real interface of city and port has moved and this area becomes urban.

#### **FURTHER INFORMATION**

http://www.vandkunsten.com/uk/Projects/Project/torpedo-shipyard-housing-/19-37.p Jens Kristian Seier: ks@vandkunst.dk





problem/solution:

example/best practice case:

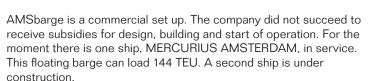
infrastructure & transportation alternative to transports by trucks

Amsterdam, The Netherlands: AMSbarge

#### **SHORT DESCRIPTION**

Amsterdam is the capital city of the Netherlands. It is located in the East of the country at the estuary of the rivers Amstel and Ij into the Ijsselmeer. Amsterdam is connected with the North Sea by the Nordzeekanaal that is also the waterway merchant ships have to take. In 2008 Amsterdam had a cargo turnover of 94.7 mio t and 0.43 mio TEU.

One of the challenges is to transport goods via inland shipment. AMSbarge has constructed a special mode of transport. The AMSbarge is a floating craneship with services to collect and deliver containers from ships and terminals to other terminals on inland waterways. The concept of AMSbarge is to deliver containers to the Northern Randstad. "AMSbarge" means "Amsterdam Barge Shuttle". The operation of this floating crane takes place in Amsterdam to load and unload containers. AMSbarge picks up containers from the quay independently from terminal based equipment.





Positive effects of transportation like with the AMSbarge are the minimization of land based traffic, especially truck transport, and the reduction of congestion in the port and access roads.

AMSbarge is an environmentally friendly transport vehicle and with inland barges the smaller inland waterways can be used.



www.amsbarge.com Herman.Journee@portofamsterdam.nl





photo: AMSbarge





topic: organization, law, funding

problem/solution: planning group: urban, port related, private

example/best practice case: Hamburg, Germany "Beirat Hafenlärm":

(advisory board for noise of port)

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports.

Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

The HHLA container terminal Burchardkai (CTB) is the largest container terminal of the port of Hamburg. CTB plays a significant role to enlarge container capacities in an extension programme of Hamburg. The restructuring of the terminal takes place within the same size and layout of the area but the capacities of 2.6 mio TEU in 2005 will be doubled to 5.2 mio TEU.

The "Beirat Hafenlärm" in Hamburg is an advisory board. The participators are members of the Hamburg Port Authority, members of the city council, staff of resident port-related companies and residents. They meet in regular temporal intervals and discuss problems of noise that are caused by port activity and that disturb citizens living across from container terminals.

One example what the "Beirat Hafenlärm" established is the "Lärmtelefon" (noise phone). This telephone connection is occupied by staff of the terminal operator 24 hours a day. Residents may call when emissions are exceeded and people feel to be bothered by e.g. noise. Terminal operator then goes into the matter and solve the problem.



photo: HHLA

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The meetings of "Beirat Hafenlärm" attend to exchange problems and solutions. These people compile solutions for noise problems together with the resident port-related companies. So there is a direct interchange between port and city. The positive effect is that solutions are extracted together and in most cases the solutions are required and essential and they are accepted by people who suffer from the noise.

#### **FURTHER INFORMATION**

Hamburger Hafen und Logistik AG, www.hhla.de Hamburg Port Authority, www.hamburg-port-authority.de





topic: planning strategy & land allocation

problem/solution: architecture in the port

example/best practice case: Amsterdam, The Netherlands: Science Centre "Nemo"

#### **SHORT DESCRIPTION**

Amsterdam is the capital of the Netherlands. It is located in the East of the country at the estuary of the rivers Amstel and Ij into the Ijsselmeer. Amsterdam is connected with the North Sea by the Nordzeekanaal that is also the waterway merchant ships have to take. In 2008 Amsterdam had a cargo turnover of 94.7 mio t and 0.43 mio TEU.

The science centre "Nemo" was built in 1997 and it is located near to the city of Amsterdam on the top of the entrance of lj-Tunnel. The "Nemo" is a living museum for science and technology designed by Renzo Piano. The architecture reminds visitors of a submarine ascending from the deep water. From top of the museum the visitors have a beautiful view to the city of Amsterdam.

The existent port activity is some hundred metres away, but the location of the museum shows a trend in planning strategy. Fallowed areas of ports and other "non-used areas" need new usages and in lots of cases these waterfront areas have to be designed attractive and spectacular so that public facilities become an initial impact for further developments. Waterfront developments have to be resistant against emissions.



photo: AIVP

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The location of public facilities at the interface of city and port is kind of anchor for the interface of port and city. Especially utilizations like science centre are outrider for an arrangement of urban usages and in the broadest sense port and technical usages. Because of the location the population gets adducted to the interface of city and port.

Science centre "Nemo" has the characteristic to be located on the top of the entrance of the lj-Tunnel and moreover the lookout on the top of the building what makes the roof of the museum becoming a popular place.

## FURTHER INFORMATION

www.e-nemo.nl





problem/solution:

example/best practice case:

planning strategy & land allocation public area with view to the port

Hamburg, Germany: view to Container Terminal Altenwerder (CTA)

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports.

Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

In Altenwerder the port of Hamburg has developed a modern port extension area with a container terminal that has started running in 2002. Before construction work could start some remaining residents of the former fisher village had to be relocated, of which as a relict only the church with the cemetery has been obtained.



photo: Frank Möller

The area of Altenwerder includes an about 99 ha distribution and logistic centre, 11 ha handling area for railway and the state of the art Container Terminal Altenwerder (CTA) with four berths at Süderelbe and a capacity of 4 mio TEU has a handling area of about 64 ha.

An artificial hill south of the terminal area built of surplus soil in 2004 has been shaped with green and trees as a noise barrier and as a park. In addition a view point gives the opportunity to experience the port.

## EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The hill south of the CTA mainly was a disposal for surplus soil and it was not intended originally to build a view point near the terminal. Now it is a positive effect that visitors have a look to the activities on the terminal area from a short distance. The interface between port area and city becomes very close. There is an acceptance of modern port activity. Certainly ISPS Code has to be kept aloof.

#### **FURTHER INFORMATION**

www.hhla.de/Altenwerder-CTA.64.0.html





problem/solution:

example/best practice case:

infrastructure & transportation

noise emitting development/infrastructural adjustments

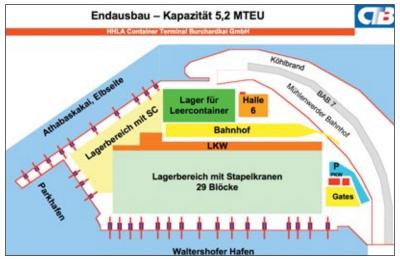
Hamburg, Germany: HHLA Container Terminal Burchardkai (CTB)

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports. Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

The HHLA container terminal Burchardkai (CTB) is the largest container terminal of the port of Hamburg. CTB plays a significant role to enlarge container capacities in an extension programme of Hamburg. The restructuring of the terminal takes place within the same size and layout of the area but the capacities of 2.6 mio TEU in 2005 will be doubled to 5.2 mio TEU. Several modification measures of infra- and super structure have to be performed, e.g. three new berths and construction of wharfages so that high efficient twin lift come into operation. The construction of a new railroad station results from the reorganisation of depots and storehouses. Core is the bearing block with 3 automatic cranes to adapt storage capacity. All modification measures consider the latest standard of noise reduction and proceed with consideration of housing in Övelgönne and Neumühlen on the North bank of the Elbe on the opposite side of the container terminal. Referred to a measure point in Övelgönne that is representative for the neighbourhood neighbourhood there is a predicted increase of total sound emission by only 1.3 dB(A).





position plans: HHLA

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

The implementation of the latest standard in noise reducing equipment permits a doubling of container capacity on the CTB directly opposite to a residential area. Modern technologies, an automated stacking system and high efficient working gantry cranes diminish noise during operation. This is a positive effect for the surrounding in the port and the close residential area.

#### **FURTHER INFORMATION**

Hamburger Hafen und Logistik AG, Mr Prinzmeier, prinzmeier@hhla.de Hamburg Port Authority, Mr Hurtienne





topic: communication & marketing

problem/solution: guided tours to container terminals

example/best practice case:

Hamburg, Germany:

"Auge in Auge mit den Giganten"

(face to face with the giants)

#### **SHORT DESCRIPTION**

Hamburg is the largest port in Germany and the second biggest container port in Europe, located about 100 km along the river Elbe in the inland. There was a cargo turnover of 140,375 mio t and 9.7 mio TEU in 2008. The port of Hamburg is one of the European North Range ports.

Hamburg is a city port and that is the main cause for specific requirements to land allocation in the port and the city. Although the economical structure of the city being versatile the port is significant for the identity of the city.

"Friedr. Jasper Rund- und Gesellschaftsfahrten GmbH" is the oldest bus company of Hamburg. Their range of services includes several experience tours, especially the insider experience tour of Hamburg harbour "face to face with the giants". The three-hour-tour takes visitors through the old city and historical port, gives a spectacular view from 60 m high "Köhlbrandbrücke" and as special highlight the bus passes gates and takes visitors to the terminals of e.g. Burchardkai to show the work of van carriers and reach stackers. The tour takes place in a regular coach for more than 40 people.



photo: Friedr. Jasper Rund- und Gesellschaftsfahrten GmbH

### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Communication between port and city is an important step to get nearer and to overcome conflicts between each other. Jasper's tour "face to face with the giants" shows people by impressive view the life on the terminal. The terminals usually are closed for visitors but the friendly cooperation between "Friedr. Jasper Rund- und Gesellschaftsfahrten GmbH" and Hamburger Hafen und Logistik Aktiengesellschaft (HHLA) allows guests to pass the gates although ISPS code doesn't permit.

### **FURTHER INFORMATION**

www.jasper.de





problem/solution:

example/best practice case:

planning strategy & land allocation
major events as catalyst for port development
Barcelona, Spain

#### **SHORT DESCRIPTION**

Barcelona is Spain's second biggest city and second biggest seaport of the country being located at the Mediterranean Sea. In 2008 Barcelona had a cargo turnover of 50,5 mio t and 2,5 mio TEU.

Barcelona is a famous example for developing and redevelopment of waterfront and port areas. Initial for this kind of extensive development were the Olympic Games in 1992. Several projects were implemented whose economically realisation was only possible in conjunction with big events. Available fallow land and other regenerative city districts were used.

Until then the city was closed to the sea, there was no access from the city to the coastal area. Barcelona was an upcoming provincial town and during organizing the Olympic Games provided the economical basis to redevelop the costal area, to open the city to the sea and to relocate port facilities.

The coastal line was structured newly. In past times the coastal line was affected by the old port. The North-eastern and Barceloneta now accommodate beach areas. Port Vell shelters a modern shopping mall and leisure centre "Maremagnum" with discos, shops, cinemas and aquarium. In the South new terminal areas were constructed with modern standard. The old port area "Port Vell" changed to an attraction for residents and tourists now.





photo: Autoritat Portuaria de Barcelona

#### EFFECTS TO THE PORT AND THE INTERFACE OF PORT AND CITY

Really big restructurings need flash points and catalysts. Mega-events like Olympic Games or other sporting events, international exhibitions (e.g. world exhibition, expo) or capitals of culture attracting interest of the international world.

Barcelona took centre stage in 1992 and got the chance to open the thitherto city closed to the sea. Port areas were relocated to the South were modern efficient terminal were constructed.

The opening of the city to the sea in combination with relocation of port activity was the beginning of a new interface of city and port in Barcelona. For people and industry the big event was like an act of release. Competing usages were disunited and opened the way for new developments. The Olympic Games were the chance Barcelona has seized.

#### **FURTHER INFORMATION**