



Report of the European Bureau for Conservation and Development (EBCD)

Visit of the green Port of Rotterdam

Visit organised under the subgroup “Maritime Affairs” chaired by MEP Peter Van Dalen, of the European Parliament Intergroup “Climate Change, Biodiversity and Sustainable Development”





The delegation from Brussels was composed of two Members of the European Parliament (Vilja Savisaar-Toomast, Dirk Sterckx), four MEPs' assistants (Struan Stevenson, Gesine Meissner, Dirk Sterckx and Jacqueline Foster), a representative from the cabinet of Commissioner Siim Kallas, nine representatives from the industry (ADS Insight, IG, IACS, INTERTANKO), an NGO representative (T&E) and two members of the secretariat of the intergroup (EBCD/IUCN). The group was transported from Brussels to Rotterdam by bus.

On arrival at the World Port Centre (WPC) in Rotterdam, the delegation from Brussels joined the rest of the group for a meeting with Ruud Lubbers, Ambassador of the Rotterdam Climate Initiative, and Alexandra van Huffelen, Alderman of the City of Rotterdam. The delegation in Rotterdam was composed of MEP Peter Van Dalen and his team of three assistants, 3 representatives of the Port of Rotterdam, 3 representatives of the Rotterdam Climate Initiative, a representative of IUCN, 16 representatives of the industry (ECSA, ESPO, EFIP, KVNR, Maersk, EBU, ECT, ESC, Royal Dirkzwager, Province South-Holland, CBRB, Deltalinqs, IOD), and the Dutch media.¹

Exchange of views with Ruud Lubbers, Ambassador of the Rotterdam Climate Initiative, and Mrs. Alexandra van Huffelen, Alderman of the city of Rotterdam

Mr. Ruud Lubbers, Ambassador of the Rotterdam Climate Initiative (RCI), explained that the RCI was initiated when the city of Rotterdam and the Clinton Climate Initiative sought to build a worldwide example of a climate programme for a city and port. The RCI is a public-private initiative between the Port of Rotterdam, the City of Rotterdam, Deltalinqs and DCMR. This special cooperation created a movement in which government, organisations, companies, knowledge institutes and citizens collaborated to achieve a 50% reduction of CO₂ emissions by 2025², adapt to climate change and promote the economy in the region of Rotterdam. Mitigation is a top priority. The RCI is undertaking this reduction by developing energy efficiency schemes, renewable energy and clean fossils (carbon capture storage - CCS). Besides energy efficiency, Rotterdam focuses on wind and biomass as a renewable energy. In the coming years, the port is planning to double its wind capacity onshore; biomass is becoming a booming business in that industry.

Mr. Lubbers shared his conviction that it is now becoming necessary to move towards a bio-based economy as the use of biomass offers the opportunity for making the transition to a renewable energy-based economy in three major sectors: the energy sector, the transport sector, and the chemical industry. All three dimensions create economical opportunities. Yet, to realise a biomass economy it is

¹ Complete list of participants in Annex 1

² Based on CO₂ emissions in 1990



necessary to move forward and take action and serious dilemmas will have to be dealt with, such as: is biomass sustainable? How does it affect the food chain? Will there be enough biomass available? And who will pay for it? An integrated approach is needed in order to develop a certification system that ensures sustainability and the economical feasibility of biomass. According to the World Economic Forum³, Europe has incredible opportunities for developing a bio-based economy but it misses clear willingness among policymakers to establish a strongly supporting environment for bio refineries. It is therefore crucial that Member States show political will.

Rotterdam is a booming port with large industrial complexes and a large expansion in electricity generation. These activities will bring the region a lot of extra CO₂ and even by developing energy savings and renewable energy, the set goals will never be achieved without carbon capture storage. On a global scale, the Netherlands has the best conditions to make the capture of CO₂ given the high concentration of the industry: the residual heat available can be used to capture CO₂. In order to prevent large quantities of CO₂ from entering the atmosphere, safe subterranean CO₂ storage and transport is therefore required. The Port of Rotterdam has already taken the lead in developing a pipeline infrastructure facilitating a CO₂ network for the industries and the industry is working together in order to build a shipping network that will facilitate a flexible transport of CO₂. However, Governments will have to become more outspoken on the necessity of CCS to combat climate change, as there is currently a lack of sense of urgency. Mr. Lubbers argued that the price of CO₂ should be the financial driver of CCS and therefore extra incentives should be devised to enable its deployment. Furthermore, depleted oil and gas fields on the continental shelf could be used as storage reservoirs for CO₂ but operators are hesitant of stepping into the business: extra guidance will be needed from Governments.

Mr. Lubbers would like to see a two-gear Europe; a situation where electricity generated by coal practices CCS. The Port of Rotterdam's aim is to become the centre of a bio-based economy for North-West Europe. He concluded his speech by stating that "sustainability is not a wish, it is a concrete commitment and we can only fulfil this commitment by putting our words into action. And so we do."

Mrs. Alexandra van Huffelen, Alderman of the city of Rotterdam, argued that sustainability, transport and economic growth are all issues related to the city and the port of Rotterdam, the most CO₂ emissions concentrated area in the world; the port is responsible for 16% of Dutch CO₂ emissions, an important percentage of EU levels, adding to it the high levels of noise, air quality, pollution and so on. It is thus essential to do something about the environment in that context if a liveable city with quality of life is to be maintained. The city and port of Rotterdam are working hard for the port to become the greenest port in the world. In this perspective,

³ June 2010



cooperation is active between ecology and economy in the city and the port working on the efficiency levels of the port and on making companies becoming energy efficient and reducing emissions. The aim is to become a green, clean and (economically) healthy city. The targets are to reduce CO₂ emissions by 50% by 2025 and ultimately to render the city 100% climate proof. The city and the port devised the work into several steps:

- Energy conservation: it is a priority to connect companies so that one company can use the CO₂ emitted by another but also to heat the city with energy produced by the port.
- Carbon Capture Storage: the largest programme of carbon capture is in Rotterdam, where the idea is to put the CO₂ in a tub, store it and transport it to oil and gas fields to be used for oil recovery. Captured CO₂ can be used in greenhouses as well. The European Commission should support such schemes.
- Biomass: can be used for electricity or for clean and green chemicals as raw material (except fossil fuels). The EU should develop a certification for biomass. Furthermore, emphasis should be out on using locally produced material as opposed to shipped material.
- Clean transports: it is difficult to do in places like Rotterdam that receive a multitude of boats. Stopping that level of activity would mean closing the port within a few years. Therefore, it is important to develop programmes that will make boats cleaner, using other type of fuel and more efficient.
- Economic growth: this represents a challenge in terms of CO₂ reduction, as it is the result of the activities of houses, transports, companies and industries. It is important to give enough room and freedom to companies; the industry and companies should work together with the Government as partners and the latter should not set the rules and impose limitations without consulting their partners and finding solutions together. For example, UNILEVER has recently taken the initiative of reducing CO₂ emissions by 50%.
- Worldwide cooperation with other ports and cities: connections should be made to different environmental issues. Ports and cities should work closer together with business and larger industry, i.e. reinforcing laws at the Government level.

Mrs. Van Huffelen concluded that having a growing and flourishing economy is not incompatible with adopting green methods: indeed, 2010 was the best year that the harbour has had although green measures had been taken.

Questions from the audience:

MEP Van Dalen argued that there was a need to earn money and make economic profit at the same time as environmental targets are set: he asked what attractiveness there is for companies to step in such context of environmental targets and what assurance there is for them that they will make money.



Mrs. Van Huffelen replied that there are various benefits for companies: they will reduce costs by spending less energy and at the same time become more efficient. At the same time, local Government and the harbour will have to work together with companies as investments will be needed. Being green and clean is linked to innovative products and services; for instance, UNILEVER has doubled its revenues by reducing CO2 emissions. This in turn, will give the opportunity to companies to sell their products and services all over the world. In the case of Rotterdam, the industry is taking the leading role.

Due to a late arrival of the delegation from Brussels, the discussion had to be interrupted in order to keep on track with the agenda. The group of around 40 people was taken outside the WPC to visit an environmentally friendly inland vessel.

Visit of environmentally friendly inland vessel: *Syracuse of Antoine*

This ship produces 92% less NoX than a normal boat, an important reduction of environmental burden, through caustic and electrolysis processes. This represents the equivalent of a 20% reduction of total transport. CO2 emissions were reduced by 30%. The boat has one big engine, a Particle filter – De-NoX system for diesel engines on ships.

The owner of the ship argued that it is possible to reduce a lot of the NoX produced by ships. According to him, companies should be made more aware about the possibilities that are available to them. The boat was financed by subsidies from the Government of Netherlands and AKZO: the total costs amounted to 72,000€.

After a very interesting example of an environmentally friendly inland ship, the group was taken to the other side of the docks for lunch on a vessel of the Port of Rotterdam, courtesy of the port of Rotterdam.

Working lunch on board of the *Nieuwe Maze*: exchange of views with Mr. Smits, CEO of the Port of Rotterdam, and Mrs. Baljeu, Alderman of the city of Rotterdam, on the concept of green ports

MEP Corine Wortmann-Kool joined the group for this part of the visit. Lunch was served on board of the Nieuwe-Maze while sailing towards the following stage of the visit.

Mrs. Baljeu, Alderman of the city of Rotterdam, reiterated the importance of relationships between the port and the city. It brings stability to the economy,



economic growth for the city and important environmental benefits. Relationships between the authorities of the port and the authorities of the city are essential if these three elements are to be maintained and if a fine balance is to be found between living and working in the city. Mrs. Baljeu, like her colleagues during the meeting at the WPC, put a strong emphasis on the concept and need for sustainability.

Mr. Smits, CEO of the Port of Rotterdam, highlighted the world-class level and high quality of the port of Rotterdam and put the accent on the concepts of accessibility and sustainability as being essential for a liveable city where people can work and live. He underlined the very strong growth observed in 2010 in the port. This was due to the increase in world trade, the growth of the German economy, which made the port gain market shares. In 2011, a 3-4% growth is expected with an increase in the number of containers and in steel and mineral oil products. The port of Rotterdam has developed a Master Plan 2030: growth will be dependent on world trade and the oil price. However, different studied scenarios all say that there will be growth. The strategy for the Port includes further developing accessibility by road to the port, which is a big challenge. Furthermore, ships with the lowest levels of NoX and SoX will benefit of a 5% discount in harbour dues. Investing in transport infrastructures is the most effective way of stimulating an economy, according to Mr. Smits.⁴ Increasing logistic processes in the port are much needed. The EU needs to develop at a higher speed and invest more in European transport networks. Mr. Smits held that ECAs should apply to all areas of Europe in order to allow a level-playing field. It would also be useful to increase the efficiency of intellectual transports from hinterlands to ports – there is already strong cooperation between the port of Rotterdam and the port of Antwerp; new nodal points could be formed in Southern Germany.

Questions and discussion

MEP Van Dalen asked Mr. Smits what is expected from the European Parliament on the infrastructure issues.

Mr. Smits answered that the European transport policy should be more stimulating and that a long-term based strategy for European infrastructures is desirable. What is needed is a combination of modal shift in Europe and cross-border efficient processes.

MEP Sterckx asked what the link is between the city and the port. He further asked what the experience of Rotterdam is with the rail and what is expected from the EP regarding the rail package.

⁴ Last year, the EU only showed a 1.5% growth



Mr. Smits replied that the port is publicly owned. He then expressed his optimism regarding the rail sector. There is a EU project called the 'Rotterdam-Genoa Corridor 2024'. However, there is the need to develop a sense of urgency to take up this issue and go forward: more political will is needed at the European level.

MEP Wortmann-Kool asked what the problem is exactly with accessibility.

Mr. Smits answered that the port of Rotterdam expects a strong growth in short sea shipping; yet, accessibility is out of the control of Port authority – there is a problem of customs and of political hesitance.

MEP Sterckx asked how port authorities defend public interests and whether it can do more than offer services and infrastructures.

Mr. Smits argued that the port of Rotterdam does not feel squeezed by shipping lines because of its size: therefore they seek the healthiest competition as possible. Besides, the port is regulated by free market mechanisms

Mr. Guinier argued that soft law does not work.

Mr. Smits replied argued that port authorities should give out land without always having a pure economic vision.

MEP Van Dalen reiterated a question formulated previously regarding the possibility of the port of Rotterdam becoming a green port at the same time as it remains competitive and produces profits. He asked how the tension between environmental targets and the need for financial benefits is dealt with.

Mr. Smits replied that multinational companies have a sustainable strategy. Being sustainable and stringent at the same time stimulates the economy. Ultimately, all want to make money in a sustainable and profitable environment. Port authorities should further stimulate investments in that sense.

Mrs. Baljeu added that sustainability is a mindset: what is crucial is to change the way business is done and to produce growth in a sustainable way.

Mr. Smits also pointed to the fact that it is important to keep the fine balance between what can be asked to clients and what cannot.

MEP Wortmann-Kool said that it is costly for ships to get fuel that is environmentally friendly.



Mr. Smits replied that investments in refineries is also important at this stage, however, it takes time. Speed limits have for instance been introduced in Rotterdam for inland shipping.

After little more than one hour of pleasant lunch and interesting discussion the boat finally arrived at its destination. The delegation was taken on board of the bus to be driven to the Uniport Terminal to visit an environmentally friendly sea ship.

Visit of environmentally friendly sea ship – Maersk sea ship

The ship visited sails between Europe and South America, transports 3000 containers and has a crew of around 20 seafarers. It uses low sulphur fuel of less than 1% as soon as it leaves the port and can reach its cruise speed. Maersk ships never use more than 3% sulphur fuel.

The group was taken on board to visit the captain's commanding cabin on the last floor and the technical cabin and the engines on the lower floors. The ship was expecting to depart in that same evening. Unfortunately, the captain could not meet with the delegation but the technical engineers were of great help to provide the information requested by the visitors.

After a long and very interesting day meeting with high-level officials and visiting examples of environmentally friendly ships, the delegation was kindly invited by ECSA, ESPO and KVNR for dinner on board of the famous SS Rotterdam – this boat used to transport Dutchmen to New York in the old days.

Dinner on board of the SS Rotterdam

Jan Otto de Kat, Maersk, stated that being environmentally friendly makes business and economic sense. CO₂ is the main greenhouse gas emitter from shipping – container ships, boat carriers, tankers. It is possible to cut CO₂ by burning less fuel. Initiatives undertaken include: reductions and changes in operations, development of low energy reefer containers, and a change in systems in order to become energy efficient. It provides stimulation for yards to produce efficient ships. New container vessels show a 23% efficiency improvement: Maersk is the only company that has invested in waste heat recovery systems. Savings per year per vessel are consequent. The sulphur challenge in existing fleets involves burning low sulphur fuel, retrofit SoX scrubbers and use biofuel. Furthermore, it is possible to operate ships at low speed by reducing the load: this proves to make big savings and produce less CO₂ emissions.



How to make the overall supply chain greener? Will the changes have to come from the consumers and their carbon footprint? Will the changes have to be structural or will benchmarking be needed? Mr. de Kat held that labelling is a good option for developing energy efficiency indicators for ships. Investing more first will bring bigger pay offs later, according to him.

25 organisations have come together to form the “Green Ship of the Future” Forum and find ways to reducing CO2.

In conclusion, Mr. de Kat stated that shipping is an efficient mode of transport and that the shipping industry can achieve ambitious emission reduction goals. Long-term horizons are needed for R&D, testing and implementation.

The President of the Ship-owners Association stated that shipping will grow so it is urgent to act before it is too late. Shipping must become greener: researcher is and will be key. It is important to act globally in a global sector and not only to take EU measures. Shippers can also help. Before anything, there should be one single and dominant index.

In conclusion to this day-visit, MEP Peter Van Dalen touched upon the scepticism within the European parliament about the concept of “green ports”. He argued that more steps forward are needed to reduce our carbon footprint.