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Sustainability report Port of Antwerp

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The port of Antwerp aims to position itself as a leader in sustainability in the Hamburg-Le Havre range.



In the 20th century, the emphasis of port policy **focused heavily on economic development**. The basic objective was to organise various and ever-growing flows of goods and to create stable, large-scale employment for highly trained people. This will also remain the core task of the port community in the future. However, a number of social themes will influence port activities more than before. **Environmental management is gaining more prominence**. Stakeholder management needs to be developed further. In the coming decades, the port will also promote a policy of economic diversification to expand synergy between maritime trade, logistics and industry into new services connected to the port. And, **last but not least**, work will be done to develop modes of hinterland transport that have a lighter impact on the surroundings.



The port of Antwerp sees itself as **a port of and for people**. This demands continuous attention for the involvement of the city and the region, and the further reinforcement of support for the modern port. The only way to maintain the high productivity that our port is famous for is by recruiting the right people in the right place. Matching labour supply and demand remains a challenge. A long-term relationship with employees and extensive promotion of port jobs are needed to ensure labour continuity, within a safe working environment

Finally, it is important not to lose sight of the fact that **the geographical location** of Antwerp itself is unique for a future-oriented transport policy. Where else in the world can the largest ocean-going (container) ships navigate 80 km inland to the heart of the most

urbanised and industrialised region of Europe? It is almost certain that transport costs over land will increase further under European and national regulations. This makes the inland location of the port of Antwerp an important trump card that limits transport costs and minimises transport-related effects on the environment. This factor is further reinforced by the continuing expansion of the tri-modal connections that are present for further transport inland.

The bundling of goods flows in a world-class port offers many new opportunities for an updated **mobility policy**. The ultimate criterion is of course that the transport of goods between the maritime foreland and the continental hinterland can proceed smoothly. Even on the land side, the main port model offers important benefits for mobility management. By bundling major cargo flows in a port with sufficient critical mass, such as Antwerp, sufficient cargo volume can be consolidated, making it possible to increase the use of inland waterways and rail. This makes a very environmentally friendly transport policy possible, which is expressed in the **modal split** that is beneficial for Antwerp. This does still need to *continue to evolve towards modes that have a lower impact on the surroundings.*

Sustainability not only means maintaining and reinforcing the competitive position of the port, but also building a vital economic web that is resilient to crisis. For Antwerp specifically, a central priority is to develop the most diverse possible port economy (**main port concept**). This will promote the stability of the port economy and create numerous synergies that strengthen the economic structure of the port, and therefore its attractiveness.

Good management demands **vision and a stable strategic policy** that does not change direction with every change in economic situation. A *stop and go* or zigzag policy only creates a lack of clarity and uncertainty for the port community and for the other stakeholders. The merit of the sustainability report is that a large number of elements of sustainability are given in a single overview, starting from a baseline measurement of these elements.

With the Total Plan and the collaboration between all the partners at the port level, the sense of community has received a more solid foundation, which further underpins support for a long-term perspective for the port of Antwerp.

With this sustainability report, the port community intends to increase support for sustainability to include the companies and actors connected to the port, to attract sustainable investments, not only to inform the stakeholders but also to involve them in the sustainability performance, and to offer the Port of Antwerp's global clients an efficient and economically strong partner in the global supply chain.

After all, a sustainable approach is **a basic requirement** to be able to achieve continued growth and to be able to continue to make progress in all elements of People, Profit and Planet while increasing in scale.

Strategy

The Antwerp port community has the **ambition** of positioning itself as a leader in **sustainability** in the Hamburg-Le Havre range. This objective is also reflected in the Total Plan for the port of Antwerp.

The four major themes of the supply chain and the six themes to reinforce the community must ensure a vital and effective, environmentally friendly and locally supported port.

Vital and Efficient

A vibrant port is a major economic driver of its region and hinterland, where all the activities are done effectively and efficiently. The actions below affect the profit side.

Making the choice for Antwerp easy:



a reliable partner in the global supply chain

- a main port with excellent nautical accessibility, with a wide range of continuous services with synergies between the different functions (maritime, logistics, industry)
- with its cargo-generating capacity for the hinterland and the port industry
- with available capacity for container handling, a unique pipeline network and the highest concentration of logistical storage and distribution spaceand its high labour productivity

Sustainably optimising the **high added value** of the port for Flanders and Belgium.

Improving **hinterland access** to facilitate the growth of intermodal transport to and from Antwerp. Implementing the Master Plans for transport by inland waterway, rail and road and integrating them with the government's Mobility Masterplan for Antwerp.

Strengthening the position of the port of Antwerp on **the global market**. Sustainability is one of its trademark features for this. Offering services that are among the best in the world by investing in improvements of the operating efficiency and optimisation of technical nautical services.

For **the supply chain organisation**, making maximum use of the existing and planned navigation options and developing a long-term vision for nautical accessibility. An integrated supply chain approach will be a key concept to enable the ships not only to enter the port smoothly, but also to be handled efficiently once in port.

Implementing a strong **innovation policy** to keep the competitive advantage and the image of the port at a high level.

Improving operational **efficiency** through higher storage productivity. Unused or unusable land will need to be prepared for construction in the coming years.

A **safe and secure port** is a crucial condition for smooth cargo handling. Maintaining the good reputation of the port of Antwerp (all the terminals for ocean shipping are ISPS certified), and strengthening it where possible.

Environmentally friendly

A port that keeps ecology and nature in mind. Activities in the context of the planet.

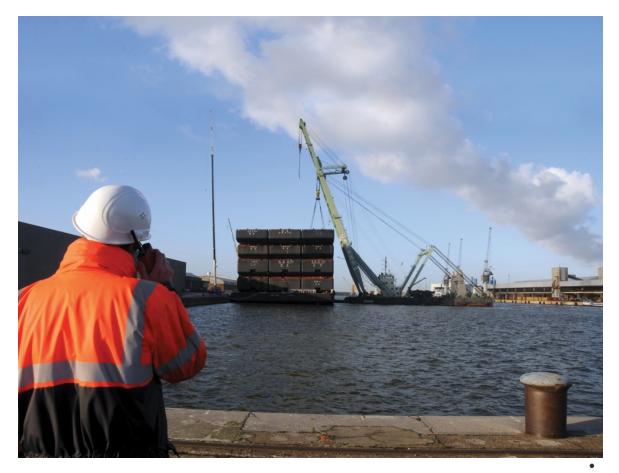


Proactively, responsibly and critically dealing with environmental challenges.

- Developing a knowledge centre that gathers all the relevant information and data to implement a coordinated environmental and nature policy in the port area.
- Overseeing the evolution of caring for the environment from being a potential obstacle to economic expansion to being a competitive advantage in comparison to the other ports in the range.
- Proactively investigating how the activities measure up to the international, European and Flemish environmental targets.
- Handling environmental challenges from the point of view of social involvement.
- Testing environmental efforts and strategies for their effectiveness and efficiency in the context of the global environment. Region-oriented integrated interpretation of these principles where this generates added value for the environmental policy in the sector.
- Region-oriented: The specific character of the port means that it needs complementary and supplementary (and possibly replacement) policies aside from the policy in the sector to the extent that this serves the environmental objectives. This ensures a more effective and efficient environmental policy.
- Integrated: Port users benefit from looking at the environmental issues in an integrated way. This is because there are cumulative effects and interactions between the environmental components.

Local support

A port of and for people. Activities in the context of people.



Staying alert to **changing environmental factors** at the national and international levels. Continuing to devote attention to the social aspects of work. Emphasising

education, training and attracting sufficient staff.

- **Making a contribution** to the social efforts for a more sustainable society with special attention to area residents and employees.
- Strengthening **social support for the port** among all stakeholders in Belgium and abroad. Being attentive to soft values in addition to the creation of employment and welfare.
- **Improving awareness** of the importance of the port of Antwerp, promoting social integration with the city and the wider region, promoting maximum participation of the players involved. Many diverse instruments are used for this that are coordinated with each other through consultation structures.
- Strengthening the image of the port of Antwerp as an **attractive employer**.
- Ensuring a healthy **social climate**.

Important outcomes, challenges and opportunities

After almost two centuries of uninterrupted port expansion, Antwerp has grown to become a world-class maritime logistics and industry cluster. The history of the port shows that this evolution was linked to rapid growth, but also continued in periods of stagnation and even recession. The most important port operators have always succeeded in bringing the port economy back to a state of growth through product innovation, expansion of the products offered, and extensive investments in infrastructure and superstructure.

However, with expansion of the past decade and a half, and after the "Saeftinghe Development Area" is put into use, the port will have reached its **physical limits**. For the first time, policy makers are being confronted with the concept of 'finiteness' for port planning. 'Finiteness' is however **a challenge rather than a problem**. To be able to grow further, infill development, rezoning and investment will be the keywords for the future, together with **sustainability**. Because when the concept of 'finiteness' gains a place in the port discourse, the concept of 'sustainability' will unavoidably become more important.

At the same time, the port has in a way become a victim of its own success. The vast area and the impressive cargo volume create **major challenges with regard to capacity, the environment, and efficiency of the logistical process**. If the port wants to maintain support from the general public, fundamental solutions will be needed. At the same time, the rapid changes of the global economy and the rise of new values enhances policy makers and business owners to adjust their focus

In short, the port will **only be able to remain a main port** by making space for more traffic and industrial and logistical activities on its current land area and the future Saeftinghe Development Area. In addition, it will be necessary to ensure the maritime and continental accessibility of the port in the long term and it will be crucial that the external effects of the port activities on the water, air and soil are kept to a minimum. Finally, the port community remains an important employer. The competition for talent will continue unabated.

If these challenges are not answered, there is the **risk** that the port will lose its role as an economic centre. A restructuring process is therefore the logical next step. The first scenario is of course preferred simply because the main port scenario provides by far the most benefit for the community economically, socially and ecologically.

The Antwerp port community. Who does this mean?

The Antwerp port community consists of **about 900 companies** with a wide range of activities. In 2010, they employed about 60,000 people directly. Indirectly, they employed slightly more than 86,000 people. The Antwerp port community is represented at the regional, national and international levels by various organisations, of which the Antwerp Port Authority, Alfaport Antwerpen and the Maatschappij Linkerscheldeoever are the most important. They **took the initiative together** to obtain an overview of how sustainable their port is.



The **Antwerp Port Authority** (abbreviated **GHA** (Gemeentelijk Havenbedrijf Antwerpen)) was established in 1997 as an autonomous company owned by the city of Antwerp. It plays an important role in the daily functioning of the port. Its approximately 1,650 employees ensure that the port functions optimally and can grow. The GHA manages and maintains the docks, the bridges, the locks, the quay walls and theconcessions. Its staff is responsible for safe shipping traffic behind the locks. It also provides tugboat services, conducts dredging and crane operations, promotes the port in Belgium and abroad, and communicates about the port on a daily basis. The GHA also invests in the future of the port of Antwerp. It strives for sustainability in all facets of the port and aims to be a good example of corporate responsibility.

Alfaport Antwerpen (abbreviated as **Alfaport**) is a federation that represents five industry associations, which in turn represent over 400 member companies. They directly employ over 22,000 people and also generate a large amount of indirect employment. The 400 companies are affiliated with the five founding members of Alfaport Antwerpen:

- The Antwerp Stevedores Association (ABAS)
- The Antwerp Shipping Federation (ASV)
- The Royal Belgian Shipowners' Association (KBRV)
- The Royal Association of Trafficflow Controllers (KVBG)
- The Antwerp Freight Forwarding, Logistic and Works Agents Association (VEA)

Alfaport has formulated five preconditions that will ensure the **sustainable development** of the port of Antwerp:

- Timely investments in infrastructure,
- A modern and flexible workforce that meets the needs of the companies,
- Space for sustainable and investment-friendly climate for businesses
- Provision of training attuned to the labour demand in the port,
- A secure port.



The Maatschappij voor het Haven, Grond- en

Industrialisatiebeleid van het Linkerscheldeoevergebied (Corporation for the port policy and the industrial estate policy for the Left Bank of the Scheldt, abbreviated **MLSO**) has been responsible for the management and land-use policy of the Waaslandhaven since 1982. Its most important activities are preparing land for construction, granting concessions to companies for a part of the Scheldt Left Bank Area, expropriations and advising the government regarding the development of the port area. The port in the Scheldt Left Bank Area covers 5,818 hectares. Over the past 25 years, more than 900 hectares of this area has been granted in concession to companies. As of the end of 2010, 14,044 people (FTE) were employed in the Waaslandhaven.

The MLSO took a number of concrete steps in 2010 to realise its policy vision with regard to sustainable port management in which the connection between economic and ecological interests are always a central principle. In this way, the MLSO supports the sustainable growth of the port by taking advantage of the available opportunities. After all, its central position in the policy strategy enables it to play a major role in the development of sustainable energy.

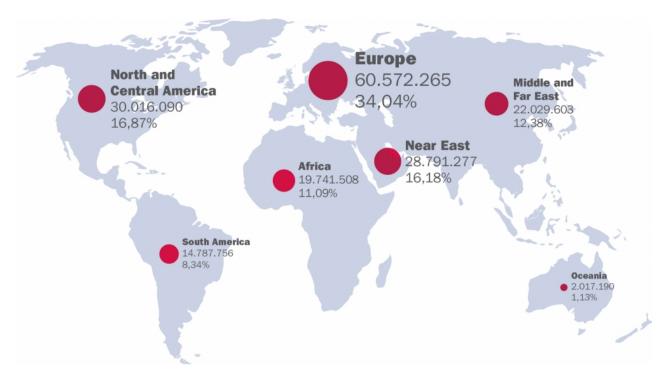
The **three initiators consult frequently** within various forums. The GHA holds shares in the MLSO. Alfaport has an active role in the port environmental dialogue that is coordinated by the GHA.

The port of Antwerp and the world

The Antwerp port community is active in the Antwerp port area, but also forms a link in a long logistical supply chain between the world and the Flemish, Belgian and European hinterland.

The port enjoys **a particularly favourable location from a European perspective** as this video clip illustrates.

Supply and uptake per world region in tons (2010)



	supply	uptake	total
Europe	35.297.478	25.274.787	60.572.265
South America	8.666.165	6.121.591	14.787.756
North and Central America	15.832.322	14.183.768	30.016.090
Africa	9.820.461	9.921.047	19.741.508
Middle and Far East	9.668.878	12.360.725	22.029.603
Near East	12.236.773	16.554.504	28.791.277
Oceania	1.297.714	719.476	2.017.190
Total	92.819.791	85.135.898	177.955.689

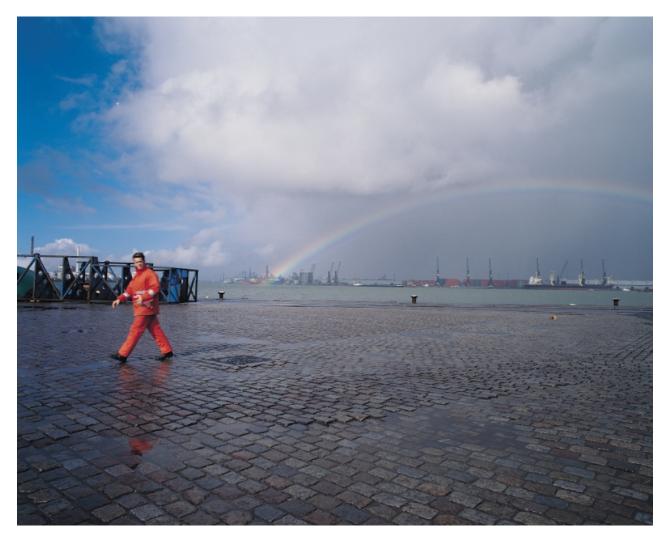
The partners in figures

	GHA	Alfaport	MLSO
Ownership structure and legal form	Autonomous Antwerp Port Authority	VZW (non profit organisation)	Public Limited Company
Number of employees (FTE)	1.661,9	5,3	8
Number of employees represented in the port		22.000	
Net revenue (public sector) - euros	246.961.658,81		7.326.653,00
Net turnover (private sector) - euros			
Total capital - euros	1.091.622.150,89		166.714.285,00
Equity capital Debts (private sector) - euros		5.430.569,08	
Total assets - euros	1.219.647.437,20	514.073,88 5.962.023,97	166.714.285,00

Our awards: honours we can be proud of

The Antwerp port community has won numerous awards in recent years. Here are a few **examples**.

- Lloyd's List Global Award 2010: Port Operator of the Year
- Security Award 2009 from the National Nuclear Security Administration (US): because since 2007, the port of Antwerp has conducted intensive monitoring in over forty locations for the presence of products with radioactive radiation. This nuclear detection forms part of the global Megaports Initiative to deter the trade in nuclear weapons.
- **Shipping Star Award 2009**: the Shipping Star Awards are an initiative of the website ShippingChina.com, and are awarded on the basis of votes cast by merchants, shippers and logistics companies in China, among others.
- **Best Dry Bulk Port 2009**: among other things, the nominated ports were assessed for the efforts that they have made to handle bulk goods in an efficient, safe and environmentally friendly way, the quality of the further logistical handling, customer-friendliness, the investments in port infrastructure, and for the approach of their management to generate local and international business. The Port of Antwerp received the best assessments for these criteria.



The companies that are active in the port have also received many awards and recognition in recent years. This sustainability report includes an **appendix with the overview of these awards** as known to the port community at the time of publication. The companies are encouraged to update the list via this website.

This only includes distinctions, awards, honours, etc. Safety, quality, product and other certification is not included. After all, practically every company in the port is certified in one or more aspects, which would result in a virtually endless list.

A sustainable path through the port

In this report, we will start by following the route that goods take through the port of Antwerp.

This route begins **well beyond the port**, of course. What role does the port of Antwerp play? Why do customers choose Antwerp, and who are these customers?

We will then make a number of stops **in the port**. What is the economic impact of the port of Antwerp? What is going on in terms of industrial activity and its investment policy?

In the end, goods need to get to their destination on time. We outline the possibilities that Antwerp offers with regard to **modal split**: the use of modes of transport to **move goods to the hinterland**. The evolving composition of the modal split gives an indication of the degree to which the inland transport is done in an environmentally sensitive way and the extent to which non-road based modes are gaining importance.

Finally, we go **to the quay**. We discuss the soil quality, the ecological infrastructure, etc, and of course give the necessary attention to the stakeholders: the employees, the area residents in the two provinces in which the port is active, the schools and training centres, etc.

We will add a number of indicators for each the total of nine stops to give you an idea of the results that have been achieved by the port of Antwerp with regard to people, planet and profit.

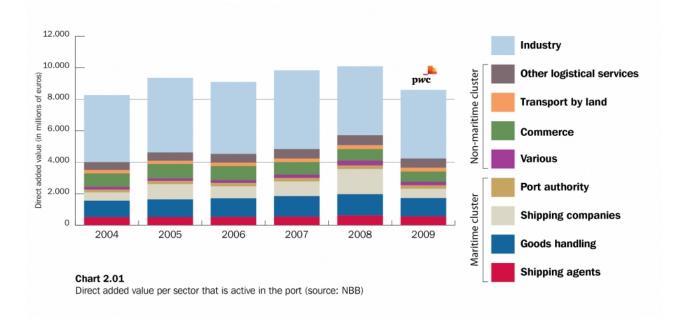
Enjoy your trip!

Stop 2: A driver of the economy and employment

The combination of maritime, logistical and industrial activities generates **significant added value**. In this way, the port of Antwerp plays an important role in the economic fibre of Flanders and Belgium.

Of course, this is also reflected in employment. The port of Antwerp directly**employs about 60,000 people** who live close to the port, most of whom have permanent full time jobs.

Added value

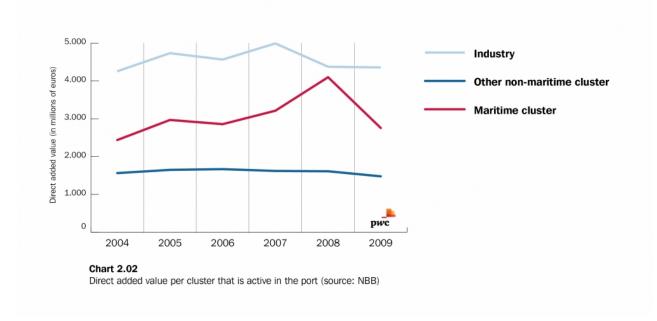


Per sector

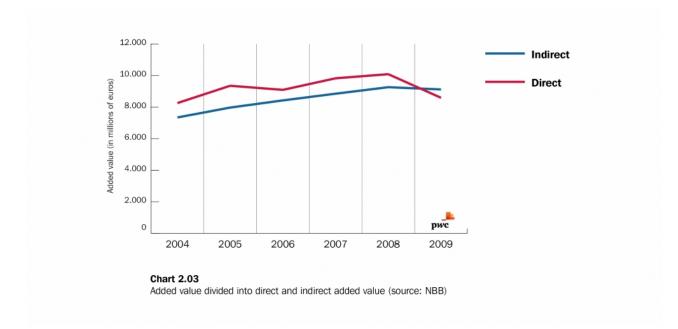
The breakdown of the added value gives an indication of the diversified structure of the port. The overview also shows **the high importance of industry**, which creates about half the total added value.

Over the past six years, there has been a rising trend in the added value with a short period of stagnation in 2006 and a major drop in the crisis year of 2009. Industry was already stagnating in 2008 due to the high oil prices and the impending end of GM Opel. The development of the added value is strongly affected by the high volatility of the shipping sector.

Per cluster



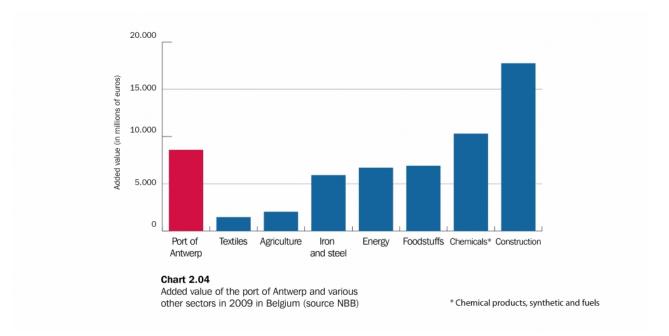
In the period from 2003-2009, the maritime sector, with 5.9% average growth, was more dynamic than industry, which grew by 1.8%. Given the share of the industrial cluster, the port has every interest in maintaining the diversity of the cluster with a proactive investment policy.



Direct and indirect added value

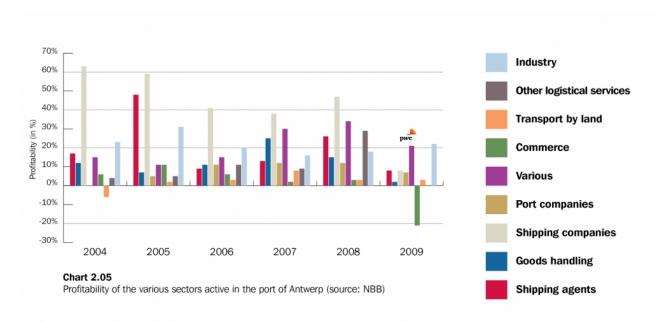
The indirect added value has been much less changeable and is therefore much more resilient to crisis than the direct added value.

Share of Flemish and national GNP



The added value of the port of Antwerp is greater than many other business sectors in Belgium, as shown by the data from 2007. Only construction created more added value in that year. In 2009, the direct added value in the port of Antwerp was 4.4% of the GDP of Flanders, 0.7% less than in 2008. The total added value represented a 9.1% share, a decrease of 0.6%.

Nationally, the shares of GNP were 2.5% and 5.2% respectively.

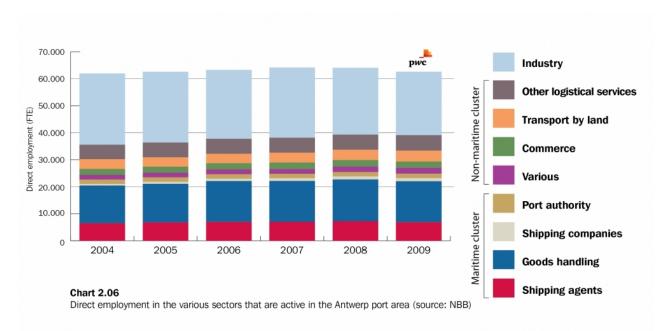


Profitability

In general, the profitability of the businesses in the Antwerp port sector is at **a good level**. However, the **split** between sectors with a good or normal margin and the sectors with a low margin is striking (land transport and commerce). The **shipping companies** are highly profitable, but this is very dependent on the economic situation. The crisis of 2009 had a strong negative effect on the profit margins of all sectors, with the exception of industry, which seemed to be relatively crisis-proof. Better knowledge of the factors that affect the profitability of the various sectors is needed to achieve better directed policy.

The port as an employer

The activities in the port provide work **in and around Antwerp and in Flanders**. The diversity of jobs is not the only remarkable factor. The scope of employment is particularly impressive. About 60,000 people work in the port of Antwerp itself, and port activities provide over 85,000 further jobs in the rest of Belgium, meaning that the port provides more than 145,000 jobs in total. This represents about 6.6% of working people in Flanders or 3.8% of Belgians.

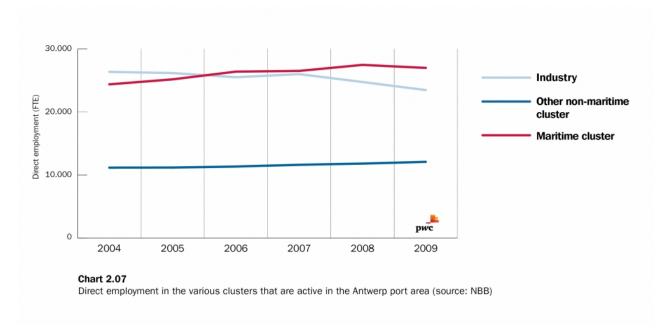


The trend in **employment** was slightly rising until 2008, with only a slight fall in 2009. With a decrease of 2.3% in 2009, employment in the port of Antwerp indeed suffered less than the added value during the economic recession.

It is clear that despite the significant fall in activities in 2009, the **different business sectors** despite the significant fall in activities in 2009 – have successfully developed a business strategy that can maintain employment even in difficult times.

The weight of **the maritime sector** in terms of employment is much greater than its share in the added value. In terms of job creation, the maritime sector has in fact been more dynamic (average growth of 2.7%) than industry (-1.1%).

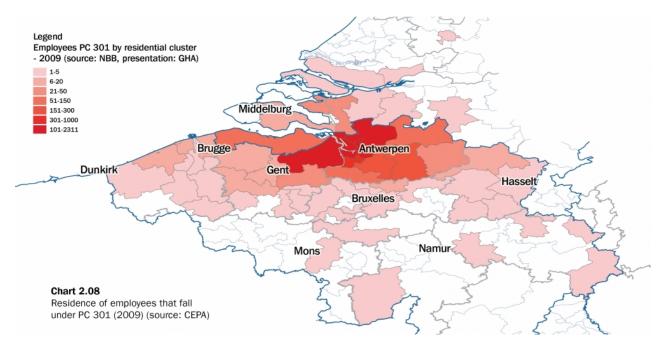
Land transport and other logistic services continued to grow further. Employment was at its highest level in six years in both sectors. By contrast, employment in the commerce sector fell for the second year in a row.

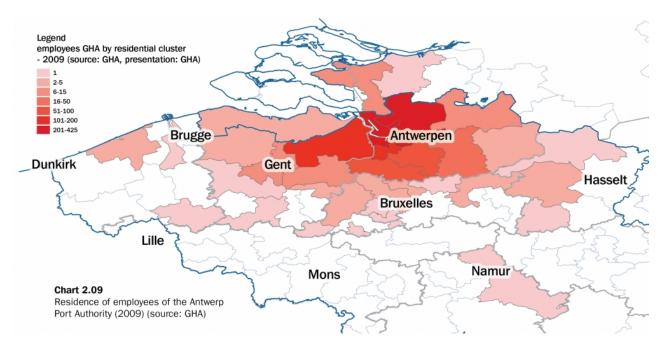


The effect of **outsourcing**, which has gained importance in recent years, warrants further attention. To be more competitive, companies are applying themselves more to their core activities. Support services have been cut back and are now being contracted externally. This can make it appear that employment has fallen dramatically in a certain sector, but in reality it has simply shifted, and the jobs are often retained.

Employment in the region...

The port of Antwerp has **a strong social and economic influence on the region**. In the municipalities around Antwerp, an average of 12.8% of the working population work directly or indirectly for the port on the basis of the residences of employees of the port of Antwerp of the Joint Committee 301 (PC 301) (\pm 9,000 people) and the Antwerp Port Authority (\pm 1,650 people).

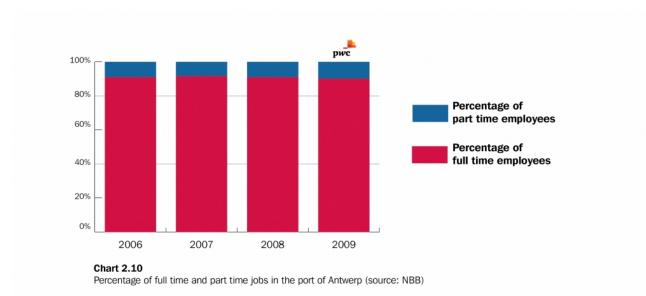




...full time and permanent

About 10% of the employment in the port is made up of part time-jobs. By comparison, at the national and provincial level, more than 30% of the workforce is employed part-time.

The fulltime aspect is also reflected in the duration of the employment contracts. Only 3% are temporary.



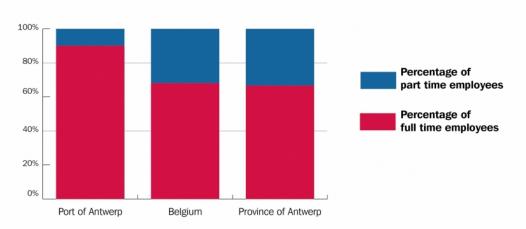
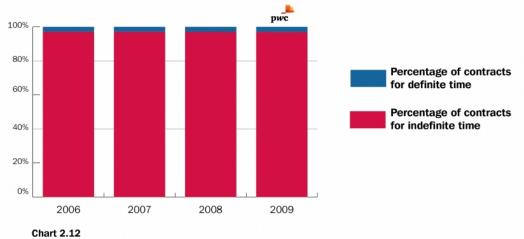


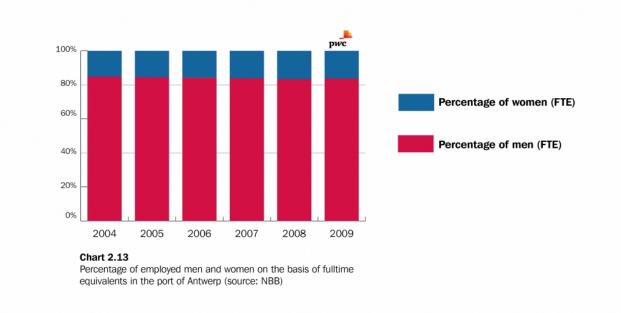
Chart 2.11

Percentage of full time and part time jobs in the port of Antwerp, the province of Antwerp and Belgium in 2009 (source: Steunpunt WSE)

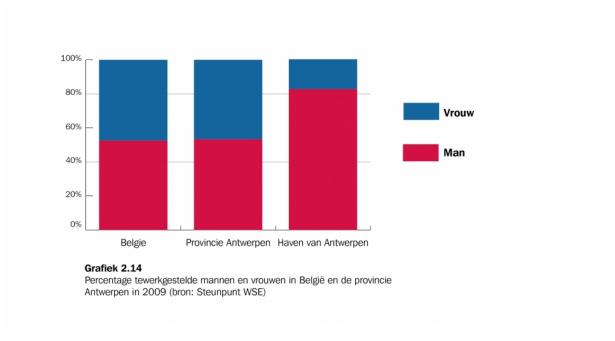


Percentage of employment contracts for indefinite time and definite time of employees in the port of Antwerp (source: NBB)

...but still primarily for men



The port of Antwerp clearly employs more men than women. The 80/20 ratio in the port differs markedly from the 50/50 ratio at the national and provincial levels.



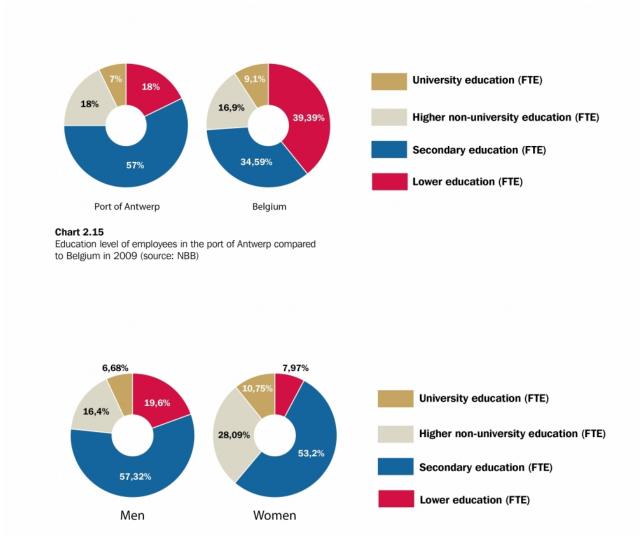
This different proportion cannot be supported by scientific research. At most, a number of explanatory factors can be given, such as: PC 301 (the joint committee for dockworkers) has a chiefly male tradition.

The developments within port labour in recent years do however mean that women are making an appearance. **The industry and especially the agencies, shipping companies and freight forwarders** are implementing a more mixed policy. All the partners in the port now devote attention in their recruitment communication to the possibilities and equal opportunities for both men and women.

Education

In comparison to the national level, the port of Antwerp has roughly equal shares of people with university education and non-university higher education. The number of employees trained at the secondary education level is somewhat higher. The education level of women in the port is comparatively higher than that of men.

Training is a high priority in the port of Antwerp. It is one of the factors that contribute to the high labour productivity that the port of Antwerp is known for. Work safety also benefits from this. Productivity and safety will be discussed further when we go to the quayside in stop 4.



Grafiek 2.16

Training level divided by man/woman in the port of Antwerp in 2009 (source: NBB)

Women can make their own decision

We notice that the table is set for a lot of people when we enter the top floor of the brand new MAS Pavilion. Is this a coincidental allusion to the fact that the women in the company often have to count for two or more? In spite of all the efforts, women remain a rarity in top positions, especially in the port.

Three women took up our invitation to talk about this. Two have made it in the male bastion that the port seems to be, and one is well on the way. At the table we have (you know how it is with women and ages – so the year refers to the start of their career in the port):

- Baroness Eliane Achten, managing director of the shipping agency 'van Doosselaere & Achten' (1958)
- Hilde Luystermans, director-general of 'Fina Antwerp Olefins' (1980)
- Caroline Koninckx, Inside Operations and Finance manager at 'VDA Port Services' (a member of the Doosselaere & Achten group), granddaughter of Eliane Achten (2006)

Nature or nurture?

Dolls versus cars. Not that this duality is entirely typical of any upbringing, but it is a fact that both girls and boys are programmed to a certain extent from a young age. Anyway, upbringing or not, the consensus around the table seems to be that women are more 'caring' by nature: it's in their genes.

"But you do make your own decisions!" holds Caroline. This is certainly true of her generation, but was this also true in the past? "Anyways, factors like personality, character, education, courage and assertiveness are timeless aren't they? Just look at my grandma!"

Eliane emphasises that the aspect of family does not make 'the business' easier. This was certainly the case in the past and still holds true today. "Life often has other ideas."

For Hilde, this does not take away from the fact that it should be perfectly possible to develop a career with a good work-life balance as a woman. It will always be necessary to make compromises, but in the end that is why there are two people in a relationship. "You shouldn't have to pay a price for a career anymore."

The three women have noticed that it is less common today for women to wait to have children. Where the career was the first priority for those who are now in their late thirties, the younger generation now fits children into a greater plan where they have a place next to career, family and free time. "Waiting to have children has advantages and disadvantages," says Hilde, "but things have changed in recent years because there is more attention to certain aspects in the business world certain aspects, such as the time when meetings start or end."

The port - an attractive employer?

You don't have to tell the ladies that women only make up 20% of employees in the port (as

opposed to 50% nationally). You have to put these numbers into perspective, they say. After all, the port does have a lot of tasks that are really not ideal for women, if only because of the physical effort needed. This gives a distorted picture. Shift work also often creates difficulties, although Hilde is now noticing a greater influx of women who 'want to work in shifts'. "But how long will they keep it up?"

There is no longer a problem with regard to facilities like separate changing rooms and bathrooms. "It was not always like this," recalls Hilde, "but often more to the embarrassment of our male colleagues than the other way around."

They consider the fact that young graduates are passing the port by, both girls and boys, to be a bigger problem. Surveys and forecasts show that in the short and medium term, up to 4,000 vacancies will open up. Who will fill them?

The others at the table agree with Eliane when she sees an important role for the Port Authority as a promoter in the schools, colleges and universities. "We, as the port, are unknown and therefore unloved," she says frankly, "but the work the Port Authority has done in recent years certainly puts it in a position to do something about it." As an example, she refers to the Antwerp Maritime Academy which has succeeded in creating visibility with dedication and vision. The result is a healthy increase in new employees, including girls.

About glass ceilings and quotas

A discussion about women and career without mentioning the glass ceiling? Impossible! But as she has throughout the discussion, Eliane immediately sets the tone. "They have to earn it!"

There used to be more than one obstacle to make a career as a woman. That much is certain. Scornful remarks (as Eliane was told during a job interview that she should stay in the kitchen – "We have never done business."), frustrating situations (Hilde almost couldn't get into the plant on her first day because women were not admitted – in 1980!), having to work harder to prove themselves, being underestimated... many women quit the struggle prematurely.

At the table, there is the feeling that things are now threatening to go the other way. Neither Eliane, Hilde nor Caroline think that it is a good idea to impose quotas. There just aren't enough women with the skills and the ambition to fill all these positions (yet). There's no point in forcing it. "Quotas threaten to come back into women's faces like a boomerang," holds Hilde. "You see: they can't do it."

It's great to encourage, facilitate, support, and prepare women, but for the rest, the bar has to be the same for everyone. Anyone who wants to have a career has to understand that top positions are not part time. Anyone who has ambition has to be competent and work hard. Indeed: "They have to earn it!"

What has their experience taught when it comes to 'getting ahead'? "More than anything, making the decision, taking on the challenge, and going for it." It also seems to help to take comments graciously and not to be too passive. Being assertive and taking advantage of your stronger intuition and sense of teamwork complete the list. "Women need to learn to understand that they can stay women and still make a career," Hilde sums up.

A sustainable future

The future will be sustainable, or there won't be a future. Everyone at the table agrees about this. However, this has only been understood in recent years.

"Right now, this is really growing as a theme in the chemicals sector, and hard work is being done," says Hilde. Important areas of activity are energy efficiency, use of resources and product development (with a focus on biodegradability).

The chemicals sector is often painted as part of the problem, but it is important to understand that the chemicals sector will be absolutely necessary to solve the problem!

Awareness is also being promoted among employees. "We now only use hybrid cars," emphasises Eliane. "In my generation, concern for sustainability and the environment is a given," confirms Caroline.

When we leave the MAS Pavilion, the Dead Skull by Luc Tuymans laughs at us. Only we don't notice it, just like the glass ceiling...

Stop 3: A port that invests

The investments in infrastructure in the port of Antwerp are made by **both the public and the private sector**.

The Flemish Region, the federal government, the Scheldt Left Bank Corporation (Maatschappij Linkerscheldeoever) and the Antwerp Port Authority are responsible for the lion's share of **public sector investments**.

The **Port Decree** (Havendecreet) lays down who is responsible for which investments. The Flemish Region is responsible for 100% of the investments in maritime access (including dredging work on the Western Scheldt) and excavating new harbours. The Flemish Region also contributes 20% of the investments in the quay walls. The remaining 80% is contributed by the Antwerp Port Authority. According to the Port Decree, the construction of a lock is to be 100% financed by the Flemish Region. However, the Antwerp Port Authority is contributing 25% of the construction of the new lock on the Left Bank of the Scheldt, the Deurganckdok Lock. The Antwerp Port Authority is also responsible for all dredging work, including for maintenance, and the construction of the quay walls within the port area.

The Port Decree stipulates that the private sector is to invest in the so-called superstructure. This includes the construction of pavement, roads, warehouses, cranes and buildings on the terminals. The Antwerp Port Authority and the Scheldt Left Bank Corporation invest in the preparatory earth works and infrastructure works, access to the port lands and the provision of compensatory nature areas.

The Flemish Region also invests in the **hinterland connections** for the port of Antwerp. In this way, the Flemish Region is responsible for the construction and maintenance of highways, canals and bridges.

The **businesses that are active in the port** are responsible for investing in their own infrastructure that they renovate or expand. This includes investments in research and development. The federal and Flemish governments also contribute through the Port Decree.

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In the end, investments will only generate returns when **well trained employees** are available to manage them efficiently.

A look at the future

In order to maintain its leading position in Europe and the world, the board of directors of the Antwerp Port Authority approved **an investment plan** in the autumn of 2010 **for 1.6 billion euros until 2025**. This investment will be twice as much annually as in previous years. This ambitious long term plan, which will be borne by the entire port community, is necessary to ensure the growth and competitive position of the port of Antwerp. The total amount of 1.6 billion euros will go to the further development of the port, the port infrastructure, equipment and buildings.

The projects funded by the investments made by the different parties include following:

Development of the port

- Verrebroekdok expansion.
- Saeftinghe Development Area expansion: the northern expansion of the port on the Left Bank with zones for maritime, logistical and industrial development with a total area of about 1,070 hectares including harbour.
- Participations under the auspices of 'Port of Antwerp International' in foreign port projects with a certain located in strategically chosen regions.

Expansion and renovation of port infrastructure

- Expansion of a second lock on the Left Bank. After the completion of this project in 2015, it will be possible to make full use of the potential of the Waaslandhaven. It will also provide better operational safety.
- Renovation investments on the docks.
- Maintenance of bridges and roads.Modifications to the Kanaaldok and to the Waasland Canal.
- Decontamination of the bottom of the docks.
- Rail connection between the Left and Right Banks.

New buildings

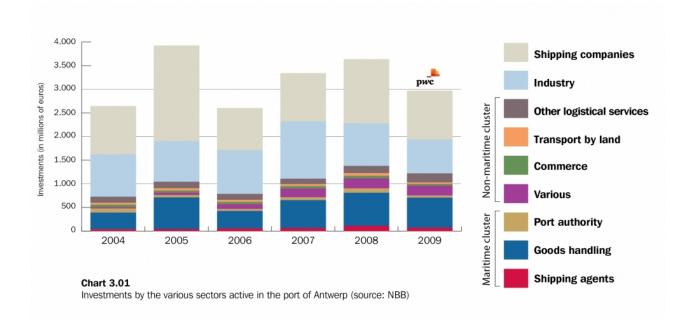
• New construction of the Port House.

• New General Workshop North.

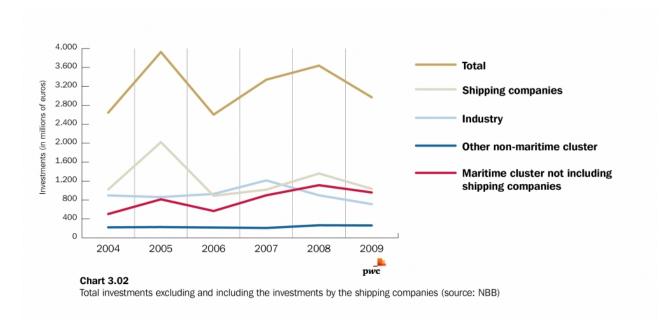
New equipment

- Purchase of a new trailing suction hopper dredger.
- Purchase of new tugboats.
- Purchase of push barges and push boat.
- Quay cranes and mobile cranes.

Every sector invests

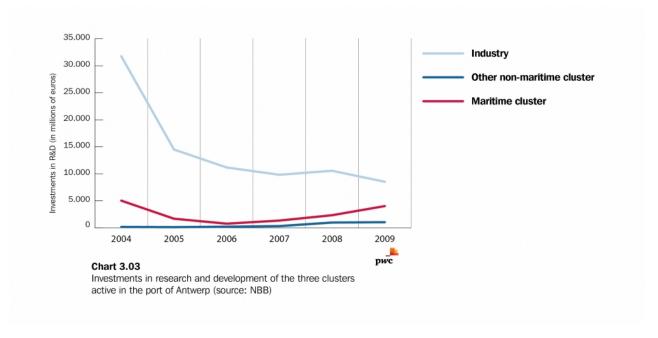


The businesses in the port of Antwerp also make considerable investments. The total annual investment amount has been rising since 2003, except for drops in 2006 and 2009. The total amount of investments in the past three years has fluctuated **around 3 billion euros**. This amount is about one third of the annual added value.



The investment burden is also **evenly distributed** over the different sectors. There have been major variations in the investments made by the shipping companies, with a peak in 2005. The investments made by this sector are not always investments in Antwerp port area.

Highlights include the **high level of investment in the maritime sector** with the expansion of the Deurganckdok, modernised terminals, and investments in tank terminals.



The share of the total investments for **research and development (R&D)** expenditures of 0.5% remains modest. The labour costs of employees working in the research and development departments of the companies are not included in this amount. A number of port businesses have their R&D departments elsewhere in the country.

It is notable that an important part of the R&D expenditures is attributable to industry (83%).

Investment in training

The port community has **many structures to provide training** for its own employees, as well as making them accessible for job-seekers or specifically for certain target groups.

Here are a few examples.

Portilog

The port of Antwerp has its own training centre with **Portilog**. For years, this independent, **Qfor-certified** training provider has organised practical training for port-based and logistical themes (customs, modes of transport, port introduction, port uses, port security, dangerous cargo, chartering, etc).

To keep the training programs current and practical, all Portilog instructors come from a practical background, without exception. The link to the companies is further reinforced by the collaboration with Alfaport. Portilog organises retraining programs to fill jobs with skill shortages through a partnership with labour market experts such as Randstad and VDAB, in this way filling the gaps in the labour market.

ΑСΤΑ

ACTA is a training centre for the process industry in general and for the chemical sector in particular. Although it is not located in the port itself, the companies that employee the most ACTA graduates are. The most important fields of expertise are electrical, measurement and control technology, industrial automation, mechanical technologies, process technologies, safety and transport systems.

ACTA primarily focuses on optimally coordinating training with the business world. ACTA forms an essential bridge between the two for students, apprentices, teachers and instructors.

ACTA has been praised more than once as an example of a school in a public private partnership model. "An example of how to meet the challenge of change," said European Commissioner P. Flynn.

ANTTEC

ANTTEC, established in 2007, is the technology centre for the metal sector in Antwerp. The centre's objective is to train better-educated employees for a better-performing metal processing industry. ANTTEC also offers training to job seekers and young people to enable them to find work in the sector.

ANTTEC's target groups are workers, job seekers, businesses in the sector, technical and professional education institutions, students and teachers.

SIRA

SIRA is the Flemish acronym for the Antwerp Region Chemical Industry, a project that began back in 1987. In addition to its own internal training programs and initiatives, businesses from

the chemical sector within the SIRA project also provide a contribution to the further training and retraining of young people between the ages of 18 and 26. The objective is to train less qualified young people who are looking for work in a career as an employee in the chemical sector. This is to increase their employment opportunities and to meet the demand for a skilled workforce.

PipeTech Academy

The VDAB established the **PipeTech Academy** in 2009 together with a number of important pipeline installers and builders. Agoria, the sector federation for the technological industry in Belgium, joined this agreement to increase support.

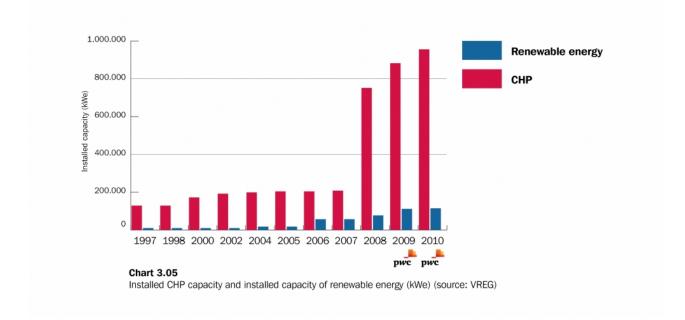
The objective is to organise various training programs together with PipeTech in a number of industrial fields. Furthermore, the partners within this project are researching whether there is a place within regular education for 3rd degree TSO (technical secondary education) pipefitting. In collaboration with third party organisations, it is also looking at the potential among more highly educated immigrant job-seekers in function of a specific training program.

APEC

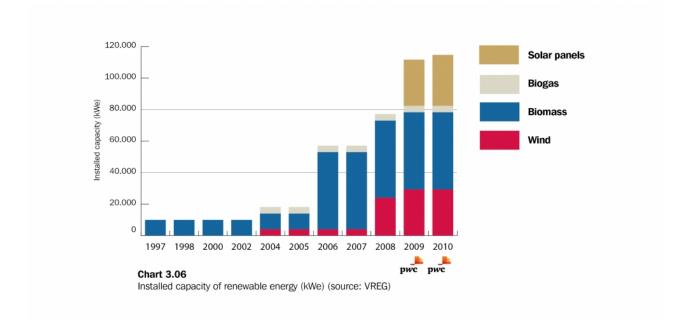
The port of Antwerp also makes its know-how available to foreign ports. APEC (Antwerp/Flanders Port Training Center) acts as a training organisation for short, practical and interactive seminars. The purpose of these seminars is to provide foreign ports with the necessary knowledge with regard to the know-how within the Port of Antwerp with regard to the operation of a modern port.

During the more than 30 years of this organisation's existence, the training programs and study visits have brought more than 9,000 people to Antwerp and Flanders from 140 countries. Collaboration between public and private port businesses is one of the keystones to realise this objective. APEC is affiliated with the Antwerp Port Authority and is supported by the Flemish Government and Alfaport Antwerp, in collaboration with the Province of Antwerp and the Belgisch Technische Coöperatie (Belgian Development Agency).

Investments in sustainable energy



For the energy consumption of the port community, efforts are being made to switch to sustainable energy sources.



The largest share of sustainable energy is provided by **combined heat and power** (CHP), but **renewable energy** is also increasing noticeably. The evolution over a slightly longer period looks spectacular, especially since 2008. The Zandvliet Power CHP was commissioned in 2008. With regard to renewable energy sources, there have been three leaps forward,

namely an increase in the use of biomass in 2006, an increase in wind energy in 2008 and of solar panels in 2009.

If the installed capacity can produce optimally full time, the CHP capacity installed in 2010 could supply 11.4% and the renewable energy could provide 1.4% of the energy that was consumed in the port area in 2008. The actual share will be lower, given that the installations do not produce full time.

The port of Antwerp draws the sustainable energy card

Aside from energy savings through investments in energy efficiency and innovation, the energy and climate policy of the port of Antwerp strives to make maximum use of opportunities with regard to renewable energy and synergies.

In 2004, the first two wind turbines appeared in the north of the port area. By 2010, green electricity production has taken flight. Here is an overview.

Wind energy

Port areas are perfect locations for both the Vlaamse Windenergie Associatie (VWEA) and for de Flemish minister of Energy to establish large-scale wind farms. The port of Antwerp currently has **two concrete projects**.

The two turbines mentioned in the introduction form part of a wind farm on **the Right Bank** that will have at least 38 wind turbines. The project aims to generate 90 megawatts of electricity: enough to meet the electricity requirements of about 74,000 families. The expansion of this wind farm will accelerate in the 2011-2012 period.

On the **Left Bank**, the Port Authority and the Scheldt Left Bank Corporation will work with a private partner, THV Groene Haven, to develop a farm with a maximum of 55 wind turbines. The farm could grow to become the largest onshore wind farm in Belgium. The electricity production will be equivalent to the annual power consumption of 100,000 to 120,000 families. The three partners hope to start construction of the first wind turbines in early 2013.

Solar energy

In 2010, the Port Authority and the Scheldt Left Bank Corporation relaxed the acceptance policy for solar panels in the port area. Concession holders will now be permitted to install solar panels with a maximum capacity of 5MW per installation.

Until 2010, the Port Authority was responsible for managing its own electricity distribution grid (up to 30 kV) on the Right Bank. Because of this the Port Authority, like the MLSO on the Left Bank, could only allow limited installation of solar panels in the port area. This was partly due to Flemish regulations.

At the end of 2010, the board of directors decided to transfer the management of electricity distribution on the Right Bank to the intermunicipal utility Iveg (Infrax group). With this transfer and the resulting increase in scale, a distribution network was created with sufficient uptake capacity and power to buy up the green electricity certificates. This opens up possibilities for the installation of solar panels in the port area.

EANDIS remains the distribution network manager on the left bank. It has a network with sufficient uptake capacity and power.

Biomass

Biomass will increase in importance as an energy source in the future, because burning it is a **CO2-neutral process**. Energy sources such as biomass help make it possible to reduce the emissions of greenhouse gases by 20%. This is an obligation imposed by the European Union on its member states for 2020.

The Port Authority and the international chemical group Solvay signed a statement of intent on 18/10/2011 to conduct a thorough feasibility study for a biomass power plant on the Solvay site in the port of Antwerp.

The power plant will generate 200 to 400 megawatts, enough to provide green electricity to 0.5 to 1 million families. With this power plant, most of the electricity supply for the industry in the port could be switched to renewable sources. The connection to the activities of the chemicals cluster in the port will be observed. A direct access route for ocean ships will ensure the supply of raw biomass.

Combined heat and power (CHP)

CHP is a collective name for a range of technologies in which heat and mechanical energy are generated simultaneously in the same process. The mechanical energy is usually converted directly into electrical energy. This energy is used directly for its own operations or sent to the grid.

A CHP installation uses less fuel to generate the same amount of energy in comparison to separate generation (electricity from the grid and heat from a traditional boiler) a CHP installation uses less fuel to generate the same amount of energy. A CHP is therefore more efficient and results in primary energy savings. The port community has invested heavily in CHP in recent years. This can be seen from the steady increase in installed power since 2002. The port community has clearly responded to the stimulus from the Flemish Government regarding heat and power certificates[1].

Industrial residual heat

An initial inventory of residual heat losses indicates that the chemical and petrochemical industries in the port alone are constantly losing about 1000 MW in low value residual heat. At the same time, the city/port region uses approximately 5000 MW (peak power), or about 5000 GWh annually.

For this reason, the GHA is working with Essenscia, MLSO, and an number of private companies to study the feasibility of using residual heat for district heating as well as of converting it using other more accessible technologies:

- for electricity production (organic rankine cycle),
- for water production (via membrane distillation),
- industrial reuse,
- and greenhouse horticulture.

This research is supported by MIP2.

In the meantime, the GHA together with the city of Antwerp, Infrax and SPE were granted a subsidy by MIP3 to conduct a feasibility study specifically on district heating in Antwerp.

Where the MIP2 feasibility study focuses on industrial residual heat and how to recover it, the upcoming MIP3 project will focus explicitly on district heating, both in new urban development

and existing infrastructure. In this, the use of residual heat is only one of the possible ways to supply an urban heating network.

[1] The energy savings alone are not enough to make the investment in CHP profitable. That is why the legislator is ensuring that this technology receives extra support. The owner of the CHP receives cogeneration certificates from the VREG that he can sell. He receives 1 cogeneration certificate per 1,000 kWh of primary energy savings from the production of heat and electricity in a high quality cogeneration plant.

More than 4,000 job openings by 2013

In the summer of 2011, Alfaport and Voka - Antwerp-Waasland Chamber of Commerce and Industry conducted **a survey of the staff and competence needs among businesses in logistics and industry in the Antwerp Waasland region**, with a natural centre of gravity in the port. In total 50% of those who were asked took part, or about 130 companies. Together, they represent over half the total employment in these sectors.

The **results** of the survey show major demand for enough trained workers in the industrial and logistics sectors. In the next two years, they will be looking for at least 4,010 new employees: 2,318 in the manufacturing industry and 1,692 hin the logistics sector. This refers to the actual number of job openings, and not projections. In 2011, there are still 1,573 vacancies.

Industry is primarily looking for technicians: process operators, pipe fitters, maintenance mechanics, measurement and control technicians and welders. There is also high demand for industrial and civil engineers: 977 engineers in the next 2.5 years. In addition to the high need for technical skills such as forklift driver and maintenance mechanics, **the logistics sector** also has significant demand for operational and commercial employees.

The fact that these sectors in the port community continue to generate jobs is of course a positive thing. However, both are faced with **a double challenge** to fill these vacancies:

- there is a large number of jobs to be filled;
- the aging of the population is becoming significant and a lot of people will retire in the coming years, and the demand will only increase;

Furthermore, the number of graduates from the various relevant courses of study will probably not be able to meet the demand. Technical education has attracted fewer student in recent years and the graduates seem to have an outdated view of work in the port.

Industry and logistics look for short term and long term solutions

In the **short term** they aim to ensure that graduates actually choose the port. But that will probably not be enough. In the short term, it will be necessary to make better use of the potential of unemployed people who have a diploma or who have the required skills. This can for example be done with supplementary education, internships or training programs.

'Steering' the study choice of young people to professions that are important to the port appears to be a solution in the **longer term**. The recent survey can help with this because it shows that the port offers sound prospects for the future.

The port community will need to make efforts to highlight this potential and to**reverse the negative perception**. As the campaign image for the Vlaamse Havendag (Flemish Port Day) shows: the port is much more than just tough dock workers. Port labour is only one part of a much larger whole. The contingent of port workers is currently about 10,000 people out of a total direct work force of more than 65,000 people. In other words, there are a lot of other jobs in the port.



Stop 6: Active in industry and logistics

The port of Antwerp does **more than loading and unloading ships**. After all, at stop 2 we saw that the 158 million tons of goods that entered the port in 2009 has increased in value by 8.5 billion euros after they left. About 900 companies in the port area contribute to this; 365 days per year and 24 hours per day.

Industry and logistics together combine for 70% of this added value. However, the Antwerp logistical-industrial complex does not only stands out for generating strong added-valuegenerating character. The efforts made by these sectors with regard to sustainability are simply impressive.

An industrial-logistical team

In addition to the traditional storage activities in warehouses, **a broad range of logistical activities** also take place in the port. For instance, a number of large production companies have set up their European or regional distribution centres in the port. From there, they can import and export their goods by sea and organise the distribution to the hinterland in the most efficient intermodal way.

These "**Value Added Logistics**" are further supplemented with the loading and emptying ("stuffing and stripping") of containers in logistics parks in and around the port. Antwerp is the leader in Europe in this field and is an important centre for the preservation or anchoring of partial loads in so-called LCL (Less than Container Load) containers through grouping activities. In 2010 at least 589,000 TEU were transported between the maritime container terminals and the logistics parks in the port, of which the vast majority were stuffed and stripped in specialised warehouses. This is also a highly labour-intensive sector. The stuffing and stripping of a container creates four to five times more work than the actual transfer of the container between the ship and the quay.

The Antwerp logistical-industrial complex stands out for the spectacular added value that it gives to its products. That is because they are not only loaded and unloaded in Antwerp, but also packaged, inspected, cleaned, cut, weighed, sorted, repaired, labelled or stickered, for example.

How better to describe the way in which industry and logistics work together than with a few notable examples?

Nowhere else in Europe is there such a concentration of **chemical companies** as in the port of Antwerp. This world class integrated chemical and petrochemical cluster has already been the subject of special attention in this report.

Over 30 chemical companies produce more than 300 basic chemicals. Many players are involved in the logistical process for this sector. They store them, deliver them further up the production supply chain in customised packages or in bulk, and then provide the documentation, the customs processing and the transport.

Antwerp is the most important **steel port** in Europe with wide range of added value services. For instance, much of the steel enters the port on rolls (coils) or in large formats. A number of logistics companies cut this steel to size, either with decoil production lines or with sawing machines that can handle plates up to 30 cm thick. Traders use the port as a platform for trading, stocking and exporting steel and non-ferrous metals.

Many companies make use of Antwerp's top position in Europe when it comes to**general cargo**. They offer products and services for dismantling, processing, packaging or repackaging, production of special packaging and repairs, quality control, customs processing, etc.

As **the most important fruit port in Europe**, it is also no coincidence that the most modern fruit terminal in the world is in the port of Antwerp. It handles 600,000 tons of fruit per year. The port is also important for **tobacco** and **coffee**. For instance, Antwerp is the storage centre for 45% of European stocks of raw coffee.

The port also has a number of Vehicle Processing Centres. New **cars** are cleaned, inspected, protected and possibly fitted with further accessories. It is even possible to build small series of vehicles.

Industry initiatives for sustainable development

It is likely that **each** of the 900 companies that are active in the port of Antwerp is taking action with regard to sustainable development. Green electricity, energy efficiency, management of waste flows and emissions, stakeholder consultation, etc, are all individual initiatives that are expressed in the total figures that are discussed elsewhere at the various stops in this sustainability report.

However, certain initiatives apply to an entire sector or even the entire industry. In the following, we explain the Responsible Care program and the Flemish Benchmarking Covenant.

The Responsible Care program

The **Responsible Care program** was established in Canada in 1985. It is a voluntary global initiative of the chemical industry. The companies that endorse the program formally commit to:

- continually improve their performance with regard to health, safety, and protection of the environment;
- measure the impact;
- report about this transparently to the stakeholders.

In **the starting phase**, the primary focus was on the pollution of operational premises and the protection and health of the employees. This was followed by expansion to the products and to protection of the consumers. **Today**, the emphasis is on the evaluation of what are called "chemical cocktails" and on the exposure of the global population to extremely small doses of certain chemicals over the long term.

This program aims to convert the concern of the sector to meet the requirements of sustainable development into concrete actions. It is also a way that the chemical sector makes it possible to continue and to develop industrial activities ("licence to operate") and to offer the necessary products and services ("licence to sell"). The program also underlines its willingness to guide developments in legislation and even to go further than this.

The sector currently devotes **10 to 15% of its investments on protecting the health of humans and nature**.

essenscia (formerly Fedichem) joined Responsible Care in May 1991. Since then, participation in the program has been a condition to become a member of the federation. The business leaders who endorse the program are engaged to do as much as possible to improve their performance with regard to health, safety, and protection of the environment.

Benchmarking Covenant

The **Benchmarking Covenant** was drawn up for large energy-intensive companies from all sectors of industry. Accession is done by their respective branches and the covenant runs until 2012.

By joining the covenant, companies take on the obligation to **bring and/or maintain the energy efficiency of their process installations to the 'top global performer level' by 2012**. The fact that the 'top global performer level' will also improve in the intervening period is included in the assessment.

The top global performer does not necessarily mean the very best in the world, but refers to the calculation of a limited margin, for which there are a number of methods:

- in the overall benchmark, all the comparable installations in the world are included and the world top is defined as the best decile (the 10% best companies);
- in the regional benchmark, the best regions are included and the average of the best region is defined as the best international standard;
- in the best practice method, only the best company in the world is considered, and the best international standard has a specific level of consumption that is within 10% higher than this best company;
- if these methods cannot be implemented, an investigation is conducted to determine what measures are economically cost-effective.

The benchmarking studies are conducted by experienced consultants **per process installation**. It is usually necessary to divide the operation into process installations to obtain units that are comparable to other installations abroad. It can therefore happen that a company has more than one installation benchmarked so that the gap to the best international standard is different for each process installation. It is then necessary to add up the processes, each with its gap and production volume, to arrive at a total gap for the company relative to the hypothetical best international standard company.

The company draws up an **Energy Plan** no later than a year and a half after joining the covenant which states all the measures that are required to permanently bridge the gap to the best international standard. The covenant prescribes how quickly these measures must be implemented, depending on the economic cost-effectiveness. As of then, the company will draw up a follow up and monitoring report each year.

The "**Benchmarking Commission**" acts as a steering committee for the covenant made up of representatives of the authorities and the industrial sectors. It provides the general coordination, looks for solutions to bottlenecks in the implementation (for example special situations that occur when determining the best international standard), checks progress and publishes reports about the results of the covenant.

The calculations and the implementation of the covenant are very important and must be followed very precisely. An independent institution was been designated for this: the **Verification Office**. This verification office must approve the benchmarking consultants and the methods used before the benchmarking assessment begins. It also inspects and verifies the Energy Plan submitted, the implementation of the measures, and the monitoring and reporting. It draws up recommendations and reports for the Benchmarking Commission.

In return for the efforts made by the companies, the **Flemish Government** guarantees that it will not impose additional measures on the companies with regard to the rational energy consumption or CO2. Furthermore, it will do everything it can to obtain exemptions for the covenant companies from additional Belgian or European measures.

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