

Water deserves it

Advice for Water Top Sector



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Summary

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Advice and Action Agenda for Top Economic Sector of Water, from an international perspective

Regardless of where you are in the Netherlands, water is never far away. The Dutch live with water and, over the centuries, have built up a wealth of knowledge and experience with water. Because of this tradition and our international orientation, our country has a reputation for being a leader in coping with wetland management. The Government Cabinet wants to further strengthen the competitive position and economic growth of Dutch trade and industry. For this reason, the Cabinet has asked a Top Team of representatives from the business world, the world of knowledge and the government to provide it with advice. The key question it has asked is: 'how can the Netherlands best capitalise on international market opportunities?'

Ambition

This Top Team sees the world's water problems as one of the biggest challenges facing us in the future. The Dutch water sector has the crucial knowledge and skill on hand to help find an answer to this problem. The world needs us. In cooperation with other sectors and international partners, the Dutch water sector can realise appealing sustainable solutions for generations to come. These solutions will give a powerful boost to the Dutch economy. The international market in this area is large and growing rapidly: the objective is to double the added value of the Dutch water sector during the period running up to 2020. International competition is forcing us to speed our pursuit of this ambition along and join forces. Large opportunities await us, especially in the common ground between the maritime sector, delta technology and water technology. In order to turn these opportunities into assets, the sector will have to surpass itself, take responsibility and show leadership. The beckoning prospect is that the Netherlands can become the 'centre of excellence' for the international water sector by 2020.

The Top Team will present its recommendations to the Cabinet, yet is expressly addressing all organisations that make up the sector. It is up to the sector as a whole, including its public partners, to take the initiative and implement the action agenda. The advice provides an answer to seven concrete questions.

1. What is the economic and social interest of the sector?

Clean drinking water, the availability of sufficient freshwater supplies and safety from flooding are the primary conditions of life. Transport by water, seaports and activities on the sea are additional important links in our economy. Water and sustainability are inextricably intertwined. Governments, institutions of knowledge and the business sector at home and abroad are working continually to find technical and organisational solutions to the many challenges water presents us with. This effort creates a very attractive, steadily growing international market. In economic terms, the water sector is a significant and strongly developed sector. Approximately 180,000 people work in the sector and related industries in the Netherlands. It contributes € 20 billion to the Dutch economy and has an export value of € 18 billion.

2. Which developments and opportunities should the sector focus on in the next 10 years?

Worldwide, climate change will lead to droughts and salinisation, an increased chance of flooding and land subsidence. All of this must be taken into account in regional spatial planning and the design of cities. This is what the Delta Programme is all about in the Netherlands. And a thorough knowledge of water is an indispensable part of it. The world's growing population and strong urbanisation are leading to a greater need for fresh water and new land. These social issues are becoming increasingly complex because they are increasingly intertwined. Information technology can contribute to finding solutions. The increasing need for energy is an important driver for the water market. As a source for energy, fossil fuels are running out and have a large impact on the environment. The generation of energy from and with water can be a sustainable alternative. Markets internationalise quickly in the end. Emerging economic powers such as China, Brazil and India strengthen the competition, but also create a growing market for things such as sustainable transport by water. The Netherlands can take advantage of this trend.

3. What markets are full of opportunities and what are the strong competitive positions in the sector?

The international market accessible to Dutch trade and industry amounts to tens of billions of euros a year and will continue to grow to 2020 and beyond. All clusters in the water sector have very favourable prospects in the market and excellent opportunities to strengthen their competitive position. In some clusters, Dutch trade and industry is the international market leader. This position on the world market is supported by a strong domestic market at home, where the national and local governments spend € 7 to 8 billion annually. The clusters of hydraulic engineering, the maritime manufacturing industry, the offshore industry, port infrastructure and maritime services link a large international market to a strong competitive position, both in knowledge and execution. This position can be further strengthened through economic diplomacy in an effort to open international markets, remove trade restrictions and create a level playing field. There is an extremely attractive global market for water technology, with the Netherlands occupying a good competitive position in the area of knowledge and technological solutions. Yet its competitive position in execution, in the role of operator, is weakly developed.

Dutch companies very often operate 'on their own initiative'. The market for delta technology requires connected solutions in which safety and economic interests coincide with a future-oriented design for the coastal areas of low-lying delta regions. There is also a need for connected solutions for water quality and water management. The level of expertise in the Netherlands is high. Yet, due to the conditions placed by the Dutch government on district water boards and water companies engaging in international business, this expertise can be exported only to a limited degree. Nonetheless, there are still large market opportunities in this area. Dutch engineering firms are taking advantage of this. The government has an important role to play as a trailblazer for work projects abroad. The market for water and energy is still young and under development. The global market for water and ICT has enormous potential. The Netherlands is well-positioned to develop into the 'international ICT water hub'.

4. What concrete initiatives are there to take advantage of these opportunities?

The Top Team has identified seven spearheads that, in the long term, offer exceptional opportunities to expand the competitive position of the Dutch. The sector has developed 70 interesting business cases around these spearheads which are already taking advantage of these opportunities. Thirteen proposals are far-advanced, relate directly to the ambitions and are likely to be carried out. The Top Team views them as exemplary cases and recommends that the implementation of these business cases be given priority.

The seven spearheads are:

1. Water for All
2. More Crop per Drop
3. Enabling Delta Life
4. Maritime World Top
5. Production at Sea
6. Water and Energy
7. Water and ICT

Water for All is focused on the production of drinking water and industrial water, and the purification of waste water. Dutch companies are important suppliers of knowledge and technology. The market is estimated to be worth several tens of billions of euros a year. A larger role for Dutch businesses as 'operators' and 'system integrators' requires closer cooperation, cluster formation and the wider application of successful initiatives. Water companies and district water boards can play an important role here, provided they are given the legal room to do so. Good business cases have been received for technological solutions, taking advantage of international market opportunities and the efficiency of the water sector.

More Crop per Drop is focused on the provision of high-quality fresh water for the production of food and biomass for energy. This is an urgent theme in both highly developed countries and developing countries. Much can be gained through innovative sustainable technologies for closing water cycles and recycling in the agriculture and horticulture sectors. The global market is extremely large. The Netherlands occupies a strong competitive position in this market. Good business cases have been presented for tackling the subsidence of farmland, the application of the newest technologies for minimising water consumption and the recycling of waste water.

Enabling Delta Life is focused on living and working in safe, densely populated delta regions. Trade and industry, institutes of knowledge and governments offer a wide range of services and products through which the Netherlands can make a difference. The global market is estimated to be worth more than €100 billion a year. The Netherlands occupies a strong competitive position in this market. The Dutch are leading the way in hydraulic engineering. The Netherlands is also setting the tone with the concept of "nature as an ally", among other things. This concept is being manifested in the sand motor, a project through which the coast of Zuid-Holland is being reinforced. Good business cases have also been presented around water safety.

Maritime World Top. The Netherlands wants to set the tone with clean and cleverly designed ships. The market is worth several tens of billions of euros annually and continues to grow. The Netherlands occupies an extremely good position on the world market in complex ship designs and products with a high added value and plenty of high-tech equipment. It is also a market in which the competition is increasing rapidly. Dutch companies score well because they stay abreast of each other's activities and can combine their forces. Appealing proposals have been presented for the construction of the cleanest and most efficient ship possible and for minimizing the total costs over the entire life of a ship. In the port infrastructure, the focus is on efficient, clean and safe harbour areas and port services. The Netherlands has a top position in this area, with the development of Maasvlakte II as a real showcase.

Production at Sea is focused on technological solutions to produce energy and extract raw materials at sea. The global market is worth several tens of billions of euros and is growing. The Netherlands occupies a strong position in hydraulic engineering, in shipping and the offshore industry. The country excels in operations carried out on the sea bed and in the extraction of oil and gas, as well as in the generation of sustainable energy at sea. Competition in this realm is relatively limited. In the construction, management and maintenance of wind parks at sea, the Netherlands is especially strong. There are good proposals for infrastructure aimed at extracting raw materials at great sea depths and under extreme circumstances, as well as proposals for generating energy at sea.

Water and Energy. This spearhead fits in well with the image and position of the Netherlands as a country with abundant wetlands and waterways. The international energy market is on the move and will become increasingly sustainable. The market is still young and the competition is keeping up with the Netherlands. For tidal energy, the Netherlands seems to have a good starting point. There are good proposals for the large-scale harnessing of tidal energy. In this effort, the South-western Delta can be positioned as the Energy Water Valley.

Water and ICT. The international market in this domain is growing rapidly and offers many opportunities, e.g. for the design of ships, the optimisation of water supply for agriculture, and the reduction of flood risk. The Netherlands stands out in this market. Our competitive position is strong. To take full advantage of the market opportunities, it is necessary to coordinate systems as much as possible and to greatly widen the reach of successful initiatives.

5. What is necessary to take advantage of these opportunities and carry out the initiatives?

The business cases provide a good view of supportive measures that promote entrepreneurship and enable businesses to strengthen their market position. The measures fall under the following themes:

Knowledge and Innovation. The water sector is knowledge-intensive and innovative – occupying a highly competitive position as a result. It is necessary to accelerate the process of turning knowledge into financial gain. Innovation and co-creation should be given a place in networks such as the Joint Industry Projects and the Wetsus approach. The involvement of the business sector in the research programming of Knowledge Institutions should also be increased. There is a need for a water research programme within the Netherlands Organisation for Scientific Research (NWO) and the STW Foundation. The development of strategic road maps can accelerate this process of cooperation. There is a need for good, modern financing, providing things such as credit and guarantee facilities, and revolving funds. The cutbacks in government funding for knowledge institutions must in part be compensated for by a tax facility that encourages businesses to invest in knowledge development.

International Enterprise is one of the most important themes for the water sector. For those countries with the greatest opportunities, a stronger role for the government is necessary to open markets, remove trade barriers and to create a level playing field. Economic diplomacy and water attachés could be very valuable in this effort. The government coordinates the approach and timing of trade missions more precisely to the needs of businesses. International marketing and showcase projects are crucial. The government must enable companies to match the supply of funding afforded to the competition on the international market. There is therefore a need for a modern set of funding instruments with, among other things, a better export credit insurance and a guarantee by the government. It is also good to encourage foreign companies to set up business in the Netherlands and to invest here.

Development Cooperation. There are opportunities for the water sector in the new economic strategy for development cooperation. Here there will be a stronger focus on water projects, hydraulic engineering and the maritime sector. The business sector and the government together will draft the multi-year plans for the five countries with abundant wetlands and waterways. The current set of funding instruments must be simplified and bundled together. There is a need for a good bilateral set of funding instruments to tackle things such as climate issues. The approach of KfW in Germany serves as an example. The Top Team also recommends adapting the ORIO scheme (Development-Relevant Infrastructure Development scheme) to the characteristics of the water sector and focusing the Public-Private Partnership facility on more than only the focus countries.

Education and the Labour Market. One of the most significant threats for the water sector is the limited inflow of new workers. Experienced people are retiring and not enough young people are taking their place. This is the result of an ageing population combined with declining birth rates, the growth of the sector and the lack of knowledge of the sector among the general public. The inflow of new workers must increase by 50% to meet the labour needs. The Human Capital agendas of the sub-sectors are a good step forward, but could be better coordinated with one another. The Top Team recommends a more direct involvement and guidance for the business sector in the study programmes at schools of senior secondary vocational education (MBO) and universities of applied sciences (HBO) in the region. The recommendations of the Veerman Committee for increasing excellence in higher education should be implemented. The sector should be able to attract more teachers from the world of business and retain employees already in the sector. The attraction of foreign students and the recognition of international diplomas should be simplified.

Home Market. The size of the Dutch domestic market, at € 7-8 billion a year, is unique. But measures are necessary to make it possible to take better advantage of this domestic market. Space for pilot projects and experiments is essential to bring good innovations to fruition on the market. This requires a closer and earlier cooperation between government and business. Strategic consultation at the top levels is necessary to increase trust and mutual understanding for one another's needs. Governments must reach agreement with each other in a covenant to reserve a part of investments made in large water projects for the realisation of good business cases. The Delta Programme is one of the projects that offer opportunities to this end. It is necessary for the government to take greater risks to stimulate innovative solutions. This calls for transparent rules on the nature and sharing of these risks.

6. Which stakeholders want to commit themselves and are willing to invest?

This advice has come about in close consultation with businesses, knowledge institutions and governments. Several hundred people have put their heads together in three broad-based sector meetings. In focused exploratory meetings, key officials and CEOs from approximately 75 companies made room in their agendas. More than 30 individual discussions were held with key figures from the sector and trade associations. Approximately 70 business cases were supplied in which companies and institutions of knowledge expressed their commitment. In a number of cases they were coupled with financial commitments. For thirteen example cases there are prospects of concrete development and the realisation of the ambitions in the short term.

7. How will the implementation and execution of the action agenda take shape?

Guidance

The implementation of this agenda requires intensive cooperation between organisations within the golden triangle. This is not a matter of course, due to the large variety in organisations and divergent interests within the sector. The Top Team recommends this cooperation be given shape via the approach of a project portfolio in which the business sector takes the lead. The implementation itself will be done by existing networks and collaborating people and organisations. A 'water director' will promote, facilitate and direct the implementation process.

For the business cases and measures, implementation duos or trios will be formed from the golden triangle that can be held to account for the progress and results. In an annual conference, the progress and results of the agenda will be shared within the entire sector. A quartermaster will be appointed in the very near future that will prepare the assignment and activities of the water director and the start of the action agenda implementation.

Costs and funding

The costs for implementing the action agenda consist of two components. Firstly, the costs of implementing the market-ripe business cases and spearheads. A large part of these costs will be borne by the sector itself. A provisional estimate of the government contribution is approximately € 100 million annually. The funding will, in part, be done by utilising a fixed percentage of government investments in the water sector for innovative projects. For market-ripe innovations, the credit and guaranteed facilities of a (new) revolving fund can be called on. The second component comprises the costs of implementing the thematic measures. This involves a government budget of approximately € 90 million per year earmarked for knowledge and innovation. The funding will, to a significant degree, run via the regular budget resources of the ministries. These measures also cover the proposal to use € 80 million of the budget for development cooperation each year more specifically for the Dutch water sector.

Some of the financial consequences are concrete and urgent: they pertain to the 2012 budget. This primarily concerns the costs of managing the implementation of the next phase of the top sectors policy, the arrangement of the revolving fund and the continuity of the TTI. The exact size of the financial reserves for the coming years will flow from the further development of business cases and measures in the coming months.

Schedule

The water director started work in the autumn of 2011. The water director gives shape to the substantive development of the action agenda, financial agreements, the mechanism that ensures an annual actualisation of the ambitions and the action agenda. The water director is also responsible for the organisation of the first conference, at which the results of the different projects will be presented. This conference will take place in February 2012.

1st Conference on Action Agenda for the Water Sector, February 2012.

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