



MINISTRY OF FOREIGN AFFAIRS
OF DENMARK
The Trade Council

MINISTRY OF INDUSTRY, BUSINESS
AND FINANCIAL AFFAIRS



Ministry of Environment
of Denmark

Export strategy for water

A strategy that ensures that the Danish water sector can maintain its strong position and take advantage of the opportunities in foreign markets.



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Preface

Lack of clean drinking water, untreated wastewater, drought and floods currently constitute some of the world's largest global challenges. Water is the prerequisite for sustainable life and continued growth for people and businesses. Access to water is vital in order to prevent economic, political, and human crises.

Globally, there is an increasing demand for water solutions, and Denmark is strongly positioned to provide intelligent and sustainable solutions. We have leading technology manufacturers, utilities, and advisers within water technology solutions. But the competition is fierce. We must therefore enhance our skills of selling knowledge and technology if Denmark is to maintain its position among the leading countries within water technology solutions.

Against this background, the water sector has expressed a wish to compile a united strategy for the export of water technology - a strategy that will set a comprehensive framework for Danish export efforts prospectively, and contribute to Danish companies being as well-equipped as possible to deliver on the increasing demand for water technologies and solutions.

We must constantly be at the forefront and ensure that the Danish water sector can maintain its position of strength and take advantage of the opportunities in foreign markets. It is crucial that Danish water companies have the best, the most efficient and thus also the most competitive products available and that we jointly help each other realise the large export ambitions.

It is a core political task to contribute to strengthening exports by actively assisting Danish companies around the world. Likewise, sustainable technologies and solutions are central to meeting the global climate goals, to which an increased export of sustainable water solutions can contribute.

With this strategy, we are for the first time defining a united direction for Denmark's export efforts within the water sector. The ambition is to maintain the progress we have made in recent years and for Denmark to remain a pioneering country as well as utilise its strong position in the water sector in order to further increase the export of water technology. We are very pleased that the entire water sector has participated actively in the work, so that we have been able to develop a common platform for further strategic cooperation.



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Introduction

Great growth potential for the Danish water sector

Water is one of our most important resources. Some of the biggest global challenges are to provide clean water in sufficient quantities, to avoid floods, and to ensure sustainable management of wastewater.

The UN and the International Water Association estimate that 40 per cent of the world's population in 2018 was affected by water scarcity, that 60 per cent do not have access to sanitation and that half of the world's population in 2025 will live in areas of high water stress. Furthermore, approx. 80 per cent of the world's wastewater is untreated, which creates environmental challenges in the aquatic environment. At the same time, water loss in the supply network, industry, and agriculture is a major global problem.



Box 1 →

Sustainable Development Goal 6

Sustainable Development Goal (SDG) no. 6 focuses on access to clean water and sanitation by 2030. But SDG no. 6 does not stand alone. Water technologies and solutions also contribute to other SDGs, e.g. within: Health (3), energy (7), cities (11), climate (13), marine life (14) and biodiversity (15).

The OECD estimates that there is a need for DKK 3,000 billion to be invested worldwide annually between 2018-2030 if the world is to live up to the UN's Sustainable Development Goals within the area of water. In other words, there is a large global demand for water technologies and solutions.

The Danish water sector holds a global leadership position in the development and export of water technology, as well as solutions in climate adaptation in relation to flooding and recycling of wastewater. This is based on more than 35 years of ambitious environmental and climate requirements in Denmark. This leading position must be used by the Danish water sector to benefit exports and the global green transition. At the same time, the industry must continue to develop new technologies and solutions that can be sold on the global market.

Box 2 →

The Danish water sector

The Danish water sector consists of companies, utilities, advisers, industrial organisations, clusters, universities, research institutions, innovation centres, and others. The industry consists of approx. 300 private companies.

Denmark will take global leadership in the green transition. The long-term strategy for global climate action, which was launched in autumn 2020, has the following five main tracks, all of which are linked to the water agenda:

→

Strategy for global climate action

- ◆ Raise the global climate ambitions.
- ◆ Reduce global greenhouse gas emissions by leading the way in the green transition.
- ◆ Drive adaptation and resilience initiatives in the fight against climate change.
- ◆ Shift global finance flows in a green direction.
- ◆ Collaborate with the business community on on green solutions that make a difference.

The green transition and the global recovery plans after COVID-19 provide great export opportunities for the Danish water sector. In the EU and USA in particular, massive investments will be made in green recovery. Therefore, the Ministry of Foreign Affairs has initiated a strategic effort with specific export action plans for the EU and the USA, which will facilitate the Danish water companies in getting as close as possible to the large export orders.

Likewise, water is central to Denmark's development policy agenda, where a specific goal has been set to provide access to clean water for at least 5.8 million people in Africa from 2019-2023. The government wants a more climate-ambitious Danish development cooperation with a sharper focus on climate adaptation, especially within water and sustainable development. Access to water is crucial for strengthening the resilience of vulnerable population groups and it is central to improving food security and health both in rural areas and in cities. Climate and the environment also has a central role in the new development policy strategy.

Goal: Access to clean water for at least 5.8 million people in Africa from 2019-2023.

It is important to have one united strategy for the entire water sector

The Danish water sector has an ambition to contribute to solving the world's challenges within drinking water, wastewater, and climate adaptation. The industry has called for a united export strategy in the water area that can gather, prioritise and strengthen the expansion of Danish water solutions. The strategy must focus on export promotion activities on export markets with special potential and pave the way for the future development of the Danish water sector as a whole.

The industry's ambition for a united strategy for the export of water technologies and solutions were both put forward by the government's Climate Partnership for Waste, Water, and Circular Economy in March 2020 and by the Restart Team for Manufacturing Companies and Green Technology, which reported to the government in September 2020.

Box 3 —————→

Recommendations regarding export strategy for water

The Climate Partnership for Waste, Water, and Circular Economy:
As with other important export sectors, a united strategy for the export of water technology must be compiled. It should focus and consolidate export promotion, prioritisation of ministerial resources in the export area, etc.

Restart Team for Manufacturing Companies and Green Technology:
A national strategy and an export scheme must be established for the water sector.

With the political agreement on the reboot of Danish exports from the 8 October 2020, a broad majority in Parliament has now, based on the following text, paved the way towards the compilation of an export strategy for water:

Box 4 —————→

Export strategy for water, including analysis of export potential in the area of water

Globally, there is an increasing demand for solutions for clean drinking water, wastewater management, and climate adaptation solutions. It is an area where Danish companies are strongly positioned, and where there is great growth and export potential for Danish companies.

In order to help Danish water companies take advantage of the great demand for water technologies and solutions, a united export strategy in the water area is created. The ambition for an export strategy must, among other things, be through public-private partnership and strategic sector cooperation to spread the Danish model for water solutions.

A uniting strategy

As a follow-up to the industry's as well as political wishes, the Ministry of Environment, the Ministry of Foreign Affairs and the Ministry of Industry, Business and Financial Affairs are presenting a united export strategy for the Danish water sector, which will set focus for the Danish export initiatives within water as well as summarise the current and future opportunities that the industry faces. It must also ensure an overall overview of the efforts that can support the industry in terms of prioritising markets, marketing, and sales.

The strategy has been composed jointly by the Ministry of Environment, the Ministry of Foreign Affairs and the Ministry of Industry, Business and Financial Affairs based on dialogue with representatives from the water sector, including the Water Vision (Danish Water Industries Federation, Danish Environment Technology Association and DANVA) and CLEAN – Denmark's cleantech cluster, Danish Export Association, State of Green, and others. Among other things, the dialogue has focused on how the parties can jointly improve future efforts, as well as what the Danish water sector itself delivers in terms of key efforts that the export strategy must support.

As a background for the strategy, Quercus Group has prepared an analysis of the Danish water sector's strengths, barriers, and drivers for increased exports. Barriers to Danish companies' exports include, among other things, insufficient international network, insight into foreign restrictions and regulations, high export costs and access to financing. Of the potential drivers for increased Danish exports, things such as marketing support in relevant markets, collaboration with authorities, several Danish lighthouse projects, direct matchmaking with potential customers and several partnerships across the water sector, are highlighted. The analysis is included as an appendix to the strategy.

The strategy continues and develops a number of initiatives under the Ministry of Environment, the Ministry of Foreign Affairs and the Ministry of Industry, Business and Financial Affairs, which supports the water sector's exports. In addition, the strategy points to a number of areas where efforts will be strengthened going forward.

In addition to the public effort, it is important that the Danish water companies, utilities and organisations contribute to supporting the initiatives in the strategy. The initiatives will therefore be carried out in close cooperation with the entire water sector. As a follow-up to the strategy, there will be an ongoing dialogue with the Water Vision's partners, industry, and cluster organisations, companies, utilities, and other relevant actors on how the initiatives are best implemented and developed.

It is important that the Danish water companies, utilities, and organisations contribute to supporting the initiatives as part of the strategy.

Vision

A new export strategy for water must constitute a uniting platform for consolidation and coordination of export initiatives within water.

The export strategy must set a united framework for export efforts going forward and help ensure that Danish companies are best equipped to deliver on the increasing global demand for water technologies and solutions.

It is the export strategy's ambition that Denmark remains a leading country within water and utilises its strong position to increase exports during the next 10 years.

Box 5 —————→

The strategy's vision is

The Danish water sector contributes to solving the world's water and climate adaptation problems through a doubling of Danish water technology exports from DKK 20 billion in 2019 to DKK 40 billion in 2030.

—————→

The vision is achieved by

- ◆ Strengthen cooperation between the ministries and the water sector.
- ◆ The Danish water sector provides water solutions for local challenges, which leads to a better quality of life for people and new opportunities for customers and global partners.
- ◆ The Danish water sector works purposefully to develop and market cost-effective, high-quality solutions which will contribute to doubling Denmark's exports of water technology and solutions by 2030.

Box 6 →

Strategic initiatives

- ◆ The Ministry of Foreign Affairs, in collaboration with the water sector, has set up a water sector track, which will strengthen export promotion efforts targeted at the American market.
- ◆ The Ministry of Foreign Affairs has set up a water sector track together with the water sector, which will help Danish water companies win orders through the EU Member States' green recovery plans.
- ◆ The Ministry of Foreign Affairs will strengthen export promotion efforts in the Indian water market by e.g. sending a commercial water specialist and an investment adviser to the Danish embassy in India.
- ◆ The Ministry of Foreign Affairs and the Ministry of Environment will establish an export scheme with commercial collaboration with authorities in the USA, Germany, Poland, Italy and Spain with 5 posted staff and 5 mission-employed water specialists.
- ◆ The Ministry of Foreign Affairs will strengthen and establish more strategic water alliances in prioritised markets (WTA).
- ◆ The Ministry of Foreign Affairs, in cooperation with the water sector, will position the Danish water companies towards the largest international Engineering, Procurement, and Construction (EPC) contractors.
- ◆ The Ministry of Foreign Affairs will involve water specialists from utilities, universities, municipalities, and organisations in export promotion activities.
- ◆ The Ministry of Foreign Affairs and the Ministry of Environment will establish two new strategic sector collaborations within the water area in Ethiopia and Morocco.
- ◆ The Ministry of Foreign Affairs and the Ministry of Environment will enter into cooperation agreements with global cities within water.
- ◆ Strengthened financing options in EKF, including the establishment of the Green Accelerator facility, which supports preliminary studies, analysis, and the development of projects in the export markets.
- ◆ Strengthened marketing efforts and increased funding in 2021 for export promotion from the Ministry of Foreign Affairs' grant pool.
- ◆ Strengthened opportunities for financing incoming delegations to showcase Danish technology to decision-makers at public authorities.
- ◆ Establishment of a local 'business lighthouse in Central Denmark within the innovative, sustainable, and efficient water technology solutions of the future.
- ◆ Establishment of a dialogue forum for water and environment with water sector stakeholders under the auspices of the Ministry of Foreign Affairs and the Ministry of Environment to ensure progress on the strategy and coordination of export activities.

The Danish export of water technology

Danish water companies are among the world leaders when it comes to providing green and sustainable solutions, and Danish water management is one of the most resource-efficient in the world. With the Danish technologies and solutions, Denmark and Danish companies can contribute to leading the world in a greener direction.

Many countries have challenges with water loss, and even among EU countries some Member States experience water loss of 40-50 per cent. In comparison, the water loss in Denmark has been reduced to 5-6 per cent. In Denmark, practically all wastewater is cleaned and the Danish water sector has a goal of becoming energy and climate neutral by 2030. The Danish water sector develops and exports a wide range of technologies and solutions in the field of water management, both drinking water and wastewater, as well as climate adaptation as an integral part of this.

In 2019, the total Danish export of water and wastewater technology and consultancy was at DKK 20.6 billion (cf. table 1), of which service exports amounted to DKK 3.8 billion. Since 2010, total water technology exports have increased by 37 per cent, which confirms the potential for export development. The water sector currently accounts for just over 3 per cent of total Danish exports and the product groups 'pumps, valves, and measuring devices' make up just over 60 per cent of exports, demonstrating that these product categories place Denmark in a strong position.

The export figures only includes the goods and services that are exported directly from Denmark, and do not include e.g. revenue from Danish-owned production facilities abroad.

Table 1 →

Mia. DKK.	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total water technology export, incl. service	15.0	16.6	17.0	17.7	18.8	19.6	19.4	20.0	19.7	20.6
Overall export development		10.4 %	2.5 %	4.6 %	5.8 %	4.2 %	-1.1 %	3.5 %	-1.8 %	4.7 %
Water technology goods export	13.4	14.4	15.2	14.9	16.0	16.7	16.6	16.7	16.1	16.8
Export development in goods export		7.6 %	5.3 %	-1.9 %	7.1 %	4.4 %	-0.6 %	0.9 %	-3.8 %	4.8 %
Water technology goods export	1.6	2.1	1.8	2.8	2.8	2.9	2.8	3.3	3.6	3.8
Export development in service export		34.2 %	-16.8 %	60.4 %	-0.8 %	3.1 %	-4.1 %	19.3 %	8.5 %	4.5 %
The service export's share of the water export	10.6 %	12.8 %	10.4 %	16.0 %	15.0 %	14.8 %	14.4 %	16.5 %	18.3 %	18.2 %

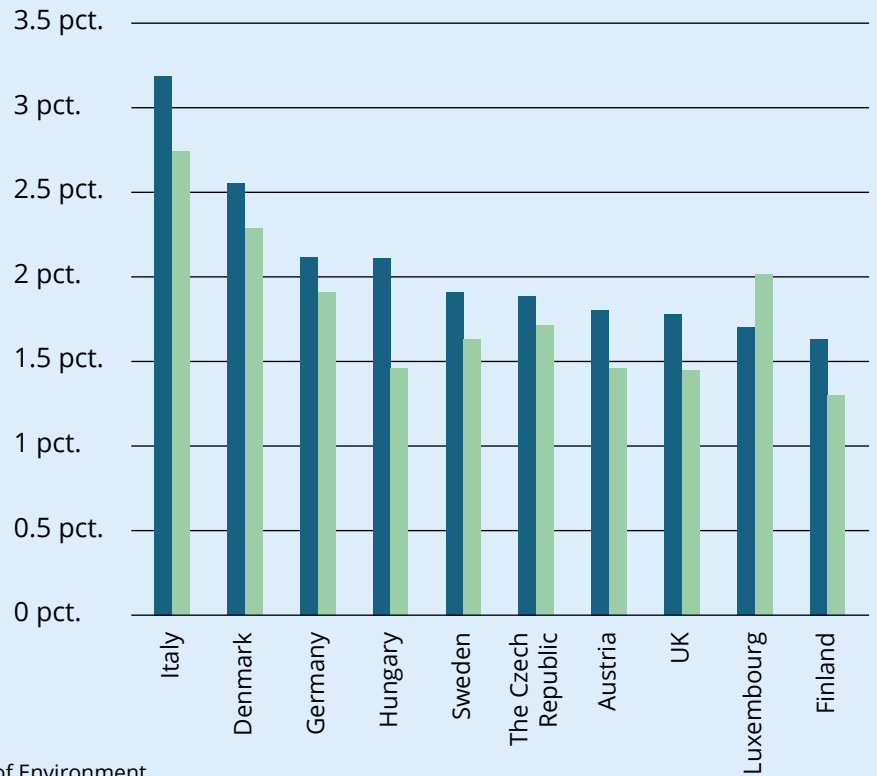
Source: Export of water technology 2019, Ministry of Environment.

Among EU countries, Denmark - after Italy - is the country in the EU where water exports make up the largest share of total goods exports (cf. figure 1). This underlines the importance of water technology as a Danish position of strength.

Figure 1 →

The water technology's share of selected EU countries' export in 2014 and 2019

■ 2014 ■ 2019



Source: Export of water technology 2019, Ministry of Environment.



Relevant export markets

Denmark's largest export markets for water solutions include, cf. table 2, the European local markets as well as the USA and China. In the future, the countries are expected to increasingly be supplemented by several large growth economies.

The commercial part of the water sector consists of a few large global companies and a large group of SMEs. Therefore, the industry wants a broad export promotion effort targeted at a number of markets, while at the same time there is request for strengthened sector expertise in the export promotion activities in priority markets.

Table 2	Ranking	Eksport market	2019 – million DKK
Top 15 export markets for water technology and solutions in million DKK	1	Germany	2,044
	2	Sweden	1,515
	3	China	1,352
	4	USA	1,225
	5	Netherlands	1,018
	6	Norway	936
	7	France	668
	8	United Kingdom	622
	9	Italy	485
	10	Poland	463
	11	Finland	430
	12	Singapore	302
	13	South Korea	284
	14	Spain	281
	15	Hungary	281

Source: Export of water technology 2019, Ministry of Environment.

Danish water companies' views on future important export markets

In order to determine where export promotion efforts should be targeted in the future, Quercus Group has asked 75 Danish water companies - about their assessment of important future export markets (cf. figure 2).

The analysis correlates closely with the export statistics and points out the USA as the most important future export market, closely followed by the nearby European markets where Denmark already has large exports of water technology. But, large economies such as India and China are also assessed as important future export markets.

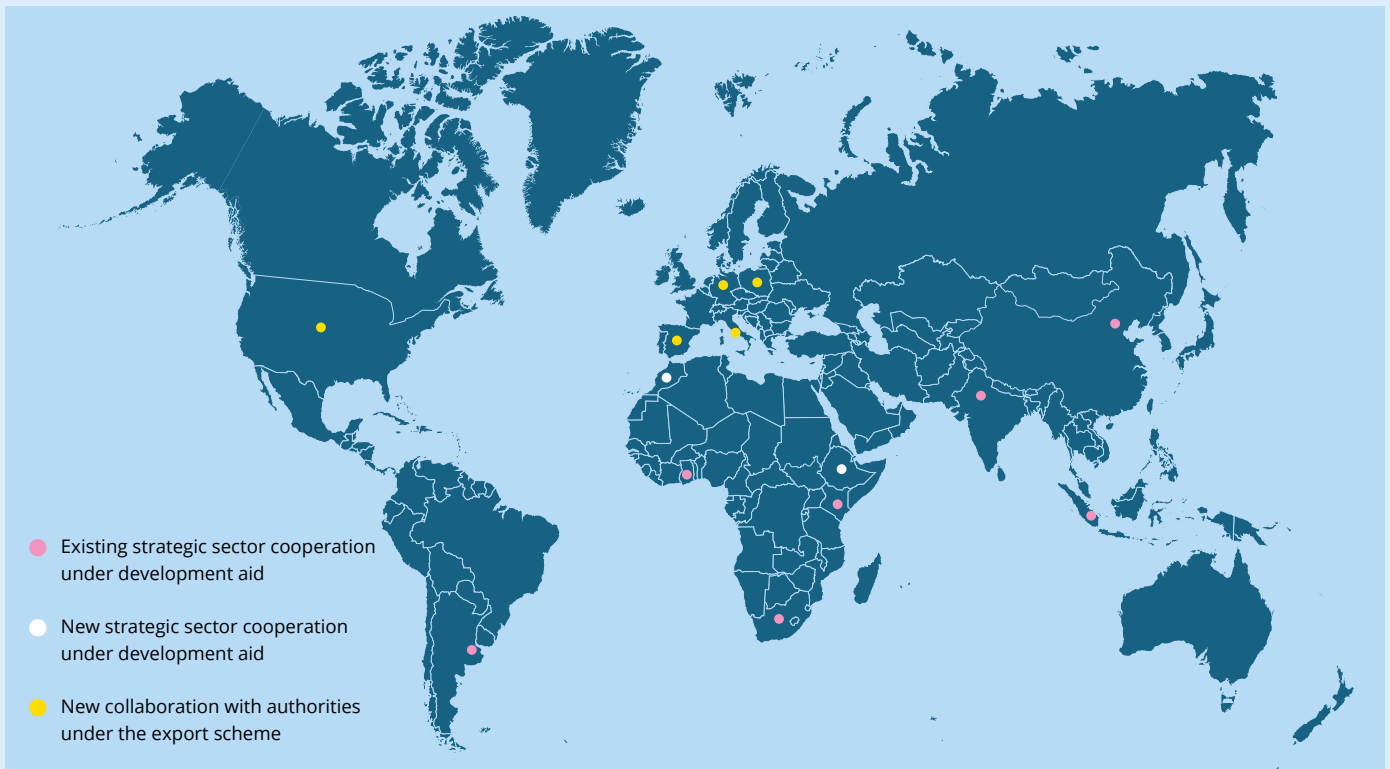
Figure 2 →

The Danish water companies' views on important future export markets

USA 49.3 %	Sweden 44.0 %			Germany 44.0 %		
Norway 34.7 %		United Kingdom 26.7 %		Finland 24.0 %		
India 24.0 %		France 22.7 %		Netherlands 22.7 %		China 22.7 %
Canada 21.3 %		Spain 20.0 %		Belgium 18.7 %		Australia 17.3 %
Italy 14.7 %		Poland 14.7 %		Indonesia 13.3 %		Brasil 12.0 %
South Africa 12.0 %		South Korea 10.7 %		Saudi Arabia 10.7 %		Turkey 10.7 %
United Arab Emirates 10.7 %		Japan 9.3 %				
Croatia 9.3 %	Switzerland 9.3 %		Singapore 9.3 %		Vietnam 9.3 %	Estonia 8.0 %
Ireland 8.0 %		Kenya 8.0 %				
Lithuania 8.0 %	Mexico 8.0 %	Austria 8.0 %	Qatar 8.0 %	Romania 8.0 %	Slovakia 8.0 %	Tanzania 8.0 %

Priority export markets

The water sector expresses a wish for a continued broad export promotion effort, adding that the sector specific export promotion efforts should be strengthened in selected priority markets. Going forward, the Ministry of Foreign Affairs and the Ministry of Environment will therefore strengthen export activities on selected export markets, but will not limit the efforts to them only.



USA

The USA is the world's largest water market and in 2019 imported Danish water technology for more than DKK 1.2 billion, which is approx. a doubling over the past 10 years. Massive investments are currently being made in new water infrastructure and the sector is highly placed on the Biden administration's infrastructure plan, with an expected investment need in the public water infrastructure up to 2030 of approx. DKK 4,600 billion.

Denmark is technologically ahead of the USA when it comes to water, e.g. within wastewater treatment, but also within areas such as digitalisation, asset management, groundwater mapping, and water loss, Denmark can lead the way to significant efficiency gains in the American water sector.

At the same time, Denmark has experience with several decades of water and environmental regulation, which can inspire federal political actors in the USA as well as the states and cities that have high ambitions within the climate area. There is a relatively low degree of regulation of the water sector in the USA and increased regulation will benefit the export of Danish water technology.

The Ministry of Foreign Affairs has set up a US water sector track in collaboration with the water sector, which will jointly position Danish solutions in upcoming tenders in selected states.

Europe

In July 2020, the COVID-19 crisis in Europe led to the adoption of a significant EU recovery package of approx. EUR 750 billion to the Member States. A prerequisite for taking part in the recovery package is, among other things, that 37 per cent of the funds must be allocated to investments in green recovery, and this is expected to lead to large investments in the water infrastructure in many EU countries in the coming years. The majority of the funds go to the countries in Southern and Eastern Europe, where there will be great opportunities to increase Danish exports.

The Ministry of Foreign Affairs has set up a sector track for water, which is to identify the major water investments and connect the Danish companies directly with decision-makers, e.g. through, business promotion, pilot projects within Engineering, Procurement, and Construction (EPC) contractors, workshops, incoming foreign delegations, and long-term water alliances. To ensure that these investments result in Danish water exports, the export activities are coordinated in close partnership between authorities, organisations, and companies.

The Danish water companies must be helped as close to the orders as possible. The Ministry of Foreign Affairs will therefore allocate funds so that Danish water experts from agencies, utilities, universities, organisations, etc. are directly involved in export promotion activities both abroad with the Danish companies and with incoming foreign delegations.

Germany

Germany is Denmark's largest export market and between DKK 45-55 billion is invested annually in public sewage treatment plants and sewage networks. Today, there are approx. 10,000 wastewater plants, of which 2,000 medium-sized plants have significant potential for energy optimisation. In addition, there is an increasing demand for digitalisation solutions and requirements for phosphorus recycling by 2029 at the latest.

There is an increased tendency towards the centralisation of wastewater facilities that require new technologies in the sewage system to transport the water further. In addition, in Germany there are significant challenges with nitrate pollution of the groundwater, which leads to great potential for strengthened groundwater mapping and management. Danish suppliers can help solve all of the above-mentioned challenges, and a strengthened effort in Germany would contribute to this.



Italy

Italy has major challenges with water management and is planning significant investments in water infrastructure in the coming years. They suffer from aging infrastructure and have, among other things, an average water loss in their public water grid of 40 per cent. Especially large cities such as Rome, Milan, and Bologna are allocating significant funds to managing the water grid, and with expected investments of EUR 4.3 billion, Italy is also the country in Europe which is expected to allocate the most funds from the EU's recovery plans to improved water management.

Poland

Poland is Denmark's 10th largest export market for water technology and has great development potential. One of the biggest challenges in Poland is adapting to the climate changes, especially in relation to drought, which has led to Poland having to treat water as a scarce resource. The Polish water sector is facing a transformation, which will partly be financed by the EU Recovery Fund. A large part of the total water consumption is used in industry, which opens up for export opportunities within industrial wastewater. In addition, there are also good export opportunities for solutions within wastewater treatment, climate adaptation, and increasingly digitalisation.

Spain

Spain is not one of Denmark's biggest export markets, but it has great market potential. Spain suffers from an aging distribution network, lack of energy efficiency and high water losses in the supply network. As a result of climate changes, there is a need for better utilisation of water resources, including within agriculture, which accounts for approx. 75 per cent of water consumption in Spain.

China

China has undergone a significant transformation of its water infrastructure in recent decades, and a high need for investment is expected in the future. China has only 7 per cent of the world's freshwater, although it is home to about 20 per cent of the world's population. The water resources are unevenly distributed geographically, and more than 80 per cent of the water resources are concentrated in heavily industrialised South China. Investments in water infrastructure are expected to continue to increase in order to tackle challenges such as water pollution, securing water supply, and increasing resilience to droughts and floods. These challenges are all areas that Danish solutions can help solve.

India

The conclusion of the green strategic partnership between Denmark and India in September 2020 opens the door to a future export adventure for Danish sustainable solutions. India has traditionally been a difficult market for Danish water companies, but the water sector track in the green strategic partnership focuses on sustainable water management. This includes e.g. a three-year strategic sector cooperation with the Indian Ministry of Water, Jal Shakti, and anchoring of the existing strategic sector cooperation at city level between Aarhus, the city of Udaipur, and the Indian Ministry of Housing and Urban Affairs. Likewise, a cooperation agreement has been concluded with the progressive state of Gujarat through the Danish Water Forum and a commercial strategic water alliance has been established with leading Danish suppliers.

The Ministry of Foreign Affairs will post a new commercial water specialist to the embassy from 2021-2023, who will assist Danish water companies with market establishment in India. In addition, the Ministry of Foreign Affairs will post an investment adviser, who will be part of the aid-financed strategic sector cooperation and thus work to improve investment framework conditions and identify investment opportunities under the local strategic sector cooperation and make them more commercially attractive for Danish companies.

Strategic efforts and initiatives

The Ministry of Foreign Affairs assists Danish companies with export promotion abroad at over 80 Danish embassies, consulates general, and innovation centres, the latter in partnership with the Ministry of Higher Education and Science.

The services are sector-dependent and are based on the needs of the individual companies. The demand from water and environmental companies for assistance from the Ministry of Foreign Affairs has approx. doubled from 2018 to 2020 on the export markets.

The Danish water companies demand different types of export promotion services, depending on size and market choice. The Ministry of Foreign Affairs assists with many different tasks, which span from high-level public affairs, access to important authorities or utilities, early advocacy on large tenders and regulation, partner searches, business promotion, local workshops, or incoming delegations to Denmark.

In the Ministry of Environment's partner countries, posted sector counsellors have valuable knowledge of local regulation and investments in the water sector and they have in-depth knowledge of upcoming regulatory changes and new trends in the partner country. At the same time, the sector counsellors can identify demand for specific Danish water technologies from the partner country's authorities and utilities.

The sector counsellors work together with the sector-specialised export advisers at the embassies to ensure that the export opportunities are specified and that the Danish companies are involved on an ongoing basis.

Initiatives

Establishment of export scheme for the water area in the USA, Germany, Italy, Poland and Spain

In autumn 2021, the Ministry of Environment and the Ministry of Foreign Affairs will establish an export scheme for the water area. The initiative will contribute to promoting the export of Danish water solutions to five priority countries in addition to the existing global activities.

The aim is to enter into close water collaboration with authorities in the USA, Germany, Italy, Poland, and Spain and thus convey and spread knowledge about Danish framework conditions and water technology solutions.

In the long term, the initiative will improve framework conditions and support Danish companies' commercial access to foreign decision-makers and take home knowledge of new technological and innovative solutions, planned investments, and tenders. This will be done in close cooperation between the Ministry of Environment, the Ministry of Foreign Affairs, and the Danish water sector:

Box 7

Export scheme

- ◆ The export scheme will initially apply from autumn 2021 to the end of 2023.
- ◆ Denmark will enter into cooperation with authorities at national, regional or city level in five countries, where Denmark has the opportunity to contribute with solutions to the partner countries' water challenges.
- ◆ In close public-private partnership, the initiative will give Danish companies a greater understanding of the market and at the same time position them in commercial activities towards local utilities and authorities.
- ◆ The export scheme will connect new posted water specialists from the Danish Environmental Protection Agency to export advisers from the Ministry of Foreign Affairs in the five countries.
- ◆ There will be a differentiated thematic water focus in the five countries, as demand and challenges vary in relation to topics such as wastewater, drinking water, digitalisation or climate adaptation challenges.

Box 8 —————>

**Water Technology
Alliances (WTA) are
strengthened and
initiated in several
markets**

In countries such as the USA, Germany, the United Arab Emirates, and India, the Ministry of Foreign Affairs and the Ministry of Environment have initiated strategic water alliances in collaboration with the water sector consisting of large and small Danish companies and utilities. The cornerstone of the alliances are specialised water export advisers who start partnerships with local authorities and utilities independently of whether the Danish companies are physically present on the market.

The water alliances connect green diplomacy, which is often initiated by cooperation agreements between Denmark and the partner country, with commercial export activities that bring the Danish suppliers close to decision makers and relevant projects.

The activities involve e.g. project identification and utility visits, workshops between local utilities and Danish companies, delegation visits from foreign decision makers to Denmark, and the important follow-up when the Danish company is not present in the country. The Ministry of Foreign Affairs, in cooperation with the water sector, will initiate several strategic water alliances in priority markets based on the new export scheme.



Boots-on-the-Ground

As a consequence of the last year's global travel restrictions, the Ministry of Foreign Affairs has strengthened the boots-on-the-ground concept, where, in the short term, Danish water companies have the opportunity to enter into an agreement with sector-specialised export advisers from the embassies to represent them locally on the market when the company is unable to travel to the country.

The boots-on-the-ground concept is also a valued service for Danish SMEs who want to test the potential of a market before making costly investments to establish themselves in new markets.

Strengthened focus on Engineering, Procurement, and Construction (EPC) contractors

Denmark does not have a system integrator in the area of water, as is the case in the energy sector. The Danish water companies instead offer a number of sub-components which are e.g. allocated to utilities, private companies, and EPC contractors. Several Danish water companies want to enter into closer dialogue with the large foreign EPC contractors, and the Ministry of Foreign Affairs, in cooperation with the water sector, will arrange business promotion targeted at relevant EPC contractors.

Involvement of specialists from private actors, universities, and the Danish utilities in export promotion activities

Danish water utilities have very successfully assisted water alliances in priority export markets in recent years. As the Danish suppliers primarily offer sub-components, water specialists from the Danish utilities have skillfully succeeded in telling 'the Danish story' both in local workshops and to foreign delegations who are on market visits in Denmark. The trusted and professional dialogue between foreign and Danish utilities has built credibility towards Danish technologies vis-à-vis foreign decision-makers, which in turn has resulted in orders for Danish companies.

The Ministry of Foreign Affairs will involve specialists from the Danish utilities, universities, and organisations on priority export markets through funding from EKF's Green Advisory Pool. The utilities' participation in export activities must take place within the framework of the Water Supply Act, the Water Sector Act, and the Wastewater Payments Act.

Water initiatives in developing countries

Water is central to Denmark's development policy agenda and is expected to play an even bigger role in the future.

Strategic sector cooperation in developing countries and emerging economies are initiatives where, in the long term, development policy measures can e.g. support commercial matters.

The strategic sector collaboration is carried out in close cooperation between partner authorities, Danish experts from the Danish Environmental Protection Agency, and Danish municipalities. The primary purpose is to improve the political and regulatory framework for the green transition in a number of developing and growth economies. With the upcoming new framework for the strategic sector cooperation, more emphasis is put on the bilateral political efforts and the long-term commercial value. In addition, a close dialogue is ensured between both relevant authorities in Denmark, the local sector counsellors and the Danish private sector.

The Ministry of Environment has existing strategic sector collaboration within water and environment with growth and developing countries such as India, China, Indonesia, South Africa, and Kenya. Aarhus and Copenhagen have strategic sector cooperation at city level incl. water tracks with partner cities in Ghana, South Africa, India, Argentina and China. In addition, there is research collaboration around water in e.g. South Africa.

New strategic sector cooperation in Ethiopia and Morocco

In addition to the new collaboration with authorities through the export scheme, the Ministry of Foreign Affairs and the Danish Environmental Protection Agency are starting two new strategic sector cooperation in water and environment in Ethiopia and Morocco, from autumn 2021. The strategic sector cooperation are financed via aid funds and must assist local authorities in creating a better framework for sustainable water and environmental management. They have started with a one-year pilot project and are expected to result in three-year projects. The projects are implemented in close dialogue with the water sector.

Strengthened focus on cities – including C40

Global climate change is causing challenges in cloudburst management in many big cities. Furthermore, as more people move from rural to urban areas and as many large cities suffer from outdated water infrastructure, urban water management is put under pressure. The strategic sector cooperation at city level between Copenhagen and Aarhus and foreign cities must contribute to the handling of local water challenges.

Denmark also has a partnership with the global green city network C40. Through the embassies and the water sector, this cooperation can, help open up more export activities for Danish water companies in cities.

The Ministry of Foreign Affairs will also, as part of the export scheme, strengthen export promotion efforts towards global cities such as Los Angeles and Houston in the USA, where climate collaboration is expected to be entered with specific water tracks and accompanying commercial water activities.



Marketing and export promotion

Competition on key export markets is expected to intensify in the coming years. Therefore, international knowledge of Denmark and Danish water solutions is essential in order to increase the industry's market opportunities.

Denmark is already known in many countries as a pioneering country for sustainable water solutions, and it is important to maintain and strengthen this knowledge in the future. International branding and visibility of Danish water solutions is thus a central focus area. It is important to focus on utilising and combining initiatives and at the same time include export promotion activities that can open the doors to Danish companies on the export markets.

Marketing

A significant part of the common branding of Denmark in the green area takes place through State of Green, which is a public-private marketing consortium that works for international marketing of Danish green solutions in energy, environment, water, and climate adaptation. The consortium works closely with the ministries and the water sector to increase exports of Danish solutions and support the attraction of activities and investments to Denmark.

This happens e.g. through a green narrative about Denmark as well as through a series of marketing activities that aim at increasing international visibility and foster relationships between international decision-makers and Danish actors. A joint narrative of the Danish water sector is important when Danish solutions, products, and models are to be branded on foreign markets.

The COVID-19 crisis has shown that the use of online conferences, workshops, etc. has been a good instrument for getting in touch with foreign business partners. State of Green has developed a number of online event concepts (Green Talks, Green Insights and Green Dialogue), which can be used to promote the export of Danish water technology. Furthermore, State of Green has established a professional study facility and a virtual universe that makes it easier to organise forthcoming online events.

Box 9 →

IWA 2022

IWA World Water Congress and Exhibition will be held in Copenhagen in September 2022. It is expected that thousands of water professionals will visit Copenhagen, including a number of high-level participants. The congress is an important opportunity for showcasing the Danish water sector which is involved in organising the congress.

Export promotion and incoming delegations

The Ministry of Foreign Affairs and the Ministry of Environment carry out official trade promotions in close cooperation with companies, industry organisations and other authorities and actors. The Ministry of Foreign Affairs' pool for joint trade promotions covers half of the expenses connected to promotion for business groups. In order to strengthen the recovery of exports in the aftermath of COVID-19, the pool has been doubled and the subsidy percentage has been increased in 2021. It is a goal that half of all advances that are financed by the Ministry of Foreign Affairs' pool must be made up of green sectors, including the water area.

As a consequence of potential travel restrictions, the promotion can be implemented either fully or partially digitally. There is a need for targeted and coordinated export promotion in the field of water so that planning, implementation, and follow-up ensures consistency with the other export efforts.

Box 10 —————>

Funding of incoming delegations

In 2021, the Ministry of Foreign Affairs will finance incoming delegations with participation of decision-makers from foreign public authorities organised by the Danish missions. The initiative will be particularly useful for the export promotion of water solutions, where sales are largely aimed at public authorities who are traditionally challenged when it comes to funding fact-finding visits abroad.



Companies' access to financing

In connection to export, financing is a key factor on equal terms with price and quality. This also applies to the water sector, where there is a need for large investments from both private and public buyers.

In some cases, corporate banks do not want to provide export financing without other stakeholders that help share the financial risk. To help Danish companies get closer to orders, there are a number of public financing options that can support Danish exports from the water sector.

Export financing via EKF, Denmark's Export Credit Agency

EKF, Denmark's Export Credit Agency, promotes the export and internationalisation of Danish companies through competitive financing and risk coverage. With the help of EKF, foreign buyers of Danish technology and services as well as Danish companies and sub-suppliers can obtain financing in the form of loans, guarantees, and export guarantees, which make Danish companies more competitive vis-à-vis foreign customers.

The government has taken a number of initiatives to strengthen EKF's opportunities to support Danish exports of e.g. green Danish solutions, and EKF will receive DKK 745 million in the coming years in capital contribution to enhance EKF's willingness and ability to take risks.



EKF has also received funding for new initiatives, including e.g. EKF's Green Accelerator Facility, which was launched in December 2020. The programme provides grants for analyses, studies, and project maturation that support the opening of new export markets in the green area – including within the water sector.

EKF has also launched an initiative targeting the water sector, where EKF, in cooperation with the water sector, will gather Danish exporters in a digital online catalog targeting foreign EPC contractors, investors, and international banks in connection with specific export projects. The catalogue should be used to market the Danish suppliers to the foreign EPC contractors and to investors who can be offered attractive financing.

EKF has launched the Green Accelerator which e.g. can finance feasibility studies on the export markets.

IFU as risk-tolerant investment partner in developing countries

The Investment Fund for Developing Countries (IFU) offers advice and risk capital for companies' commercial projects in developing countries and emerging economies in order to create sustainable social and economic development. IFU also has the option of supporting project development in the early phases if the project is intended to be commercial.

Climate Investor 2 (CI2)

The Ministry of Foreign Affairs has made a contribution to IFU's expected investment in the fund CI2, with the purpose of mobilising public and private capital for project financing and investments in the water sector in developing countries. IFU's participation in CI2 is expected to open up new opportunities for Danish companies and at the same time ensure expertise and experience in developing and implementing commercially-based water investments in developing countries. Danish water companies are therefore encouraged to refer enquiries to CI2, possibly through IFU, to seek funding for larger projects.

Danida Sustainable Infrastructure Finance (DSIF)

The DSIF instrument enables the financing of sustainable infrastructure projects in developing countries, including guaranteed payment on contracts that would not take place under market conditions. DSIF is administered by IFU. The majority of the projects are tied to transfer of technology and knowhow through Danish companies and the contracts are awarded through public tenders by the local authorities in the developing countries. A list of projects in tender can be found on DSIF's website. DSIF has extensive experience with water projects, which at the beginning of 2021 make up 60 per cent of the projects in the pipeline. In order to engage Danish water companies early in the project phase, DSIF will use the industry organisations as dialogue partners.

Nefco og Nopef

Nefco – Nordic Environment Financial Corporation offers risk capital to Nordic green SMEs that wish to scale up on global markets outside the Nordics. The aim is to invest in or provide loans for green innovative solutions with international growth potential and high demonstration value. Nopef – Nordic Project Fund, which is managed by Nefco, supports the internationalisation of Nordic SMEs with innovative green solutions outside the EU/EEA. SMEs can apply for funding for preparatory activities prior to international establishment or commercial demonstration projects.

Figure 3 →

		High value markets	Developing countries
Connection between financing options	Project financing / private buyers	EKF NEFCO NOPEF	IFU EKF NEFCO NOPEF
	Public buyers	EKF	DSIF EKF



Research, development and demonstration

– secure tomorrow's technologies and solutions

Today, Danish companies develop and produce a number of technologies and solutions which are in demand globally, e.g. pumps, valves, and measuring devices. In order to continue to support the increase of Danish export in the water area, it is important to ensure a good research and development environment as well as test and demonstration facilities in Denmark, so that Danish companies can continue delivering solutions and technologies that match the global demand for sustainable water solutions.

Secure development of tomorrow's technologies and solutions, including a focus on digitalisation

The need for technology for e.g. establishing and operating a safe and efficient supply of clean drinking water for citizens and businesses is an area that is expected to see a growing demand worldwide. Furthermore, in the long term, an increased demand is projected for technologies for a climate- and energy-efficient treatment of wastewater as well as smart solutions to deal with flooding, etc. in cities. This applies particularly within smart city solutions, climate adaptation, and digitalisation, which can be an inspiration for projects in the rest of the world.

Through research, development, and demonstration, the focus must be on the development of tomorrow's solutions with a focus on the entire chain from research, the Innovation Fund, and MUPD. It is important that Denmark's unique infrastructure is used to strengthen cooperation between technology suppliers, advisers, utilities, and authorities. The Ministry of Environment will also work together with the water sector to utilise the cooperation opportunities in the new Horizon Europe research programme including the upcoming water partnership (Water4All) between the European Commission and the EU Member States which is expected to be established at the end of 2021.

If Danish water companies and Denmark's efforts for better water management and a better aquatic environment are to continue to be at the forefront, Denmark must become better at utilising the new opportunities that the digital change in technology and society provides. Digital investment in the water area must take place in close co-operation with innovation actors like e.g. national cluster organisations such as CLEAN and GTS institutes such as the Technological Institute, the Alexandra Institute, and the Danish Water Forum, as well as the water technology suppliers and the utilities that will combine the technologies into coherent solutions.

Digitalisation is important in order to deliver on future growth and export opportunities. In addition, the companies must continue to develop new products and service solutions that can provide a more sustainable consumption of resources. The potential in data from e.g. digital water meters and sensors in pumps, pipes, etc. must be used optimally and can thus lead to a more holistic and value-creating management of the water sector. Digitalisation is thus an important key to connecting and supporting further development in the water sector and at the same time to envisioning the utility sector as an integral part of the smart city mindset, where a large number of sectors function in an integrated manner with the aim of developing environmentally sustainable cities.

Strengthened opportunities are equally important in order to demonstrate solutions in the Danish utilities and infrastructure tasks, and to be able to present concrete examples of Danish solutions to foreign visitors. Strategic showcases in the form of both large-scale and smaller demonstration plants can support the export of technology and solutions and contribute to the marketing of Denmark as a leader in water technologies and solutions.

Water technology as a lighthouse for business development in Central Denmark

In March 2021, the government appointed seven regional growth teams, which among other things were tasked with coming up with recommendations on how best to invest in local business potential - with to the intention of developing local business lighthouses and strengthening growth and employment regionally.

A number of significant companies and existing collaborations between water companies, knowledge, and educational institutions, etc. have managed to make water technology an important business in Central Denmark with solutions to address the needs today and not at least in the future. Growth Team Central Denmark has therefore recommended that a regional business lighthouse is established within water technology in order to further develop Central Denmark's strong position within water technology.

The Growth Team recommended e.g. a build-up of large-scale test and demonstration facilities, which will act as a focal point for the establishment of the Central Denmark Business Lighthouse for Water Technology. The facilities will be able to form a gathering place for water stakeholders and make it possible to show the potential of water technology on a large scale to foreign decision makers and potential customers. The Growth Team also recommends further collaboration with Invest in Denmark, State of Green,

and Innovation Centre Denmark targeting water technology in order to attract foreign companies and investments. Growth Team Central Denmark's recommendations for the development of a business lighthouse in Central Denmark within the innovative, sustainable, and efficient water technology solution of the future can be seen in box 11.

The government will follow up on the Growth Team's recommendations and support the establishment of the Central Denmark Business Lighthouse for Water Technology. The government, together with the Danish Board for Business Development and the Board of Business Hub for Central Denmark, will enter into a partnership with the partners who come together in a consortium to develop the business lighthouse.

The local consortium can apply for funds to implement the Growth Team's recommendations from the Danish Board for Business Development. As part of the government's plan for *Danmark Kan Mere I*, the government has set aside a total of DKK 1 billion for the establishment of eight business lighthouses around the country. The partnership will gather the forces of local and national teams in a strong effort to establish and develop a business lighthouse in Central Denmark for growth and employment with international visibility within water technology. The initiatives in this strategy will simultaneously deliver a targeted contribution to development. In continuation of the other initiatives in this strategy, the Ministry of Foreign Affairs, the Ministry of Environment, and the Ministry of Industry, Business and Financial Affairs, through participation in the partnership, will contribute to the efforts in the water area, being able to support a business lighthouse for water technology in Central Denmark.

Box 11 —————→

**Central Denmark's
growth team's
recommendations
for new business
lighthouses:**

- ◆ Build large-scale test and demonstration facilities for water technology solutions.
- ◆ Create better access to data concerning water and better opportunities for developing new digital business models.
- ◆ More innovative collaboration and research in water technology.
- ◆ Green transition through cooperation in the water sector on the development of new sustainable water technologies.
- ◆ Strengthen the entrepreneurial ecosystem with a strong incubation and accelerator effort with a focus on the development of water technology solutions.
- ◆ Better access to qualified labour in the Central Denmark water sector.
- ◆ Focus on the Central Denmark Business Lighthouse for Water Technology in a strengthened export promotion effort.

Take-home knowledge from abroad

Internationally competitive companies are dependent on being able to develop new technologies, production processes, and services in order to maintain and expand exports. At the same time, global research and knowledge about new technologies is growing explosively and the technologies can be combined and thought together in an increasing number of ways.

Access to knowledge from knowledge institutions and other actors outside Denmark as well as the attraction of new knowledge to Denmark has, in line with this development, become an increasingly important competitive parameter for Danish businesses.

Sharing knowledge is crucial for finding sustainable solutions to the water challenges that the world faces. In order to be able to adapt Danish technologies and solutions to relevant markets, and ensure that new solutions can be developed, it is important that collaborations continue to be established with a vision of sharing knowledge with ambitious countries. This applies not least to the digital area, where there is a great deal of knowledge abroad which we in Denmark can benefit from. Also within urban solutions and climate adaptation there can be great benefits from knowledge sharing – not least where digital solutions must be linked with new technologies and solutions.

In particularly important markets characterised by knowledge and innovation, the Ministry of Higher Education and Science has established innovation centres. Innovation Centre Denmark gives Danish companies and research institutions access to international knowledge, technology, networks, partners, and capital. There are currently innovation centres in Boston, Munich, Bangalore, Seoul, Shanghai, Silicon Valley, and Tel Aviv, and several of the centres work specifically with innovation in the water area.

In addition, the large Danish companies are also very important for taking home knowledge, as knowledge obtained through inspiration from foreign subsidiaries and foreign environments can strengthen the development of Danish technologies.

An increased focus on knowledge sharing must also take place in connection with foreign investments in Denmark, where international companies that invest and create jobs in Denmark often come with new technologies, new knowledge, and new products that can contribute to increasing productivity, creating growth, and to ensuring competition.

Follow up

In order to further strengthen the dialogue between the water sector and the public actors, as a follow-up to the strategy and under the auspices of the Ministry of Environment and the Ministry of Foreign Affairs, a dialogue forum for water and environment will be set up with participation of relevant organisations. The dialogue forum is expected to meet approx. 4 times a year.

The new dialogue forum for water and environment must, among other things, continuously discuss the overall and strategic prioritisation of relevant markets, resource needs, and areas for collaborative projects with the purpose of ensuring professional and political relevance as well as consistency with the overall priorities of the government and the private sector.

In the upcoming dialogue forum, there will be a focus on export promotion efforts, where the development of new water technologies and solutions will continue to be primarily handled under the auspices of The Water Vision.

The new dialogue forum is expected to meet approx. 4 times a year.

Box 12 —————→

The forum must:

- ◆ Discuss the status of the strategy's implementation.
- ◆ Ensure a common strategic direction and prioritisation of resources in relation to international efforts in the water and environmental area, based on business demand.
- ◆ Form a platform for knowledge sharing and discussion of the ministries' prioritisation in export-related activities in the water and environment area.

Photos:

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Page 14: State of Green

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Page 23: Water Technology Alliance – Danish delegation visit to Texas

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Page 29: WTA - Ministerial visit with export promotion in Chicago

Page 31: Eakkaluk Aumaon / Colourbox

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