International ambitions
of the
Dutch Energy from Water sector

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Contents

Management summary

The Netherlands Water Partnership would like to investigate her role in supporting the emerging Dutch Energy from Water sector in realizing its international ambitions. NWP has a large international network and is responsible for a wide range of promotional activities of the Dutch water sector. NWP can assist companies, institutes and trade bodies with demand driven needs related to the promotion of Dutch services, products and projects in specific countries or regions. NWP has instructed MET-support to help identify the international ambitions of the Dutch Energy from Water sector through a number of interviews among stakeholders and desk research.

An overview is given of the key technology developers, supply chain and research facilities active in the Netherlands. Based on desk research and interviews a ranking of six priority countries has been made, being:

1. Canada
2. France
3. UK
4. China
5. Japan
6. South-Korea

For each country a description is given of the marine energy sector, its national strategies complemented by inputs from interviews with Dutch marine energy companies. In section 3.3 a separate description is given for each technology type (tidal and wave technologies, ocean thermal energy conversion and technology to extract energy from salinity gradients) and specific export opportunities to countries. This overview is elaborated separately in a graphical illustration (still to be made). The challenges and barriers for international cooperation and export are discussed, including a listing of needs from the sector.

Finally, recommendations are made related to tapping into existing international networks such as IEA-OES, IEC TC114 standardisation committee and the European Ocean Energy Association, exploring funding support and participation in relevant events and conferences.

1. Introduction

1.1. Background

The Netherlands has a solid international reputation in the field of delta technology. The Dutch industry can build on this reputation with its growing capabilities in marine renewable energy. Two recent studies about the state of the Dutch 'Energy from Water' sector show substantial export opportunities worldwide, especially in tidal and wave energy, energy from salinity gradients and ocean thermal energy conversion (Ecofys 2014 and MET-support 2015).

However, there is a lack of information about the international ambitions of Dutch companies and institutes and their priority regions for export. In order to turn export opportunities into actual business, several criteria have to be met, such as geographic (how much resource is available), socio-economic (grid or non-grid end-users), financial and political (incentives, feed-in schemes).

1.2. Objectives

The main objectives of this project are:

1. To identify the international ambitions of Dutch companies and research institutes with capabilities in the marine renewable energy sector.
2. To identify priority countries and/or regions where these ambitions could be realized.
3. To formulate necessary support actions for NWP and other organizations with an interest to support this sector.

1.3. Sources of information

In order to reach the formulated objectives interviews have been held with Dutch marine energy companies and additional desk research. Based on the interviews and additional research a selection of countries has been made which show most export potential for the Dutch marine energy sector. The priority countries were selected based on available information regarding geographical, political and financial conditions for marine energy developments.

Based on the annual report of IEA-OES (2014), a study by EY (2013) and the indicated priorities and ambitions of the interviewed Dutch companies, an initial list of priority countries was made. Information concerning non–OES member countries was found in the Ecofys (2014) report.

It should be noted that not sufficient information could be found on all countries mentioned by the interviewed parties. This does not necessarily mean this particular country has a lower priority than others, but rather that additional research is needed to present a full overview of all criteria (financial, political, geographical criteria). This could be further investigated by collaboration with (local) governments and embassies. Another important point is that most of the interviewed parties are active in the tidal energy sector, which represents the majority of the Dutch Energy from Water sector in this research.

2. Overview of the Dutch Energy from Water sector

2.1. Key technology players

Leading technology developers in the Energy from Water sector in the Netherlands are Tocardo International (tidal), Nijhuis Pentair (hydroturbines), Deepwater-Energy (tidal/hydro), Bluewater Energy Services (floating structures for tidal), RED-stack (salinity gradient) and Bluerise (OTEC). These companies are followed by smaller or newer companies such as (in random order) FishFlow Innovations, Tidalys, Water2Energy, Ronamic, Hydromine and Seacurrent developing various types of tidal turbines. Finally there is a number of wave energy developers at various TRL levels but not yet ready for exporting solutions such as SlowMill, Kim Nielsen, SBM-offshore, Teamwork Technology, University of Groningen and Ocean Wave Power Station (OWPS) developed by Jón Kristinsson. Archimedes Solutions is developing OTEC technology.

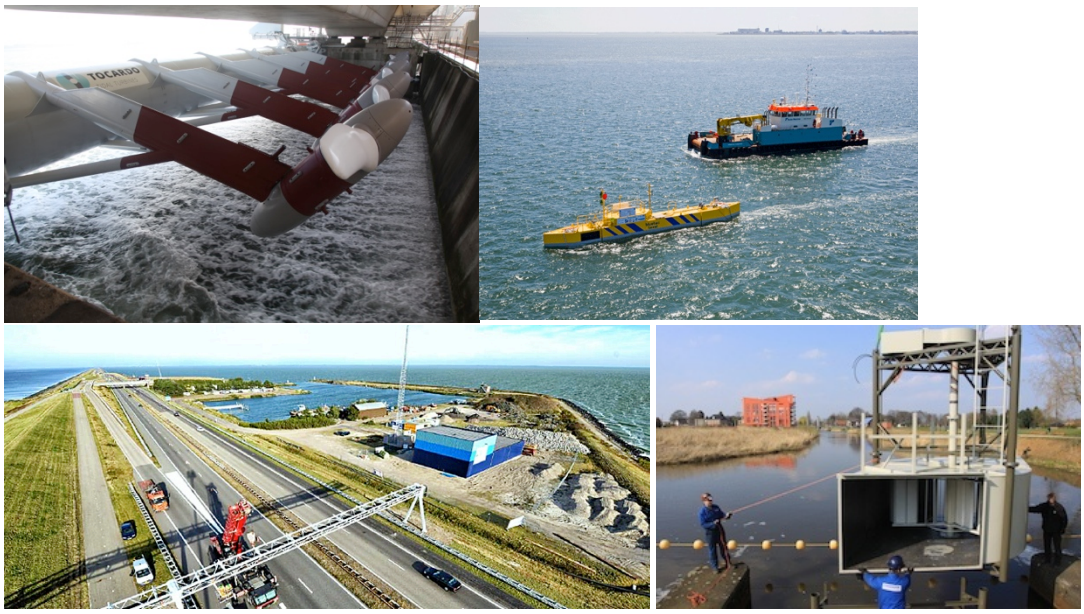

Figure 1: Dutch export technologies in the picture: Tocardo tidal stream turbines installed the Eastern Scheldt (1,2MW), Bluetec floating turbine near Isle of Texel (200kWp), experimental facility by RED-Stack on the Afsluitdijk and the OryonMill in Ulft.

Many of the technology developers which are at a higher TRL level draw expertise and/or financial support from the traditional offshore oil & gas companies. The recent collapse of oil prices is starting to have effect, forcing some developments to scale down. At the same time it is also recognised that diversifying into renewables may offer new opportunities for the oil and gas industry in the future. Especially in the supply chain this is a noticeable trend.

2.2. Supply chain

There is a significant potential for the existing supply chain to provide services and supplies to the marine energy sector. This new market is already attracting interest from maritime contractors and suppliers from the oil and gas industry as their activities are showing a gradual decline in the coming decades.

The Netherlands is blessed with a high and diverse concentration of maritime engineering expertise and capabilities. The Dutch also have an international reputation in water management and the creation of large infrastructural works. This puts the Netherlands in an ideal position to participate in the supply chain for the energy and water sector. For the floating BlueTEC project for example, DAMEN and NIRON Shipyards built the steel structure, while Global Maritime Vryhof supplied the anchors, TKF the electrical works and Van Oord and ActaMarine completed the installation. For the Eastern Scheldt project by Tocardo, Huisman and Hillebrand built the steel support structure, while Istimewa (a Stork company) did all electrical and instrumentation works. Project management was done by Strukton and installation was executed by Mammoet. Other companies interested to diversify and play a role in the supply chain are Siemens, Bosch Rexroth, Emerson, DSM, FujiFilm, Airborne Composites and others.

Maritime contractors and engineering consultancy firms are also showing keen interest, stimulated by the prospects of large infrastructural projects such as the Brouwersdam tidal power plant. Boskalis, BAM, Strukton, Arcadis, AnteaGroup, Ballast-Nedam and IV-Infra amongst others are orientating or actively pursuing opportunities. Consultancy firms have also expanded into the marine energy sector both in the Netherlands and abroad such as Royal Haskoning, Witteveen & Bos, Tauw and MET-support.

Finally, Dutch research institutes are getting more involved in funded projects. Deltares, NIOZ, IMARES and University of Utrecht amongst others are building up specific expertise on environmental impacts of marine energy projects. TNO, TU Delft, MARIN, Tidal Testing Centre, ECN and Hogeschool Zeeland are carrying out technology development related research or offer test facilities. Plans are under development for a new test centre at the Tidal Technology Center Grevelingendam (BT Projects/AnteaGroup) which will also attract international attention.

3. International ambitions of the Dutch Energy from Water sector

3.1. Priority countries

A short description of the marine energy sector is given per priority country and its national strategies to stimulate marine energy developments. This is complemented by the outcomes from interviews with Dutch marine energy companies. Table 1 at the end of this section (page 8) gives an overview of national strategies per priority country (based on OES, 2014 & 2015).

Priority countries	Ocean resources	Marine energy targets	Market incentives	Technology focus	Fundamental R&D	Dutch initiatives
Canada	X	X	X	T, W	X	X
France	X	X	X	T,W (O)	X	X
UK	X	X	X	T,W	X	X
China	X	X	unknown	T, W	X	X
Japan	X	X	unknown	T	X	
S. Korea	X	X	X	T,W,O	X	X

Table 1: Priority countries for the Dutch Energy from Water sector (T=Tidal, W=Wave, O=OTEC, S=Salinity Gradient)

Canada

Local context

Canada is selected as a priority country due to its extensive marine resources and waterways, its clear national strategies and attractive market incentives. The potential of wave and tidal energy reaches up to 25% of Canada's electricity demand (EY, 2013). Canada's Marine Renewable Energy Technology Roadmap set out national targets to develop 75 MW by 2016, 250 MW by 2020 and 2000 MW by 2030 (EY, 2013). Although marine energy projects have not reached commercial stage, at least 25 tidal and wave energy projects are under development at present (Ecofys, 2014), such as in Nova Scotia (OES, 2014).

Canada's feed-in tariff contracts facilitate large-scale (demonstration) projects and technological developments (EY, 2013). The feed-in tariffs are 530C$/MWh (OES, 2014). Another market incentive is a streamlined licensing regime, which also contributes to these developments (OES, 2015).

Test facilities are available, notably the Fundy Ocean Research Centre for Energy (FORCE) providing access to 16MW development potential in its fast flowing waters. Canada is also very active in the IEC TC114 committees on the development of standards for marine energy convertors. Marine Renewables Canada is an active branch organisation coordinating lobby and research. Relevant technology players in Canada are DCNS (OpenHydro) in cooperation with local utility EMERA, Schottel Hydro, Black Rock Tidal Power, Andritz, Voith, BC Hydro, DSA, Mavi Innovations, New Energy Corporation and ORPC.

Dutch perspective

Canada is mentioned by many Dutch marine energy companies as a high priority country, not only because of its favourable geographic location, but also due to stimulating energy regulation and policy (*interviews Dec 2015*). Political will is present and financial instruments greatly assist in developing marine energy projects (*intevei Dec 2015*). Canada was mentioned as a priority country especially by the Dutch offshore sector.

France

Local context

The North Atlantic Ocean and the waters around the overseas French state territory have a major ocean energy potential. Not only in tidal and wave energy resource, but also in OTEC. A recent study by the French government estimates a total potential of 3 to 5 GW (EY, 2013). National sustainability targets are set on 23% renewable energy of the total energy consumption, of which 3% can originate from the marine energy sector.

The French government focuses mainly on tidal and wave energy developments. The government facilitates project development and organization of the tidal and wave energy sector, by the implementation of national policy to support R&D and financial support (€34 m in a 10 year period). Research is coordinated through France Energies Marines (FEM). One of the largest tidal barrage plants is located at La Rance (240 MW). The implementation of a 10 MW OTEC pilot in French territories overseas is under development by DCNS with NER300 funding. Other relevant technology players in France are EDF, Engie, Sabella, DCNS (OpenHydro), Geocean, Tidalys and HydroQuest.

Dutch perspective

France is regarded promising in terms of export by the interviewed companies due to its favourable marine conditions and clear support strategies for marine energy from the government. In one case the French government is mentioned to be more accessible than the Dutch government. On the otherhand the language is often seen as a barrier to access up-to-date information and to effectively participate in French events. The potential of France is acknowledged by most tidal and wave energy companies, as well as producers of turbines aiming for rivers. In 2016 the French-Dutch Economic year comes to an end. It is recommened to contact the French Embassy[1] in the Netherlands to explore ways to re-inforce cooperation and cross-promotion.

United Kingdom

Local context

The United Kingdom is leading in tidal and wave energy considering the amount and variety of tidal and wave stream devices developed and installed over the past 10 years. The country has favourable conditions for tidal and wave testing due to its geographic location, stimulation national policy and supporting financial mechanisms such as the new Contract for Difference scheme (worth £305/MWh for tidal energy) and streamlined licensing. Especially the development of multiple unit tidal and wave farms are pushed by technology mechanisms (OES, 2015) (EY, 2013). The UK has excellent test facilities such as EMEC, Catapult's National Renewable Energy Centre and the WaveHub. Major players in the UK are many; Swansea Tidal

[1] Samira Irsane, Chef de secteur Industrie, French Embassy in The Hague

Lagoon, Atlantis Resource Corporation, Alstom, Andritz, Wave Power Scotland, ScotRenewables, Nova Innovation etc.

Export potential

Many Dutch marine energy companies have identified the UK as a priority country, due to political conditions, ongoing tidal energy projects, collaboration and the current feed- in tariff. The Dutch offshore industry, project developers and tidal turbine developers have indicated UK as a high potential country. Dutch offshore companies confirm the possibilities to contribute to marine energy developments with their maritime knowledge and capabilities specifically the supply chain for example the Swansea Tidal Lagoon Project, when it goes ahead, will require newly build vessels for the construction (*interviews Dec 2015*).

China

Local context

China stimulates tidal and wave energy projects through the Marine Renewable Energy Development Program. Detailed resource assessments and marine spatial plans are available (OES, 2014). Also technology push mechanisms are in place, like available test sites, prototype testing and fundamental R&D. Installed tidal and wave stream devices and testing are publicly funded, but no other market incentives have been implemented yet. The Marine Renewable Energy branch of China Association of Oceanic Engineering (CAOE) was established in 2013 with over 50 members. A feasibility study is being completed by Dutch Dynamic Tidal Power consortium in collaboration with a consortium (AnteaGroup/Arcadis). The Chinese are also actively involved in the IEC TC114 committees and are hosting the annual IEC TC114 meeting in 2016 in Guangzhou. Major players in the sector are dominated by institutes and universities: Guangzhou Institute of Energy Conversion (wave), Harbin Engineering and Zhejiang Universities (tidal), while Reignwood Group has invested in OTEC.

Dutch perspective

China has been identified as a promising country for tidal energy by several Dutch marine energy companies especially the larger engineering firms working on large infrastructural concepts (POWER consortium and Tidal Bridge). It should be noted that cultural barriers were stated to hinder or cause delays in developing and implementing joint projects, especially the difference in the overall decision-making process (*interviews Dec 2015*).

Japan

Local context

The Japanese government has a keen interest in ocean energy. Since the Fukushima disaster in 2011 the country's need for sustainable energy has increased significantly. General sustainability strategies in Japan include all types of ocean energy. National ocean energy strategies include the stimulation of open sea test centers, detailed resource assessments and specific ocean energy roadmaps (OES, 2015). The provinces of Nagasaki and Saga specifically focus on tidal energy, wave energy and OTEC, and have the ambition to become an ocean energy hub in Asia (*interviews Dec 2015*). Feed-in tariffs are available for all renewables, rather than for one particular ocean energy technology type. In order to push technology development several mechanism are put in place, like stimulation of fundamental R&D and prototype testing (OES, 2015). Geographically, OTEC is promising in the South of Japan where a small demo plant is in operation. Key technology developers in Japan are Kawasaki Heavy Industries, Mitsui, Mitsubishi, University of Tokyo.

Dutch perspective

Japan is mostly mentioned as a promising country for developing tidal energy and OTEC projects (*interviews Dec 2015*). A perceived difficulty in Japan is the fact that locations suitable for marine energy could conflict with the interests of the fishing industry, an important economic sector in Japan. Innovative fish friendly turbines could address this problem. Furthermore the experience or perception of Dutch companies is that cooperation on joint technology development and demonstration requires dedicated and long-term relationship building with Japanese firms. Perhaps the initial focus should be aimed at offering specific knowhow from Dutch institutes such as on marine spatial planning and impacts on sea mammals.

South-Korea

Local context

South Korea is one of the world's leading energy importers, since the country has no domestic resources such as coal, gas or oil. The government has set national targets on ocean energy as well as several strategies for the stimulation of tidal, wave and OTEC energy projects (OES, 2014). One of these strategies is the use of energy roadmaps and detailed resource assessments (OES, 2015). This stimulation is due to the favourable geographical conditions. Market incentives comprise tradable green certificates and RE (Renewable Energy) portfolio standards (OES, 2015). South Korea is a major technology developer and it could be promising for Dutch energy companies to seek collaboration. For example, REDstack is currently working together with a South-Korean institute to develop membranes (Ecofys, 2014). Furthermore, South Korea has fundamental research and development as well as opportunities for prototype test facilities. Since the completion of the 256MW Sihwa tidal power plant there is also a growing interest in tidal range power. Major players are Hyundai Heavy Industries, Oceanspace, Korean Ocean Research and Development Institute (*KORDI*), Korea Research Institute of Ships and Ocean Engineering (KRISO), Keimyung University (*KMU*).

Dutch perspective

South Korea is mostly mentioned as a high potential country for developing tidal energy projects (interviews Dec 2015). Due to natural disasters in the past government policies focus more and more on sustainable energy developments (interviews Dec 2015).

3.2. Other potential export countries

In the interviews, Dutch marine energy companies have indicated where they see export opportunities in the near future. Table 2 shows a ranking of the most favoured export countries indicated by the 19 companies and knowledge institutes interviewed for this report.

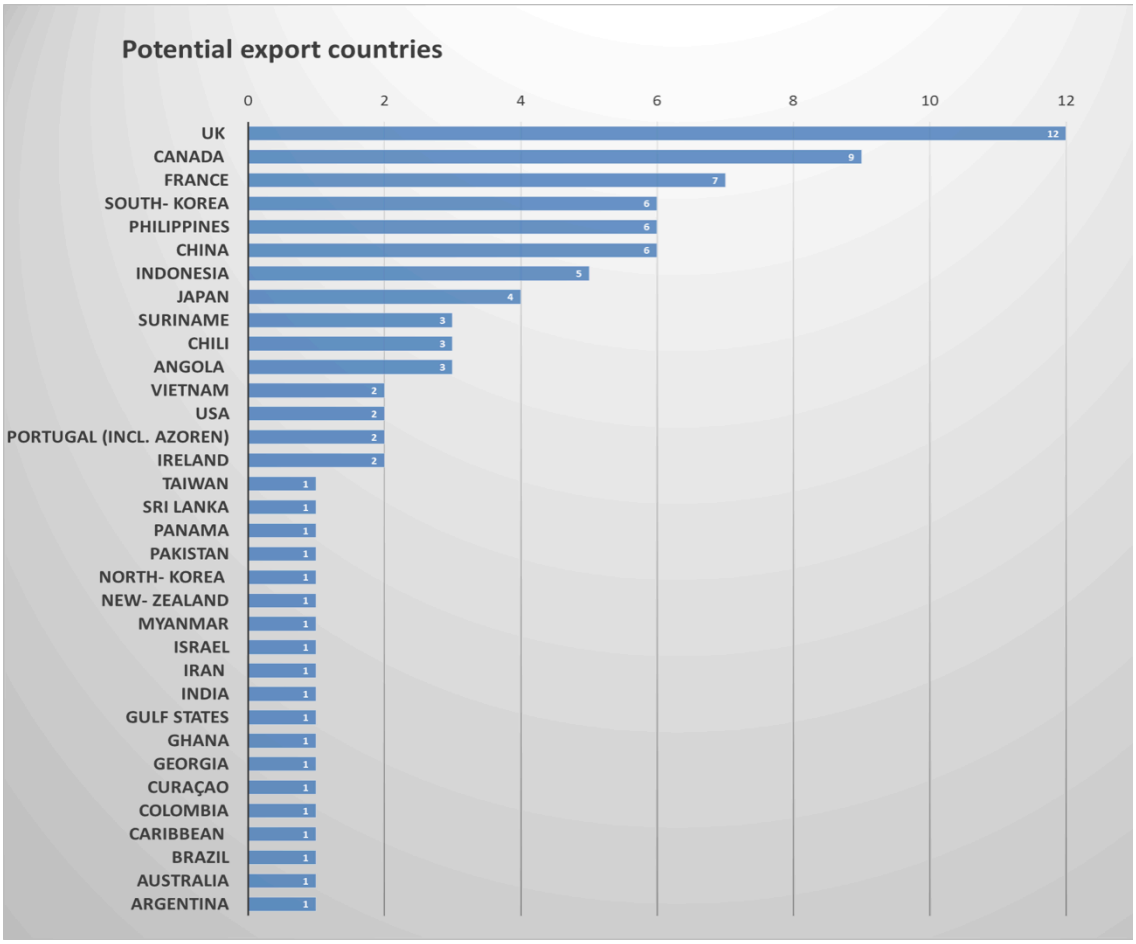

Table 2: Countries and regions with export potential for marine energy technologies, according to Dutch Energy from Water sector. Note: this graph only shows an indication of possibilities (qualitative rather than quantitative analysis).

3.3. Export countries per technology

Tidal and wave energy

Dutch marine energy companies have indicated to see opportunities in coastal areas in Western Europe, such as France, Portugal and Ireland. The latter two are mainly interesting for wave energy.
In Asia export opportunities for tidal energy technologies were indicated to be the Philippines, Sri Lanka, Indonesia, Taiwan, Myanmar and Vietnam. Those countries are especially relevant for turbine developers. Although political circumstances may not be favourable in some of those countries due to corruption and/or lack of political will, these were mentioned by several companies to have interesting export potential. Especially Indonesia and the Philippines are considered promising for tidal energy, since several projects have already been implemented and collaboration has been established with local parties (*interviews Dec 2015*).
In more remote areas and/or regions with high energy demands also lies potential for tidal energy technologies. Several tidal energy companies mentioned that small-scale projects can have significant impacts on the region.
In Africa, potential export countries for tidal energy technology are considered to be Angola and Ghana. In Central and South America, potentially interesting countries are Argentina, Chile, Surinam, Brazil and Panama. On a longer term opportunities were indicated in New Zealand and Australia (*interviews Dec 2015*).

OTEC

Export opportunities for ocean thermal energy conversion technologies have been indicated to be in a wide range of countries, mostly due to favourable geographical conditions; the Caribbean, Colombia, Curaçao, Sri Lanka, the Philippines and Indonesia. In Sri Lanka energy demands are high, while not many alternative energy sources are available. The government recently adopted a new sustainable energy policy which stimulates collaboration. Dutch initiatives are currently on-going in Curaçao and San Andres (*interviews Dec 2015*).

Salinity gradient

Although salinity gradient energy is not yet ready for the market at the moment, the opportunities for export are numerous in the future. Especially countries situated in delta regions are potentially interesting due to the combination of salt and fresh water. Favourable countries in Asia include China, Indonesia and India. In Europe, all countries located near the sea offer possible opportunities (*interviews Jan 2016*). Besides the energy market, the knowledge and expertise of salinity gradient energy can also be used for industrial, wastewater treatment and drinking water treatment markets. Therefore its geographical scope is rather broad. Specific countries that have been mentioned are Israel and countries in the Gulf region.

3.4. Barriers and needs from the sector

Barriers for further development

The interviewed companies indicated that they have little to no international competition regarding technological development. Only knowledge institutes have stated to compete with other international research institutes within this sector.
Furthermore, the mentioned projects seem to differ greatly in required procedures and barriers for setting up or developing these projects. It is difficult to compare projects due to their different development phases (TRL's). Still, the following barriers have been mentioned:

1. Ecological and environmental barriers during licensing (fish-friendliness etc.)
2. Geographical barriers (shipping to remote areas and dispersed distribution and maintenance)
3. Scattered initiatives and lack of joint political will or stimulation
4. Lack of financing through subsidies and investments or lack of market incentives (feed-in tariffs, decreased high investment costs, lowering long term risks etc.) and export credits, so the marine technologies do not reach competitive market levels
5. Technical or technological barriers
6. Large scale (demonstration) projects require multiple disciplines, which calls for an integrated approach. When multiple parties are involved joint vision and problem-solving is sometimes perceived as difficult

Needs from the sector

Many of the interviewed companies agreed that further support of network organizations would be very useful. Others (e.g. larger construction companies) have stated to work directly with embassies, local governments and Internal Affairs. In some cases the involvement of network organizations was indicated to be a delaying rather than a stimulating factor. There was no trend found between SME's and larger (construction) companies in the general need for support from network organizations. This could be due to the great variety of companies within the sector and technology readiness (TRL). However, most companies stated they would appreciate further support from network organizations, especially in the following ways:

1. Joint TaskTeam for Holland Branding: a cross-over between Topsectors Energy and Water, Min. of Economic Affairs and Min. Infrastructure and Environment as well as the Delta technology and off-shore (wind) sectors is needed to put the Dutch energy from water sector on the international map
2. Facilitating contacts and involvement of embassies and (local) governments
3. Joint trade missions of marine energy companies with shared interests, for instance tidal turbine and project developers, especially to Asia (China, Japan, Korea, Taiwan)
4. Improved integration of the energy from water sector (thinking outside individual disciplines) and exchange of knowledge between companies
5. Awareness of the sector's capabilities at Dutch ministries (I&M, BuZa, EZ) and agencies (RVO) in order to reinforce the export potential and international cooperation
6. Access to targeted financing instruments for cooperation with developing countries, upcoming economies and developed countries.

In addition, the sector needs export guarantees and credit (conditions for finance potentially benefit national markets). For this financial engineering, the European Investment Bank (EIB) and institutional investors could play an important role.

4. Recommendations & follow- up

4.1. Network organizations

There are a number of international networks dedicated to ocean and marine energy. Most already have some degree of Dutch participation. However, since participation in these networks is at own cost, individual companies may participate but then there is little dissemination to the wider Dutch Energy from Water network. The following three main networks are described below.

The Ocean Energy Systems Energy Technology Initiative (OES) is an intergovernmental collaboration between countries, which operates under the International Energy Agency in Paris. The initiative was launched in 2001. It brings together countries to advance R&D through international cooperation and information exchange. The Dutch government is formally a member since 2015. This network offers an effective platform to align policy making at an international level, identify opportunities for cooperation and export. It is recommended that the Dutch Ministry of Economic affairs appoints an Alternate Member from industry or a trade body to join these meetings. Ideally this Alternate position is funded.

Globally there is need for the development of standards and certification for energy from water convertors. Certification increases investor's confidence in a technology and thus leads to accelerated market-uptake and increased opportunities for export. These standards and certification are being developed under the **International Electro-technical Commission (IEC) and IECRE**. Dutch companies should be encouraged to become involved in order to understand and influence this process. Membership is managed via NEN in Delft.

The **European Ocean Energy Association** promotes the industry at EU level, ensuring the topic is included in policy making and funding programmes. OEA also acts as a communication hub for between stakeholders. The Dutch Energy from Water Association (EWA) is a trade body member of the OEA.

Other relevant networks to explore for international cooperation and export opportunities are the EIP Action Group on Energy and Water Works, INES (Salinity Gradient), IRO (NL), Marine Renewable Energy Canada, RenewableUK, France Energy Marine, GEN4Wave (Be), CAOE (China), Japanese Ocean Energy Association, SEAcORE (South-East Asia) and WavEC (Portugal).

4.2. Funding support

In the Netherlands funding programmes are managed and executed by RVO. They have a comprehensive online resource to find funding programmes per country and per sector. The main instruments of interest for export are:

- Partners in Business
- DRIVE supports investment in public infrastructure projects that contribute to the development of the private sector in low income countries
- The Dutch Good Growth Fund (DGGF) offers financing and insurance facilities for export and investment in developing countries
- DHI: Demonstration, Haalbaarheid and Investment.

In addition it is recommended to make an overview of European funding programmes that support export and international cooperation such as the new Horizon 2020 programme for the period 2017/2018.

4.3. Conferences and missions

The Dutch Energy from Water Association (EWA) maintains a detailed agenda of international events and conferences. Below an overview is given of some upcoming events. It is recommended that NWP actively follows the announcements of relevant events, informs the sector and identifies opportunities for joint promotion of the sector and/or joint representation at such events by active participation, giving presentations and reporting back to the sector about identified opportunities.

Dates	Name of the event	Location
25-27 April	Int. Marine Renewable Energy Conference (IMREC)	USA
4-5 May	All Energy	Glasgow
1-2 June	Seanergy	Biarritz, France
13-15 July	Offshore Energy & Storage symposium (OSES)	Malta
25-26 October	Offshore Energy 2016	Amsterdam
24-26 October	3rd Asian Wave & Tidal Energy Conference (AWTEC)	Singapore
8-9 November	Ocean Energy Europe (OEE)	Brussels
November	10th International Tidal Energy Summit (ITES)	London, UK

Table 3: Overview of upcoming conferences in 2016

Furthermore it is recommended to liaise regularly with Innovation Attachés of Embassies from the priority countries to identify opportunities for trade missions, exchange of market developments and data and promote Dutch products and services.

5. Acknowledgements

The contributions and review by NWP are gratefully acknowledged in executing this report as well as the companies and institutes that participated in the interviews (see list in section 7). NWP is partner in the Dutch Marine Energy Centre (DMEC) project funded by the European Fund for Regional Development (EFRD) Kansen for West. The DMEC project formulated a specific work package on internationalization and export. For this work package the results from this study will be used as a starting point for further analysis and promotional activities. This ensures that the recommendations made will see follow up, which is gratefully acknowledged.

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7. List of interviews

Organization	Person	Date of interview
Deepwater Energy	Jaap Ory	19-11-2015
Arcadis	Rob Steijn	19-11-2015
Antea Group	Piet Ackermans	19-11-2015
Bluerise	Remi Blokker	19-11-2015
Teamwork Technology	Roelof Schuitema	20-11-2015
BT Projects	Menno Broers	23-11-2015
Schottel NL	Marnix Mulder	23-11-2015
Global Maritime Vryhof	Barry Stolp	24-11-2015
Damen Shipyards	Henk Duit & Peter Robert	26-11-2015
Tidalys	Eric van den Eijnden	30-11-2015
Van Oord	Dirk Katteler	1-12-2015
Bluewater Energy Services	Allard van Hoeken	4-12-2015
MARIN	Erik-Jan de Ridder	7-12-2015
Deltares	Arnout Bijlsma	9-12-2015
Nijhuis Pentair	Harm Damkot	14-12-2015
FishFlow Innovations	Gerard Manshanden	17-12-2015
Tocardo	Hans van Breugel	23-12-2015
REDstack	Rik Siebers	15-01-2016