FINAL REPORT

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INTRODUCTION

The kick-off conference "Maritime Stakeholders Platform in the Baltic Sea Region" was held at GEOMAR Helmholtz Centre for Ocean Research in Kiel, Germany.
It was co-organised by the European Commission's Directorate-General for Maritime Affairs and Fisheries (DG MARE) and the German Federal State of Schleswig-Holstein.

DG MARE develops the potential of the European maritime economy and secures a safe and stable supply of seafood, sustainable fisheries, healthy seas and prosperous coastal communities. The Integrated Maritime Policy (IMP) seeks to provide a more coherent approach to maritime issues, with increased coordination between different policy areas. The IMP focuses on issues that do not fall under a single sector-based policy such as "Blue Growth", which is economic growth based on different maritime sectors. It also deals with issues that require the coordination of different sectors and actors such as maritime spatial planning (MSP).

Schleswig-Holstein, located in northwestern Germany, is the only state situated between the North and Baltic Seas. Its unique position plays a vital role in the maritime affairs of the region. The region has a tradition of promoting maritime economy and marine sciences. The region, as with all of Germany, depends on technological innovation and human skills to succeed on a global scale. With this in mind, Schleswig-Holstein developed a Maritime Technologies Masterplan for Schleswig Holstein based on technological roadmaps for selected maritime sectors.

The government-funded GEOMAR is a leading marine research institute, employing more than 850 scientific and technical staff. Its interdisciplinary research activities span the globe, with a focus on ocean circulation and climate dynamics, marine biogeochemistry, marine ecology, and dynamics of the ocean floors.

The overall aim of the conference was to explore Blue Growth in the Baltic Sea Region from a sustainable innovation perspective and to present technologies to strengthen the sustainability of maritime, coastal and offshore activities. The event provided an opportunity for key stakeholders in business, academia and the public

sector throughout the Baltic Sea Region to discuss smart specialisation, maritime technologies, and skills and employment.

Udo Biss moderated the conference. Mr Biss is a TV producer and moderator for North German Broadcasting, a public broadcaster based in Hamburg. Since 1990, he has been the anchor and editor-in-chief of the "Baltic Sea Report", a monthly TV programme covering the Baltic Sea Region.

SESSION 0: SETTING THE SCENE

Dr Robert Habeck, Minister of Energy, Agriculture, the Environment and Rural Areas for Schleswig-Holstein, welcomed the speakers and participants and wished them a very fruitful conference.

THEME

The opening session reaffirmed the commitment of the European Commission to developing Blue Growth and reinforcing the blue economy via several strategic instruments. The "Sustainable Blue Growth Agenda for the Baltic Sea Region" promotes the maritime potential of the Baltic Sea Region through a coherent and cross-Baltic approach to innovation, sustainability, skills and qualifications. The Action Plan of the "European Union Strategy for the Baltic Sea Region" (EUSBSR) puts forward opportunities for marine and maritime sustainable growth, competitiveness and jobs that should be further explored in order to benefit from the Baltic Sea Region 's potential.

The session laid down future actions in fostering Blue Growth in the Baltic Sea Region, namely the continued development of the working document "Masterplan for the Maritime Technologies for the Baltic Sea Region" based on Schleswig-Holstein as a model for blue and green growth.

SPEAKERS

Karmenu Vella, European Commissioner for Environment, Maritime Affairs and Fisheries. An architect by trade, Commissioner Vella held several key ministerial posts in the Maltese government prior to his appointment. The Commissioner also served as chair for companies in the tourism and construction sector. He holds an MA in tourism management.

Kaspars Briškens, Advisor to the Latvian Minister of Transport and Communications. Mr Briškens is a supervisory board member at airBaltic and Rail Baltica Joint Venture. Previous positions include CEO of the Latvian Logistics Association and Deputy State Secretary to the Ministry of Transport and Communications of the Republic of Latvia.

Ulrike Rodust, Member of the European Parliament (MEP) for Schleswig-Holstein. MEP Rodust coordinates the European Parliamentary Committee on Fisheries. The MEP is a substitute member of the Committee on Transport and Tourism and is also responsible for the IMP. She is Vice-chair for the Baltic Sea in the European Parliament Intergroup Seas, Islands, Rivers and Coastal Areas.

PRESENTATIONS

Commissioner Vella stressed the need to "act local and think global" in aiming for a more sustainable blue economy and Blue Growth through better ocean governance. The Commissioner urged all stakeholders to help overcome the existing obstacles to European and international rules, processes and institutions in responding to existing and emerging global ocean challenges. The Baltic Sea Region should serve as a model for regional cooperation on blue and green growth in the EU and globally. This blueprint for success in sustainable innovation can be used to draw up the Masterplan, a strategic vision for maritime technologies in the Baltic Sea Region.

Mr Briškens highlighted the key role Latvia is playing in maritime affairs since assuming the Presidency of the Council of the EU. He discussed three of the key topics that underpin the EUSBSR: MSP, renewable energy and traditional sectors of marine economy. MSP is an important tool to support growth and sustainable development in the maritime sector. Marine renewable energy presents the EU with an opportunity to generate economic growth and jobs. However, it requires collaborative research and cross-border cooperation to succeed. Sectors such as shipping and port activities are important for achieving the goals of the Blue Growth Initiative which aims at supporting sustainable growth in the marine and maritime sectors.

MEP Rodust, in her capacity as Intergroup Vice-chair, promotes the success of cross-Baltic cooperation and ensures that issues concerning the Baltic Sea Region remain high on the agenda of the Intergroup and the European Parliament. The MEP maintained that cooperation and integration have always been the keys to success in realising the potential of the Baltic Sea Region. To further strengthen Baltic Sea

Region cooperation, conference outcomes should be implemented at regional level. Ms Rodust emphasised the need for a concerted effort to make maritime technologies more profitable for the environment and the economy of the Baltic Sea Region.

SESSION 1: SMART SPECIALISATION: UNLOCKING THE POTENTIAL OF THE BLUE ECONOMY

THEME

In 2013, the "Study on Blue Growth, Maritime Policy and the EU Strategy for the Baltic Sea Region" addressed the slow uptake of maritime strategies such as the IMP and the Blue Growth Initiative. Awareness must be raised about Blue Growth potential in the Baltic Sea Region that is not fully exploited within the framework of the EUSBSR. Smart specialisation and its focus on innovation partnerships that emphasise greater coordination between different societal stakeholders can contribute in this regard.

Session 1 explored the positive outcomes of best practice scenarios in Blue Growth. Successful regional smart specialisation strategies were presented based on strong partnerships between public entities, knowledge institutions and businesses.

SPEAKERS

Prof. Dr. Peter M. Herzig, Executive Director, GEOMAR Helmholtz Centre for Ocean Research. Prof. Dr. Herzig has been at the helm of GEOMAR since 2012. He is also maritime coordinator of Schleswig-Holstein and serves as Maritime Ambassador to the European Union. Dr Herzig is Vice President of the Helmholtz Association of German Research Centres. He holds a PhD in geological sciences.

Anders Carlberg, Maritime Expert, Region Västra Götaland, Sweden. Mr Carlberg is responsible for maritime development activities in the Västra Götaland Region and its associated maritime strategy. He has been working on regional development issues in the maritime field for the Swedish West Coast since 1984.

Juha Valtanen, Programme Manager, Machine Technology Center Turku Ltd, Finland. Mr Valtanen is a project manager at the Meridiem Maritime Innovation Hub, a platform for several universities and regional authorities to strengthen maritime-related research, training and development. He has also been working as a project

manager at the Machine Technology Center since 2007. Mr Valtanen holds an MSc in financial administration and public sector accounting.

Joanna Przedrzymirska, Maritime Institute in Gdańsk, Poland. Ms Przedrzymirska heads the Project Management Centre that is responsible overall for EU and international funding programmes. Ms Przedrzymirska was lead partner in the SUBMARINER and PartiSEApate projects during the period 2007-2014. She is a founding member of the SUBMARINER Network for Blue Growth EEIG. She holds an MSc in physical oceanography and an MBA.

Allan Larsson, Senior Advisor, Sweden. Mr Larsson began his career as a journalist before moving on to Swedish and European politics. He served as Undersecretary of State at the Ministry of Labour, Director General of the Swedish Labour Market Board, Finance Minister, MEP, Director General of the European Commission, as well as Chairman of Swedish Television and Lund University. He also held several positions with international commissions and advisory boards.

PRESENTATIONS

Prof Dr Herzig presented Schleswig-Holstein's activities on Blue Growth smart specialisation. The Kiel Center for Marine Substances is carrying out research trials in marine medicine, cosmetics and proteins. The pharmaceutical industry is one domain that stands to benefit. Technology is helping to produce feed stock in an artificial way, and a manned submersible mainly dedicated to exploration and research in marine sciences is under development. Prof Dr Herzig is also exploring the feasibility of sustainable mining of marine sulfide deposits.

Mr Carlberg explained that Blue Growth can be achieved by strengthening the maritime cluster in Västra Götaland through increased opportunities for innovation and knowledge-based growth in the sector. A new maritime strategy for 2015 sets out an overall vision for the region and highlights Blue Growth opportunities. The cluster and the strategy support key partnerships that emphasise greater coordination between research bodies, businesses and public actors.

Mr Valtanen underscored the significance of Blue Growth as a main driver in Turku and how Meridiem, a research and innovation hub that brings together the maritime industry and universities, plays a key role in smart specialisation in the blue economy. Meridiem's business model not only promotes and facilitates the creation of innovative business concepts and networks, but more importantly commercialises products and services.

Ms Przedrzymirska gave an overview of smart specialisation in the Polish maritime economy. At national level, activities include pharmaceutical products, biotech processes and specialty chemicals and environmental engineering, as well as environmentally friendly transport solutions. At regional level, they involve the bioeconomy, and maritime activities and logistics. Going forward, new bottom-up initiatives are required to modify national smart specialisation in order to strengthen the maritime potential in the Polish economy. All future actions necessitate stakeholder engagement, trust building and intensified cooperation.

Mr Larsson introduced "Save the Burg's Bay", a bottom-up initiative to reverse the environmental damage affecting Burg's Bay at the southern tip of Gotland, Sweden's largest island. This Blue Growth action plan brings together non-governmental organisations and institutions and local business to clean up the area, resulting in major socio-economic and environmental benefits. This new form of local stakeholder engagement is being used as a model for several regional development projects in Sweden and beyond.

DISCUSSION & CONCLUSIONS

The panel stressed the importance of getting the private sector more involved in academia and research with respect to Blue Growth and smart specialisation. GEOMAR is an example of seamless cooperation between public and private stakeholders. It enters into a number of memorandums of understanding and strategic partnerships to carry out joint research work and/or projects. The selection process for maritime smart specialisations in Poland was based on trust building and multi-stakeholder cooperation.

The panel agreed that smart specialisation is based on old and new areas. Traditional maritime domains are essential, but it is vital to also build up new sectors such as renewable energies, blue biotechnology or aquaculture.

To support the overall success of the EUSBSR, the panel underlined the need to strengthen the regional dimension and reinforce local involvement. EU and national policies should ensure incentives at local/regional level. Local players need to be mobilised to get a good return on investment. It is estimated that a EUR 2 million public investment in Burg's Bay will bring EUR 20 million to the area in private investment.

Launching the work of a Masterplan will drive the process of a strategic vision for maritime technologies in the Baltic Sea Region. However, it must be followed with concrete actions such as flagship projects. It also needs to take into consideration the different requirements of regions. One way forward could be to start with an "inventory" of the current state of play in the various regions. Essentially a bottom-up approach, the Masterplan has to engage people locally to be successful while being supported and recognised by the top.

SESSION 2: MARITIME TECHNOLOGY AND THE BALTIC SEA STRATEGY

THEME

The European Union Strategy for the Baltic Sea Region is the first example of a macro-regional strategy to define, coordinate and implement joint efforts to counter challenges and meet needs which are common to the Baltic Sea Region.

Session 2 showed how innovative blue and green technologies and projects benefitted the Baltic Sea Region and the sustainable growth and development of the maritime economy.

SPEAKERS

Ari-Pekka Saarikangas, Director, Asset Performance Optimisation Services, Wärtsilä, Finland. As director, Mr Saarikangas manages and develops digitalisation services and performance optimisation methods and concepts. From 2010-2014, he held the same position at Wärtsilä where he led, managed and developed global electrical and automation services.

Carl Carlsson, Head of Unit Environment & Sustainability, Swedish Shipowners' Association, Sweden. Mr Carlsson represents the Association in matters concerning the environment and sustainability. He is also responsible for the Association's R&D. Mr Carlsson has been the driving force behind the Baltic Sea Position, a coordinated effort by Swedish ship owners to protect the Baltic Sea Region from the negative environmental impact caused by vessels.

Angela Schultz-Zehden, Managing Director of the SUBMARINER Network, Germany. Ms Schultz-Zehden owns and operates s.Pro – sustainable projects GmbH, a Berlin-based consulting company that manages international projects in integrated maritime and sustainable development. She has been involved in the development of the IMP and was the lead author of the "Study on Blue Growth, Maritime Policy and the EU Strategy for the Baltic Sea Region". Ms Schultz-Zehden holds an MSc in European studies and an MBA.

Christiane Gätje, Schleswig-Holstein Agency for Coastal Defence, National Park and Marine Conservation, Germany. Dr Gätje's responsibilities at the National Park Administration include socio-economic monitoring, sustainable tourism, National Park partnerships and the Wadden Sea as a World Heritage Site. Dr Gätje holds a PhD in marine botany.

Ottilia Thoreson, Manager, WWF Baltic Ecoregion Programme, Sweden. Ms Thoreson manages a regional network comprised of WWF and environmental non-governmental organisations in each of the nine coastal Baltic Sea countries working to conserve and restore the health of the Baltic Sea Region. She has a background in marine environmental protection and has been working on Baltic conservation issues for the last eight years, specialising in fisheries, agriculture and sea use management.

PRESENTATIONS

Mr Saarikangas introduced the activities of Wärtsilä, a private company active in blue-green sustainable maritime technologies. Wärtsilä helps deliver blue-green growth via environmental efficiency and performance optimisation across the whole value chain. Developing technologies for sustainable economic growth can be achieved by increasing the focus on energy efficiency and environmental performance.

Mr Carlsson presented the ZeroVision Tool (ZVT), a collaboration method and project platform designed by the Swedish Shipowners' Association for safer, more environmentally and energy-efficient transport by sea. ZVT aims to increase economic growth, welfare and sea transport while reducing the negative environmental impact, accidents and energy consumption. Stakeholders from more than 140 organisations seek common, workable and sustainable solutions and support the implementation and commercialisation of innovative and clean maritime technologies.

Ms Schultz-Zehden raised awareness of the SUBMARINER Network, a unique platform established in 2013 that gathers key stakeholders throughout the Baltic Sea Region to develop clean maritime technologies. The flagship project is set to contribute to all three objectives of the EUSBSR. The SUBMARINER roadmap, a living document that promotes new initiatives in sustainable and innovative uses of marine resources in the Baltic Sea Region, will also feed into the Masterplan.

Dr Gätje described how sustainable tourism can lead to Blue Growth. The Wadden Sea National Park in Schleswig-Holstein is a pioneer in protected area management and sustainable tourism and serves as a best practice example. The park is a major tourist attraction that generates EUR 89 million in regional income. Despite high tourist traffic, the area preserves its natural heritage through National Park partnerships. This public-private partnership is committed to nature conservation and sustainability. A sustainable tourism strategy was developed and is now being implemented across the entire region.

Ms Thoreson questioned to what extent maritime economic activities that together form the blue economy and the Blue Growth Initiative (that aims to further harness the potential of the Baltic Sea Region) can have damaging effects on the marine ecosystem. To secure a healthy Baltic Sea and achieve a sustainable blue economy, an integrated Baltic Sea management approach and a shared economic, social and environmental vision are required.

DISCUSSION AND CONCLUSIONS

The panel acknowledged that the Baltic Sea Region is a forerunner of cooperation and underlined the need for continued cross-border integration. A bottom-up perspective is needed that emphasises local ownership, where a process is driven by regional stakeholders. Partnerships must call attention to greater coordination between different societal stakeholders and the alignment of resources and strategies between private and public actors. Networking and cooperation should set clear objectives and strategies based on shared benefits and trust. Such a coordinated regional effort for the implementation of innovative blue and green technologies and for attracting investment is evidenced by the Wadden Sea National

Park. The SUBMARINER Network succeeds by leveraging public and private stakeholders and identifying potential linkages.

The panel concurred that the Masterplan is a facility to drive actions and an implementation mechanism which can provide great benefits to blue growth in the Baltic Sea Region. The entire value chain would benefit from a Masterplan that represents a roadmap to develop innovation and thus strengthen maritime technology. The panel underlined the need to maintain the momentum and gain the support and involvement at European, national and regional level.

SESSION 3: SKILLS IN THE BALTIC MARITIME ECONOMY

THEME

The "Study on Blue Growth, Maritime Policy and the EU Strategy for the Baltic Sea Region" identified short-sea shipping, coastal and cruise tourism, offshore wind, shipbuilding, aquaculture and blue biotechnologies as the most promising maritime economic activities for Blue Growth in the Baltic Sea Region.
Session 3 addressed the issue of skills gap in meeting the future demand of the maritime economy. It proposed solutions through multi-stakeholder involvement, and traditional and lifelong learning offers in maritime education.

SPEAKERS

Steen Sabinsky, CEO, Danish Maritime Development Center, Denmark. Mr Sabinsky is a trained master mariner who has extensive sailing and ship management experience. He is the cluster manager of various associations that represent the Danish Maritime Cluster and the Danish Transport Innovation Cluster.

Kaisa Kononen, Executive Director, BONUS, Finland. Dr Kononen is Executive Director of the joint Baltic Sea research and development programme BONUS. She worked for about 20 years as a research scientist studying cyanobacterial blooms' dynamics in the Baltic Sea Region.

Anne-Bénédicte Genachte, Key Account Manager, European Wind Energy Association. As Key Account Manager, Ms Genachte liaises with wind industry key players. She previously held the post of Regulatory Affairs Advisor for offshore wind power, responsible for advocating an improved political and legal framework for offshore wind energy at national and EU level. Ms Genachte holds an MA in European public policy.

Gerhard Graf, Head of Department, Maritime Systems, University of Rostock, Germany. As Department Head since 2007, Dr Graf leads the development of environmentally sound technical solutions in all areas of the marine economy.

PRESENTATIONS

Mr Sabinsky discussed the development of maritime education and competences in creating Blue Growth through collaborative efforts between businesses, educational institutions, research and authorities. The Danish Maritime Cluster project established several graduate programmes as well as better opportunities for working professionals to pursue higher education. The maritime sector is truly global and the universities need to reflect the international dimension through partnerships and cooperation with different regions of the world. It also supports growth and innovation in the business sector by promoting the use of graduates in SMEs. The strong collaboration between key stakeholders in the maritime sector ensures that developed competencies are adapted to both current and future challenges such as the foreseeable shortage of skilled people in some sectors.

Dr Kononen presented BONUS, which runs from 2010 to 2017. The project supports Blue Growth by issuing calls on ecosystem research and innovation for scientific communities and SMEs. It funds projects to produce knowledge, scientific evidence and innovation solutions needed to address the most promising maritime economic activities. It also promotes cooperation actions such as young scientist activities, training courses, workshops and conferences.

Ms Genachte acknowledged a skills gap in the rapidly emerging European offshore wind industry. This gap is particularly acute in operations and management. A long-term, coherent policy approach setting clear targets and indicators is essential to cope with the challenges ahead. Raising awareness on future needs is also needed in this regard. Solutions to narrow the gap include focusing on operations and management training, improving core STEM skills available to the sector, integrating the benefits of industry experience into training and educational institutions,

increasing graduate-level wind energy generalists, harmonising vocational education and training offerings at EU level, and increasing the emphasis on operations and management training.

Dr Graf introduced Generation BALT, a project that has launched an interdisciplinary, hands-on maritime training programme in collaboration with trade experts and business associations. The overall objective is to meet the demands of the innovative maritime labour market and sectors with the largest development potential. To achieve this, it carries out match-making activities, enabling participants to meet potential employers in the private and public maritime industry, arrange internships and secure jobs. In addition to internships, the project offers weekend course modules and a summer course. Nowadays companies need skilled people that possess multidisciplinary and holistic thinking, and that are innovative and open-minded.

DISCUSSION & CONCLUSIONS

The panel recognised the current skills gap in the maritime industry and the challenges ahead. To strengthen skills and qualifications, and to create opportunities and secure jobs, linkages are needed between businesses, authorities, associations, research and educational institutions. All actors should be involved and prepared to work together.

The Masterplan would help to take into account the shift from industry to a knowledge-based economy, requiring highly skilled professionals that are prepared for the new challenges of the changing maritime job landscape. As such, it should include a skills component. It could also provide a platform for various stakeholders to cooperate and to propose solutions to translate research into commercialised products and services. In addition, the Masterplan would provide a stable framework for the maritime sector to overcome the skills gap and a platform to develop cooperation between the Baltic countries on education.

FINAL CONCLUSIONS & CLOSING REMARKS

Lowri Evans, Director-General for Maritime Affairs and Fisheries, stated that the conference succeeded in achieving its overall goal, which was to see whether there was appetite for looking more closely at the opportunities offered by smart specialisation and by the experiences of high-tech experts and businesses active in clusters.

The Director-General emphasised the need to continue to develop a sustainable, long-term and healthy maritime economy in Europe in order to develop growth and jobs. The Baltic Sea Region can serve as a vision of what the future of our marine economies can look like.

Ms Evans praised concrete examples of best practice scenarios in smart specialisation, maritime technologies and skills and employment. Replicating GEOMAR that links business and education or the successful cooperation in the SUBMARINER project, and giving them more coherence will have strategic effects across the region. Finding innovative ideas and spreading them is key, as is maintaining an inventory of ideas for dissemination.

The Director-General recognised the potential and political will for a more strategic and bolder approach to developing sustainable maritime technologies in the Baltic Sea Region. The Baltic Sea Region is a role model for Europe but also for the world. There is clear understanding that research, innovation and technology are economic drivers.

The Baltic approach to developing a Masterplan should be based on a consultation process and a bottom-up method. Local initiatives are key, as in the case of the "Save the Burg's Bay" initiative. Local actors can take the lead in coming up with ideas that will also attract private sector involvement and bring benefits to surrounding communities.

The Director-General called on all stakeholders to actively support and take part in the Masterplan. The Annual Forum of the EUSBSR in June 2015 will provide a first step in building on the conference outcomes.

Kurt-Christoph von Knobelsdorff, Deputy State Secretary for the Ministry of Economy, Employment, Transport and Technology Schleswig-Holstein, closed the conference by commenting on how Schleswig-Holstein acts as a model for Blue

Growth in the Baltic Sea Region by jointly developing the blue economy while protecting the marine environment and increasing government involvement.

Mr von Knobelsdorff indicated that the importance placed on smart and blue growth intensified during the two-day event. This was also the case with the Masterplan, as witnessed by a genuine desire to move forward with the strategic vision for maritime technologies in the Baltic Sea Region.