**ESPO** AWARD 2020 ENHANCING THE PORT-CITY **RELATIONSHIP BY** ENCOURAGING INNOVATORS AND LOCAL START-UPS TO **BE PART OF THE PORT** ECOSYSTEM



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#### THE ESPO AWARD IS AN INITIATIVE OF European Sea Ports Organisation (ESPO) The European Port House Treurenberg 6 B-1000 Brussels T + 32 2 736 34 63 E mail@espo.be www.espo.be

The ESPO Award painting was created by Sasja Hagens

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## FOREWORD

The theme for this year's ESPO Award is 'Enhancing the port-city relationship by encouraging innovators and local start-ups to be part of the port ecosystem'. At first sight, this is a somewhat abstruse theme and it is worth reflecting on both the nature of the ESPO Award and on the contemporary relevance of this year's theme. The ESPO Award was established to promote the efforts made by European ports to enhance the Port-City relationship. Importantly, also, the Award was intended to present a showcase of best practice so that ports throughout Europe could learn from their peers.

The great majority of Europe's ports are urban ports and many remain at the heart of the cities that grew because of the port and the international trade it enabled. However, the proximity of many ports to the citizens they serve brings challenges and, in May 2010, we published the ESPO Code of Practice on Societal Integration. Now, ten years later and with the ESPO Award in its twelfth edition, we have a theme that reflects the growing maturity of our sector in addressing the core challenge of Port-City integration.

At the foundation of this year's theme is the concept of the port as an ecosystem – not just an industrial complex narrowly servicing the needs of ships. While the basics of port operations remain unchanged over decades, and even centuries, their scale and impact have changed beyond recognition and challenges little appreciated when ESPO was born – including climate change and digitisation – are now at the centre of ports' thinking. Port authorities have had to become outward looking to better appreciate the relationship they have with the communities they serve. This necessary change of perspective has coincided with enormous technological advances that have created opportunities for systems and technologies which can increase port efficiency and support progress to mitigate societal impacts of all types.

However, given the diversity of our sector, there is not one approach to the challenges of social integration that can work for all ports and each port must find its own path. This requires port authorities to embrace innovation and to be open to new ideas about the fundamental role of ports. The challenge is enormous and few, if any, ports have all of the expertise and solutions available in-house. It is necessary, therefore, for ports to work with innovators and start-ups to identify and create the solutions ports need. Sometimes insights from outside our industry can identify solutions to problems we have not even yet identified.

This year's theme has attracted submissions from seven ports and the different approaches in these submissions is a valuable resource for all ports to explore to find ideas which might work for them.

We are living through times of enormous change and disruption. Technology and innovation have made a huge and positive contribution to helping us all, corporately and personally, to endure and, ultimately, to prosper.

Ports have a responsibility to support the supply chains society depends on and, just as innovation is at the core of society's response to today's challenges, so also, innovation is key to Europe's ports fulfilling their role in society. Our theme, this year, could not be more apt and I commend all of the ports who made submissions and I thank the jury for giving of their time and expertise to identify this year's winner.

Eamonn O'Reilly ESPO Chairman

# ABOUT THE ESPO AWARD

The ESPO Award on Social Integration of Ports entered its twelfth edition this year. The Award was established in 2009 to promote innovative projects of port authorities to improve the social integration of ports, especially in the city or wider community in which they are located. In this way, the Award wants to stimulate the sustainable development of European ports and their cities. The experience of the first two ESPO Award editions made it clear that 'Social Integration of Ports' is a topic with many layers. After two editions it was decided to have a more thematic ESPO Award as from its third edition. The overall scope remains 'social integration of ports', but a specific theme is proposed each year.

The theme of the twelfth ESPO Award on Social Integration of Ports is 'Enhancing the port-city relationship by encouraging innovators and local start-ups to be part of the port ecosystem'.

The ESPO Award 2020 will go to the port managing body that has developed a successful strategy to attract innovation and local start-ups to the port and thus matches supply and demand for innovative solutions for the port and its stakeholders. The winning port will demonstrate to what extent this strategy has led not only to stimulating innovation in the port, but also making the port ecosystem an attractive place for innovative ideas and local young start-up talents.

The call for proposals resulted in seven project submissions which are summarised in this brochure. The projects of Algeciras Port Authority, Port of Amsterdam, Port Authority of Lisbon and Puertos del Estado were shortlisted by the jury.

#### **Previous winners**

2019 - Port of Dover (United Kingdom): Transparen-SEA (Socially Engaged Accountability) 2018 - Port of Rotterdam Authority (The Netherlands): The Port of Rotterdam creates a good working environment for everyone 2017 - Guadeloupe Port Caraïbes (France): Port'Art 2016 - bremenports (Germany): Luneplate: A unique natural paradise and valuable green port infrastructure 2015 - Port of Dublin (Ireland): Port Communities Educational Support Programme Special mention to: Guadeloupe Port Caraïbes (France): Discovering my port 2014 - Port of Koper (Slovenia): No waste, just resources! 2013 - Port of Antwerp (Belgium): Heritage, the breadcrumb trail between city and port 2012 - Port of Genoa (Italy): Citizens of the Port - Knowing and Living the Port of Genoa 2011 - Ports of Stockholm (Sweden): Hamnvision 2015 (Portvision 2015) 2010 - Port of Helsinki (Finland): Port as Part of the City 2009 - Port of Gijón (Spain): Gijón Port & City Together Special mentions to: • Port of Genoa (Italy): Genoa Port Center - Breaking Down the "Social Distancing" of the Port

• Port of Ghent (Belgium): Project Ghent Canal Zone – Working Together on the Sustainable Development of the Ghent-Terneuzen Canal Zone

# THE AWARD PAINTING

Exclusively for ESPO, the Dutch port painter Sasja Hagens has developed a series of paintings reflecting the overall scope of the ESPO Award, i.e. how ports and cities are living and working together. The first painting of the series was handed out during the ESPO Award Ceremony in 2016.

Sasja Hagens (Utrecht, 1973) studied at the Royal School of Arts in The Hague, the Netherlands. She had collaborations with, among others, Maritime Museum Rotterdam, Museu Maritim Barcelona, Damen Shipyards, the City Hall of Rotterdam, ABN AMRO Bank, ECT Rotterdam – Hong Kong, Arcadis and Deloitte the Netherlands.

With strong colours and daring compositions, Sasja Hagens gives her own interpretation to the themes of harbourscapes and recently also wild nature. She says: "People sometimes ask me why I've spent so much time painting ports, such an obvious theme. But their size and industrial quality light the fire in me."

In her new series she focuses on the manmade landscape instead of industry itself and paints a rapidly changing world in which humans literally move mountains and rivers.

Equilibrium and perspective, and the spontaneous opposed to the rational are important themes in Sasja's work. "How we look at the world influences the way we treat it", she adds.

In 2021, Sasja Hagens' work will be exhibited during two shows:

From 4 February to 21 March in Germany (Kunsthalle Trier – Heimathäfen)
From 22 February 2021 to 4 September 2022 in the Netherlands (Museum)

Boijmans Rotterdam & Rotterdam Maritime Museum – Maritieme Masterworks)



Atelier Sasja Hagens 2019, © Lisa Diederik

### FOREWORD OF THE CHAIRMAN OF THE JURY

Since the ESPO Award was established in 2009 there can be no doubt that 2020 has proven to be uniquely challenging. The coronavirus pandemic has cost lives and livelihoods. It has stretched health services to breaking point and placed extraordinary burdens on public finances. It has tested the limits of social cohesion and conformity to unparalleled restrictions on freedom in peace time. But also, it has revealed remarkable resilience.

We all owe a deep debt of gratitude to our healthcare workers at every level in institutional and non-institutional settings. We express our sincere condolences to all who have lost loved ones and our empathy and solidarity for and with those suffering from the lingering health effects of this pandemic.

For those of you in the ports, transport and logistics community and their wider ecosystem, permit me to take this opportunity to recognise and salute the important contribution all of you have made as essential workers. You have kept vital supply chains open. You have assisted our societies and economies to sustain themselves during these trying times. This is an additional proof, if one was needed, of the crucial strategic role our ports play as indispensable arteries of our openness to each other and to the wider world.

Turning to the ESPO Award 2020 – this will go to the port showing that it has developed a successful strategy to attract innovation and local startups, matching supply and demand for innovative solutions for the port and its stakeholders.

Seven ports entered this year and, on behalf of ESPO and our jury, we thank them for taking the time and making the effort to engage. I thank all my fellow jury members for the time, effort and integrity they dedicated to this task.

On the basis of agreed selection criteria, we pre-selected four ports. Exceptionally this year because of the constraints on meeting in person across borders, we invited these to make virtual presentations to the jury, followed by a question and answer session, to supplement the written submissions and supporting material that we had reviewed already.

It is my pleasure to introduce to you the finalists selected by the jury this year. In strict alphabetical order our four finalists are the ports of Algeciras, Amsterdam, Lisbon and Puertos del Estado – the Spanish government agency responsible for the coordination of state-owned ports in Spain, comprising 28 Port Authorities.

I want to thank all the port representatives who presented to us and answered our questions. On behalf of the jury I wish also to express our gratitude to the staff of ESPO who collated all the material received from entrants and facilitated all our exchanges and meetings.

We were impressed by all the finalists and found more than one of them particularly commendable but in the end we found a strong consensus on the winner whom I congratulate but who, for the moment, shall have to remain anonymous.

Pat Cox Chairman of the Jury

### THE JURY



Pat Cox, Chairman of the Jury

Former President of the European Parliament and current President of the Jean Monnet Foundation for Europe



Knut Fleckenstein

Executive Partner 'Von Beust & Coll International', former Member of the European Parliament, Transport Committee



Carola Hein

Professor, Chair History of Architecture and Urban Planning, Delft University of Technology; Leader Leiden-Delft-Erasmus Port City Futures programme



Marta Moretti Journalist and Board Member, River-Cities Platform Foundation



Markku Mylly Former Executive Director, EMSA



José Sánchez Dr. Ing. – International Project Manager, The Worldwide Network of Port Cities (AIVP)



**Dimitrios Theologitis** Senior Expert Waterborne Transport and former Head of Unit of Ports and Inland Navigation, DG MOVE,



of Unit of Ports and Inland Navigation, DG MOVE, European Commission

**David Whitehead OBE** Former Director of the British Ports Association and former Chair of ESPO

# PORT OF OULU, FINLAND

### PORT OULU Smarter

PORT OULU Smarter. is a new concept of digital port infrastructure developed by the Port of Oulu, which is based on the Port's digitalisation strategy defined five years ago. The project's goal is to facilitate the collecting and sharing of port data using novel and diverse technologies and devices, such as an intelligent and adaptive data platform and customised end-user applications, connecting the port stakeholders and customers around shared port data. PORT OULU Smarter. will enable and ensure that the most appropriate and sophisticated connectivity solutions are available for each use case, in order to improve the efficiency, reliability, and overall performance of port and logistics operations as well as cargo and traffic flows in the Port of Oulu, using real-time data. This will in turn benefit the entire export and import industry in Northern Finland. Environmental data will also be collected in order for the Port to achieve more ambitious sustainable goals.

With this project, the Port of Oulu is developing and promoting an innovative port digitalisation. The project aims to **identify** and address logistics-related challenges and requirements for which technological companies and academic partners are needed. This will prepare the Port of Oulu to fully benefit from future technological developments, such as 5G and automated and autonomous vehicles. Moreover, by leading the digital ecosystem, the Port of Oulu will also be able to support several small companies in their own journey to develop digital solutions and products for the global markets. The Port's cooperation with other European ports will also push the digital development of the whole maritime industry forward. Digital development in the Port of Oulu is therefore not just one project – it is a continuous way of working towards the Digital Port of the Future.

The project started in March 2019 and is currently in an active implementation phase. Some of the subprojects are still in trial phase while others have already been fully carried out. The different subprojects include, among others, the development of a mobile app, the installation of crane sensors, and an evaluation of the quality of local network solutions. The Port of Oulu is collaborating with several partners on PORT OULU Smarter., including small, mid-sized and large companies, as well as non-commercial partners such as universities. This collaboration has already allowed data architects, researchers, back-end specialists and students, to cite but a few, to become more familiar with the port area and its operations, making the port ecosystem more socially integrated and reachable, especially in terms of connecting with new partners and cooperation on projects.

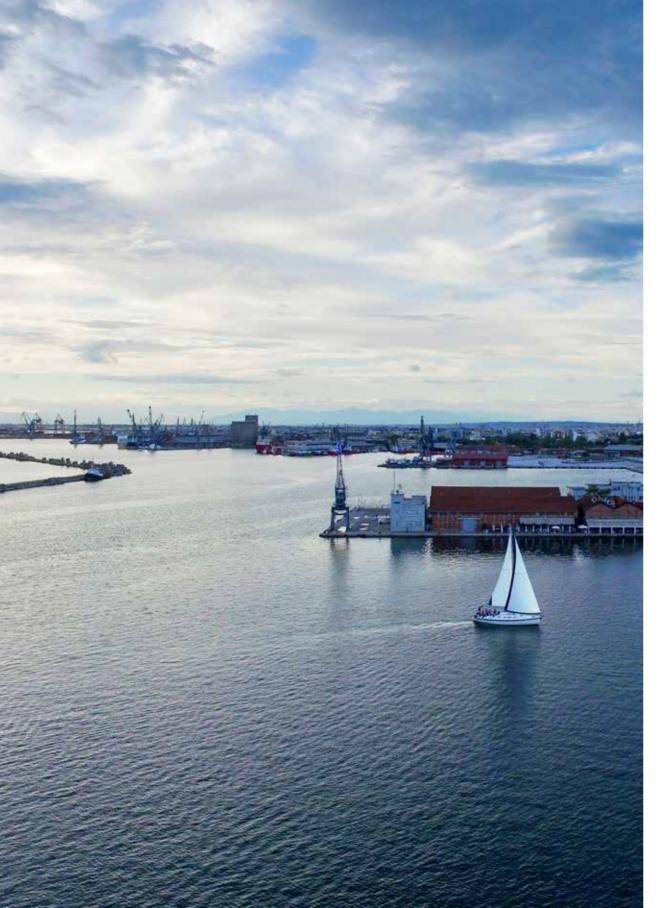
Thanks to PORT OULU Smarter., the Port of Oulu has been able to strengthen its role as a local enabler bringing together all the port stakeholders and could promote its role as a quality testing area for new devices and applications in Oulu, a city well-known for its thriving wireless technology sector.

Our true passion is to bring together several small ecosystem companies that excel in their own high technology areas and together create a benchmark for the most innovative, sustainable and digital Port of the Future.

Marko Mykkänen CEO of the Port of Oulu



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# THESSALONIKI PORT AUTHORITY, GREECE

#### **Thessaloniki Port Innovation Center**

Our vision is to create a strong innovation ecosystem for the new generation of port industry. With TPIC, we are showing the way forward to transform the portcity relationship by bringing the port and city's stakeholders into renewed cooperation and offering a wide range of opportunities for innovation and entrepreneurship.

Franco Nikola Cupolo Managing Director and CEO of Thessaloniki Port Authority The Thessaloniki Port Innovation Center (TPIC) is a new, state-of-the-art innovation centre project within the Port of Thessaloniki's premises whose objective is to foster innovation in the port and broader region and to establish the city of Thessaloniki as an entrepreneurial, innovative city and a regional leader in the fields of port services, freight transportation, logistics and energy. With this project, the Port intends to improve port operations and accelerate its transition towards a "smart" port. The centre also aims to enhance the portcity relationship by creating a hotspot for business and social interactions for entrepreneurs and by improving the port's accessibility to the public through the development of commercial, recreational and cultural activities in the port area. This will consequently strengthen the port's brand image and profile.

Central Macedonia is still regarded as a moderate innovator which is why the creation of a competitive and dynamic entrepreneurship centre focused on start-ups and innovators constitutes the optimal development option considering the Port's vision and objectives and the current state-of-play and potential of Thessaloniki's innovation ecosystem. The Innovation Center will offer modern facilities, applied research and product testing capabilities, a high-quality service portfolio, an internationally renowned acceleration programme as well as business development opportunities. In addition, the project will create a network of mutually beneficial partnerships between established corporates, academic institutions and other stakeholders and players of the innovation ecosystem.

Potential partners and key stakeholders were involved during the different phases of the definition of the strategy of TPIC through various meetings and workshops. These potential partners include educational and research institutions, incubators in Thessaloniki and the Balkan region, digital innovation hubs and industrial partners. Workshops were also organised with stakeholders of already existing port innovation centres. The Port was additionally in close collaboration with the Region of Central Macedonia and the City of Thessaloniki to define the strategy of TPIC.

The Thessaloniki Port Innovation Center is currently in the stage of implementation and will be realised in two phases. First, the required areas and co-working spaces, along with shared offices and the conference centre, will be developed. The second phase will see the establishment of an acceleration programme and advanced prototyping and testing facilities.

TPIC will be an autonomous legal entity and a fully-owned subsidiary of the Thessaloniki Port Authority, managed by an independent team. The Port will thus act, at least initially, as a primary sponsor for the Center, by offering capital to promising start-ups and by providing guidance and mentoring, for instance.

# PORT AUTHORITY OF LISBON, PORTUGAL

### **Ocean Campus**

The Ocean Campus is a flagship project for the land development of a vast waterfront territory of around 64 hectares to create an ecosystem of excellence in research, development and innovation on maritime activities, bringing together researchers, entrepreneurs, large companies, academics and maritime experts. The project aims to reunify the local urban areas with the shoreline to establish a new continuity and cohesion in the area in terms of infrastructure. The construction of the Ocean Campus will help revamp an area strongly shaped by its history as a fishing harbour and create a real cluster of blue growth in Portugal, based in the port of Lisbon. Moreover, the development of this Sea Cluster will promote the creation of an international network of innovative start-ups and RD&I companies and will establish a favourable environment for synergies and shared infrastructure in the field of blue growth.

The strategic plan for the Ocean Campus was prepared with the support of the Portuguese architect Falcão de Campos and in **collaboration with the municipalities of Lisbon and Oeiras**, where the Campus will be located. Both municipalities were actively involved in the preparation of the plan through several joint meetings. The strategic environmental assessment process of the plan, which is currently ongoing, will involve other stakeholders and enable broad participation through both public and targeted consultations.

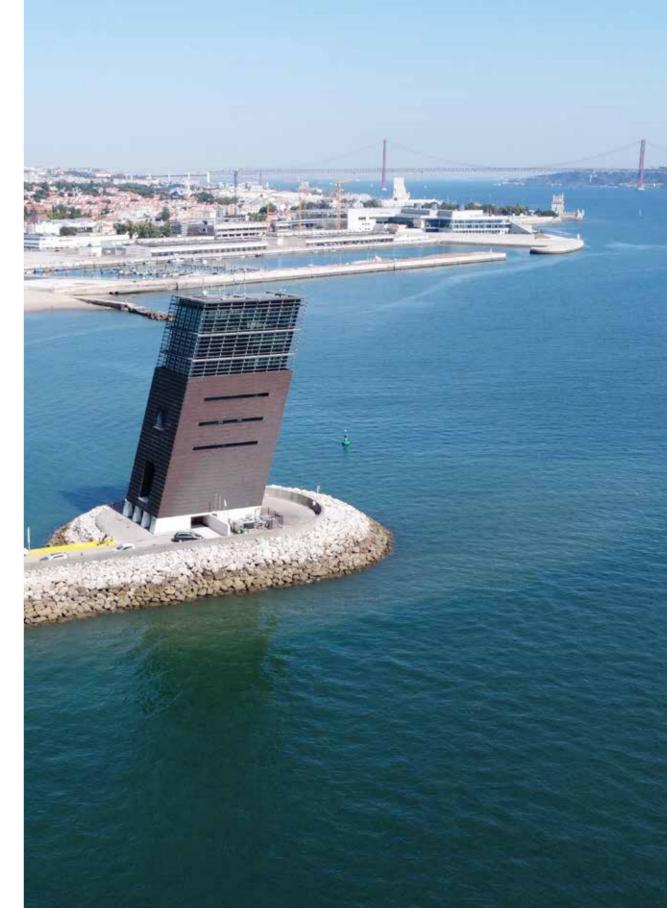
The first stages of implementation are currently underway and a "sea cycling lane" passing through the harbour facilities has already been created and is fully operational, improving soft mobility on the shoreline of Lisbon. The project will be implemented in three phases running until December 2030. Once fully implemented, the Ocean Campus will create a new centrality for research, teaching and technological development, materialised as a unique cluster of sea-related public institutions, university campuses, research laboratories and equipment, and a start-up centre. The Ocean Campus will also provide accommodation facilities for researchers and will see the creation of outdoor leisure areas, which represents another important goal of the project. The Ocean Campus will therefore constitute an engine for urban rehabilitation in an area with great potential.

The Ocean Campus will contribute to the social integration of the Port of Lisbon through several aspects. The involvement of the municipalities of Lisbon and Oeiras will ensure that the interests of their respective populations have been taken into account during the development of the project. Furthermore, revamping obsolete port areas, creating outdoor public areas, and encouraging sustainable mobility will help improve the overall quality of life of the population. This will contribute to enhancing the Port's image by showcasing its modernity and innovative character.



Ocean Campus is an opportunity for Port of Lisbon to reaffirm the Portuguese maritime heritage and create a new environment for research, teaching and technological development alongside port-city integration.

Lídia Sequeira President of the Board of the Port Authority of Lisbon







We are fully convinced that we cannot create sustainable value for our customer without an innovation culture, which is why we are considering innovation as a key business process: continuous, systematic and integrated in our business. This mindset is the cornerstone to make Algeciras Next Generation Port a reality. Francisco J.

Francisco J. de los Santos Chief Information and Innovation Officer of Algeciras Port Authority

# ALGECIRAS PORT AUTHORITY, SPAIN

The Journey of Innovation – Travesía de la Innovación

Innovation, competitivity and sustainability are the cornerstone of Algeciras Port's efforts to adapt to the new realities of consolidating a smart port. The Port has certified its RD&I Policy in 2020, which includes the concept of "open innovation", thereby highlighting the importance of all ideas to establish the Port of Algeciras Bay as a Next Generation Port.

Following this new policy, the Port has decided to develop a programme called "The Journey of Innovation", a long-term and continuous process that is focused on the implementation of the next-generation port model, based on a vision of operational excellence and a continuous innovation culture. The programme encompasses activities related to open innovation and entrepreneurship and aims to attract start-ups, scale-ups and SME tech companies which propose disruptive solutions to respond to the innovation challenges of the Port. Launched in 2017, it includes the following activities:

• Yearly Innovation Awards for port's employees, as well as start-ups and entrepreneurs to promote innovative ideas;

The Algeciras Port Open Innovation Day and the Open Innovation Portal, through which the Port shares its challenges and start-ups can demonstrate their potential;
The Data Lab, through which the Port shares open data to its open innovation ecosystem;

• The Algeciras Port Living Lab, which allows start-ups to test their concepts in a real environment;

• The Algeciras Port Start-Up Programme, a three-month programme for startups which will begin in 2021.

The participation of the port community in these activities has lived up to the Port's expectations. Several companies, including carriers, terminal operators, agents, shippers and consignees, are regular participants in innovation projects and the different activities have helped embrace cohabitation, cooperation and dialogue between universities, the start-up ecosystem, private companies and public authorities. This has generated a powerful and innovative ecosystem around the Port, which will bring potential economic and social benefits not only in the port-city community but also on a national and European level.

The Port has successfully collaborated with 29 start-ups in the last two years, running potential pilot projects leading to proofs of concept, using the most advanced and innovative solutions. These include, among others, the creation of an online platform for logistics planning, the development of a new global address system that the port uses to improve its accessibility and be easier to locate, and the automatic monitoring of traffic flows.

The Port of Algeciras strongly believes that collaboration with start-ups is key to promoting innovation in the port and improving its competitiveness, hence its slogan "Let's Grow Together". The Algeciras Port Authority is therefore gradually evolving its role of port authority, going from a landlord, regulator and operator model to a business facilitator, orchestrator and efficiency partner.

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# PUERTOS DEL ESTADO, SPAIN

### Ports 4.0, Ports of Spain Tradetech Fund

Created in March 2018, Ports 4.0, Ports of Spain Tradetech Fund is the most important project carried out by the Spanish port system (comprised of 28 Port Authorities and Puertos del Estado) to foster open innovation in the port-logistics ecosystem. Innovation and new technologies are essential for ports to be more efficient, competitive and sustainable. Ports 4.0 provides the capital, training, and the right partners to make the port-logistics sector attractive for entrepreneurs and innovative companies. This contributes to showing that the port is a place where they can innovate. The project therefore represents a change in paradigm in the way ports and the entrepreneurial ecosystem relate.

The Fund will promote innovative market-oriented solutions that will bring positive benefits to the port-logistics sector. This means that any phase of an innovation process is eligible for a grant, from basic ideas to the most advanced and market-ready projects. Any project corresponding to a Technological Readiness Level (TRL) can benefit from the Fund. The goal is to allow all projects to become a reality and help them reach the different phases of an innovation process.

The Fund will not only invest in innovative solutions but has also created an "Accelerator" service, providing free expert advice on real challenges that the port and logistics sector is facing. The Accelerator has fourteen offices in Spain to allow for a direct contact with the port-logistics environment, enabling entrepreneurs to test their products or services in a real environment, as innovations must first be tested and deployed in real environments before potentially reaching the market.

With this project, Puertos del Estado and the Spanish Port Authorities have been working towards bringing together the innovative ecosystem of each territory of Spain with its port-logistics environment. Ports and cities needed to be reconnected and one way to do so is to bring the port sector closer to entrepreneurs, which are not always familiar with the way the port-logistics ecosystem works. If these companies lack a good knowledge of the sector, the sector cannot benefit from their technological and innovative solutions. Ports 4.0 intends to serve as a liaison between the sector and those companies, by setting a new culture in which entrepreneurs are actively involved in the port-logistics' daily activities and in which ports act as sandboxes for entrepreneurs to test their projects and services.

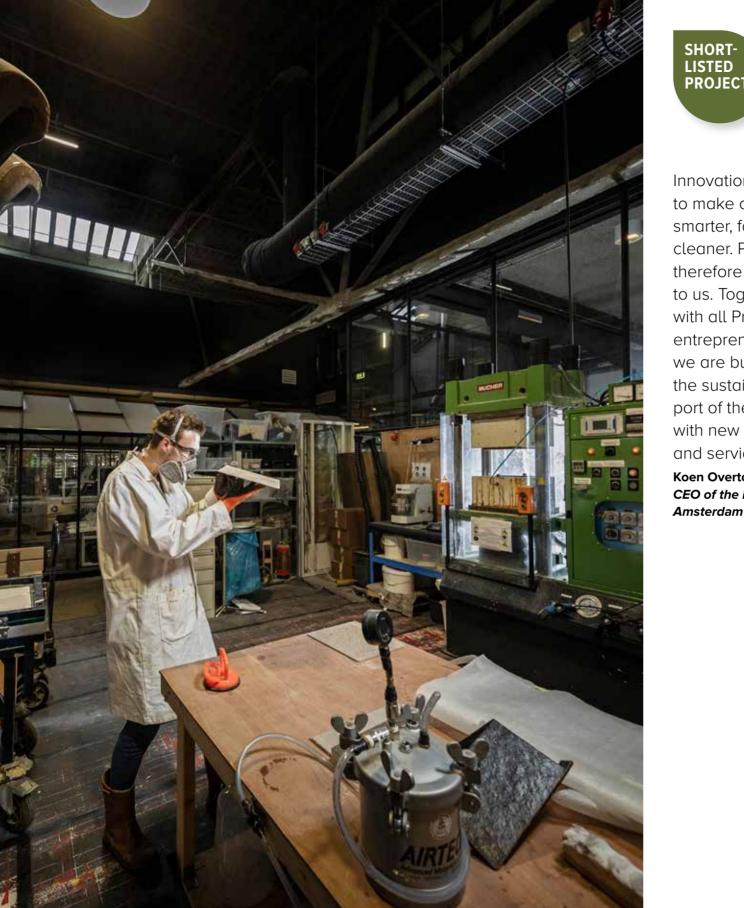
Ports 4.0 has already gathered a community of more than 1,300 national and international start-ups and companies interested in participating in the Fund. The first call, which is open to both Spanish and international participants, was launched on 27 July 2020 for an amount of €12 million. The Fund has already received 192 ideas and projects after one month, an amount expected to increase in the coming months as more projects in different Technological Readiness Levels will be able to apply.



Ports 4.0 Fund evidences the real and strong commitment of the Spanish Ports to foster the necessary transition of public and private port sector towards digitalisation and real application of the new technologies that make up the economy 4.0, through open innovation procedures. This is the unique way to become more efficient. sustainable, competitive, and safer.

Francisco Toledo President of Puertos del Estado





### SHORT-LISTED PROJECT

Innovation is key to make our port smarter, faster and cleaner. Prodock is therefore essential to us. Together with all Prodock entrepreneurs, we are building the sustainable port of the future. with new products and services. Koen Overtoom CEO of the Port of

## PORT OF AMSTERDAM, THE NETHERLANDS

#### **Prodock**

**Prodock** is an initiative of the Port of Amsterdam that **strives to provide the** space and environment needed to allow new products, services and processes to be developed, tested and implemented in a modern port and industrial area. The Prodock facilities offer a unique and flexible combination of indoor and outdoor working spaces for production, testing products, constructing machines, and setting up pilots to help start-ups and scale-ups accelerate the realisation of their vision.

Prodock also constitutes a thriving business community where forwardthinking people are connected with each other, enabling them to help and strengthen one another. This exchange of knowledge and information is key to the platform and to forging a connection between innovation and business. Moreover, this community is fundamental to achieving sustainable growth, which is one of the Port's goals. The Port of Amsterdam realises that reaching the aim of sustainable business is a joint effort involving a whole ecosystem, which is why Prodock strives to create a strong community that provides opportunities for start-ups and scale-ups to connect with other initiatives and companies working on circular economy.

In addition, the network, expertise, and resources of the Port of Amsterdam are made available to this international community of companies, knowledge institutes, incubators and investors. The Port also provides assistance with the commercial roll-out and gaining of traction of the products and processes that are developed at Prodock, which can in turn benefit the Port's customers.

The objective of the Port with this facility is to create the port of the future by bringing innovations of ambitious companies to fruition and to market in the Amsterdam port area. The project fits into the Port of Amsterdam's Port Vision 2030, a plan detailing the evolution of the port in the next fourteen years to stay relevant, successful, and sustainable, in order to respond to global societal changes. The Port of Amsterdam seeks to contribute to a sustainable world and aims to generate healthy financial returns coupled with a high quality of life and significant added value for the region.

Prodock was founded in 2016 and is fully operational. Fifteen companies and start-ups are currently making use of the facility, which is its maximum capacity. As a result of this limited space, the Port of Amsterdam has decided to construct a new building with the same concept, Prodock 2.0, which will be three times bigger than the current Prodock facilities. The new building is expected to open by the end of 2021.

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# PORT OF ROTTERDAM, THE NETHERLANDS

### H2 Energy Island

H2 Energy Island is a showcase project developed at the heart of the Port of Rotterdam's innovation ecosystem, the RDM Innovation Dock, with a clear public and educational function. The Port's goal with this project is to make the technical and commercial feasibility as well as the safety of maritime (passenger) transport using alternative fuels visible to the sector, educational institutions and the general public. H2 Energy Island will become the first green hydrogen production and bunkering station for ships that will also serve as an educational innovative showcase, exhibiting the potential of hydrogen for the energy transition on water to the general public.

Hydrogen plays an increasingly important role in the future energy supply and the application of hydrogen in inland shipping represents a robust solution to achieve the Port's climate goals. Several challenges are however slowing down the development of hydrogen infrastructures, such as uncertainties regarding regulations, technological developments and safety requirements, in addition to the missing skills in the labour force and the general public's image of hydrogen. H2 Energy Island was created to further accelerate the international hydrogen economy and to promote a positive image of this fuel. The project aims to make the Port of Rotterdam the hydrogen hub of Northern Europe and will act as a stepping stone to further large-scale and commercial hydrogen bunker stations.

The project is comprised of three main components:

- H2 Lab, which will showcase various ways of producing, storing and bunkering green hydrogen;
- H2 Pod, which will be in the short term the first small-scale hydrogen bunker station;
- H2 Experience, an educational and information centre on the use of hydrogen as a maritime fuel and the broader energy transition.

The Port of Rotterdam is the initiator of the project and is working together with a core team of allies consisting, among others, of social enterprise developer Enviu, the Rotterdam municipality, and an educational institution. In the future, **multiple local energy start-ups will be able to test their technologies and supply green electricity for the hydrogen production and electrolysis process**. Some start-ups are already collaborating with the Port to develop the components of the project. The Port is continually looking for partners with whom to revolutionise the energy transition on water as cooperation is vital to achieving the Port's vision of becoming a CO2-neutral port by 2050.

H2 Energy Island has just moved from its ideation and conceptualisation phase to the first steps of implementation. The project has received the green light from the Port's senior management and the local government and is already part of the Dutch hydrogen roadmap. Following the confirmation of its first customer, the Rotterdam water taxis, the Port will launch an initial pilot in 2021.

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By collaboratively setting up a small-scale green hydrogen production unit for water taxis. combined with a visitor centre in the heart of our port innovation ecosystem, we expect to realise a convincing showcase for the use of hydrogen. **Allard Castelein** CEO of the Port of Rotterdam



## ESPO CODE OF PRACTICE ON SOCIAL INTEGRATION OF PORTS

In May 2010, ESPO published a Code of Practice on Social Integration of Ports. This Code builds on the experience of the first edition of the ESPO Award and results from the project "People Around Ports" that was initiated by the Port of Rotterdam (The Netherlands). The Code brings together a series of practical recommendations that can guide port authorities in improving their general public image, attract young people to work in the port and make people living in and around the port area their ambassadors.

The Code is available in English and in Spanish at www.espo.be/publications.

## **OUR SPONSOR**

TT Club is the established market-leading independent provider of mutual insurance and related risk management services to the international transport and logistics industry. The Club's services include specialist underwriting, claims management and risk and loss management advice, supported by a global office network. TT Club's primary objective is to help make the industry safer and more secure. Established in 1968, TT Club has more than 1100 Members, spanning owners and operators, ports and terminals, and logistics companies, working across maritime, road, rail, and air. Members range from some of the world's largest logistics operators to smaller, bespoke companies managing similar risks. The Club is renowned for its high-quality service, indepth industry knowledge and enduring Member loyalty. It retains more than 93% of its Members with a third of its entire membership having chosen to insure with the Club for 20 years or more.

TT Club is managed by Thomas Miller – an independent and international provider of insurance, professional and investment services.

