



ProtoAtlantic
Blue Growth Accelerator
Programme:
Investment Opportunities
and Roadmap

University College Cork
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Innovation in the
Marine Environment



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Introduction

Blue Growth, a term first coined by the European Commission as “an initiative to harness the untapped potential of Europe’s oceans, seas and coasts”, identified rich marine resources as a unique asset for economic development in coastal regions and on islands. The European Commission has through the Blue Growth objectives for the first time highlighted marine sectors as high growth market opportunities which carry socio-economic importance to the development of coastal regions. Particularly marine sectors such as aquaculture, marine robotics, and marine renewable energy which fulfil global needs in food safety and security, enable monitoring and exploration in harsh and remote conditions, and globally growing energy needs are of importance. Marine startups and small and medium-sized enterprises (SME) in these emerging marine sectors require support mechanisms tailored to their needs as they are competing for the same business and financial support as land-based SMEs, yet the research and development infrastructure is more difficult to access.

ProtoAtlantic, an Interreg Atlantic Area funded project, provides marine-specific support mechanisms to marine startups and SMEs in these emerging sectors, including business support through the accelerator and mentorship programmes, enabling companies to fast track their product development through access to prototyping and testing facilities in all partner regions. The Interreg Atlantic Area encompasses partner regions in France, Ireland, Portugal, Scotland and Spain. The consortium partners consist of Technopôle Brest Iroise in Brest, University College Cork, County Council Cork, INESC TEC, the European Marine Energy Centre (EMEC), EMERGE, and the lead partner, Innovalia Association. The strategic collaboration between the partners also enabled marine startups to access testing facilities in the Atlantic ocean. The extreme living laboratories provided by EMEC, the LiR NOTF testing facilities, and INESC TEC promise harsh real-life conditions which test the suitability of marine technologies to the limit which provide startups and SMEs with an extra layer of confidence in their technologies. This cross-regional collaboration puts the ProtoAtlantic programme in a unique position, as it is the first of its kind to dedicate marine-specific support to marine startups and SMEs which have benefited from the opportunities that ProtoAtlantic has provided. Given the success of the ProtoAtlantic project, the objective of this document is to present a roadmap to take forward, such that it can be sustainable and impactful into the future.

There is an opportunity to build on the initial investment in ProtoAtlantic as proof of concept and take the initiative forward in building an accelerator programme that fast tracks progress of marine startups. The vision is to develop the European Atlantic Margin as a global hub for Blue Growth facilitated by state of the art accelerator programmes. The potential to realise this vision is explored in the following sections. First, we review the current state of the art in commercially-led enterprise development initiatives in the marine space. Second, we review approaches to investment in Blue Growth in the private sector. Third, we outline a roadmap for a Blue Growth accelerator programme for the region.

Startup Investment Opportunities

Startups are high-risk enterprises – to survive the ‘valley of death’ access to financial capital is critical (figure 1). While high risk is involved particularly in startups involved in marine sectors, if successful investing in startups could also yield high growth potential especially when their Proof of Concept (PoC) shows that the startup idea is profitable and scalable. During the early stages, startups typically rely on bootstrapping, i.e. founders, family, and friends (FFF) to support the company. Access to private investment, i.e. seed capital in the form of accelerator programmes or business angels, and early stage financing through venture capitalists and investment funds, could make the difference for startup survival.

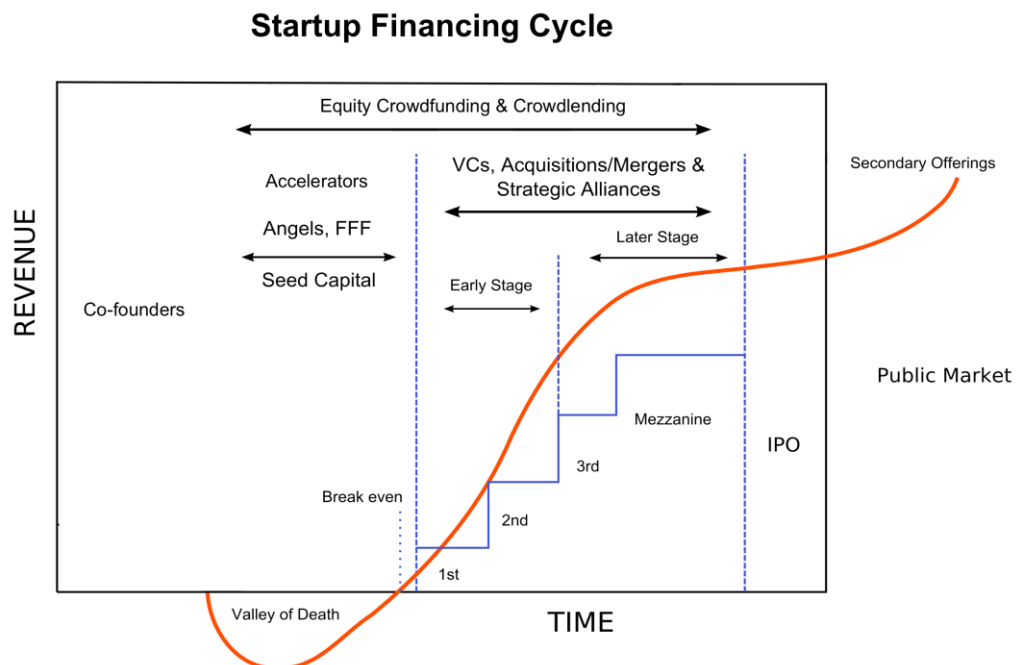


Figure: typical financing cycle for startup company ([Commons Wikimedia](#))

Business angels, also known as angel investors or private investors, are individuals investing their own funds thereby providing much needed capital to startups. Venture capitalists (VCs) are private equity investors providing capital to startups and SMEs that have demonstrated and are promising high growth potential. In exchange for their high-risk investments, business angels and venture capitalists receive company equity or a stake in the company. Other possibilities of accessing private funding include acquisitions and/or mergers and strategic alliances where startups are consolidated with other entities. Initial Public Offering (or IPO) takes place when the startup is in the process of offering shares to the public. Typically, only a fraction of all startups make it to the public market.

There are many pitfalls in the ‘valley of death’ especially for marine-based ventures, accelerator programmes are of high importance as their support goes beyond the necessary seed capital.

Accelerators as Enterprise Development Initiatives

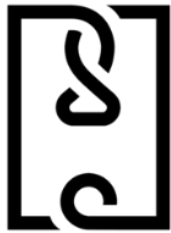
Accelerators are commercially-led enterprise development programmes which have become vital to a vibrant startup and entrepreneur community. Accelerators are business development programmes which have proven to be important mechanisms for fast-tracking the development of startups and SMEs in emerging sectors thereby nurturing innovation and technology development. Through accelerator programmes successful startups are able to secure funding, receive business advice from highly regarded mentors, and subsequently startups and SMEs will be better prepared to scale their business idea into viable self-sufficient businesses. Prospective startups and SMEs will essentially be put into a supportive and pressurised environment where they will work closely with their mentors and peers to develop their business to the next stage. Each of the accelerator programmes will provide different support mechanisms tailored to the industry needs and requirements. The accelerator programmes also work as soundboards for private investors and venture capitalists as they can follow the development of startups through the accelerator programme and provide funding and scaling opportunities at an early stage.

Accelerators such as [*Techstars*](#), [*500 startups*](#), and [*Y Combinator*](#) are designed in a way where every supported startup will receive a toolbox of necessary skills that should be able to support the growth of the enterprise. Most accelerators are open to all types of startups and SMEs across regions and sectors. Variations in accelerator programmes exist, where industry-specific innovation and technology development is encouraged. Startups and SMEs can apply to these industry-specific accelerators which in return will facilitate an introduction to the existing sector-specific infrastructure, this is of particular interest in marine-based sectors.

Marine Accelerators

Marine startups and SMEs largely competing with land-based startups for a coveted spot in accelerators, which is particularly difficult as the support needed for marine-based enterprises differs greatly from land-based enterprises. Typically, marine-based infrastructures are geographically constrained and rare, hence expensive to access. Marine clusters may be able to facilitate some access to these infrastructures. Yet, accelerators dedicated specifically to marine-based startups and SMEs have emerged and have shown to be a tremendous asset to the development of marine startups and the innovation ecosystem in which these startups are embedded in. The following section will give a brief overview over some of the existing marine accelerator programmes and some of the benefits that these provide to their startup members.

Marine Accelerator Programmes



HATCH is the world's first aquaculture accelerator designed to support seed and/or pre-seed startups with innovative ideas and scalable solutions for relevant aquaculture problems and alternative seafood/protein. HATCH is currently present in 3 locations which are located in thriving aquaculture communities such as the National Energy Laboratory of Hawaii in the Hawaii Ocean Science and Technology park, offices in Bergen, Norway and in Singapore. The 15-week long accelerator programme provides access to approximately 50 on-site mentors and close collaboration with the HATCH team. The HATCH accelerator programme organises 3 demo days where startups can pitch to relevant and large audiences, providing a platform for private investment.

More information available at: <https://www.hatch.blue/>



PortXL is the world's first Port and Maritime Accelerator with accelerator programmes in Antwerp which acts as a local business acceleration focused on lead generation; in Rotterdam focusing on maritime tech startups and scale-ups all over the world; and in Singapore, the maritime hub of Asia where PortXL's extensive network and expertise will help strategize to enable market penetration. The PortXL programme provides a 3-month accelerator programme assisting with market validation, finding clients, providing masterclasses, etc. Beyond the 3-month programme, PortXL continues mentorship and network opportunities, and continues providing access to resources within the PortXL infrastructure.

More information available at: <https://portxl.org/>



Based in Israel, **theDOCK** is a vertical Venture Capital firm providing an accelerator programme dedicated to reshaping ports, shipping and maritime logistics sectors. The accelerator programme is a 4-month long programme providing access to worldwide leading global maritime corporations for validation, pilot programmes, data sharing, domain knowledge, co-creation, and design partnership. theDOCK also provides active support by a large network of industry and technology mentors along with coaching and guidance on business and financial models, government grants, preparation for investment rounds, pitching and more. Beyond that, theDOCK has a vast network of investors, venture capitalists, and corporate venture arms.

More information available at: <https://www.thedockinnovation.com/>

Key Performance Indicators of Marine Accelerator Programmes

Key Performance Indicators (KPIs) allow for the quantitative measurement and the qualitative monitoring and evaluation of accelerator programmes and hence are important indicators for the success of any accelerator. The continuous assessment of accelerator KPIs may be of interest to regional development agencies as the KPIs provide insight in the economic potential of emerging sectors, such as Blue Growth sectors.

Quantitative KPIs may include:

- Number of companies operating after they left the accelerator
- Number of jobs created by the supported startups and SMEs after they left the accelerator
- Increase in valuation
- Investment secured by the supported startups and SMEs/amount of money raised
- Number of new patents
- Number of new innovations
- Survival rate of companies

Qualitative KPIs may include:

- Satisfaction of the accelerator programme
- Satisfaction and engagement with mentors
- Support mechanism through the startup cohort

Accelerator programme KPIs also signal investment opportunities in the private sector, ensuring that the startups that have successfully completed an accelerator programme can continue their growth and progress.

Blue Growth Investment in the Private Sector

Investment funds are a way of securing capital for economic development where a group of investors will invest collectively while also benefiting from the advantages that may arise from collaborating within a group. Investment funds are particularly interesting in the economic development of emerging sectors as these provide high growth potential. Examples of investment funds in marine spaces include the BlueInvest Fund and the Blue Angels Investment Group from SeaAhead Bluetech Innovation.



The European Investment Fund (EIF) in cooperation with the European Commission has launched the BlueInvest Fund which allocates €75m in equity funds dedicated to the development of the EU's Blue Economy. The initiatives supported through this fund should aim to contribute to one or more of the EU's political objectives which includes lowering the carbon footprint, creating employment opportunities, and the protection and sustainable use of natural and/or cultural marine capital. The BlueInvest programme funds a broad range of activities in the marine space such as co-investment with equity funds in companies operating in marine sectors. BlueInvest attempts to foster a Blue Economy Venture Capital ecosystem with the aim to attract successful private investment necessary to nurture emerging sectors.

More information available at: <https://www.msp-platform.eu/fundings/blueinvest-fund>

Applying for BlueInvest Fund at: <https://webgate.ec.europa.eu/maritimeforum/en/node/4500>



Blue Angels Investment Group, founded in Boston, facilitates investment opportunities and are catalysing a bluetech cluster in the Northeast of the United States. Bluetech stretches across all marine and maritime sectors and as such provides investment opportunities for technology development. SeaAhead focuses on bluetech in maritime and marine industries including shipping, offshore renewable energy, aquaculture, and creating a sustainable and urban waterfront. Blue Angels prioritise bluetech opportunities expecting that the business models of the supported startup companies are profit-driven and have positive environmental impacts such as climate change mitigation or water quality improvement thereby also creating and supporting smart and resilient cities. While the Blue Angels are an investment group which is open to accredited investors and investors taking an interest in the bluetech sectors, SeaAhead is also a hub for startups and SMEs running an incubator, and building up companies in the marine sectors.

More information available at: <https://sea-ahead.com/blue-angels>

ProtoAtlantic Roadmap

ProtoAtlantic has successfully delivered the first blue growth accelerator programme geared specifically towards marine startups in the Atlantic Area. To continue the success of the accelerator programme the ProtoAtlantic consortium has collectively decided to support marine entrepreneurs and startups and the development of the marine space in the following areas:

Marine Product and Technology Development and Prototype Testing Infrastructure

The ProtoAtlantic consortium continues to support marine product and technology development and provided access to prototype testing infrastructure across the Atlantic area. In particular, the consortium has agreed to continue to provide and share call for applications for startups that want to test at world-renown testing facilities such as the European Marine Energy Centre (EMEC), Lir-NOTF – Ireland’s National Ocean Test Facility, and INESC TEC – Institute for Systems and Computer Engineering, Technology and Science and PLOCAN Oceanic Platform of the Canary Islands.

Startup Acceleration and Mentoring

ProtoAtlantic has provided expertise to startups across the Atlantic area in business development and startup mentoring both in-person and online via one-on-one mentoring and via the [ProtoAtlantic Stakeholder platform](#), which is free to enter and provides startups with a unique opportunity to engage with other startups, marine stakeholders, and investors.

Investor and Funding Attraction

The ProtoAtlantic consortium has engaged with investors interested in marine startups in and outside the Atlantic Area. ProtoAtlantic will continue to facilitate collaborative events whereby marine startups and entrepreneurs will be able to engage and connect.

Marine Policy Recommendation and Ecosystem and Community Support

ProtoAtlantic has also provided marine policy recommendations for the partner regions with blue growth and the sustainable development of coastal regions in mind. The ProtoAtlantic consortium will continue to engage with stakeholders within across the Atlantic Area to ensure that the development of coastal regions and marine sectors continues along a sustainable trajectory. ProtoAtlantic will continue to nurture a cross-national ecosystem and community across the partner regions and will continue to strengthen the cross-sectoral collaboration among the partners through online and in-person meetings.

Lead Partner



Main Partners



Associated Partners

