

## Marine Biotechnology: a sea of advancements

A [new report](#) by the European Marine Board and the European Marine Biotechnology (MBT) ERA-NET showcases the latest scientific and technological advancements in marine biotechnology and highlights why knowledge of our marine ecosystems and biodiversity are crucial for driving future innovations.

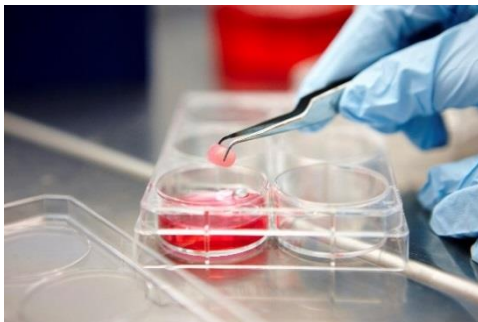


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Marine biotechnology is a fast growing Blue Growth area with revenue in Europe predicted to reach €1 billion by 2020\*. Products and applications are highly diverse, spanning food production, cosmetics, pharmaceutical and wider medical applications. The success of future growth relies on scientific knowledge spanning the marine, life and wider sciences. And it all starts in the ocean.

*“Our seas and global Ocean harbour a diverse set of marine ecosystems and many of these are largely unexplored and understudied. Understanding our marine ecosystems and characteristics of marine organisms offers huge potential to identify future biotechnology applications and, crucially, to understand how we can interact with our seas and Ocean in a sustainable way.”* explains Dr. Kate Larkin, Senior Science Officer at the European Marine Board (EMB).

Globally, marine biotechnology is a powerful tool contributing to the broader bioeconomy and to multiple United Nations Sustainable Development Goals including aspects of sustainable food production systems and regulating the harvesting of marine bioresources. In Europe, marine biotechnology remains a key enabler advancing Blue Growth. While products from marine biotechnology research and innovation are already widely used, the possibilities remain vast with new discoveries and diversifying applications.

*“Our next generation of jellyfish collagen provides research with a whole new tool set and the potential to be used in a clinical setting. This ancient and next generation source of collagen offers the exciting opportunity for the design and development of smarter medical devices and novel technologies.”* says Andrew Mearns Spragg, CEO of Jellagen Pty, Ltd



Image credits: Jellagen, Pty, Ltd

The collaboration with ERA-MBT is crucial following their publication of a [Marine Biotechnology Strategic Research and Innovation Roadmap](#) in 2016. The Policy Brief launched today showcases the latest advancements in marine biotechnology across the five thematic areas of the roadmap, as well

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as their long-term (2020-2030) opportunities where significant scientific, technological and other challenges remain.

Longer-term challenges include the continued exploration of remote areas across our seas and oceans and the development of appropriate policies to achieve sustainable harvesting of marine bioresources. Investment in key infrastructure and to develop training opportunities and career pathways in marine biotechnology will also help drive future growth.

*“The shared focus from EMB and ERA-MBT on the enabling power of biotechnology to create societal value from marine bioresources is well documented in the newly published Policy Brief which can be used as a reference document for further marine biotechnology developments.”* says Dr. Steinar Bergseth, Coordinator of ERA-MBT, Research Council of Norway.

Dr. Bergseth will be presenting the new Policy Brief today during the General Assembly of the [European Marine Biological Research Infrastructure Cluster](#).

To download the Policy Brief and for further information please visit: [www.marineboard.eu](http://www.marineboard.eu)

\* if a market growth of 6-8% per annum is maintained, resulting in the creation of 10,000 new jobs (ECORYS and consortium partners, 2014).

## Notes to editors

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**Definition:** Marine biotechnology – also known as blue biotechnology – is defined as “the application of science and technology for the production of knowledge, goods and services from (marine) biological resources” (adapted from the OECD general definition of biotechnology, 2005).

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This policy brief is a collaboration between EMB and ERA-MBT. It provides a summary of, and draws content directly from, the Marine Biotechnology Strategic Research and Innovation Roadmap, a key deliverable of the H2020 ERA-MBT project – see Hurst, D.; Børresen, T.; Almesjö, L.; De Raedemaeker, F.; Bergseth, S. (2016). Marine biotechnology strategic research and innovation roadmap: Insights to the future direction of European marine biotechnology. Marine Biotechnology ERA-NET: Oostende. [www.marinebiotech.eu](http://www.marinebiotech.eu)

The European Marine Board (EMB) is a leading European think tank in marine science policy. EMB is a network with a membership comprising major national marine/oceanographic institutes, research funding agencies and national networks of universities from countries across Europe. The Board provides a platform for its member organizations to develop common priorities, to advance marine research, and to bridge the gap between science and policy to meet future marine science challenges and opportunities. [www.marineboard.eu](http://www.marineboard.eu)

The Marine Biotechnology ERA-NET is a consortium of 19 national funding bodies from 14 countries seeking complementarities between national activities and resources to undertake joint funding of transnational projects in the area of Marine Biotechnology. It works with a wide range of stakeholders to enhance all elements of the marine biotechnology value chain; in doing so it directs attention to the exploration of the marine environment; biomass production and processing; product innovation and differentiation; enabling technologies and infrastructures; and the need for continued policy support and stimulation. Marine Biotechnology ERA-NET (ERA-MBT) is funded under the European Commission's Seventh Framework Programme, Grant Agreement Number 604814, December 2013 -November 2017. [www.marinebiotech.eu](http://www.marinebiotech.eu)