

## Current initiatives supporting dynamic evolvement and long term sustainability of Genomic Observatories in a European and international context

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Are seas and oceans changing faster than current science allows us to grasp their state? How quickly can new knowledge be communicated to societies and policy makers in meaningful ways? How can the need for long-term observations be reconciled with the ever changing research-funding priorities?

To respond to the above questions and address the respective challenges, there is need for long-term financial support and evolution of Genomic Observatories. Such evolution requires participatory processes to integrate new technologies, methods and additional levels of information into a standardized and globally coordinated assessment of marine ecosystems dynamics. The project ASSEMBLE PLUS aims at the implementation of Genomic Observatories (GOs) into the European ESFRI Research Infrastructure -EMBRC-ERIC for its long-term support. The ASSEMBLE PLUS GOs community has close links with the Genomic Standard Consortium (GSC), Tara Oceans, MicroB3-OSD, other ESFRI infrastructures (ELIXIR, LifeWatch, Bioimaging, OpenScreen), as well as non-molecular monitoring networks of global oceans. The actual network is supported by the biggest and most historical marine Institutes and comprises stations across the European coasts from south (Greece) to north (Norway) as well as stations from the Red Sea, Arctic and Antarctic. As an important part of its activities, it will support the continuation of the emblematic Ocean Sampling Day (OSD) event developed within the MicroB3-FP7 project, optimize protocols and address standardization of observations in different types of marine ecosystems and adopt the FAIR data principles.

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Keywords: Genomics Observatories; Gos; Ocean Sampling Day; OSD; Assemble Plus; EMBRC ERIC; participatory; standards