**Effect of climate change on Harmful Algal Blooms and resulting societal impacts**

Climate change is threatening oceanic ecosystems and related human livelihood. Climate change impacts on ocean temperature, acidification, dissolved oxygen, stratification and circulation. It may trigger the expansion of hypoxic “dead zones” over vast regions of the global ocean and the absorption of anthropogenic carbon leads to ocean acidification. It has consequences on primary production, which feeds trophic chains and biodiversity, and potentially important effects on the structure of ecosystems.

In particular, climate change may change the occurrence of harmful algal blooms (HABs) which can directly affect aquatic organisms, tourists and other users of the coastal zone, or indirectly affect consumers of seafood through the production of toxins accumulating in such seafood. The introduction of species hitherto not recorded in temperate latitudes may pose novel risks to our ecosystems and seafood consumers. Therefore, multiple effects on fisheries and aquaculture sectors must be anticipated to minimise the societal impacts. Achieving sustainability of oceanic ecosystems in this context is a fundamental issue, as stated by the UN Sustainable Development Goal 14.

This session aims at learning more about the ongoing evolution of HABs caused by climate change. It is supported by a European research program, namely CoCliME (Co-development of Climate services for adaptation to changing Marine Ecosystems, ERA4CS-ANR 2017-2020) involving both natural scientists (physicists of climate sciences, marine ecologists and biologists) and social scientists (political scientists, economists). Consequently, this session is open to all scientists wanting to share their knowledge about the multiple issues surrounding the long-term action of climate change on HABs and socio-ecosystems.