

Over the past year, the VIVALDI project, a consortium of 21 European research institutions and SMEs coordinated by IFREMER (France), has been investigating new solutions in order to improve the sustainability and competitiveness of the shellfish industry in Europe. The sustainability of the production in this key sector for coastal areas is threatened indeed by frequent animal mortality events. VIVALDI is looking into the ways to bring new knowledge on the complex interactions between shellfish, environment and pathogens. It also develops practical tools and approaches so as to better prevent and mitigate the effects of diseases on marine bivalves. Common publications, exchange of material and expertise, sharing innovation etc., with 5 million € budget, VIVALDI perfectly illustrates the added value of Europe for research. Cooperating with European partners in the context of such projects allows research institute to maximise their investments while benefiting from the expertise of their European colleagues and answer the social and economic issues at stake.

After a year of cooperation, many samplings have already taken place on the project's key sites: bivalves, micro-invertebrates, sediment, water etc. - which are due to be analysed and serve in various experiments. These key sites are: Dungarvan Bay (Ireland), Delta del Ebro (Spain), Ria de Vigo (Spain) and Rade de Brest (France).

First results show that it is possible to detect the presence of virus in water, using passive sensors (plastic strips) placed in tanks containing oysters. Further tests will be done in the field, close to oyster farms.

The diversity of bivalve pathogens including OsHV-1 (virus) and *Vibrio aestuarianus* (bacteria) is currently being investigated in several countries.

A risk-based model has been developed in order to assess the risk of pathogen introduction and spread in designated farms or areas. This model will be tested in the above mentioned key sites. A review on strategies to avoid OsHV-1 in hatchery/nursery outlines some of the practical measures that can be used by oyster farmers in their facilities.

One of the objectives of VIVALDI is to better identify and understand the organisation of the main stakeholders concerned by shellfish diseases so as to improve communication and exchanges. A first survey was carried out to list the main stakeholders and to qualify their involvement in the management of shellfish diseases. Such a mapping will be useful to identify the best channel to disseminate results from VIVALDI and more generally improve the relations between the different categories of stakeholders.

On 10<sup>th</sup> and 11<sup>th</sup> May 2017, the VIVALDI consortium met in L'Ampolla (Spain) at the kind invitation of the Technical Institute for Aquaculture Research in Catalonia (IRTA) . It was an opportunity to update each other on the major developments of the project, to identify the next steps and to exchange with local shellfish producers.

*The VIVALDI project is a 4-years (2016-2020) EU Horizon 2020 project, coordinated by Ifremer (France): 21 mostly European, public and private partners take part in it, representing the diversity of the European shellfish industry landscape. The project focuses on different farmed mollusc species such as oysters (cupped and flat), mussels, clams, cockles or scallops. VIVALDI includes the diversity of farming practices in the different countries and will carry out studies on key contrasted sites. VIVALDI will not only bring new knowledge on the complex interactions between shellfish, environment and pathogens, but it will also develop **practical tools and approaches aiming at better preventing and controlling marine bivalve diseases.***