

In January 2009, The Norwegian Clean Seas Association for Operating Companies (NOFO) and the Norwegian Coastal Administration (NCA) announced **18 defined technological challenges concerning oil spill response**, seeking new ideas and proposals for solutions. Almost 180 ideas were submitted by private enterprises in Norway and abroad. Following rounds of evaluations, **20 projects were approved with funding from NOFO. “Rapid Deployable HF Radar for Emergency Spill Operations” was one of the most successful projects among these 20.**

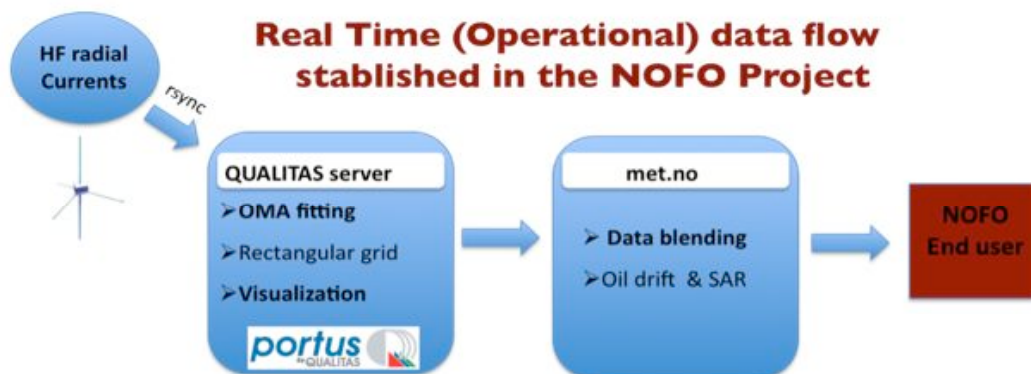
The Norwegian company CODARNOR lead the project in which CODAR Ocean Sensors, the Norwegian Meteorological Office (met.no) and **QUALITAS Remos** were Partners.

The different **objectives** of the project were:

- To develop a **Mobile SeaSonde HF radar** unit that can be rapidly deployed to the coast of Norway to aid in effective and efficient oil spill response
- To develop a **data service that provides high quality SeaSonde-derived 2-D current fields using OMA (Open Mode Analysis) technique** to The Norwegian Meteorological Institute in near real time for spill drift model input and operations planning
- To demonstrate that SeaSonde-derived 2-D current fields can **improve operational oil spill drift model results**



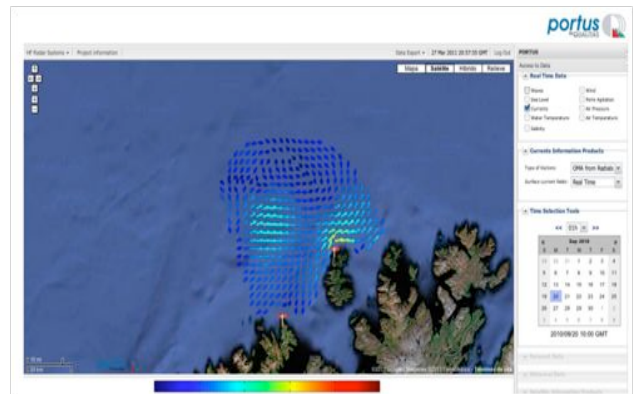
All the project objectives were successfully fulfilled during years 2010 and 2011; the cooperation between the different international partners worked smoothly and greatly enriched the final results of the project.



In August 2010, a fixed SeaSonde unit was deployed in Fruholmen Site, which is the northernmost lighthouse in the world. A Field test was carried out in September 2010 in Tarhalsen Site. On September 12th a CODAR SeaSonde Mobile Unit was deployed in Tarhalsen site (no roads available to this site) using a helicopter for its transport.



A couple hours after the deployment we got radials surface currents information from the Mobile unit with a range of about 60 Km. Short after, the (real time) “rapid” OMA 2D vectors were successfully created, displayed and available via PORTUS by Qualitas web server. Model-data blended fields were ingested into oil-spill trajectory models. Validations were carried out that demonstrated the usefulness of this new system.



By supplementing **models with real time data**, calculation of **oil drift trajectory** and spreading in coastal waters were significantly **improved**. This is more and more important as oil exploration and production activities move closer to the Norwegian coast.

NOFO Project

“Rapid Deployable HF Radar for Emergency Spill Operations”

Around 8-10 mobile HF radars may be able to serve the coast of Norway from selected depots. It will be possible to use continuous current data as an information layer in emergency response management systems (GIS).

As a final outcome of the project, forecasters from Norwegian Meteorological Office would be able to use the OMA outputs of PORTUS® to blend with modelled currents for improved spill response within their 24h emergency oil spill service for Norwegian waters.

