Pollution-hunting robot fish take to the sea

Chris Wickham, Reuters

The developers hope the new technology, which reduces the time it takes to detect a pollutant from weeks to seconds, will sell to port authorities, water companies, aquariums and anyone with an interest in monitoring water quality.

It could also have spin-offs for cleaning up oil spills, underwater security, diver monitoring or search and rescue at sea, they said.

The fish, which are 1.5 meters (5 feet) long and currently cost 20,000 pounds ($31,600) each, are designed to swim like real fish and are fitted with sensors to pick up pollutants leaking from ships or undersea pipelines.

They swim independently, co-ordinate with each other, and transmit their readings back to a shore station up to a kilometer away.

"Chemical sensors fitted to the fish permit real-time, in-situ analysis, rather than the current method of sample collection and dispatch to a shore based laboratory," said Luke Speller, a scientist at British consultancy BMT Group who led the project.

The fish can avoid obstacles, communicate with each other, map where they are and know how to return to base when their eight-hour battery life is running low, their makers say.

After the tests this week, the team will look at modifications needed to move the fish into commercial production, which they expect to reduce the cost of each unit.

The development project was part-funded by the EU and drew on expertise from the University of Essex and the University of Strathclyde in Britain, Ireland's Tyndall National Institute and Thales Safare, a unit of Europe's largest defense electronics group, Thales, which was responsible for the communication technology.

($1 = 0.6326 British pounds)

(Reporting by Chris Wickham; Editing by Robin Pomeroy)

Source URL (retrieved on *08/30/2014 - 8:12am*):
http://www.ecnmag.com/news/2012/05/pollution-hunting-robot-fish-take-sea