

## C-CORE 2.4 Detection and monitoring of pollutant discharges

### Detection and monitoring of pollutant discharges

#### Challenge

<b>Challenge ID</b>	C-CORE_OFF2.4
<b>Title</b>	<b>Detection and monitoring of pollutant discharges</b>
<b>Challenge originator:</b>	
<b>General Description</b>	
<b>What data/products do you use?</b>	Models, aerial surveillance, satellite imagery, drifter buoys, in situ monitoring at platforms
<b>When do you use this kind of dataset?</b>	<p>To aid in trajectory modeling, spill response and protection of important ecological and archeological areas</p> <p>Monitor coastal and offshore oil pollution to assess the impact of pollution on the marine environment</p> <p>Monitor discharges of cement, cuttings and mud</p> <p>Monitoring of pollution arising from gas flaring</p>
<b>What are your actual limitations and do you have a work around?</b>	Validations of trajectory models is difficult and in case of a spill in situ monitoring is limited to aerial surveillance, weather limitations of current technology
<b>Needs and expectations on EO data</b>	High resolution imagery capable of detecting and tracking slicks and plumes of discharged materials
<b>Challenge classification</b>	
<b>Pre license</b>	1
<b>Exp.</b>	3
<b>Dev.</b>	3
<b>Prod.</b>	3
<b>Decom.</b>	3
<b>Geographic context/ restrictions</b>	All Regions
<b>Topographic classification / Offshore classification</b>	Ocean
<b>Activity impacted /concerned</b>	Operational, response capability enhancement
<b>Technology Urgency</b>	Short term (2-5 years)
<b>Information requirements</b>	
<b>Update frequency</b>	1-6 h during time of discharge
<b>Temporal resolution</b>	1-6 h during time of discharge

<b>Spatial resolution</b>	10-100m
<b>Data quality</b>	High
<b>Data Coverage and extent</b>	Regional
<b>Example format</b>	High resolution image
<b>Timeliness</b>	As close to real-time as possible
<b>Existing standards</b>	<p>ERT Scotland. 2008. Third strategic environmental assessment for oil and gas activity in Ireland's offshore Atlantic waters: IOSEA3 Rockall Basin. Prepared for Department of Communications, Energy and Natural Resources</p> <p>Galil B. and Herut B. 2011. <i>Marine environmental issues of deep-sea exploration and exploitation activities (oil and gas) off the coast of Israel</i>. IO LR Report H15/2012.</p> <p>RPS Energy. 2009. <i>Environmental Impact Assessment for Offshore Drilling The Falkland Islands</i>. Report prepared for Rockhopper Exploration PLC.</p> <p>Huang, Weigen, Fu, Bin. 2002. <i>Remote Sensing for Coastal Area Management</i>. Laboratory of Ocean Dynamic Processes and Satellite Oceanography Second Institute of Oceanography State Oceanic Administration Hangzhou, People's Republic of China in China. <i>Coastal Management</i>, 30:271–276, 2002.; UNEP, 2005. Wilkinson, C., DeVantier, L., Talaue-McManus, L., Lawrence, D. and D. Souter. South China Sea, GIWA Regional assessment 54. University of Kalmar, Kalmar, Sweden.</p> <p>BOBLME (2011) Country report on pollution – Myanmar. BOBLME-2011-Ecology-13; Ramamurthy, V.D. and J. Sreenivasan. 1983. Sources of Oil Pollution along the Indian Coasts of Arabian Sea, Bay of Bengal Indian Ocean, and its Impact on Commercial Fisheries. <i>Anales Del Instituto de Ciencias del Mar Y Limnología</i>.</p> <p>Akpomuvie, Orhioghene, Benedict. 2011. Tragedy of Commons: Analysis of Oil Spillage, Gas Flaring and Sustainable Development of the Niger Delta of Nigeria. <i>Journal of Sustainable Development</i>. Vol. 4, No. 2.</p> <p>IPIECA publications on oil spill avoidance, preparedness response and best practices (<a href="http://www.ipieca.org/topic/oil-spill-preparedness/oil-spill-report-series">http://www.ipieca.org/topic/oil-spill-preparedness/oil-spill-report-series</a>)</p>

## Relevant products

### Content by label

There is no content with the specified labels