

Decision Support for Oil-Spills (DSOS)

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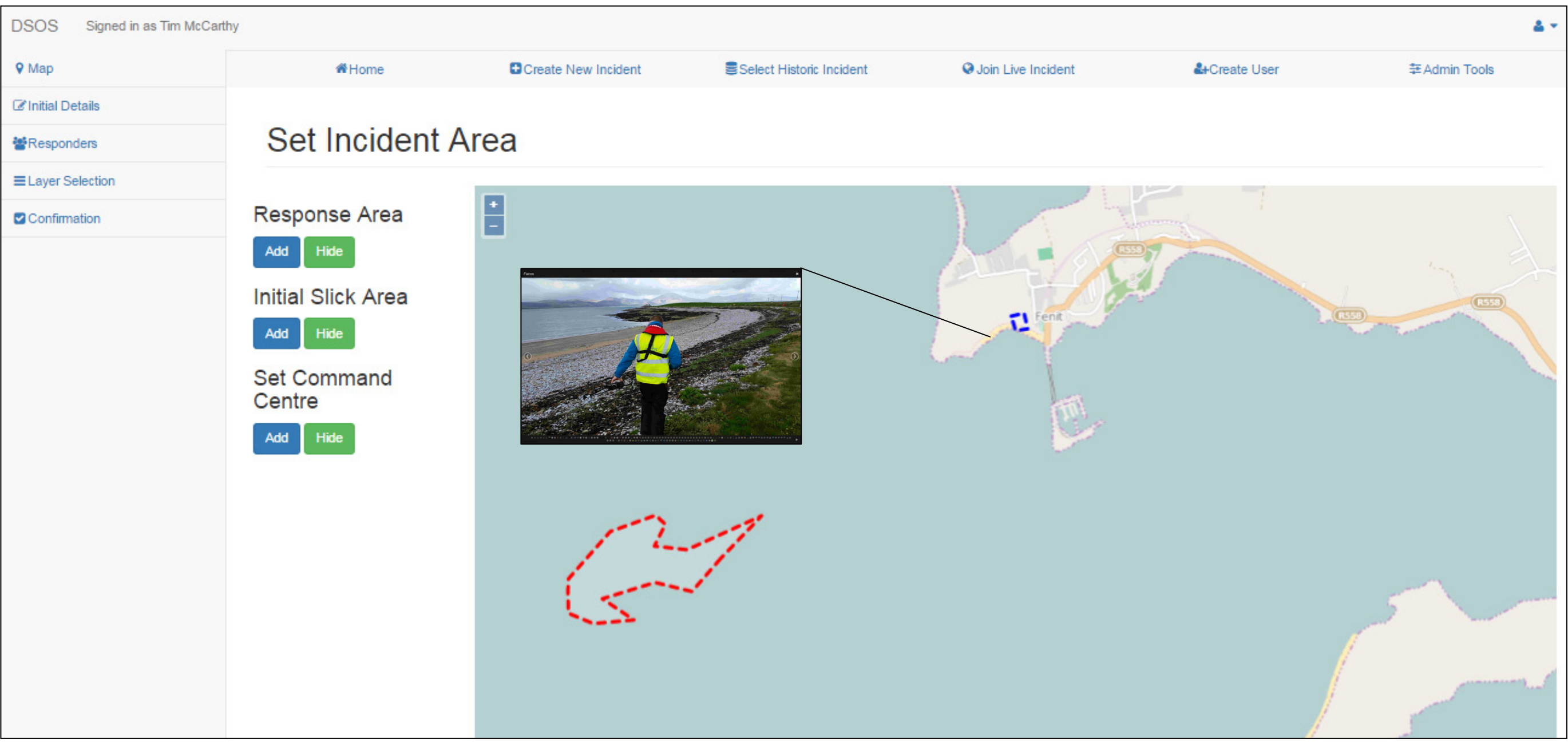
Aim & Objectives

Develop a prototype geospatial decision support platform to provide more effective information management when responding to oil-pollution incidents in the marine environment

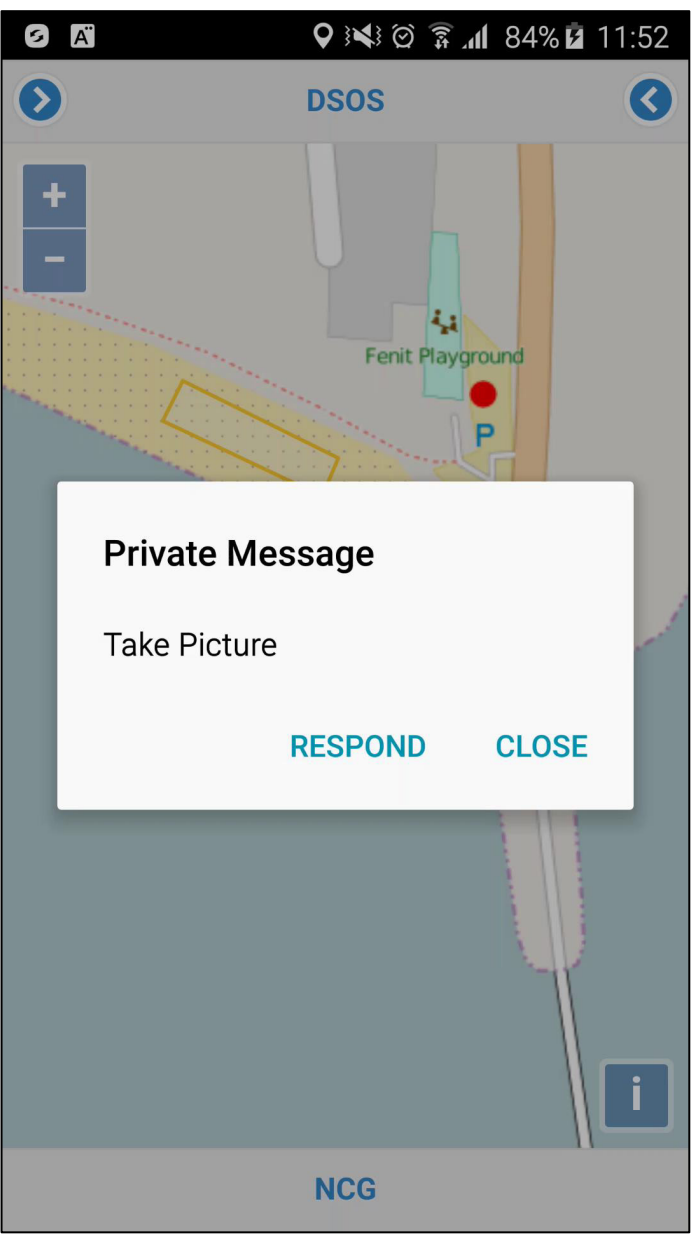
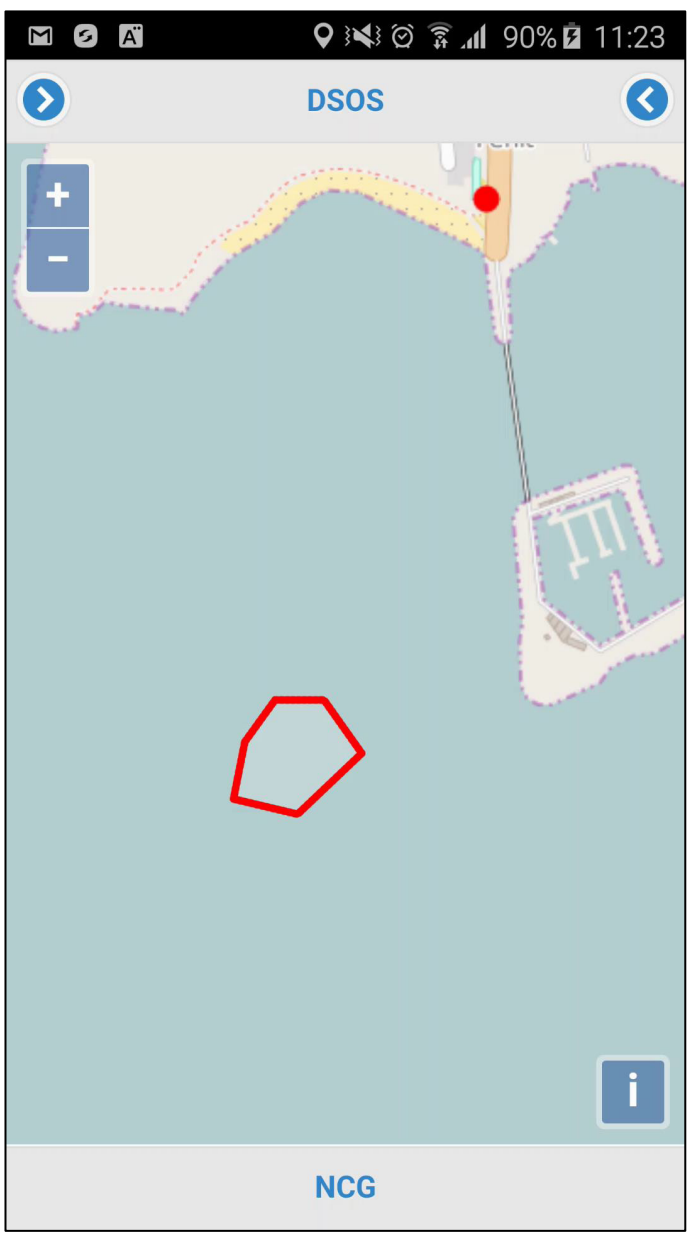
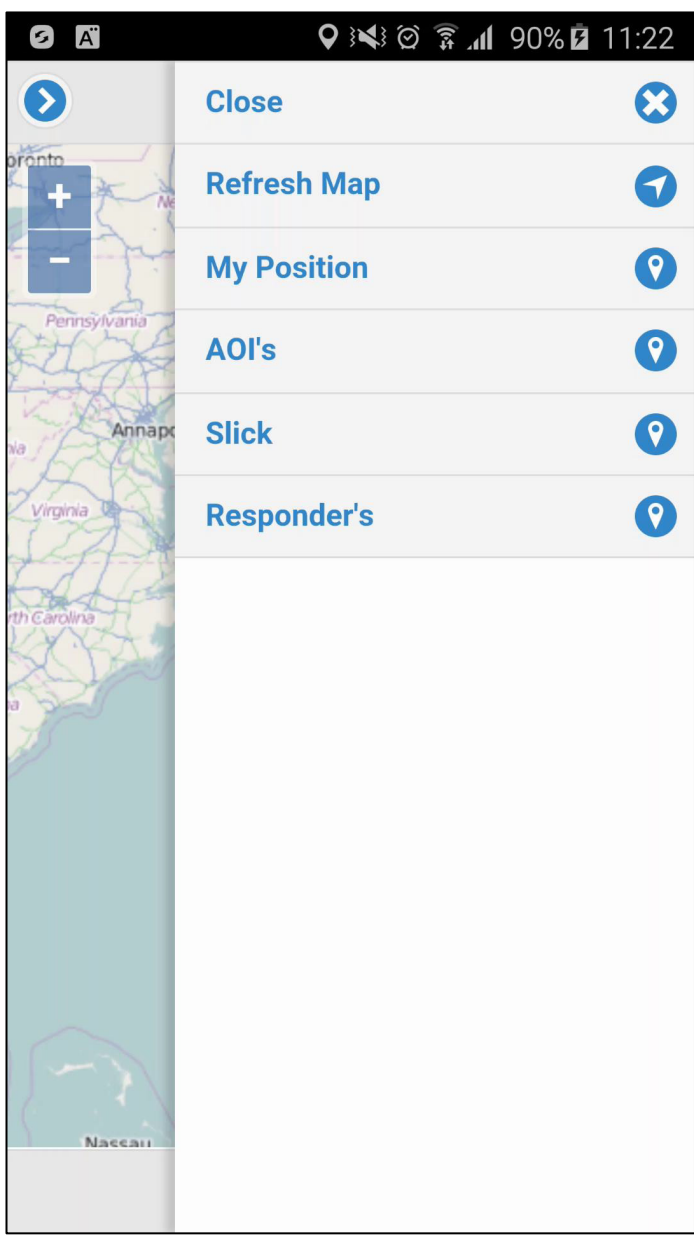
- Design, construction of a novel spatial decision support platform for handling oils-spills in marine environments

- Evaluation of platform under real world conditions (carried out in conjunction with SmartBay & SEA-PT oil-spill exercise on West coast of Ireland)

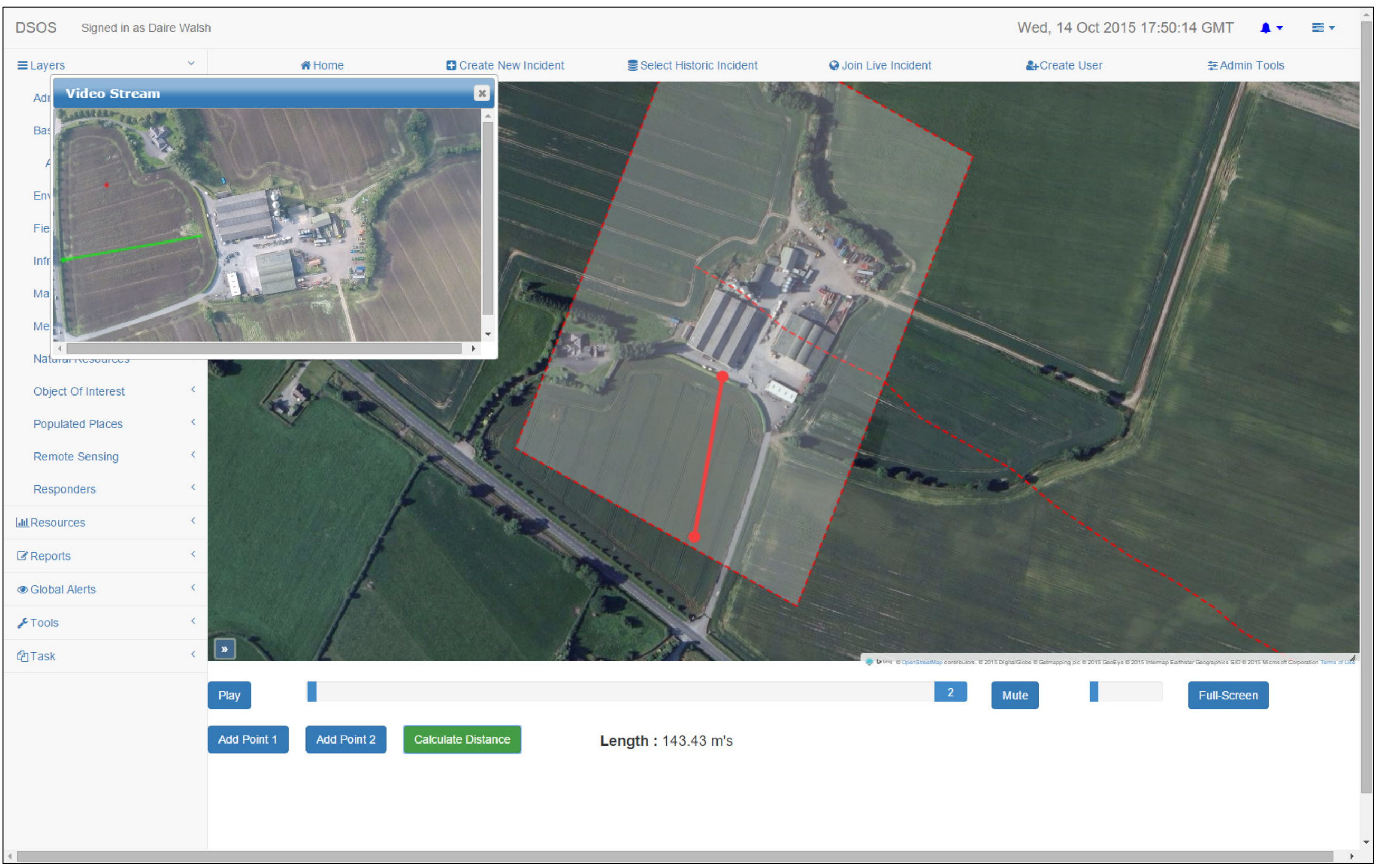
- Assessment of new real-time sensor technologies including Remote Sensing satellites (e.g. Sentinel), low-altitude Airborne & UAVs together with In-Situ sensor platforms



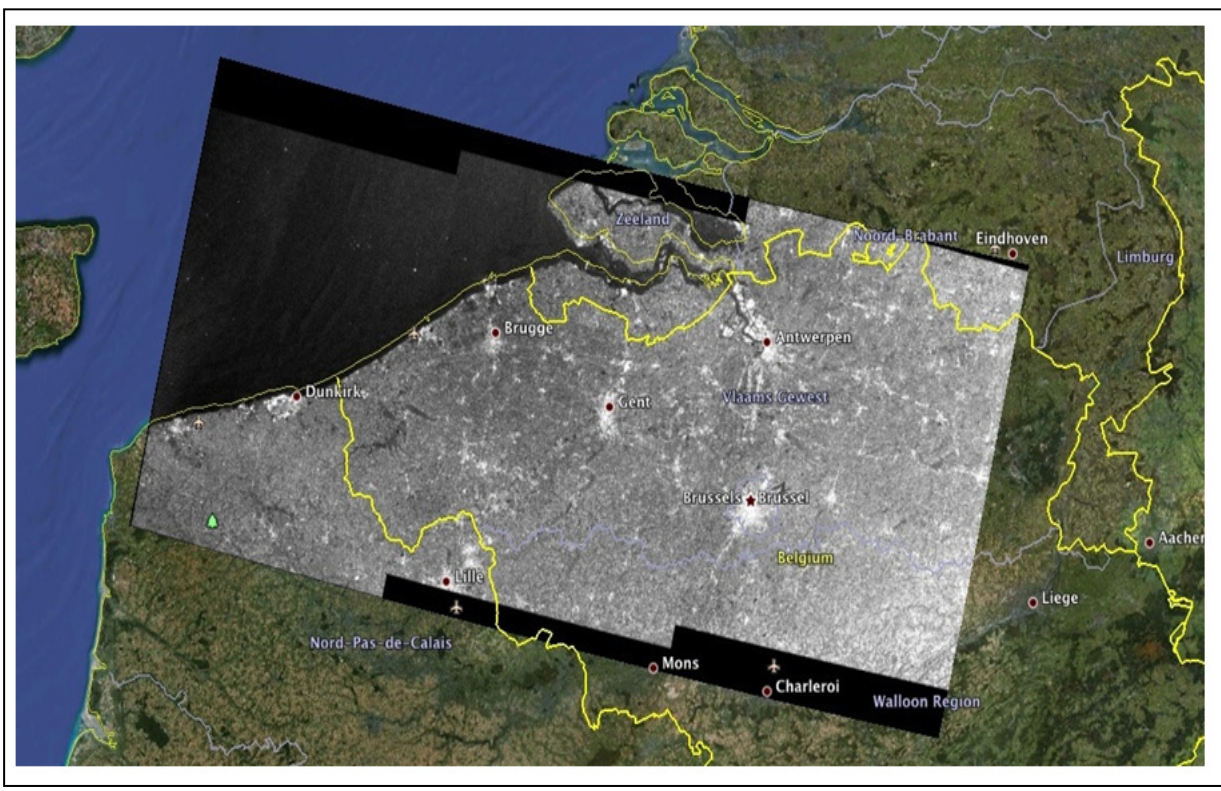
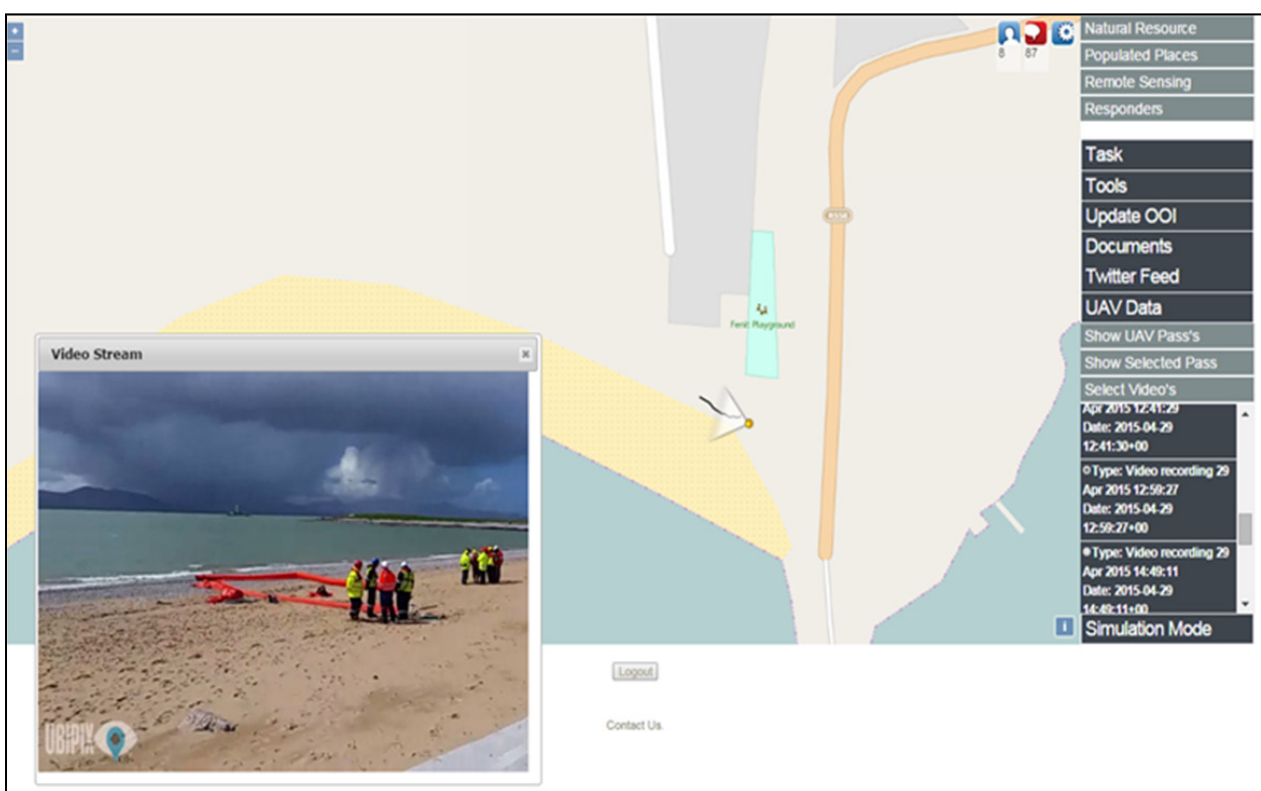
Cloud-based Marine Pollution Management Services



SmartPhone App (Real time views, Field-Observation & Tasking)



Integrating Airborne data in near real-time for oil-slick tracking



Integrating Observer GPS Imagery/Video & Remote Sensing

Outputs: Research & Innovation

The research team designed, coded a scalable cloud-based platform together with integrated Smartphone App to aid Oil-Spill response in the Marine Environment. The platform supports a Common Operational Picture (COP) with a suite of integrated geospatial modules. The entire DSOS platform was evaluated out in the field (Fenit, Co Kerry) with Oil Pollution Industry groups (SEAPT.ie) in April 2015. Refinements were identified and subsequently implemented.

DSOS Platform Modules include; Response Team Formation & Mobilisation, Incident Reporting, Document & Check-list Management, Data Ingestion, Layer Management, COP with various Mapping, Tasking, Logging & Analysing tools & Complete Pollution Incident Logging and Reporting tool.

DSOS Smartphone App with capability to communicate with coordinator, accept tasks, report on task status, log and transmit field observations, in near real-time, together with GPS, images and video



This project is funded by the Irish Shelf Petroleum Studies Group (ISPSG) of the Irish Petroleum Infrastructure Programme (PIP) Group 4. The ISPSG comprises: Atlantic Petroleum (Ireland) Ltd, Cairn Energy Plc, Chrysaor E&P Ireland Ltd, Chevron North Sea Limited, ENI Ireland BV, Europa Oil & Gas (Holdings) plc, ExxonMobil E&P Ireland (Offshore) Ltd., Kosmos Energy LLC, Maersk Oil North Sea UK Ltd, Petroleum Affairs Division of the Department of Communications, Energy and Natural Resources, Providence Resources plc, Repsol Exploración SA, San Leon Energy Plc, Serica Energy Plc, Shell E&P Ireland Ltd, Sosina Exploration Ltd, Statoil (UK) Ltd, Tullow Oil Plc and Woodside Energy (Ireland) Pty Ltd.

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