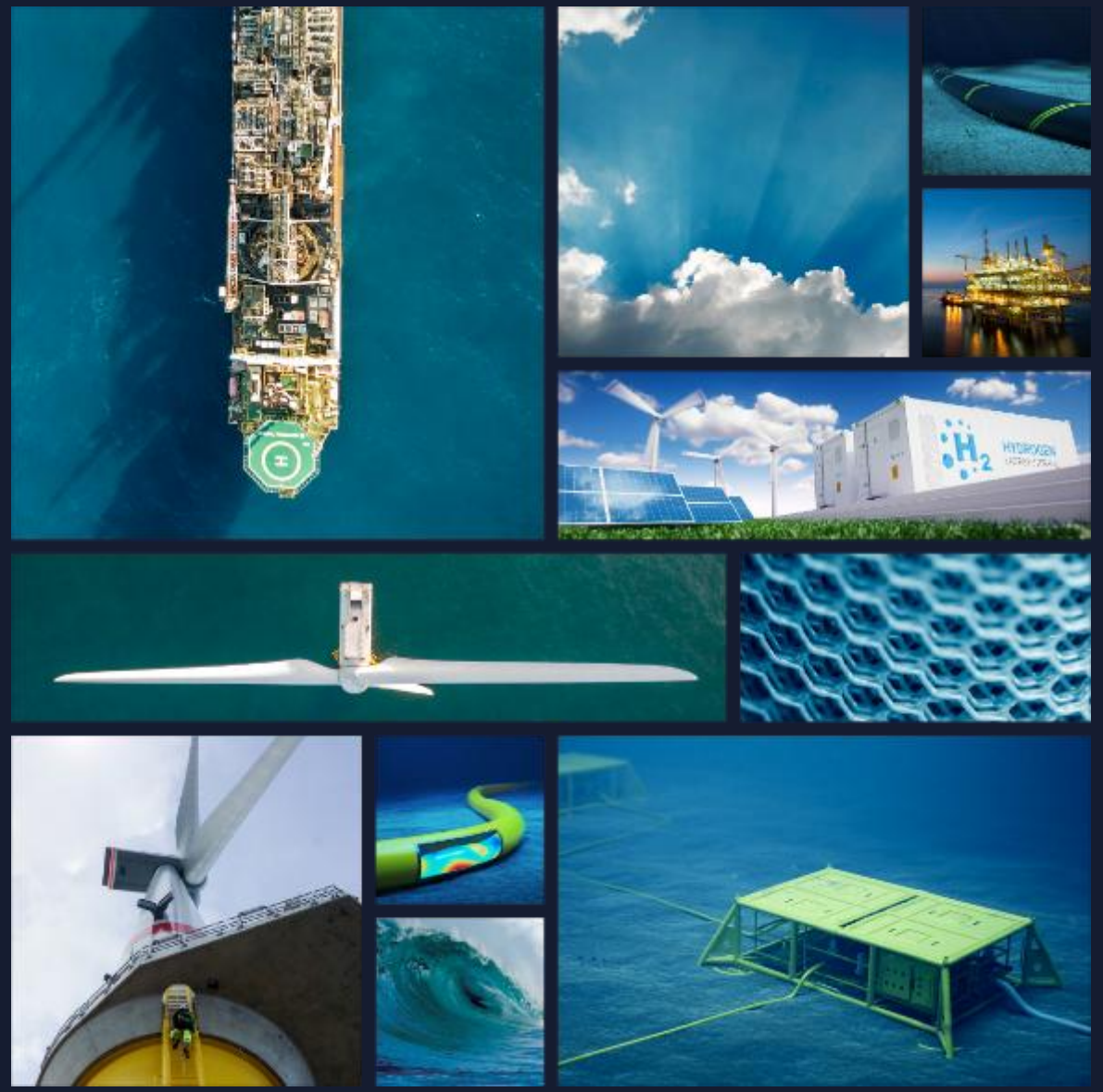
XODUS

OEUK Shoreline Response Plan Database



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Project Scope

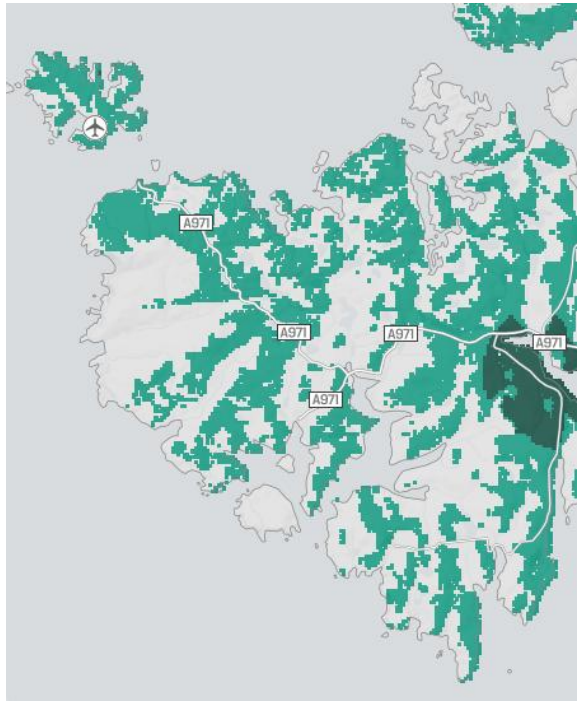
OEUK commissioned Xodus to develop a unified Shoreline Response Plan Database (SRPDB) for the north and eastern Scottish coastlines, including the Orkney and Shetland Islands. The project aimed to address gaps and inconsistencies in existing shoreline response plans (SRPs) by creating a consolidated, accessible, and standardised resource.

The development of the SRPDB involved the following key tasks:

- Data gap analysis
- Data collation and assessment
- Data normalisation
- GIS application development in ArcGIS
- Site visits

Database Development

- Extracted key information from all 445 SRPs.
- Confirmed and updated contact details where possible.
- Reviewed the mobile phone coverage of the SRP sites.
- High level site review using Google Earth and other sources.
- Database designed to be updatable/maintained with minimal effort.



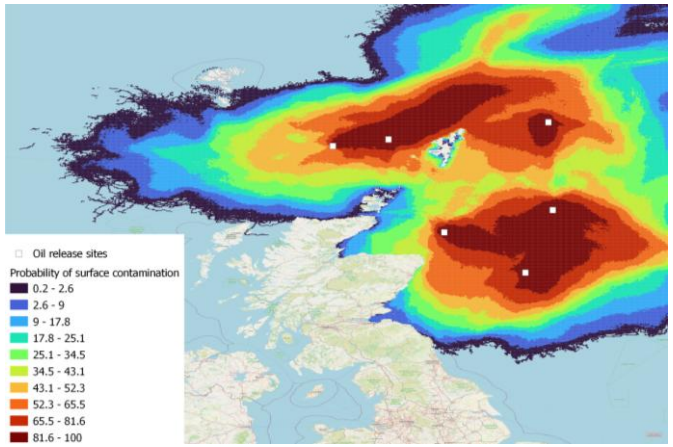
Data coverage across west Shetland

Access Type	Boat	Authorisation	Gravel Track	Slipway
	x			x
	x			x
	x			x
	x	x		
	x		x	x
	x		x	x
	x			
	x		x	
	x		x	
	x		x	x
				x
	x	x		x
	x			x
	x	x		x
	x	x		x
	x			
	x	x		x
	x	x	x	x
	x	x	x	
	x	x		
	x		x	
	x		x	
	x	x	x	
			x	
	x	x		x

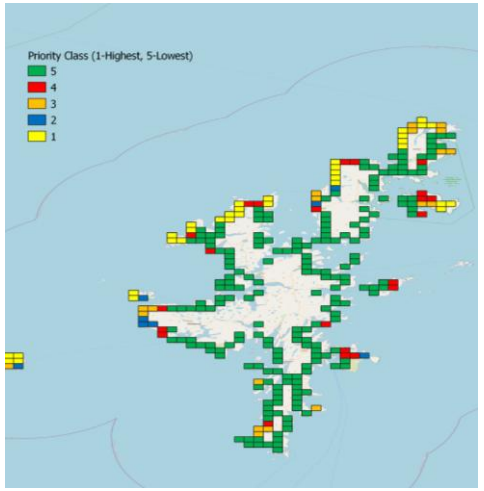
Snippet of the extracted data

Oil Spill Modelling & Identifying Priority Areas

- To understand how the UK coastlines would be affected by large-scale oil spills, an oil spill scenario with six release sites with both surface and above-seabed oil release was simulated using OSCAR modelling.
- Modelling aligned with that undertaken for the Financial Responsibility Guidelines
- The results of the simulations were then utilised to identify priority shoreline areas based on the predicted probability of contamination, the arrival time of the oil, and the predicted quantity of contamination.



The simulated oil spill scenario with 6 release sites



The priority class of sites across Shetland

Priority Site Visits

- **Site Selection Basis:** Prioritisation exercise from data gap analysis
- **Site Visits Locations:** Aberdeenshire coastline (11), Orkney (7), Shetland (5)
- **Purpose:** Validate data in SRP documents, update photographs
- **Assessment factors:**

  - Site access
  - Site use/local amenities
  - Site facilities required
  - Environmental and socio-economic sensitivities
  - Waste and debris at the site
  - Tier 1 resources available
  - Mobile networks available

- **Outcome:** Confidence in data accuracy for priority sites
- **Verification:** Confirmed desk-based study findings (e.g: access routes, available space) using Google Earth

Database Demonstration

Questions