

# An update on Ireland's Integrated Digital Ocean

**Eoin O'Grady, Adam Leadbetter**  
**Marine Institute, Ireland**







seai



Environmental Protection Agency



## OUR VISION

*Our ocean wealth will be a key element of our economic recovery and sustainable growth, generating benefits for all our citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.*

GOAL

1

### THRIVING MARITIME ECONOMY

- Sustainable economic growth of our marine/ maritime sectors
- Increase the contribution to our national GDP
- Deliver a business-friendly yet robust governance, policy and planning framework

GOAL

2

### HEALTHY ECOSYSTEMS

- Protect and conserve our rich marine biodiversity and ecosystems
- Manage our living and non-living resources in harmony with the ecosystem
- Implement and comply with environmental legislation

GOAL

3

### ENGAGING WITH THE SEA

- Building on our maritime heritage, strengthen our maritime identity
- Increase our awareness of the value, opportunities and societal benefits
- Engagement and participation by all



# \$100 BILLION

PER ANNUM

# AUSTRALIAN BLUE ECONOMY

2025




## GRAND CHALLENGES

 Marine sovereignty and security

 Energy security

 Food security

 Biodiversity conservation

 Sustainable urban coastal development

 Climate change adaptation

 Resource allocation

## 10-YEAR STEPS TO SUCCESS

 Decision-support tools

 Models & forecasts

 Industry & government partnerships

 Cross-disciplinary skills

 Research vessels

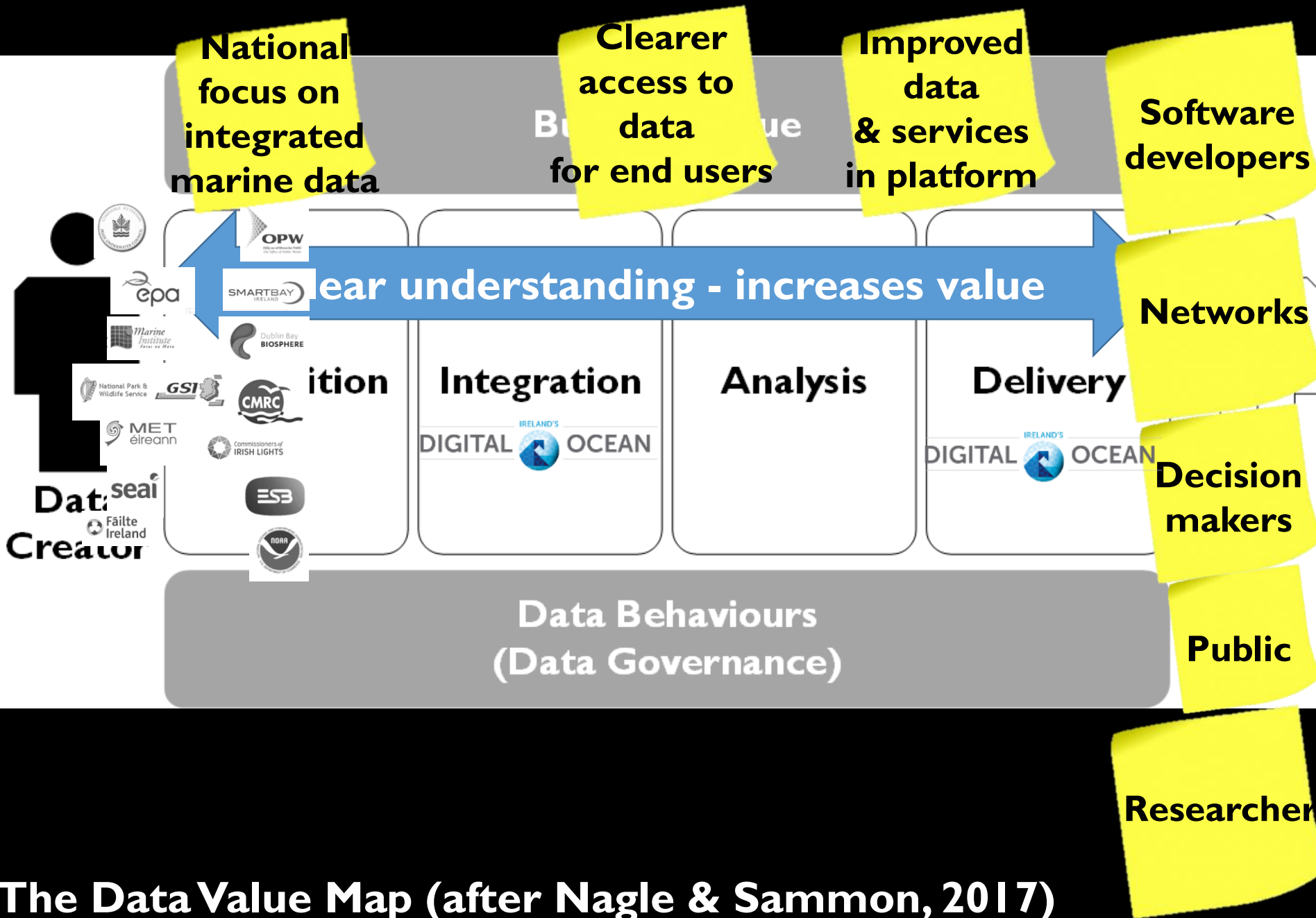
 Exploration, mapping, monitoring

 Marine baselines

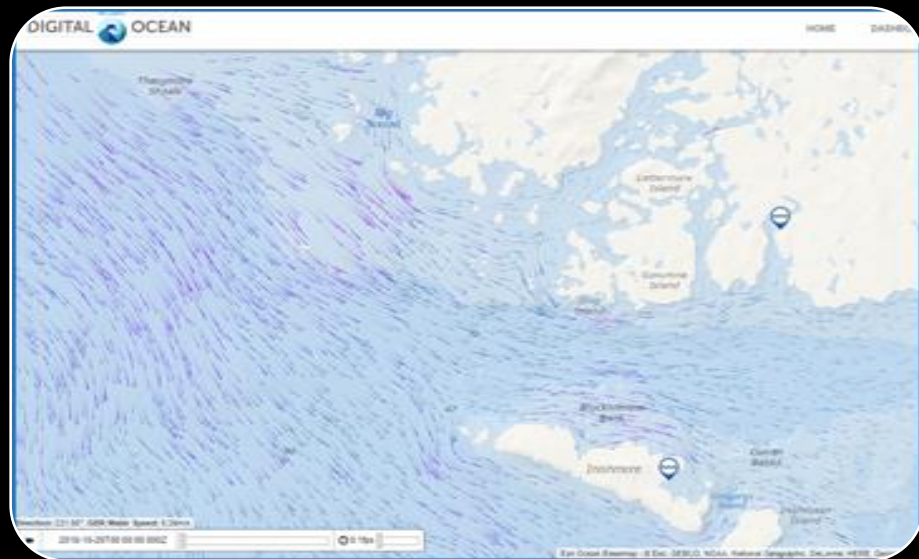
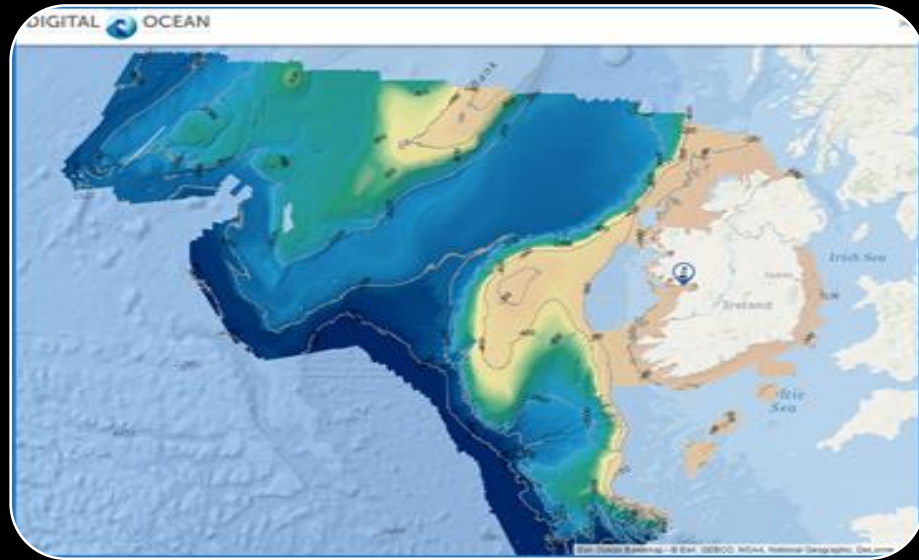
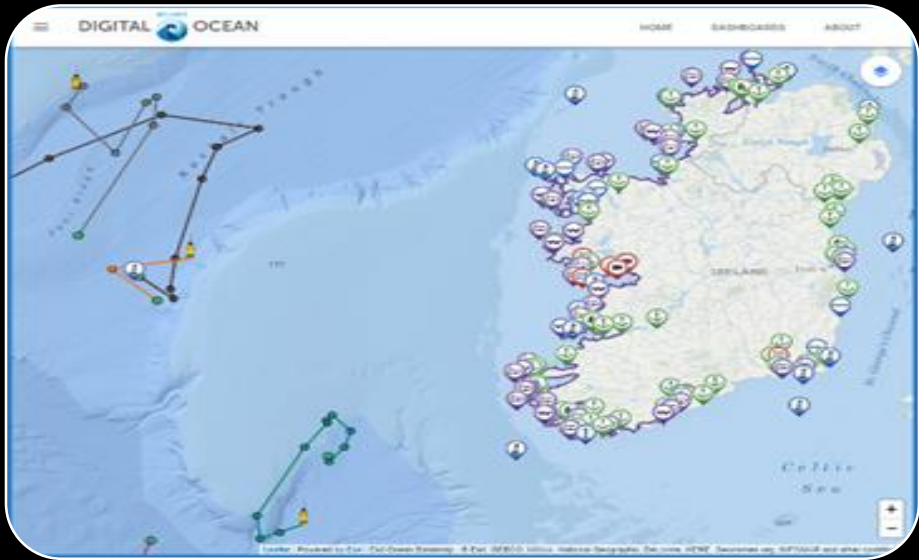
 National collaborations



**Policy**  
**Knowledge**  
**Information**  
**Data**



The Data Value Map (after Nagle & Sammon, 2017)



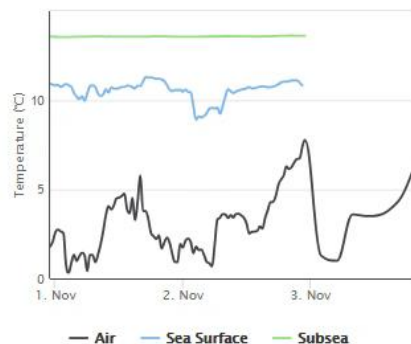




### Latest Readings

Conductivity (mS/cm)	34.23
Sea Temperature (°C)	13.61
Pressure (dbar)	26.91
Salinity (psu)	28.2
Dissolved Oxygen (%)	75.7
Turbidity (NTU)	24.34
Chlorophyll (µg/l)	0.22

### Temperature (Buoy/CTD)



Data Source: MI

### Live Video



### Galway Weather (Spiddal Buoy)

Wind Speed

24

KNOTS

Wind Direction



Air Temp (°C)

6

DEGREES

Air Pressure

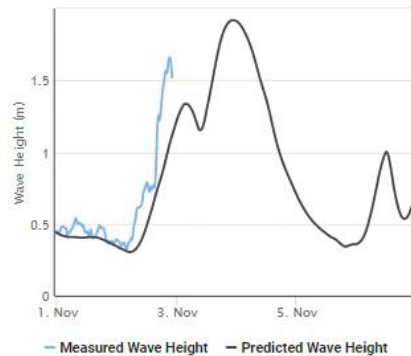
1013

HECTOPASCAL

Observation made at 19:32 on 03/11/18

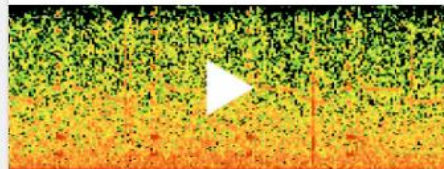
Data Source: MI

### Significant Wave Height (Spiddal Buoy)



Data Source: MI

### Hydrophone Audio

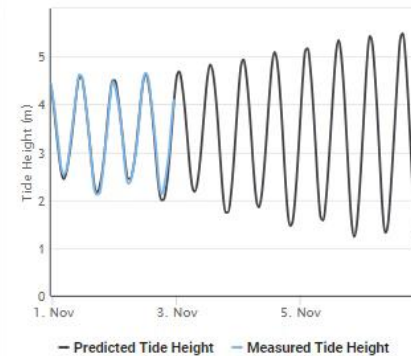


(UTC Time)

Volume

[View in New Tab](#)

### Tide Height (Galway Port)



Data Source: MI

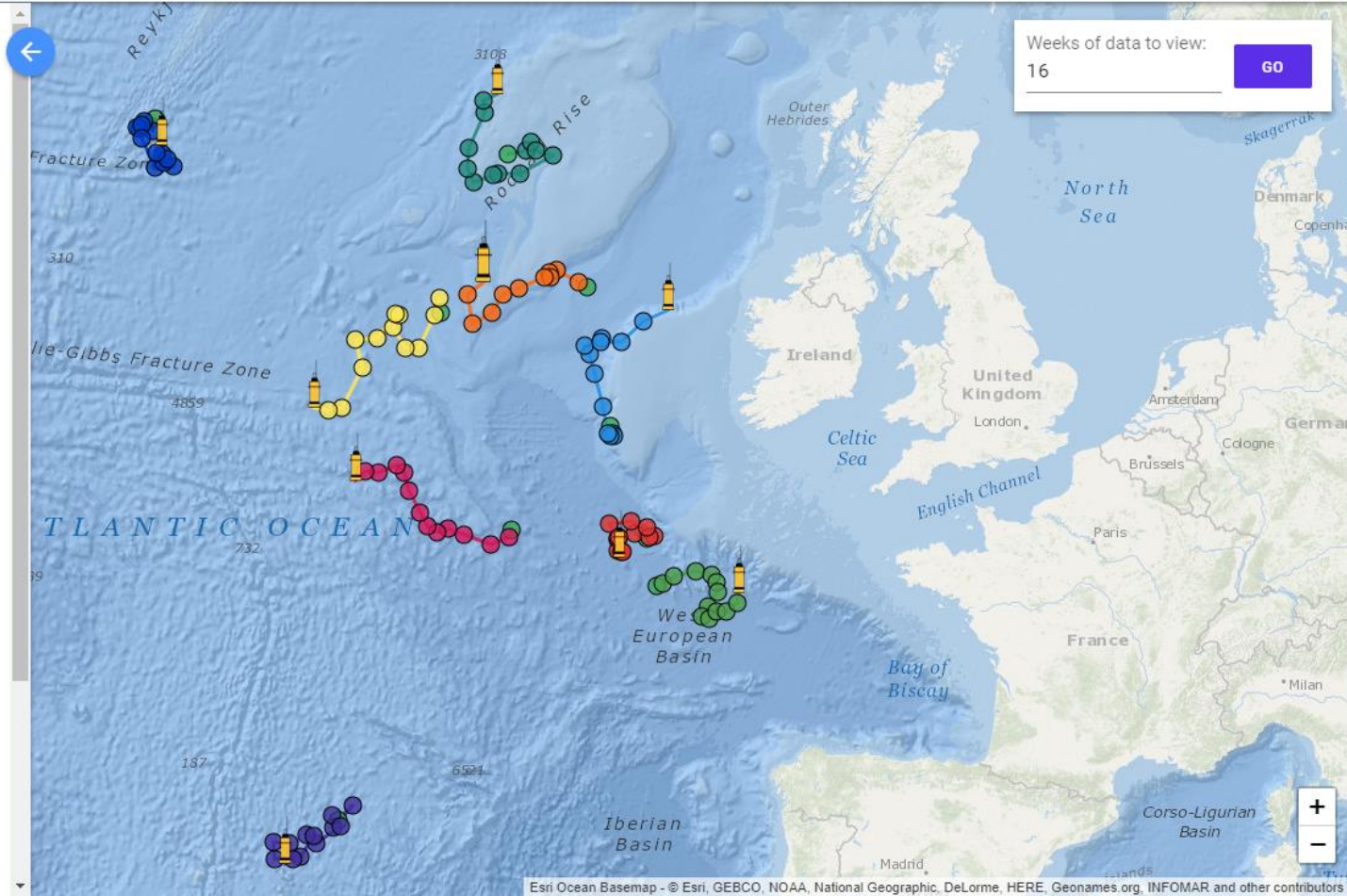
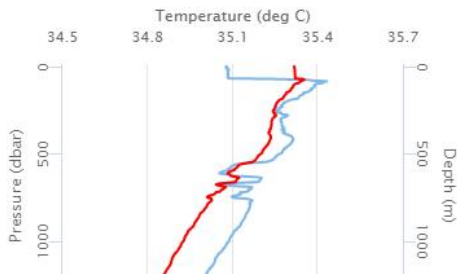
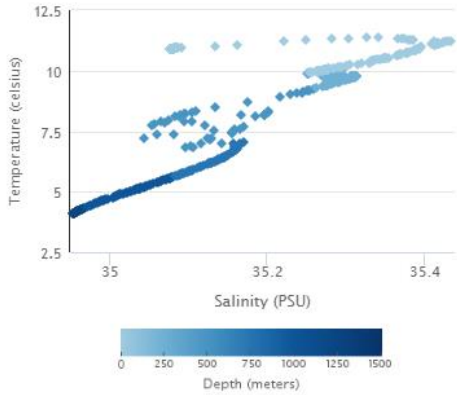
MQTT

### Argo Float Profile

Float 6901929 - Cycle 27

Readings Taken: 08:53 - 1st Nov 2018

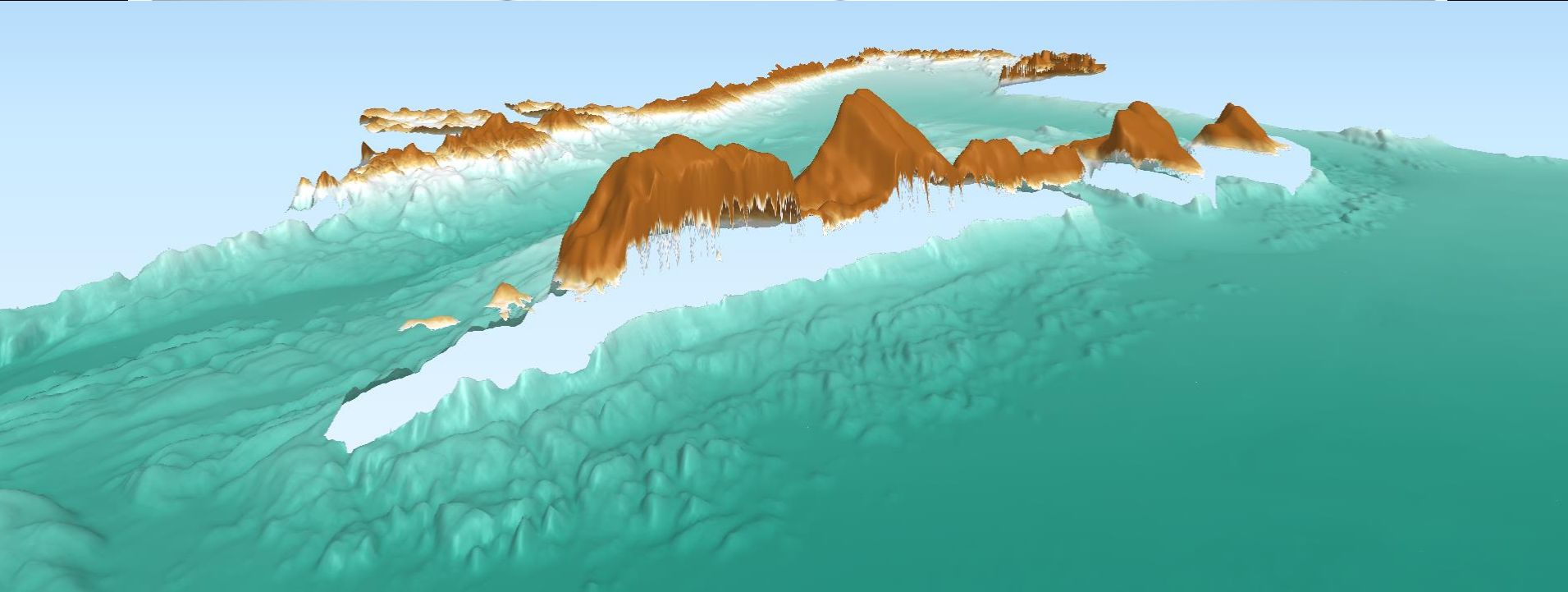
Lat, Long: 54.6387, -19.6549



Esri Ocean Basemap - © Esri, GEBCO, NOAA, National Geographic, DeLorme, HERE, Geonames.org, INFOMAR and other contributors

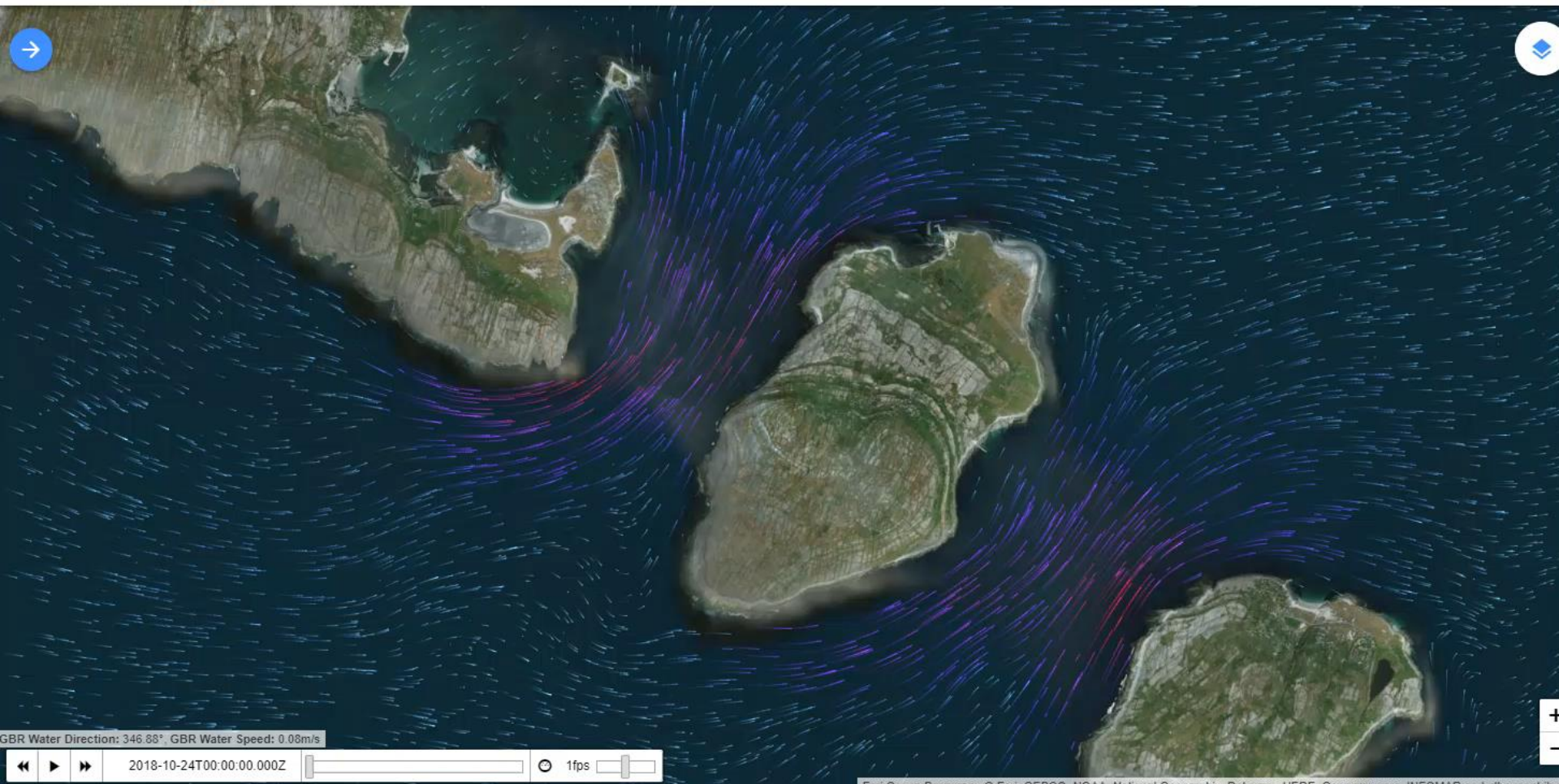


HMS Vanguard (INFOMAR/Ulster University)  
by INFOMAR



[View on Sketchfab](#)

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# Lough Furnace Automatic Water Quality Monitoring Station (AWQMS) profiles 2009-2014

Full water column profiles of temperature, conductivity, pressure and dissolved oxygen are routinely measured in the coastal basin Lough Furnace as part of the LTER (long-term ecological research) monitoring programme. Profiles are measured by a multi-parameter sonde attached to an automated undulating winch that initiates downcasts at 4 daily intervals (00, 06, 12, 18 hours). This dataset includes profiles recorded during the period 2009-2014. Analysis of this dataset can be found here: Kelly, S., Eyto, E. de, Dillane, M., Poole, R., Brett, G., and White, M. (2018). Hydrographic maintenance of deep anoxia in a tidally influenced saline lagoon. *Marine and Freshwater Research* 69(3) 432-445 <https://doi.org/10.1071/MF17199>

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## About this resource

<b>Format</b>	CSV
<b>Suggested Citations</b>	Kelly, Séan; Dillane, Mary; de Eyto, Elvira; Cooney, Joseph; Hughes, Pat; Murphy, Michael; Nixon, Pat; Sweeney, David; Poole, Russell; Ryder, Elizabeth. (2018) Lough Furnace Automatic Water Quality Monitoring Station (AWQMS) profiles 2009-2014 Marine Institute, Ireland. <a href="http://doi.org/cs63">http://doi.org/cs63</a> .
<b>Categories</b>	<input checked="" type="checkbox"/> Datasets <input type="checkbox"/> Oceans <input type="checkbox"/> Elevation
<b>GEMET - INSPIRE themes, version 1.0</b>	Oceanographic geographical features Elevation

## Location





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3 # @link:
4 # @description:
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7 #
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12     data(since: "6 months ago", last: 1, groupby:"p
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IRELAND'S

DIGITAL



OCEAN

<http://www.digitalocean.ie>



*Marine Institute*  
*Foras na Mara*