If we don’t have the right information, we can’t make the right decisions!
If we don’t provide the information, we can’t make any decisions!!

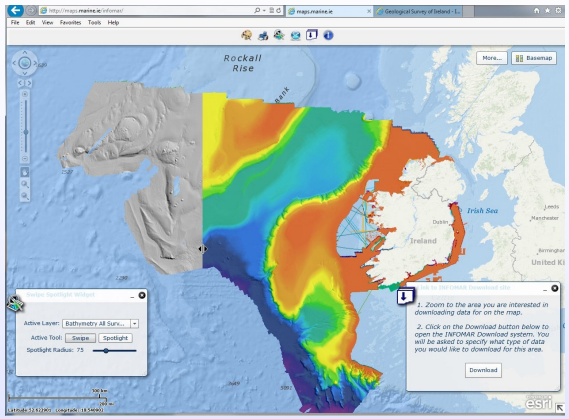
GSI

NDP
National Development Plan 2007 - 2013

Marine Institute
Vistas na Mara

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

From Humble Beginnings in '99!



Then:

- Big Aspirations
- No infrastructure
- Little knowledge
- Paper data from 1800's
- *Science on sailboats*

Now:

Resources:

- 5 MBES fitted survey **vessels** (3 new in 2014)
- Improved **knowledge** capacity (Ops / Data / ICT)
- National & EU support for **mapping** initiatives
- Approx. 20 people

Data:

- V. large publicly accessible online multibeam **dataset**
- 55 Tb data holding / **150 Tb server**
- Striving towards an *"Irish Digital Ocean"*

R&D:

- Since 2008, 46 projects funded directly (>€1.25m)
- Research collaboration - Caris / Proteus / Kongsberg
  - *Atlantic Centre for Earth Observations (ACE-Obs)*
  (In-situ obs / Informatics / Modelling / Remote Sensing)
- Horizon 2020 ready –
  (10+ 3rd level R&D org. /100+ ocean tech companies)

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Ireland's Role in Marine Policy

2013 Milestones

- Atlantic Action Plan 2014-2020
- Galway Statement on **Trans-Atlantic Ocean Co-operation (May 2013)**
- Horizon 2020 – *Ocean observation & seabed mapping*

European Commission

Galway Statement:

Common Objective, by 2020 to have: Mapped the Atlantic to underpin the accuracy of predictive models and forecasts and identified key tectonic /volcanic sites, as well as ecologically and economically important (and potentially undiscovered) seafloor and water column habitats.

Key Challenge: Build an industry, academia, and government cross sector vision of a shared data collection, management and information infrastructure.

Recommendations: Establish mechanisms to promote trans-Atlantic data sharing using a seabed mapping test case.

Laying Down The Challenge!

Seated L to R:
•**Senator David M. Wells, Parliament of Canada**;
•Ms Maria Damanaki, Commissioner for Maritime Affairs and Fisheries;
•Ms Máire Geoghengan-Quinn, Commissioner for Research Innovation and Science;
•**Dr Kerri-Anne Jones, Assistant Secretary for Oceans and Int. Environmental and Scientific Affairs, US Dept. of State**
Standing L to R:
• Mr Enda Kenny, T.D., Taoiseach, Mr Simon Coveney T.D., Irish Minister for Agriculture, Food and the Marine

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Irish Survey Programmes

Irish National Seabed Survey (GSI)

1999-2005, €32m – largely outsourced

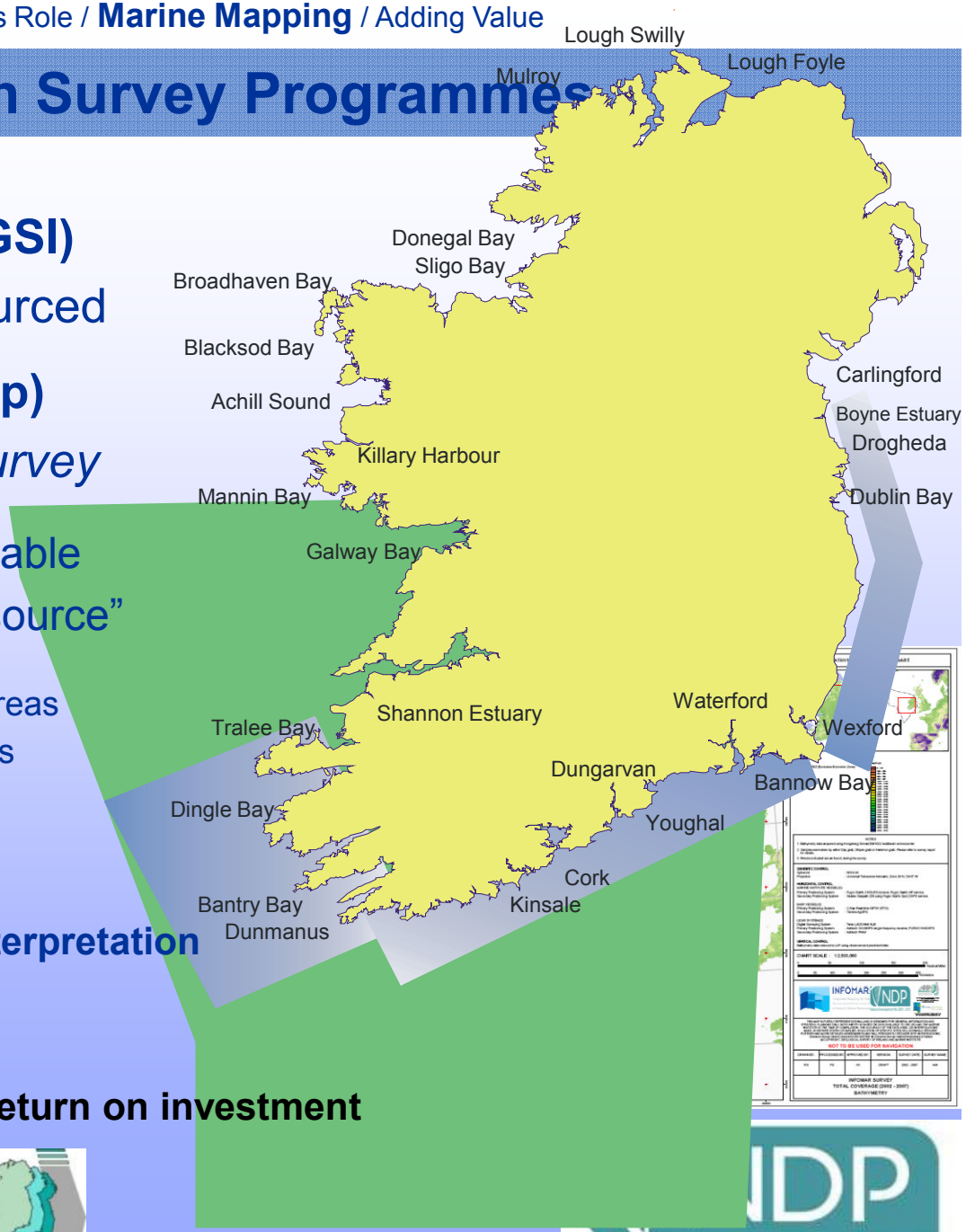
INFOMAR (GSI & MI Partnership)

2006-2026, €80m – *largely self survey*

"**IN**tegrated Mapping **FO**r the Sustainable Development of Ireland's **MA**rine **R**esource"

PHASE 1: 2006 – 2015 26 Bays / 3 P. Areas
PHASE 2: 2016 – 2025 Remaining Areas

€3m per annum to 2018



Programmes:

1. **Data Acquisition, Management & Interpretation**
2. **Data Exchange & Integration**
3. **Value Added Exploitation**

2008 PWC Cost Benefit Analysis: 4-6 return on investment

Marine Institute
Foras na Mara

GSI

NDP
National Development Plan 2007 - 2013

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

What Does INFOMAR Provide?

Free Access

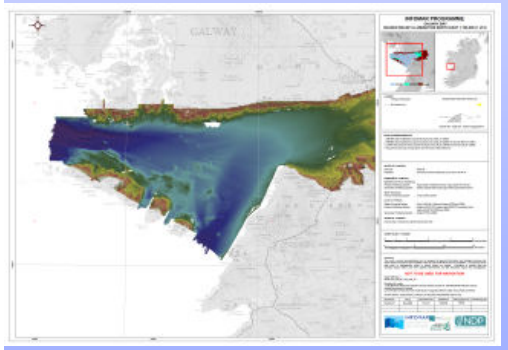
Charts / Maps

Data (Raw / Processed)

- Google Earth
- Fledermaus DTM's
- ArcMap Grids

Reports

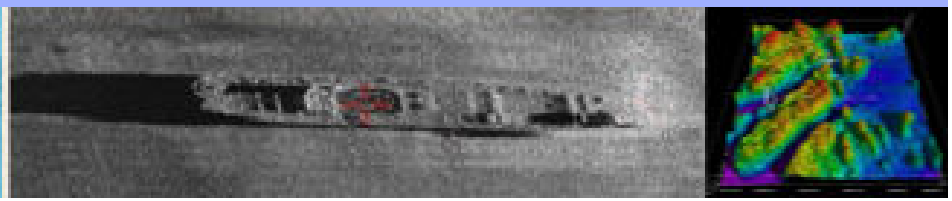
Publications



WWW.INFOMAR.IE

ACCESS PRODUCTS BY:

- Bay
- Chart
- Type
  e.g. Google Earth Files



INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

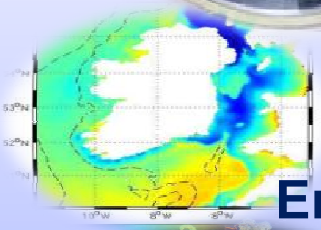
Client Decision Support Data?

Government

Industry

Efficiency

Resource



Environment

Clients All Have Different Needs

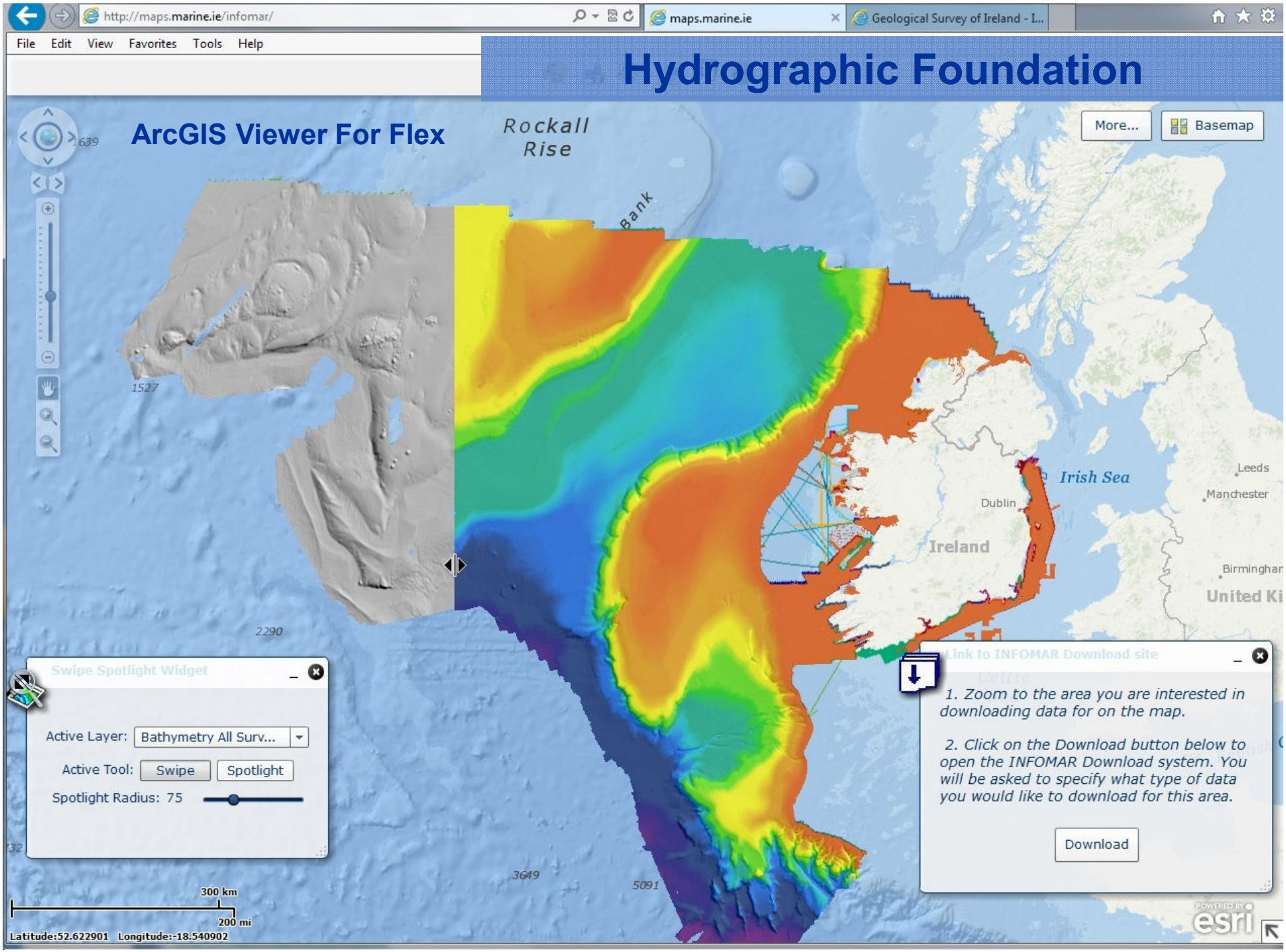
Safety

Risk

Academia

Public

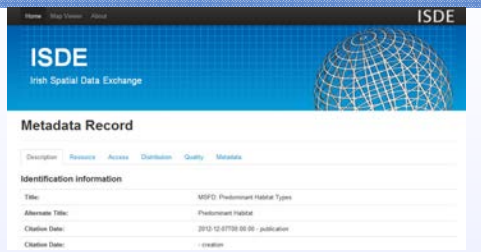
Global Market Opportunities ⟷ Trans-Atlantic Cooperation

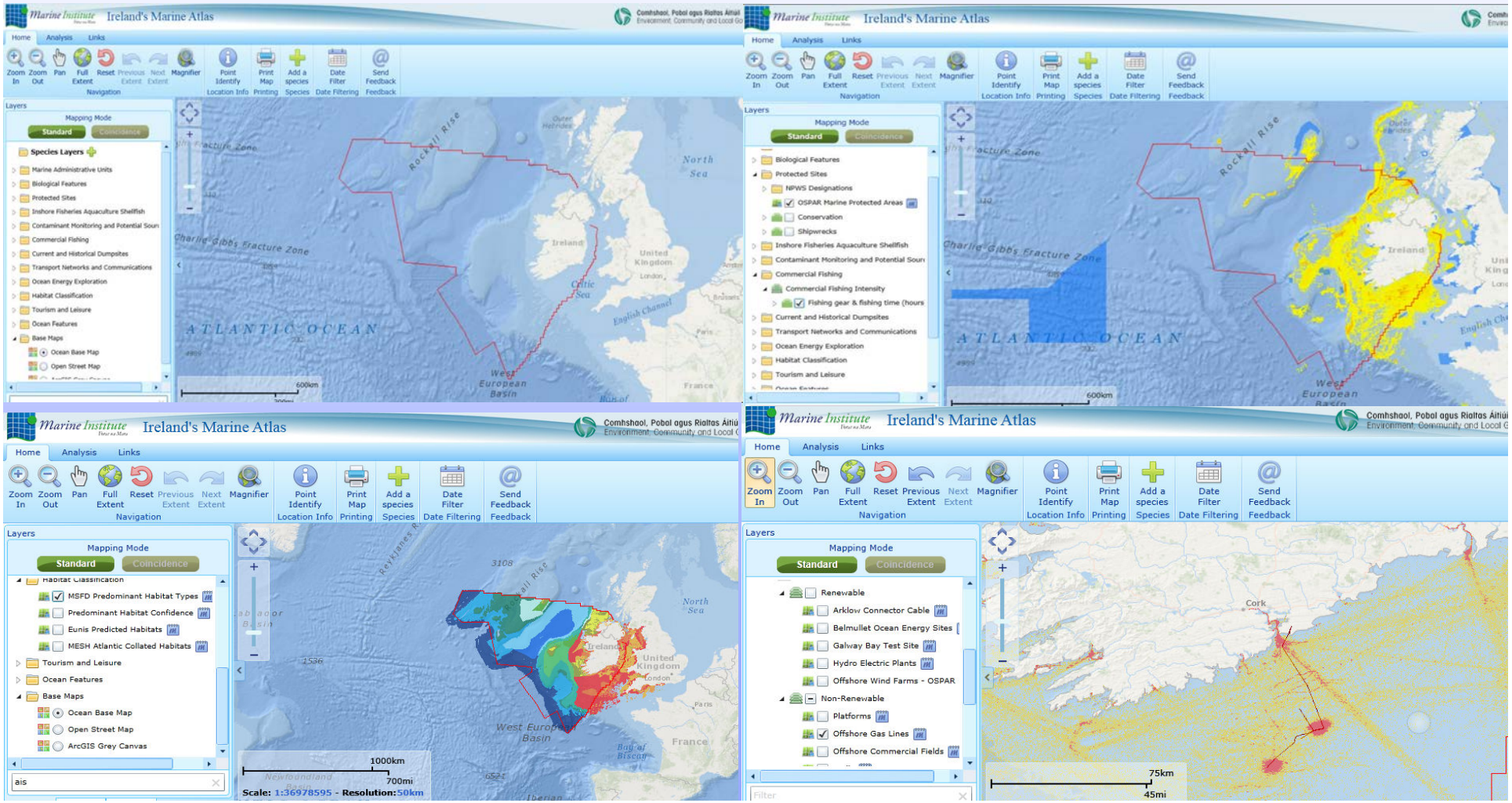

http://maps.marine.ie/infomar/
maps.marine.ie
Geological Survey of Ireland - I...
File Edit View Favorites Tools Help
Hydrographic Foundation
ArcGIS Viewer For Flex
More...
Basemap
Rockall Rise
Bank
Irish Sea
Dublin
Ireland
Leeds
Manchester
Birminghar
United Ki
1639
1527
2290
3649
5091
Swipe Spotlight Widget
Active Layer: Bathymetry All Surv...
Active Tool: Swipe Spotlight
Spotlight Radius: 75
Link to INFOMAR Download site
1. Zoom to the area you are interested in downloading data for on the map.
2. Click on the Download button below to open the INFOMAR Download system. You will be asked to specify what type of data you would like to download for this area.
Download
300 km
200 mi
Latitude:52.622901 Longitude:-18.540902
esri

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Spatial Data Overlay - Decisions

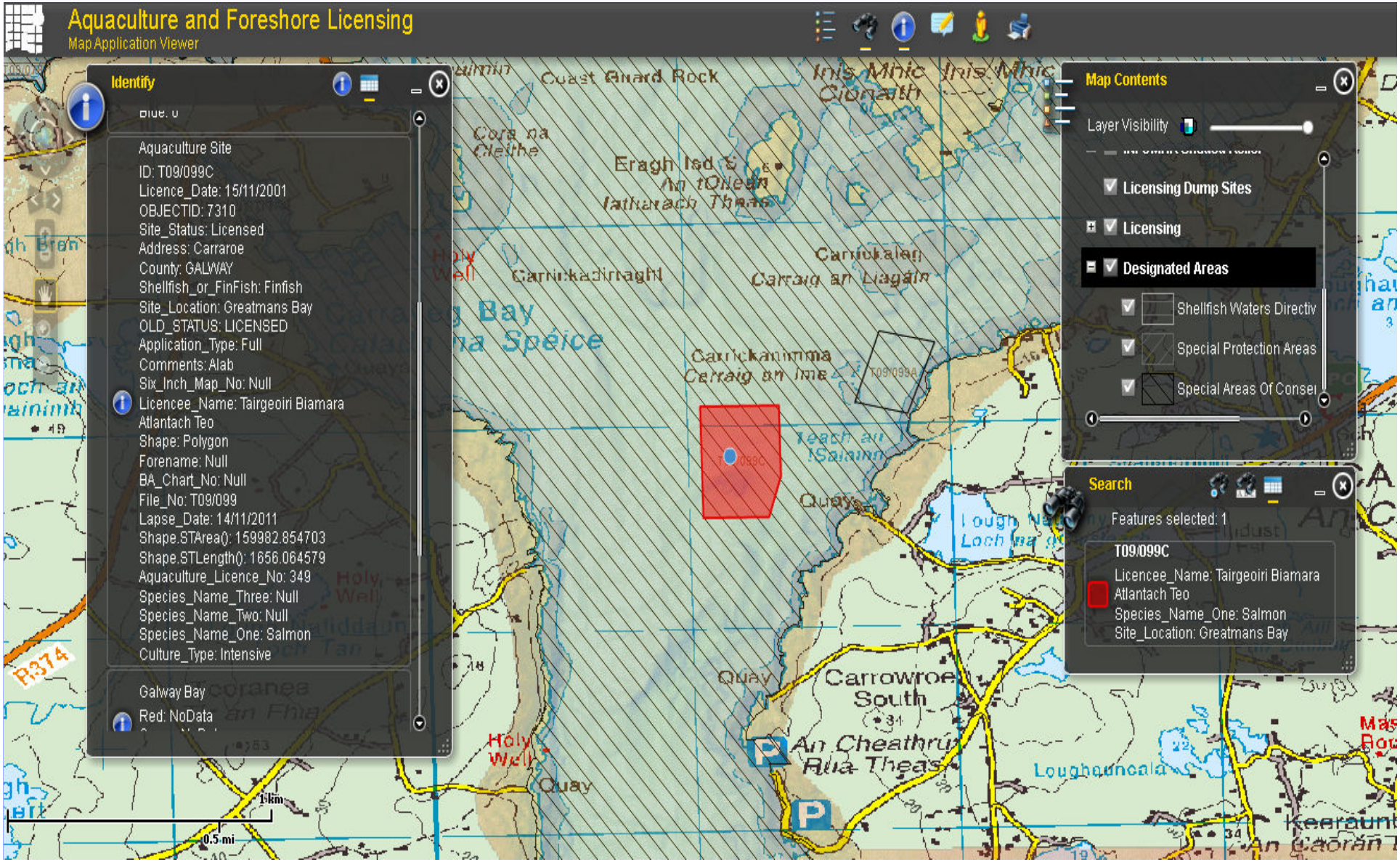
- MSFD Output: http://atlas.marine.ie
- 12 Marine themes / 100+ data layers
- OSPAR (Regional Seas Convention) considering EU implementation





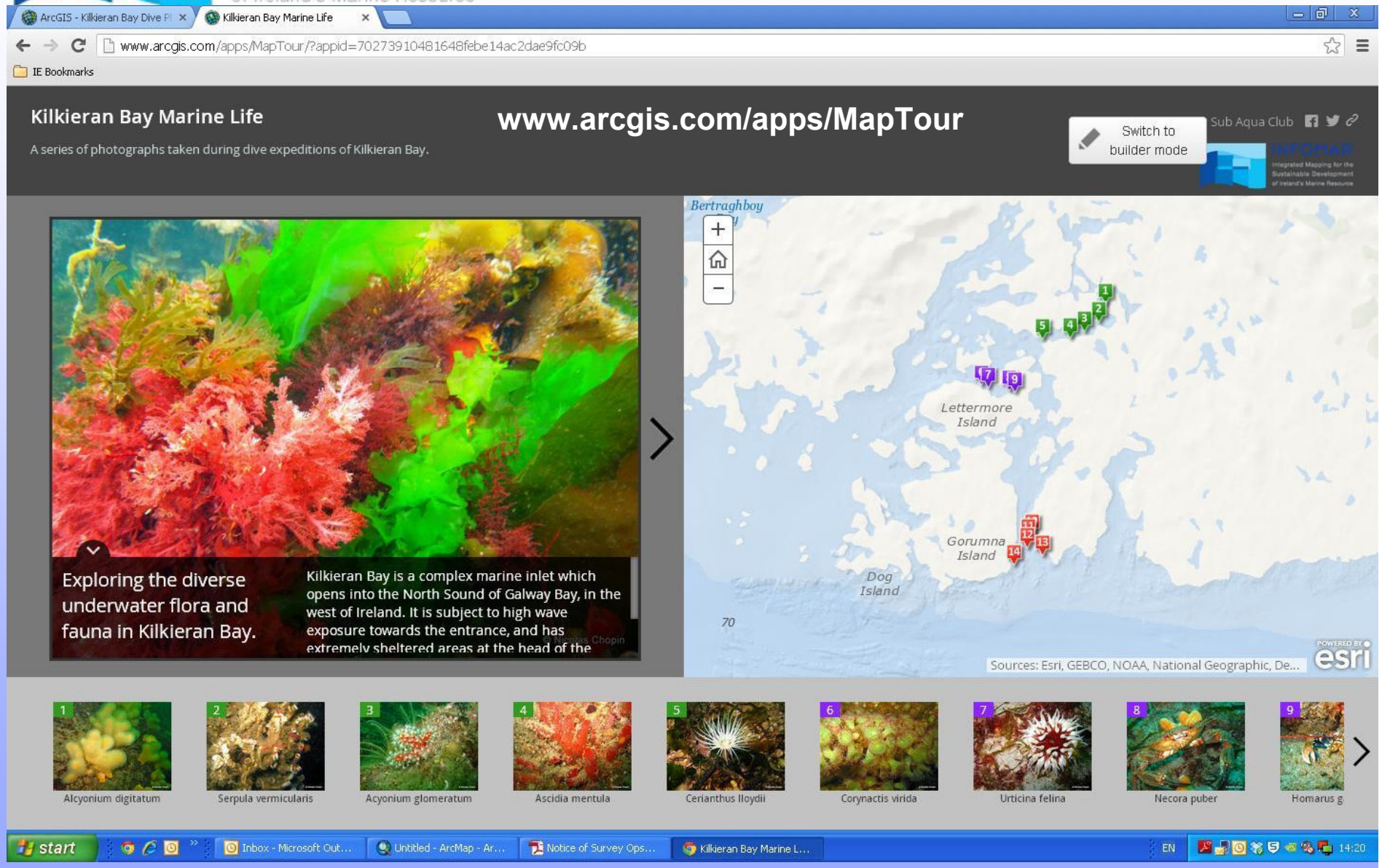
INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Refined Decision Tools



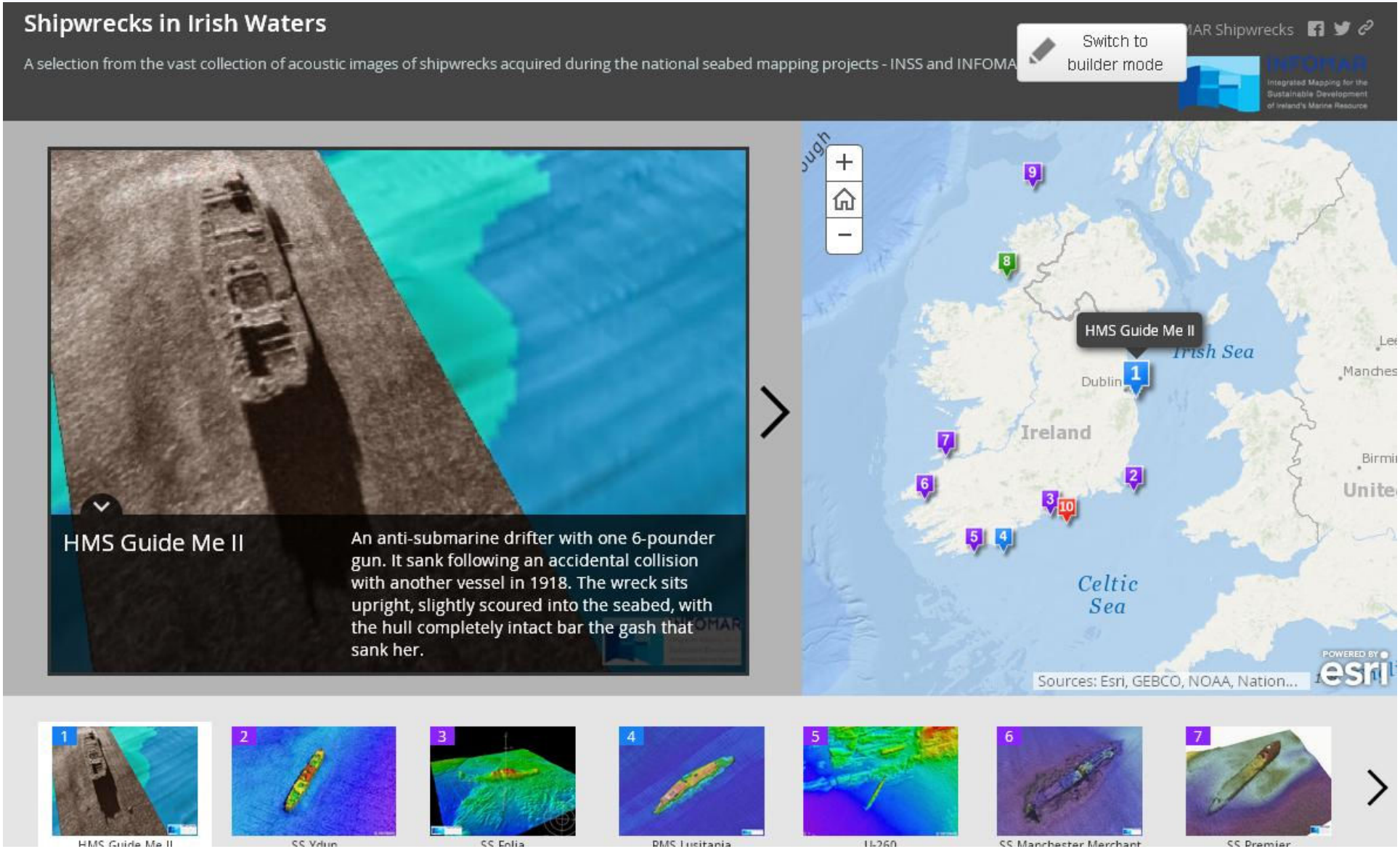
INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Education, Outreach, Citizen Science

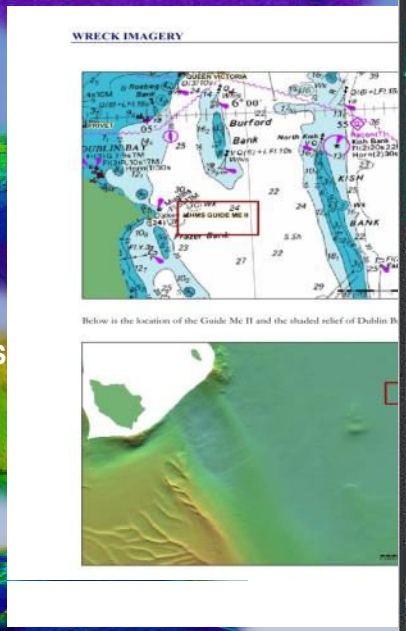


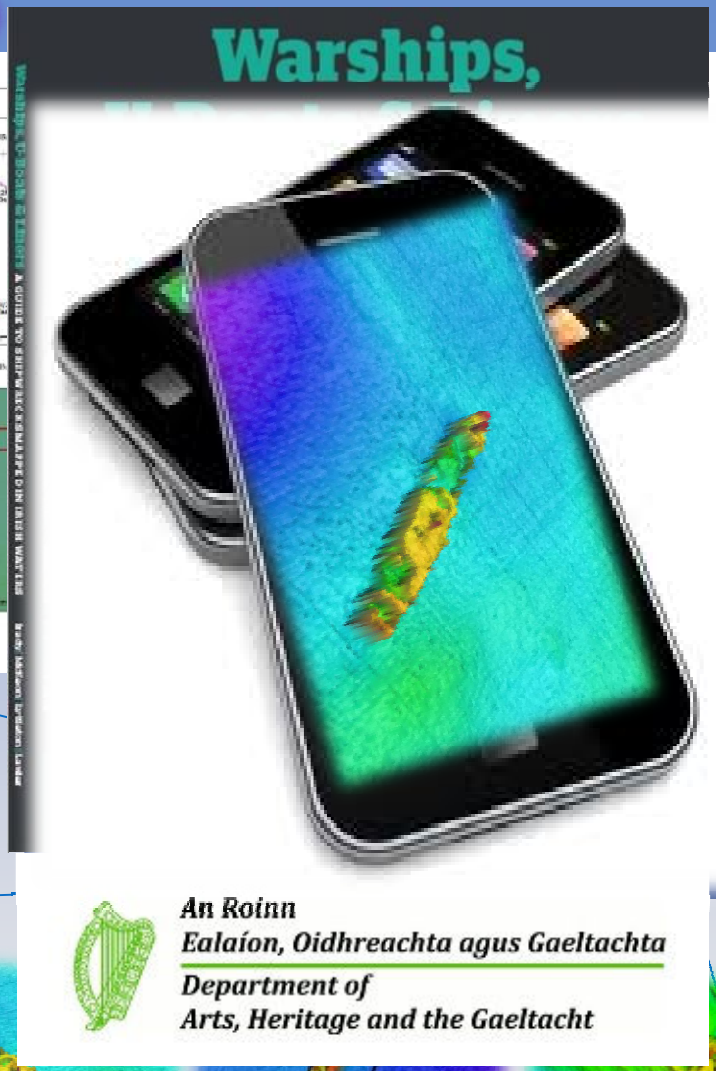
INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

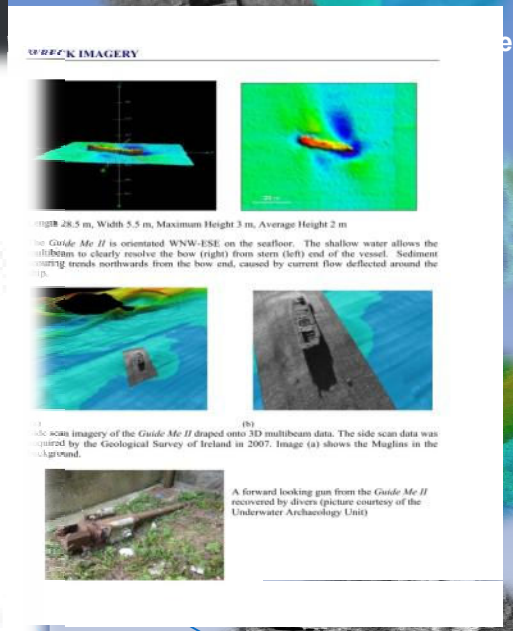
Sector Based Service Build



•Shipwrecks mapped in Irish Waters







•UC-42

•RMS Lusitania

•RMS Leinster

•HMS Vanguard

•Rask

•SS Ydun

•Sir Charles Napier

GSI

Marine Institute
Foras na Mara

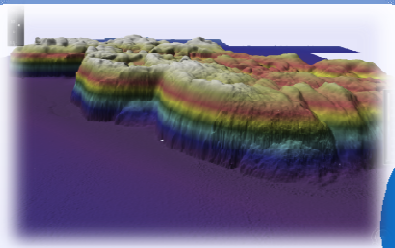
INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

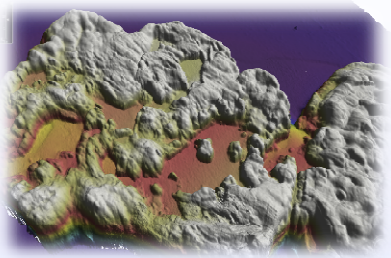
Ireland's Role / Marine Mapping / **Adding Value**

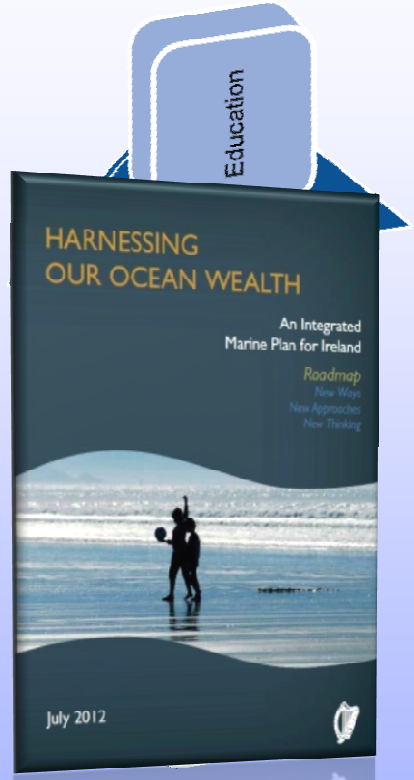
Expanding Products

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Evolution of The Real Map of Ireland







Double the value of our ocean wealth to 2.4% of GDP by 2030

Increase the turnover from our ocean economy to exceed €6.4bn by 2020

Mapping

Data

Information

Decisions

Economic Growth

INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

(M)Apping The Future

OUTPUTS IN DEVELOPMENT:

- Light Data Portal & INFOMAR Apps
  - *Tiled data*
  - *Dynamic model links*

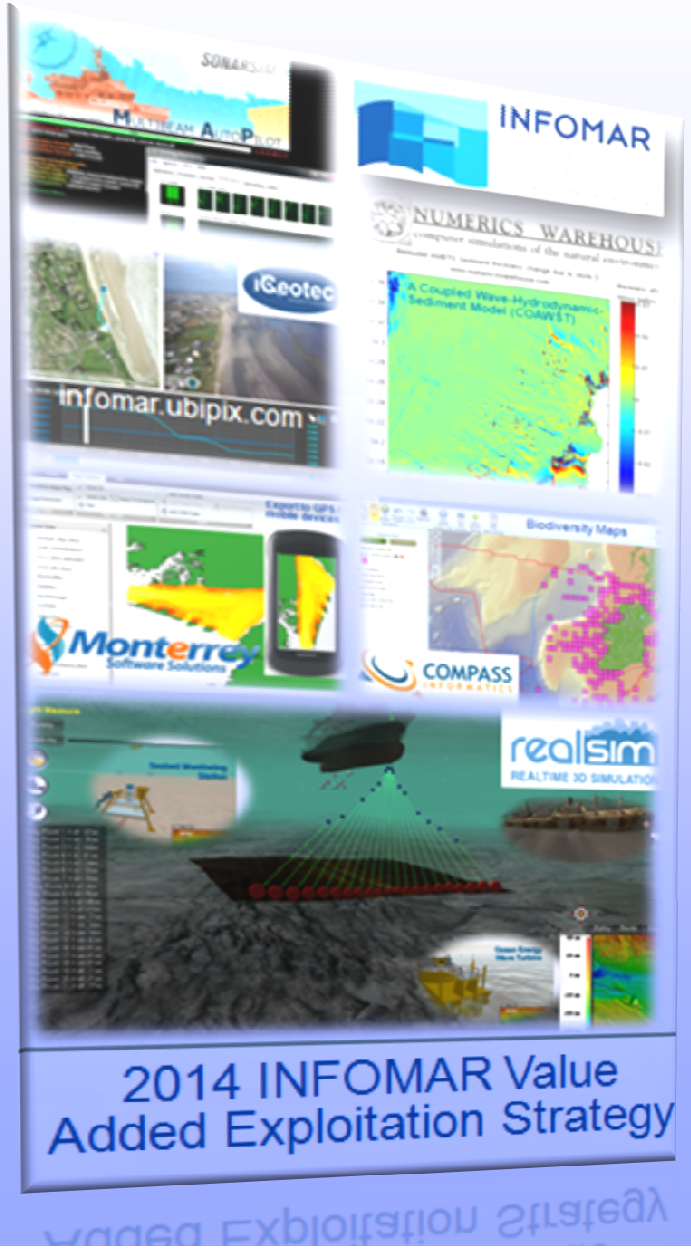
- Schools Coding based Marine Project Toolkits
  - *Compiler / Field reporting platform*

- Regional Scale, Integrated, Land to Sea, Seamless Mapping

- Data Analytics & Feature Extraction

Harnessing Our Ocean Wealth:

- INFOMAR is Key Action (No. 23)
  "Enabler of Research, Knowledge, Technology & Innovation"



INFOMAR
Integrated Mapping for the Sustainable Development of Ireland's Marine Resource

Oceans of Opportunity!

Real Map of the Atlantic?

Have the right information, make the right decisions!

Thank you!

See www.INFOMAR.ie to find out more!

INFOMAR
Integrated Mapping for the Sustainable Development

The Future Map of Ireland

Shipwrecks
Landscape Features
Survey Features

mca Maritime and Coastguard Agency
Marine Institute
JIBS Joint Irish Bathymetric Survey
realsim REALTIME 3D SIMULATION

Depth Meters
0
50
100
150
200
250
276

BEFORE THE DISASTER. The Laurentic, a White Star liner that operated between Liverpool and Canada before the war of 1914-18. This vessel, carrying gold bars to the value of over £3,000,000 left Liverpool in January, 1917 for Halifax, Nova Scotia. She struck a mine off Malin Head Co. Donegal, on the north Irish coast. The treasure ship sank almost immediately and 354 lives were lost.

Name: SS Laurentic

Type: Ocean liner converted to armed merchant cruiser

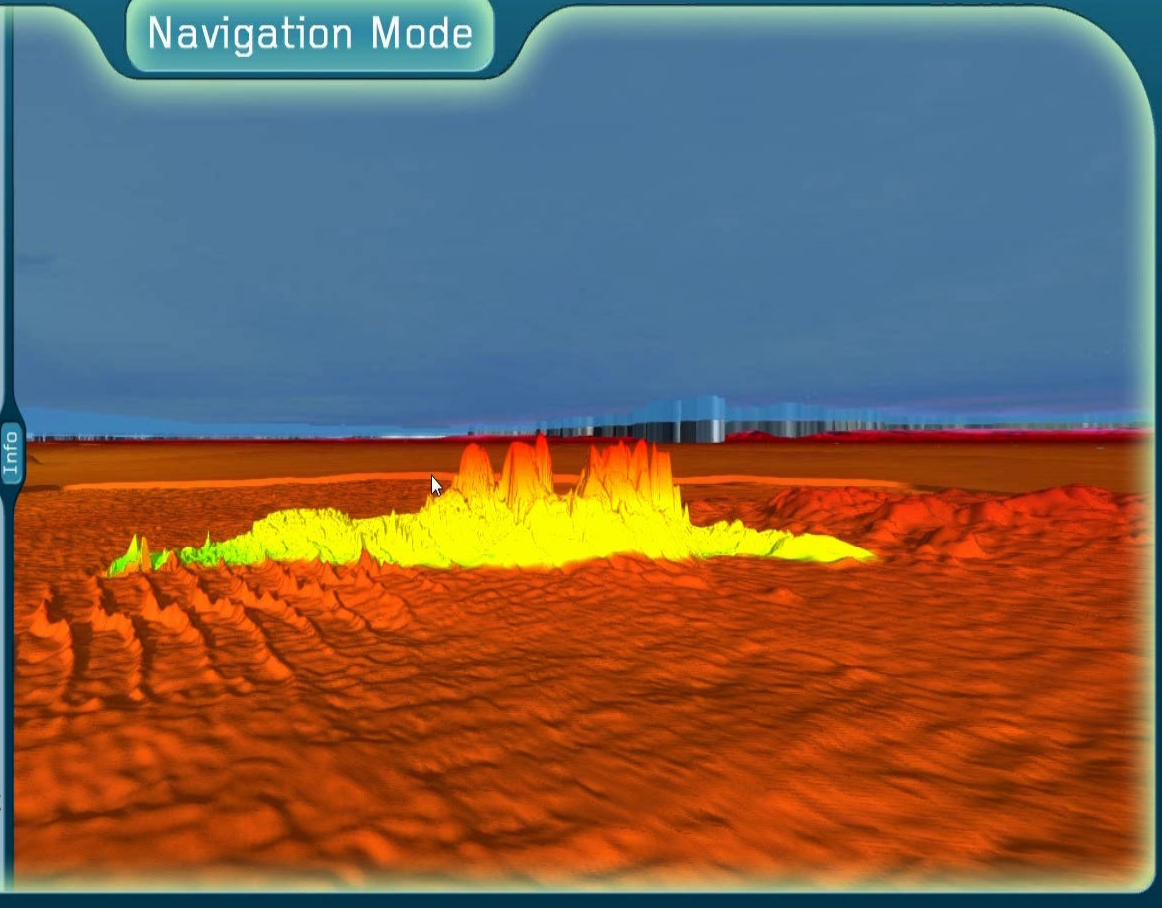
Built: 1908, converted in 1914

Lost: January 25rd, 1917

Cause: Struck a mine laid by U-boat U-80. Sank within 60 minutes.

Lives Lost: approx. 354

Current Status: Now lies in approx. 36m water at the entrance to Lough Swilly. 22 gold bars of her cargo were never recovered.

Navigation Mode

Info