

## Education Outreach and Development Programme (EODP)

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### Transition Year (TY) Student EODP Project

#### The Challenge

The Department of Communications, Climate Action and Environment ([DCCAE](#)) and Geological Survey Ireland ([GSI](#)) have invested hugely in the INFOMAR project devoting a large amount of time, money and resources to generate a vast databank that is of crucial importance to the development of Ireland's marine, fisheries, energy and offshore sectors.

The challenge now is to ensure that the exploitation of that data is equally impressive and that the INFOMAR project **engages successfully with the widest possible audience.**

They recognise that current access to this data is targeted at industry professionals rather than the general public and wish to change this.

#### The Aims

This INFOMAR Transition year Students EODP initiative aims to provide INFOMAR with an IT Platform allowing **transition year students to collect marine and geoscientific data using their Mobile phones**, thus raising the profile of INFOMAR data, making it more freely available to the general public and **exposing students to GIS Technology and open data concepts.**

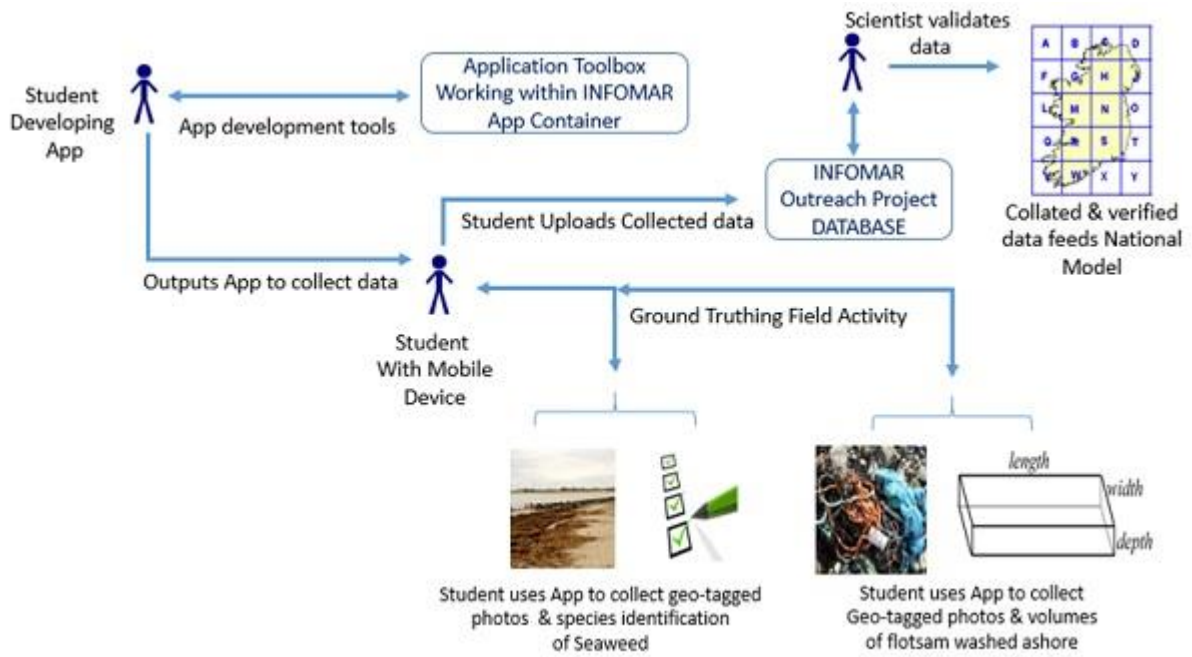
Engaging students, through their learning environment, particularly at second level, demonstrates to them how GIS can benefit society, business and the environment.

These students will act as early adopters providing the use case for wider social interaction with INFOMAR through the new technical platform provided under this project.

#### The Implementation

[Esri Ireland](#) along with GSI staff have developed an **ArcGIS Online project** to act as the geospatial content management system for inventorying, managing and sharing this survey data. More specifically, ArcGIS online will be used to **author focused web maps** that each student will individually create. They will be responsible for the look and feel of their own specific web application.

In the **field**, students will use the [Collector for ArcGIS mobile application](#) which they have downloaded onto their devices to **collect the survey data.**

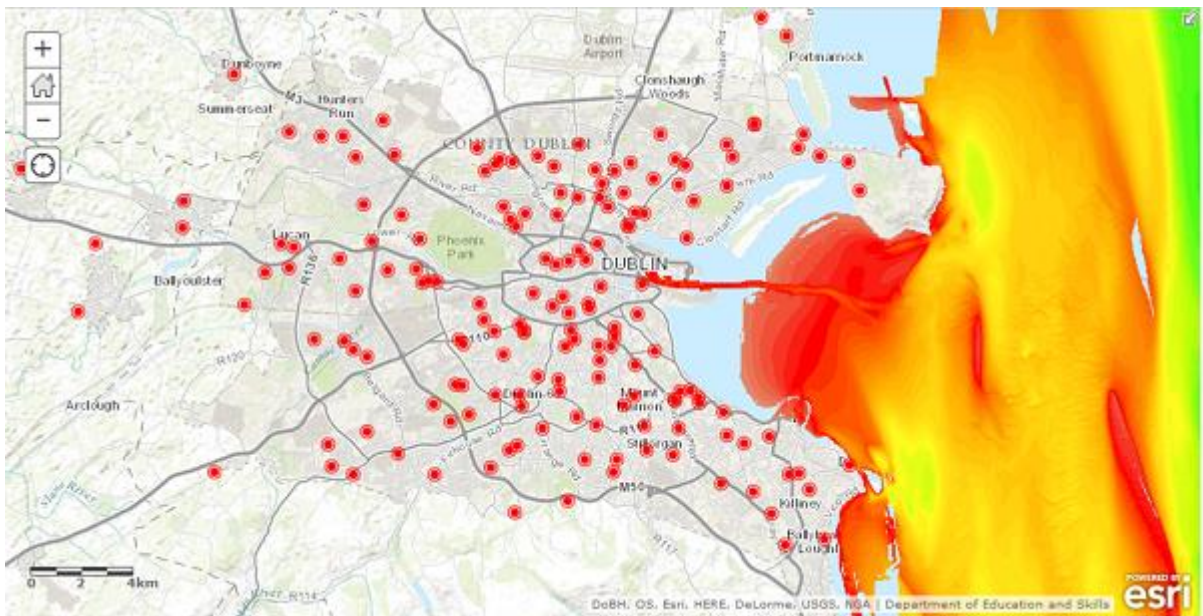


## The Content

Five modules have been developed for the Transition Year Students EODP.

### Lesson 1 – Developing a Web Map

The students set up web maps using ESRI tools.



### Lesson 2 - Background to the project study theme and download of the mobile data collector

The students learn about the science of the project and download a mobile data collector linked to the web map in lesson 1

Cancel	Submit	Cancel	Done	Cancel	Done
<b>Location</b> Lat: 53.379363° Long: -6.057300°		<b>Seaweed Type</b>		<b>Estimated Volume</b>	
<b>Seaweed:</b>		1. <i>Palmaria palmata</i>		Tap Screen to Select From Menu ✓	
Item <b>Seaweed</b>		2. <i>Chondrus crispus</i>		0 - 1 m <sup>3</sup>	
Seaweed Type Tap Screen to Select From Menu		3. <i>Porphyra Dioica/umbilicalis</i>		1 - 5 m <sup>3</sup>	
Estimated Volume Tap Screen to Select From Menu		4. <i>Maerl fragments</i>		5 - 10 m <sup>3</sup>	
Date		5. <i>Accophyllum nodosum</i>		Over 10 m <sup>3</sup>	
Extra Information		6. <i>Alaria esculenta</i>			
Weather Tap Screen to Select From Menu		7. <i>Himanthalia elongate</i>			
Current Tide Tap Screen to Select From Menu		8. <i>Fucus vesiculosos</i>			
		9. <i>Ulva lactuca</i>			

### Lesson 3 – Preparing, executing and analysing the field study

The students go to the field and use the mobile collector to collect data and link to the web map

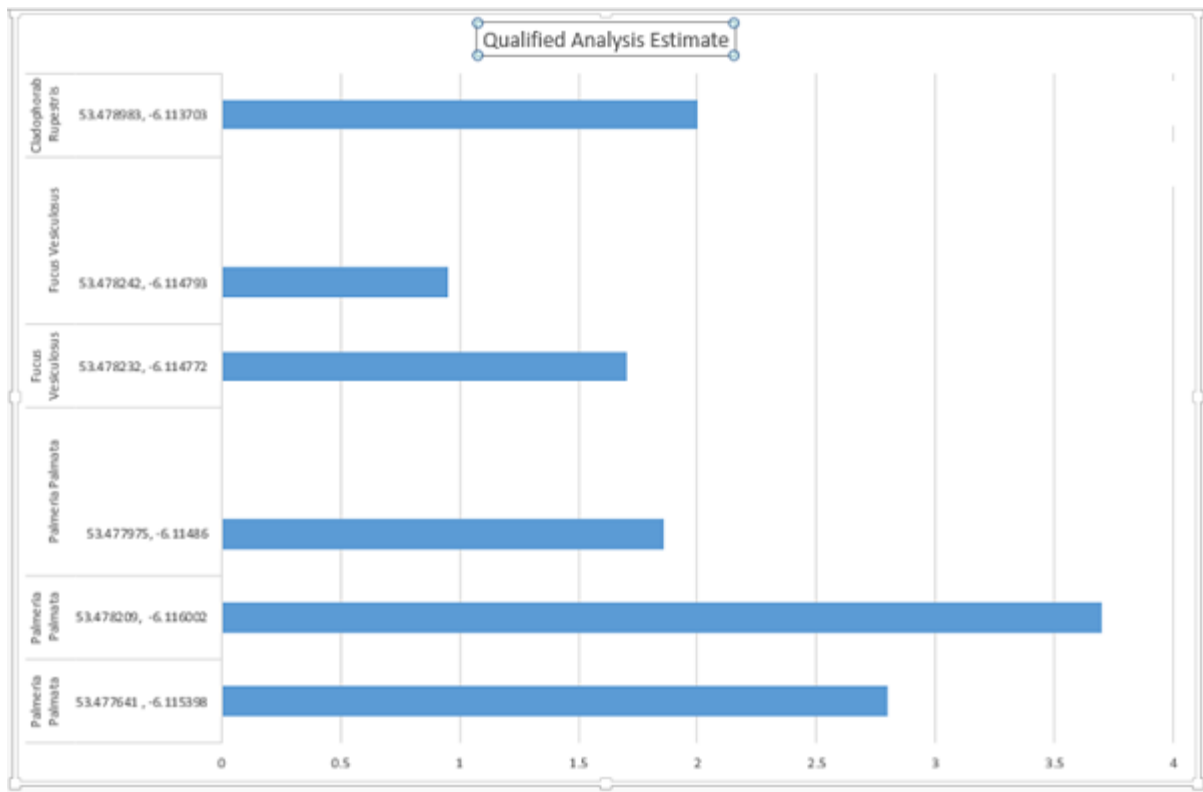
### Lesson 4 – Understanding web basics

We link basic web development to the web maps and allow students edit and manipulate web maps using a development sandbox

The image shows a web development environment with three code editors and a map. The top-left editor shows HTML code with comments explaining the language. The top-right editor shows CSS code with comments explaining its use for styling. The bottom-left editor shows JavaScript code using the 'require' function to load external files. The right side of the interface features a map of Ireland titled 'GSI Bedrock 1:100k Map of Ireland' with a legend for 'GSI Ireland Bedrock Faults' and 'GSI Ireland Bedrock Geological Units'.

### Lesson 5 – Reviewing the project

Analysing and collating the data, linking the project to relevant third level courses in Ireland and carrying out a survey on the student experience.



Download the Lesson Plans, Teacher Notes and Worksheets by [clicking here](#)

Download the ESRI Ireland Case Study PDF - [Click Here](#)

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