Supporting economic recovery in Ireland

Geological Survey of Ireland

The Challenge

 Support economic recovery in Ireland

The Benefits

- EU funds attracted to Ireland, creating sustainable new jobs
- Opportunities identified for state revenue growth
- Costs reduced for struggling construction industry



The Customer

At over 165 years old, the Geological Survey of Ireland (GSI) is one of Ireland's oldest public sector organisations. It forms part of the Department of Communications, Energy and Natural Resources and is responsible for collecting geological data, maintaining databases, producing maps and providing information about all aspects of Irish geology.

The Challenge

During the boom years of strong economic growth in Ireland in the 1990s and early 2000's, the GSI played a key role in supporting national and regional planning and development. The geological and groundwater information that it delivered informed decisions about new housing and industrial sites, as well as extensions to the country's transportation and utility networks. However, when recession hit in the late 2000s and the construction industry ground to a halt, the GSI started to look for new ways to support the country.

The organisation realised that its vast geological data assets could be used much more widely to help drive economic recovery in Ireland. It therefore began to align its own activities with government priorities, such as generating jobs, encouraging enterprise, developing sustainable energy and maximising the country's natural assets.

From 2007, the Government decided to make GSI's geological data available for free, via the web, to anyone who wanted it, so that it could be used to support a much wider range of industry sectors. To facilitate this, the GSI realised that it would have to improve the centralised storage and management of its data, as well as extend its use of web services technology to enable it to make its resources easily accessible online.

The Solution

Esri GIS solutions are firmly embedded within the GSI's IT architecture and used for geospatial data management, data analysis, map production and map delivery via the web. "At least 80% of our technical staff use Esri GIS solutions on a daily basis," says Koen Verbruggen, Principal Geologist at the GSI. "It is fundamental to what we do."

Alongside the launch of free data, the GSI used Esri software to create a single data repository for all of its geological data assets. Known internally as the MAPSTORE, this solution brings together all of the organisation's data assets in one place, for the first time. Consequently, employees no longer have to worry whether they have the most up-to-date copy or spend ages looking for the data they need. Internal processes have been streamlined, security has been tightened and the quality and integrity of data has improved.

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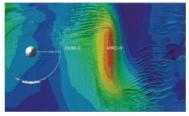
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Koen Verbruggen, Principal Geologist, GSI



Breifne Viewer



Dublin Bay sand waves

The GSI then used the web mapping capabilities of Esri's tools to create a series of web services for delivering data via its web site. Today, the organisation has around ten specific online web viewers, powered by Esri software, that provide public access to different thematic geological survey data sets.

Benefits

The GSI is using Esri solutions in many different ways to help create sustainable jobs, identify revenue generation opportunities, avoid European Union (EU) fines, reduce costs for the construction industry and much more besides.

For example, the GSI has used Esri software to help it survey and map areas of natural beauty and cultural history in Ireland. The data it produced has helped to attract a €1m investment from the EU to establish new UNESCO-backed tourist attractions. The GSI also created a range of walking, cycling and tourism maps of these regions. "Our web services help to attract visitors and then money flows into the local B&Bs, cafes and other tourism businesses," says Scanlon. "This creates local, sustainable jobs."

Esri software is one of many software products being used in Ireland's national marine mapping programme. The project, called INFOMAR, has contributed to the opportunity for Ireland to increase its marine territory by 57,000 km2, which, in turn, could lead to increased opportunities for revenue generation by the state. Indeed, a Cost Benefit Analyses report finds that Ireland could make a €360m return on its investment in the INFOMAR project, more than 4 times its cost.

As a member of the EU, Ireland is required by law to collate vast amounts of information about its natural environment, and failure to submit this information on time can result in fines of millions of Euros. By using Esri GIS solutions, the GSI is able to collect the required data, analyse and present it much more quickly, reducing the likelihood of missed deadlines.

The GSI has also been able to help the struggling construction sector by making information accessible that reduces site investigation costs for developers. "Developers can now go to our web site and access geological information, without the cost and time of having to drill survey holes themselves," says Ronnie Creighton, Head of the National Geotechnical Borehole Database. "This reduces the cost of site investigations and could save developers millions of Euros on a major development project."

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