



Annual Conference 2021

Geographic Information: Supporting A Sustainable Future

Thursday, 17th of June 2021

Conference Speakers

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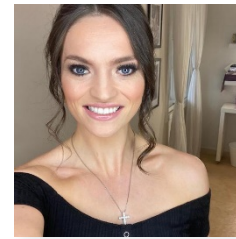
Building a National Energy System Map



Matt Webb
UK Power Networks



Carsten Rönsdorf
Ordnance Survey (GB)



Jessica Hampton
1Spatial

1. Presentation Abstract

The Energy Networks Association (ENA) is currently implementing a pilot project to create a National Energy Systems Map. ENA's member operate the wires and pipes which are the arteries of our economy, delivering energy to over 30 million homes and businesses across the UK and Ireland. The project is a response to the UK government's Energy Data Task Force Recommendation to increase the visibility of the energy network in the UK. The paper will outline the objectives of the work and describe our approach.

2. Biography

Matt Webb is the Head of Enterprise Data at UK Power Networks, the electricity distribution system operator for London and the south-east of England. In this role, Matt leads the company's data and information management strategy, and is responsible for enterprise data governance and the development of open data services. Most recently, Matt was Head of Asset Information where he led an international team responsible for all aspects of UK Power Network's asset systems and information management activities. He began his career in business development and project management roles within the construction and building services sector. Matt holds a Master's degree in Information Systems Management from the University of Liverpool.

Carsten Rönsdorf is Strategic Propositions Manager at Ordnance Survey and is currently leading the delivery of the National Energy System Map for ENA. Over the past 20 years he has been an advisor and technical expert to government and private sector organisation focussing on value creation from geospatial data and technologies with utilities and data sharing as focus areas.

Jessica Hampton is 1Spatial's Head of Utilities, working with UK utilities to identify and deliver solutions that meet the evolving needs of the sector. With increasing network demands and rising customer expectations the pace of change has never been faster. A combined National Energy System Map is fundamental to enabling the innovation required. Prior to joining 1Spatial, Jessica worked in the Smart Cities team at IBM.

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Repurposing wind turbine blades: A geospatial approach



Emma Delaney

PhD Student
Queen's University Belfast

1. Presentation Abstract

Second-life applications of End-of-Life (EOL) wind turbine blades are being investigated by the Re-Wind Network. In particular, the repurposing of the blades in civic structures and other architectural purposes could prevent large volumes of blade material entering landfill. For a successful management plan to be devised, it is necessary to investigate potential blade material quantities and their locations. In addition, finding optimum sites for potential remanufacturing facilities and associated transportation logistics are necessary. A GIS-based approach could facilitate the decision-making process for the systematic management of this reverse chain supply. To ensure this process remains as sustainable as possible, a 3D-routing model incorporating fuel consumption calculations could help achieve optimised routes for reducing environmental impacts.

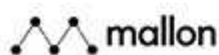
2. Biography

I am a PhD student at Queen's University Belfast. My PhD research forms part of a collaborative US-Ireland project known as Re-Wind which aims to explore sustainable repurposing options for End-of-Life (EOL) composite material wind turbine blades.

3. Social Media

Re-wind Project website: www.re-wind.info

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Road traffic collisions and bridge parapet damage



Thomas Neeson

Head of GIS
Digital Services Branch
Department for Infrastructure NI

1. Presentation Abstract

I plan to do a presentation showing analysis I've carried out recently into the impact of road traffic collisions near bridges and if these have caused an increased amount of damage or impact to that bridge. This includes the analysis of the road traffic collisions since 2010 to 2019 and the Department for infrastructure bridge stock of over 7000 bridges. I will show an analysis of the collisions by severity and then assess whether severity of collisions impacts the nearby bridge and then look at volume of collisions near bridges to show if there is a correlation between the collisions and bridge damage during inspection.

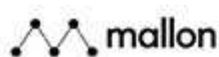
2. Biography

Worked for NICS since July 2000, currently doing a PHD in Queens relating to infrastructure assets and how they are impacted by climate change. Married with 2 children and a dog. Currently in Department for Infrastructure where I've been since 2014.

3. Social Media

@thomasn1979 – personal Twitter account

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The Living Atlas: Enabling and empowering everyone



Rachel Steenson FBCS
Market Engagement Manager
ESRI Ireland



Conor O'Beirne
GIS Graduate
ESRI Ireland

1. Presentation Abstract

Now more than ever, accurate and authoritative data and information is crucial to decision makers. At Esri we have curated the foremost collection of geographic information from around the globe. We will briefly describe the Living Atlas and why Esri believe in its importance, before going on to demo how easy it is to contribute to this global resource.

2. Biography

Rachel is the Market Engagement Manager for Esri Ireland. Rachel has overall responsibility for the market development in Northern Ireland and manages a growing portfolio of customer accounts. Prior to this role, Rachel joined Esri Ireland in 2016 as a Customer Success Manager, during which time she project managed a number of large scale Corporate GIS installations for customers such as NI Water and Gas Networks Ireland. Rachel holds a Masters in Computer Science and Applications from Queens University Belfast and Pg Dip in Geographic Information Systems from the Ulster University. She has over 18 years' experience working in the IT Industry having worked in the public and private sector. Rachel holds a number of positions on professional bodies including: Past Chair of the BCS NI Branch, BCS Council Member, member of the AGINI Board and the Engineering Policy Group NI. She is in the Boardroom Apprentice class of 2020, where she is sitting on the Libraries NI Board.

Conor is a Graduate Consultant at Esri Ireland. Conor currently works in the Data curation team working on the living Atlas and its content. Prior to joining Esri Ireland in September 2020, he completed an undergraduate degree in Political Science and Geography at Trinity College Dublin.

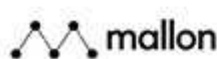
3. Social Media

Twitter: @EsriIreland, @GISinSchools

LinkedIn: <https://www.linkedin.com/company/esri-ireland/>

Website: <https://local.esri-ireland.ie/>

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Solar Farm Monitoring with HXGN Map Enterprise



Ciaran Kirk

Operations Director
IMGS

1. Presentation Abstract

The rate of solar uptake is increasing faster than for any other renewable energy source. Solar is expected to account for 60% of new renewable capacity by 2025. Hexagon is currently building & operating its own solar farm in Archidona, southern Spain. In this presentation learn how Hexagon M.App Enterprise will be used as a platform for site planning, construction monitoring and operations monitoring & maintenance.

2. Biography

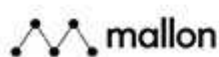
Ciaran has worked in the IT industry for nearly 20 years, initially as a software developer and for over 16 years in both the GIS and Data Analytics Sectors with IMGS, where he is now Operations Director. He has led the development of solutions to automate data flows, visualise information and power data insights for a wide variety of customers including Local Authorities, Government Agencies, Utilities and Communication Organisations.

Ciaran has been at the forefront of the next generation GIS development in Ireland, and his vision for the coming years will see IMGS expand their solution offerings to include all aspects of Data Capture, Data Integration, Visualisation and Data Management.

3. Social Media

You can follow Ciaran's blogs on the IMGS blog (<https://imgs.ie/blog/>), and his personal tweets about data, GIS and Sport on Twitter @CiaranKirk

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Capturing Defence Heritage Data Using Survey 123



Kerrie McCarroll

OSNI GI Specialist
Ordnance Survey of Northern Ireland

1. Presentation Abstract

The Defence Heritage Record collects information on Northern Ireland's 20th century defence structures, including sites relating to the World Wars such as airfields, trenches and air raid shelters. These sites can only be safeguarded through policy and legislation if there is an up-to-date record of them, and in August 2020 the Historic Environment Division commissioned a full systematic survey of Defence Heritage in Northern Ireland. This presentation gives a brief overview of how I implemented Survey 123 to collect and collate the data for the Defence Heritage Record and illustrates how the information is being made readily available on an Operations Dashboard hosted on ArcGIS Online.

2. Biography

I am an Ulster University graduate, completing my Bachelor's degree in Geography in 2011 and later a Post Graduate Diploma in GIS in 2016. My role as an OSNI GI Specialist has seen me out-posted to the Historic Environment Division for the last 5 years, managing their spatial data, and implementing GI technologies for more efficient and effective methods of data capture, analysis and presentation. I value the opportunity to host GIS students for work placements, and I volunteer as a GeoMentor for ESRI's GIS for Schools program.

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Gathering Information: Pixel based analysis and landcover classifications



Micheál Foley

EO Analyst
Mallon Technology

1. Presentation Abstract

One of the most vital aspects of creating a sustainable future is the ability to guarantee food supplies, the preservation of resources, and the efficient means by which to do so. Using EO data it is possible to identify common trends within agriculture, and how these trends may be utilised to increase sustainability. Through the use of pixel-based analysis, the location and yield estimate of various crop types can be assessed on a national scale. By gathering and understanding this information, it may be possible to reduce the degree to which the commodity chain is currently being stretched. Within a sustainable future agronomics and the improvement of such practices is Key.

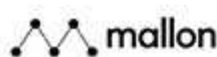
2. Biography

Mícheál has worked in the field of GIS and Earth Observations since 2013. Originally his research examined the climatological effects of urban heat islands within urban areas, but over the past five years the focus of his research has shifted towards agriculture. Currently he works on the use of EO data to detect crop types within the Irish landscape.

3. Social Media

Twitter: @MallonTech
LinkedIn: @MallonTechnology

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Equipping Geography Graduates to tackle Global Crises



Professor Jennifer McKinley

Director of the Centre for GIS and Geomatics
Geography, School of Natural and Built Environment
Queen's University Belfast

1. Presentation Abstract

Geography at Queen's has a long-standing record of inter-disciplinary approaches to understanding the relationship between people and their natural, cultural, social and political environments. Our graduates are equipped with high levels of expertise including GI Science, relevant to some of the leading challenges faced by the world today. Exemplars will be shown of how through research and teaching in Geography at Queen's, we are preparing the next generation to deal with issues such as sustainability, climate change, global development and inequalities.

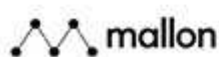
2. Biography

Jennifer is a Professor in Mathematical Geoscience with an international research profile in spatial data analysis and GI Science in the areas of health and our environment, and sustainability including nature-based solutions in the urban environment.

3. Social Media

Twitter: @QUBGeography

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Platform for Atlantic Geohazard Management



Kieran Parker

Environmental Geologist
Geological Survey of Northern Ireland

1. Presentation Abstract

The Platform for Atlantic Geohazard Management (AGEO) project is aimed at promoting improved management of the environment through using citizen participation and earth observation data to enable regional authorities and stakeholders are better prepared to adapt to climate change and potential risks occurring within the Atlantic territory. The project has initiated five citizen observatories in France, Ireland, Portugal, Spain and UK to engage with local communities to actively participate in risk preparation and monitoring. The project objectives are to encourage regional level uptake and use of earth observation products and services and also create cooperation and resource platform on Atlantic geohazard risk management, preparedness, mitigation and prevention.

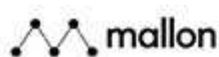
2. Biography

Kieran Parker joined the GSNI in 2014 as the organisation's environmental geologist. His main role is leading on GSNI's geohazard work programmes across Northern Ireland with a primary focus on hazards associated with abandoned mines and land stability.

3. Social Media

www.linkedin.com/in/kieran-parker-05163a82/

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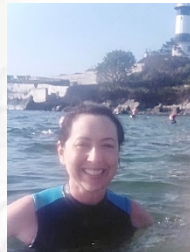




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The NI Marine Map Viewer as a tool for sustainable marine decision-making



Aoibheann Rooney

Marine Evidence Manager
Marine and Fisheries Division
Department of Agriculture, Environment and Rural
Affairs (DAERA)

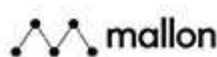
1. Presentation Abstract

The Marine Map Viewer uses an Ecosystems Based Approach by displaying a range of marine related datasets from across DAERA, NICS, UK Departments and adjacent administrations in order to promote a greater understanding of the close connections between marine activities and the interaction between the land and the sea. There are multiple organisations with responsibilities in the NI Marine Area which has in the past made the task of collating up-to-date marine data challenging. The NI Marine Map Viewer brings these previously disparate datasets together, giving the user the ability to view the uses and activities in relation to each other, and helping to paint an overall picture of what happens where in the NI Marine Area. Together with the Marine Plan, the Marine Map Viewer will guide and inform proposers and public authorities about the most suitable locations for different uses and activities, ultimately contributing to sustainable and integrated decision-making.

2. Biography

Aoibheann currently manages GI in Marine and Fisheries Division. She has over 15 years' experience working with GI, mainly in terrestrial planning and marine planning, but has had other GI roles including the marketing of property valuation software in Australia, Team Leader in the LPS LPIS Mapping Project and when Covid hit last year she worked on data flows to help with Contingency Planning in DAERA.

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Information for a sustainable future: Challenging the Culture around Public Sector Data



Stephen Trew

Senior Countryside Management Inspector
Department of Agriculture, Environment and Rural
Affairs (DAERA)

1. Presentation Abstract

Challenging the Culture around Public Sector Data

Overcoming the hurdles of data, minimum viable product, and open-data hesitancy in the public sector environment.

DAERA has a mass of unpublished useful data. There has been a culture of hesitancy on releasing data due to GDPR, minimal viable products and data integrity. There is a need for Open Data champions at all levels to ensure data is updated, cleansed, anonymised and released. This presentation tells the story of how the Environmental Farming Scheme is overcoming these hurdles.

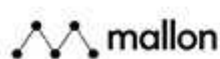
2. Biography

Stephen has worked in DAERA since 2007 developing and delivering agri-environment schemes. He has a background in GIS after studying and working in Queen's University Belfast School of Geosciences for a number of years before spending 8 years living and working in the heart of South America.

3. Social Media

www.linkedin.com/in/StephenTrew

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A resilience approach to data capture: The use of UAVs in forest management



George McFarland

Head of Regeneration, Forest Operations
Forest Service Northern Ireland

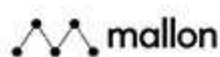
1. Presentation Abstract

The use of UAVs in forest Management for data capture and an aid to decision making.

2. Biography

I have 36 years of experience in Forest Management covering Harvesting, Recreation and Forest Planning. As head of the Regeneration Team within the Forest Service I manage 76,000 hectares of Forestry with an annual replant of 1500 hectares each year. Having been in regeneration for about 10 years, I have delivered on Afforestation and Restocking of the forest estate including management of invasives, scrub clearance and pole stage management. With reduced resources I am constantly looking at ways to improve data capture and decision making.

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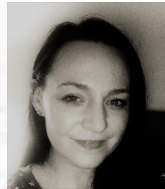




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Geography in Crisis: Supporting Northern Ireland's response to the COVID-19 pandemic



Dr. Sara Stewart

Geospatial Systems Manager
Ordnance Survey of Northern Ireland

1. Presentation Abstract

When the COVID-19 pandemic hit the world in 2020, the power of geography really came to the fore as a vital aid to inform and support the global, regional and local response to the crisis. The use of GIS has provided valuable location intelligence to help monitor near real-time case rates, identify vulnerable populations, predict new outbreaks, and rapidly communicate this information to both decision-makers and the wider public. In this presentation, Sara will discuss OSNI's role in supporting Northern Ireland's response to the COVID-19 pandemic and will present specific examples of this work at local and regional levels.

2. Biography

Sara is a GIS Manager with over ten years of experience within the geospatial sector. She obtained her PhD in GIS and landscape archaeology from Queen's University Belfast and went on to work as a Postdoctoral Research Fellow for the ERC-funded FRAGSUS Project, before joining OSNI as a GIS Specialist in 2014. Up until recently, Sara managed OSNI engagement with the public sector through the Northern Ireland Mapping Agreement (NIMA) to promote and drive the use of geospatial data across government, leading projects in health, justice and emergency planning and response sectors. She is now a senior manager within OSNI's Geospatial Systems group and oversees the Government Land & Property Register and Address Matching teams.

3. Social Media

Twitter: @GeospatialSara

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