AGI Northern Ireland Annual Conference 2025

Bridging the Divide: Advancing Geospatial Collaboration and Interoperability

Date
Thursday 12 June 2025

Venue
Riddel Hall, Belfast

Time	Speaker	Title
08:45	Registration and Networking	
09:30	Andrew Paul, AGI Northern Ireland Chair	Welcome and Introduction
09:40	Keynote, Ed Parsons	It's all about the data - Next steps on the voyage of Interoperability
10:00	John Cartledge, KOREC	The HALO Trust (Hazardous Area Life-support Organization) - using Geospatial Technology for removal of dangerous debris left behind by war
10:15	John Cartledge - Sponsor Presentation	Our Gold Sponsor
10:20	Ciaran Kirk, IMGS	Unlocking Access to Geospatial Data: Interoperable Digital Portals with FME
10:35	Ciaran Kirk - Sponsor Presentation	Our Gold Sponsor
10:40 - 11:10	Break and visit our Exhibitors	
11:10	Alex Donald, GSNI	Improving Interoperability with Cloud-native Geospatial Formats
11:25	Trevor Rea - Sponsor Presntation	Our Gold Sponsor
11:30	Sara Stewart, OSNI	OREO NI: From Concept to Application
11:45	Philip McLaughlin - Sponsor Presentation	Our Gold Sponsor
11:50	Claire Young, DAERA	Surveillance monitoring of Cyanobacterial blooms in Lough Neagh – Translating space-based data into action
12:05	Catriona O'Kane - Sponsor Presentation	Our Gold Sponsor
12:10	Dr Christopher Rushton, University of Leeds	Dashboards for Communicating and Disseminating Air Quality Data
12:25	Phillip Ridley - Sponsor presentation	Our Silver Sponsor
12:27	Phillip Ridley, 1Spatial	Planet to Plate: Mapping Farm Futures
12:42	Michael McQuillan - Sponsor presentation	Our Silver Sponsor
12:45 - 13:45	Lunch, Networking and visit our Exhibitors and Poster Presentations	
13:45	Bakul Budhiraja, Queens University Belfast	Urban Climate Mitigation and Adaptation Through Interoperability: Multi-City Implementation of Nature-Based Solutions
14:00	Anna Carnson, Arup	Developing a Biodiversity Accounting Metric for Ireland with Arup & TII
14:05	Paul McMurray, Northern Ireland Water	Geospatial Collaboration: Verifying Data for Public Release
14:20	Ahmad Ammar, University Ulster	GeoML-Driven Urban Energy Efficiency Assessment
14:25	Lorraine Barry, DFI
Damian Murray, Atkins Realis	GIS based Approach for Integrated Land-Use & Transport Planning
14:40	Dr Negin Zarnakhsh	Leveraging AI to Evaluate Factors Impacting Safety of Cycling Routes: A Case Study of Inner-City Dublin, Ireland
14:45 - 14:55	Break and visit our Exhibitors	
14:55	Marion Murphy, Mallon Technology	Voices, Visibility, Vision: Building the Women in Geospatial Irish Chapter
15:00	Glen Bambrick, Final Draft Mapping
Richardson Dzikiti, Galileo Empower	Ireland's Geospatial Workforce 2024: Examining trends in Pay, Skills & Job Outlook
15:15	Alastair Hill, Lurgan College	Building geo-literacy to engage and empower communities
15:30	Panel Discussion	Data Interoperability issues affecting Geospatial industry in Northern Ireland
15:55	Rico Santiago, AGI Northern Ireland Vice Chair	Close
16:00 - Late	GeoDrinks in Riddel Hall sponsored by Geolytical	

Event Posters

Marjan Firoozy Nejad, University of Tehran	Burned Area Detection Using Remote Sensing in the Zagros Forest
Parviz Fatehi, University of Tehran	MNF Dimensionality Reduction Approach for Forest Type Mapping Using PRISMA Hyperspectral Imagery
Maia Devaney, DAERA	Forest Service
Matthew Tiernan, KMPG	Land Utilisation Monitoring in Ports using GeoAI
Sarah Duff, Queen's University Belfast	Mapping the four Dimensions of Food and Nutrition Security in Uganda: A Spatial Integration of Open Source Datasets
Jamie Harpur and Andrew Logan, Landclan	Identifying Housing Land in the Grey Belt using GIS
Jana Cervenkova, Ordnance Survey Northern Ireland	Wildfire in the Mourne Mountains
Behnam Nejad, Queen's University Belfast	The Impact of Deprivation and Financial Stress on Quality of Life in Northern Ireland

Welcome from our AGI Northern Ireland Chair

Welcome to our annual AGI Northern Ireland Conference 2025 at Riddel Hall, Belfast. I wanted to take a moment on behalf of the AGI Northern Ireland board to thank each of our sponsors, speakers and delegates for coming along today.

As Chair of AGI NI Board, I'm proud that this conference continues to grow, and this year's conference is the largest geospatial conference that has ever been held in Northern Ireland, and this is testament to the hard work of the AGI board over the last year. We are proud to provide a space for the geospatial community to come together across sectors, disciplines and jurisdictions to share insights, showcase best practice, and spark new collaborations.

This year's theme Bridging the Divide: Advancing Geospatial Collaboration and Interoperability reflects a growing need to address the challenges of working with data that crosses administrative boundaries, technical platforms, and organisational silos. In Northern Ireland we are particularly exposed to this as we often work at the intersection of UK-wide and all-island datasets, which presents both unique challenges and exciting opportunities for innovation.

Our call for papers for this year's conference had the highest response we have seen to date. Our programme is packed as a result, as we want to highlight the inspiring case studies and projects that will demonstrate how interoperability is being tackled in practice. Topics will range from earth observation and infrastructure mapping to open standards and data governance. We will give each of you an opportunity to have your voice heard during the panel discussion and please stick around for further discussion and a drink at the networking event at the end of the day.

Thank you for joining us today, and for your ongoing commitment to building a more connected, effective, and forward-looking geospatial landscape in Northern Ireland.

Andrew Paul
Chair, AGI Northern Ireland

Our Speakers

Keynote - Ed Parsons

Ed is a Digital Geographer, a Geospatial Technology Advisor and Keynote Speaker.

He was Google's Geospatial Technologist, with responsibility for evangelising Google's mission to organise the world's information using Geography. In this role he maintained links with Governments, Universities, Research and Standards Organisations which were involved in the development of Geospatial Technology, including Google Earth, Google Maps and Street View.

Ed is a vice-chair of the Board of Directors of the Open Geospatial Consortium and was co chair of the W3C/OGC Spatial Data on the Web Working Group. He is also Visiting Professor at University College London and has been an industry advisor to a number of international universities.

In 2024 Ed was awarded the inaugural "Professional Geography Award" for excellence in the use of geography in professional practice by the Royal Geographical Society

John Cartledge

John has spent over 30 years working in the acquisition and application of geospatial data in numerous markets including 25 years with Ordnance Survey before joining KOREC Group.

Having worked with some the world's best known geo-platforms like Apple, Google, Amazon and Microsoft in enabling new services, and with Mobileye on extracting geo-intelligence from ADAS technology, John has a history in challenging current practices and expectations in geodata acquisition and application.

Now working for KOREC Group as Head of Mapping & GIS, John is working with professional survey, construction and asset owners utilising land and airborne technologies like drones to deliver the most accurate, cost-effective geo-insights supporting investment decisions and operational outcomes

Ciaran Kirk

Ciaran has worked in the IT industry for over 2 decades, initially as a software developer and for over 16 years in both the GIS and Data Analytics Sectors with IMGS and DataBuilders, 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 is passionate about achieving real digital transformation through data agility and has a proven track record in delivering enterprise solutions, which provide significant savings for customers through the intelligent use of data.

Alex Donald

Alex Donald is a geospatial specialist at the Geological Survey of Northern Ireland when he leads the Baseline Geoscience and Digital Transformation work programme. He is a supporter and contributor to open source software. Better-open-data is a personal project that transforms open geospatial data into cloud native geospatial formats using open geospatial standards and software.

Our Speakers

Dr Sara Stewart

Sara is geospatial professional with over 15 years of experience gained across academic, public sector, and international settings. Currently a senior manager within OSNI, she leads the strategic and operational delivery of national geospatial initiatives under the Northern Ireland Mapping Agreement. She previously served as an International Consultant for UNECE, leading the EU-funded INGEST Project to advance geospatial-statistical integration across Eastern Europe, the Caucasus and Central Asia.

Sara is passionate about driving innovation and collaboration within the geospatial sector and is a Director and Council Member of the AGI, sits on the AGI Northern Ireland board, and is an Executive Committee Member of the Irish Chapter of the EUROGI Women in Geospatial Group.

Claire Young

Claire Young is an experienced marine ecologist with over 16 years in the Northern Ireland Civil Service. She holds an Honours Degree in Biological Sciences and a Master's in Environmental Management and Conservation from Queen's University Belfast. After conducting academic research on seaweeds as bio-monitors of eutrophication, Claire transitioned into public service, where she has led a range of marine monitoring and policy initiatives.

At DAERA, she has played a key role in developing intertidal monitoring programmes to meet legislative requirements and has been instrumental in advancing the use of UAVs and satellite technologies for environmental data collection and analysis. Claire currently leads the Marine Strategy and Catchments Branch, with responsibility for bathing and shellfish water quality, marine litter, and the implementation of the UK Marine Strategy.

Dr Christopher Rushton

Chris is currently the co-research group leader for the Spatial Modelling and Dynamics (SMaD) research group at the Institute for Transport Studies, University of Leeds. Chris' areas of research interest include air quality and vehicle emissions, data science and analytics, transport policy, and sustainable transport and the environment.

Chris has been involved in numerous and wide-ranging projects in these fields including the ongoing Local NO2 Emissions project funded by DEFRA, as well as the EU CARES project (https://cares-project.eu) and others ranging from supporting SME engagement with local authorities and innovating for clean air in India.

Our Speakers

Phillip Ridley

Phill Ridley is a Senior Business Development Manager at 1Spatial. Prior to working at 1Spatial Phill was an intelligence analyst working in various policing operations across the UK, including achieving a 20% reduction in burglaries in London during one of the country's largest ever burglary reduction operations.

Phill is also a keen bell ringer. Not only is he a member of the St Paul's Cathedral Guild of Ringers in London, but he is also a member of the Westminster Abbey Company of Ringers. You may have heard him ringing at Queen Elizabeth II's 90th birthday, Platinum Jubilee and other national services.

Bakul Budhiraja

Bakul Budhiraja is a post-doctoral research fellow working in the field of urban climate and nature-based solutions. Bakul's expertise is in thermal remote sensing, Geographical Information Science (GIS), geospatial aalysis and urban climate modeling. The key focus of her research seeks to gain a deeper understanding of the urban heat island phenomenon, vulnerability, adaptation and mitigation strategies for urban heat by implementing nature-based solutions. Bakul is currently working on the H2020-funded 'UPSURGE' project aimed at developing a EU regenerative lighthouse for city-centered implementation of Nature-based Solutions for renaturing uban space, to address the challenges of cities' carbon footprint and air pollution.

Anna Carnson

Anna began her GIS career at Ordnance Survey Northern Ireland (OSNI), primarily supporting the Spatial NI team. In 2020, Anna joined Arup as a GIS Analyst, where she's continued to grow as a geospatial scientist, delivering precise, data-driven insights and innovative GIS solutions.

Her work empowers clients to make informed decisions, with a strong focus on environmental and energy-related projects. She's passionate about collaborating with clients to develop efficient, sustainable geospatial strategies that align with their goals. Outside of her work, she splits her time between enjoying life in northern Spain with her partner's family and keeping up with a very energetic two-year-old.

Paul McMurray

Paul McMurray is a Wastewater Data Analyst at Northern Ireland Water, where he uses GIS technology to respond to data requests, develop solutions, and support various projects. Since joining NI Water in August 2021, he has worked as a Wastewater Strategic Planner before transitioning to his current analytical role in September 2023. His work involves engaging with stakeholders across the organisation, providing support and training where applicable.

Before joining NI Water, Paul worked with Precision Group, handling sewer survey data for Irish Water's GIS systems. His expertise has been recognised with a shortlisting for an Esri Customer Success Award in 2025. He holds a BSc in Environmental Science and is currently pursuing an MSc in GIS at Ulster University, further deepening his expertise in geospatial analysis and data-driven decision-making.

Our Speakers

Ahmad Ammar

Ammar is a PhD researcher in Geo-computing and Urban Informatics at University of Ulster at Coleraine. His work explores the intersections of geospatial intelligence, urban sustainability, and spatial justice through a critical and data-driven lens. With a background that spans environmental science, urban studies, and digital geographies, Ammar investigates how spatial data fusion, AI-enabled analytics, and Earth Observation can be mobilized to assess and improve energy efficiency, urban health, and climate resilience.

Lorraine Barry

Lorraine Barry is a Transport Planner & Modeller with the Department for Infrastructure, Northern Ireland Civic Service, with 9 years' experience in the field of Transport Planning and over 20 years' experience in Geographical Data Science. Lorraine is a Chartered Geographer in GIS, AGI NI board member since 2016 and holds a PhD in Modelling Journey to Work Movements.

Damian Murray

Damian is an Associate Director with over 19 years' experience and is a Senior Lead in the UK and Ireland Movement & Place Practice. He is a Chartered Transport Planning Professional (CTPP) and Member of the Institute of Highways and Transportation.

Damian has worked for clients as diverse as the Department for Infrastructure NI, Translink, GAA, Historic Royal Palaces, National Highways, Ulster University, and Heathrow Airports Ltd. His experience encompasses Local and Strategic Transport Planning, Transport Modelling and Data Analytics, Development Planning, Stakeholder and Public Consultation, Business Case Preparation and Travel Planning.

Dr Negin Zarbakhsh

Dr. Negin Zarbakhsh is a data consultant (applied intelligence) at KPMG Future Analytics, specializing in the strategic use of geospatial intelligence and AI to address complex urban challenges. With a PhD in Computer Science, her expertise lies in transforming spatial data, including street-level imagery into actionable insights that support smarter, more responsive cities. Her work focuses on urban mobility, infrastructure planning, and environmental resilience, leveraging data to inform both public policy and private sector innovation.

Negin applies AI-driven methods to uncover spatial patterns, assess urban equity, and guide sustainable development. She is particularly interested in how street-level imagery can enrich traditional datasets, offering more granular perspectives on city dynamics and enabling real-time urban monitoring.

Through her role at KPMG Ireland, she collaborates across disciplines to deliver data-driven strategies that enhance the functionality and liveability of urban environments. Her work sits at the intersection of technology, planning, and urban transformation.

Our Speakers

Marion Murphy

As Managing Director of Mallon Technology Ltd, Marion leads a talented team of over 120 professionals dedicated to innovating geospatial and earth observation solutions.

As Chairperson of the Irish Chapter of EUROGI Women in Geospatial Group, Marion spearheads collaborative efforts across Europe, fostering connections among national chapters. Looking ahead, she remains focused on empowering the next generation of leaders and driving meaningful, positive change in the geospatial field. and championing the future of women in leadership.

Glen Bambrick

Glen has 17 years' experience with geospatial technology across many different industries including mineral exploration, engineering, telecommunications, and transport. After several years he upskilled with computer programming and databases and combined his computer science skills with geography completing the MSc in Geocomputation at Maynooth University.

This set Glen's career path towards automating geospatial workflows, mainly within ArcGIS with ArcPy for Desktop and the ArcGIS API for Python for Online, providing efficiencies for repetitive workflows. More recently, Glen founded Final Draft Mapping where he provides GIS Consultancy, Training, and Recruitment Services for Geospatial Professionals.

Richardson Dzikiti

Richardson is a qualified GIS specialist with an MSc in Sustainable Energy & Green Technology from University College Dublin and a BSc in Geographical Science from Technological University Dublin. He holds over four years of cross-sector experience in mining, consulting, and renewable energy development, working with industry-leading firms.

Richardson combines strong academic foundations with hands-on expertise, leveraging GIS systems and data analytics to support development initiatives and inform strategic decision-making.

Alistair Hamill

Alistair Hamill is Head of Geography at Lurgan College and a geography teacher with over three decades of experience. A staunch GIS advocate, he has won prestigious awards from both the Royal Geographical Society and the Geographical Association for excellence in geography leadership.

Alistair has collaborated with organisations like Esri to champion the integration of geospatial technologies in the classroom, including presenting on the main stage of the 2019 Esri User Conference to demonstrate his work exploring peace and reconciliation in Lurgan using GIS.

Our Gold Sponsors

Esri Ireland specialises in the application of geographic information systems (GIS), helping customers record where things happen and analyse why, with the aim of providing insight and helping them to make better decisions.

As Esri's official point of presence in Ireland and Northern Ireland, it has, since 2002, partnered with both the public and private sectors to help them understand the impact of geography on their business.

Recognised as a 'Great Place to Work' for eight consecutive years and 'Best Workplace in Tech' since 2021, Esri Ireland is part of the Esri Global Network, a billion-dollar privately held software company with nearly 6,000 employees worldwide.

We believe that to solve our most complex problems for the future, we must first understand them in the crucial context of location. Hidden patterns, trends, and relationships emerge when you visualise and analyse data on a map. This location intelligence provides unique insights that empower real-time understanding and transform decision-making. Beyond sophisticated maps and advanced geospatial analytics, Esri technology enables faster data sharing and more fluid collaboration.

Our customers' work is the inspiration for everything we do. Our priority and focus have always been to support their global and local work with a commitment to science, sustainability, and positive change.

For over 50 years, business and government around the world apply Esri's technology to understand and address important current and future challenges such as climate change, supply chain resilience, public health, and social equity.

Our goal is to create a sustainable future in support of a better world.

At IMGS, we empower Ireland with seamless data solutions that enable smarter cities and more efficient public services.

Our innovative technologies help organisations unlock the full value of their data, driving productivity and fostering a more connected data-driven island.

Built on world-class technology platforms from our market-leading partners, including Hexagon, our solutions are widely adopted. From managing critical water and electricity infrastructure, to powering government portals that deliver essential information, we provide end-to-end systems that support both operational performance and long-term capital efficiency.

Together with our partners, we're shaping a smarter, data-driven future for Ireland.

www.imgs.ie

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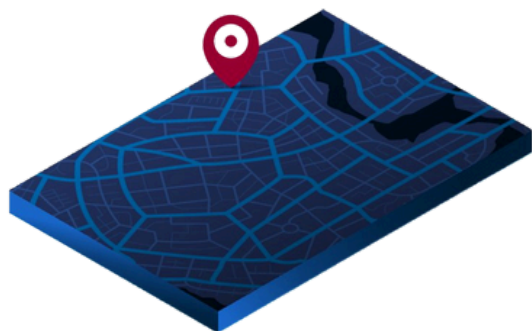
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OSNI is a proud sponsor of this year's AGI Northern Ireland Conference

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At LANDCLAN, we provide data that drives informed decisions and fosters better outcomes. Our mission is to empower property developers, policymakers, and planners with the insights they need to transform land into value. Whether it's understanding the dynamics of land ownership, tackling environmental risks, or planning for future development, we make complex data simple, actionable, and trustworthy.

Our vision is to become the global leader in land and property data, helping create a built environment that is both sustainable and efficient.
We believe in a future where data enables smarter decisions, transforming how cities, communities, and industries grow.
We will be at the heart of the prop-tech revolution in key global markets, ensuring every decision is backed by powerful, accessible data.

Why Should you drop by our stand?

1. Data
The OGC WFS feeds by theme (e.g. flooding, environmental constraints, demographics) save time on data processing, ensure access to up-to-date authoritative sources, and let me focus on the analysis — not on access issues or licensing headaches.
Turn old paper and PDF plans or documents into digital GI. We have scanned tens of thousands of historic plans and hundreds of thousands of reports to save customers time and money.

2. Software
I can enrich my own data easily — upload a set of sites I manage and instantly get a report back telling me, for example, whether they're at flood risk or what the average income is for that postcode.

3. Expertise
Our team is a huge asset. For attendees dealing with staff shortages or skills gaps (prevalent across the sector, but even more so with public sector), the ability to draw on LANDCLAN's resource in data collection, digitisation, management, spatial analysis, AI, and software support etc. is where we really stand out.

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We support our customers on their data journey to create the best data management framework for their organisation with data at the right level of quality which is then maintained over time and throughout the data lifecycle, especially to deal with changes in data over time.

We use the most appropriate technology for a customer depending on their data maturity, with a mix of 1Spatial proprietary software, 3rd party software or open-source software, and delivered with professional services to provide the right level of expertise to the customer to plan, adopt and integrate with other technology and data streams.

Our experts ensure customer processes are aligned with the technology delivered to maximise success, and provide appropriate advice, support or implementation where in-house specialist digital skills are either absent or engaged on other priorities.

1Spatial plc is AIM-listed, headquartered in Cambridge, UK, with operations in the UK, Ireland, USA, France, Belgium, Tunisia, and Australia.

www.1spatial.com

At Mallon, we're leaders in Geographic Information Science. Government departments, agencies, and private businesses trust our accuracy to give them the widest possible view and the deepest possible insight.

We believe that a mapped future is a more secure future. We use our GIS, mapping, consultancy and support services to enable you to see more from a higher level. It's about turning data into actionable insights that drive your success, allowing you to plan with confidence and stretch your ambition further.

Our leading GIS Services assist the public and private sectors in integrating, analysing, and visualising their location data for strategic decision-making. While our web-GIS platform, Azimap, is helping to transform the way Local Authorities access, consume, and analyse their data by providing desktop GIS functionalities on the web.

Talk to Mallon to see how you can get closer, act sooner, and stay ahead. Arrange a demonstration on our stand to experience any of our products and services for yourself.

GeoDrinks

4pm: Join us in the Isdell Courtyard, Riddel Hall for a networking event - drinks sponsored by Geolytical

Geolytical Ltd is a boutique GIS consultancy with over 20 years' experience in independent GIS Consultancy, Enterprise Architecture and Spatial Data Management.

We are specialists in the requirements analysis and specification of geospatial systems and have developed a variety of GIS tenders for public sector bodies as well as providing training in workshop facilitation techniques. We leverage our experience and independent nature to work closely with our clients to develop and shape their geospatial strategies and support them through long-term, trusted relationships.

About AGI Northern Ireland

AGI Northern Ireland (AGI NI) was officially launched in 2002 to help raise awareness of geographic information and to encourage data and knowledge sharing.

Over the years, our mission has developed to reflect the changing industry, society and environment around us by actively supporting a sustainable future for our geospatial community.

Since our formation, we have established strong partnerships with public and private sector organisations locally as well as further afield. Along with the support of our partners, AGI NI has representation on the AGI Council which helps steer the direction of the Association and the support it offers to Northern Ireland

AGI Northern Ireland website page
Follow us on X.com: @NI_AGI and LinkedIn

Joining the AGI

By joining the AGI today you will surround yourself with like-minded professionals, passionate about the development of the GI and Geospatial world.

The AGI has three key pillars of activity:

Nurturing and connecting active GI communities
Supporting career and skills development for GI professionals
Providing thought leadership to inspire future generations

Our national groups present opportunities to connect with others in your location and our online member directory provides direct contact and communication with your peers both locally and nationally. You can of course join all national groups should you wish. Scotland, Northern Ireland and Cymru offer an annual programme of events and activities over and above the very successful AGI Annual Conference, GeoCom all of which are available to you as a member at a discounted price*.

So, wherever you are located you can tap into relevant community resources as well as the most up to date national and international developments.

Join our network of over 2,500 GI professionals; together, we will inform, influence and act as a united voice for the UK's geospatial industry.

We actively encourage start-ups and scaling businesses to be part of our thriving community, helping you to build your network and raise your profile. If you are an early stage company we offer a generous 75% discount on your Associate membership. Your company must be less than 2 years old and employ less than 5 staff. Please contact us directly on info@agi.org.uk for further information.

https://www.agi.org.uk/membership-levels/