A strategy for delivering a spatially enabled economy

A cutting edge programme exploring the impact of advances in geospatial technology and services, proving that geospatial innovation is driving the natural and built environment

DAY ONE: **TUESDAY 23 MAY**

DIGITAL INNOVATION FOR GEOMATICS AND GEOSPATIAL

WELCOME
Steven Eglinton, Conference Chairman, Director, GeoEnable, Vice Chair AGI   09.30

09.35 – 11.35   FACILITATOR: Andrew Coote, Chief Executive, ConsultingWhere

KEYNOTE:
Geospatial: Innovation, integration and impact
Nigel Clifford, Chief Executive Officer, Ordnance Survey   09.40

Nigel joined OS in June 2015, bringing extensive experience of international software, telecoms and services including complex joint venture and public sector enterprises. He has previously been Chief Executive of Procserve Holdings Ltd, Micro Focus International, Symbian Software Ltd, Tertio Telecoms and Glasgow Royal Infirmary University NHS Trust, in addition he has held senior roles within Nokia, Cable & Wireless and BT. Nigel also has a Geography degree from Cambridge and is a Fellow of the Royal Geographical Society.

The integration of satellite data into geospatial
Stuart Martin, Chief Executive Officer, Satellite Applications Catapult   10.00

Stuart was appointed CEO of the Satellite Applications Catapult in January 2013. Prior to this appointment, Stuart was a partner at Logica (now CGI). More recently, Stuart held the position of Vice Chair of UK Space, the UK trade association for space business, was a member of the council of Eurospace and was three-time chair of UK judges for the annual European Galileo Masters. Stuart holds a BSc in Physics from Imperial College and, in 2013, was elected a Fellow of the Royal Aeronautical Society, and the Institute of Physics.

What the market needs from national mapping agencies and the space industry
Charles Kennelly, CTO, ESRI (UK)   10.15

Charles has worked in the GIS industry for over 25 years. Initially in local government and latterly with Esri UK, Charles has been involved in the design, development, deployment and management of a number of successful GI systems. With a deep understanding of the application of geography to spatial analytics, big data, and data science, Charles specialises in finding ways of making GIS accessible to ordinary users in wide-ranging environments, from consumer mapping to enterprise and business critical systems.

PANEL DEBATE | **The way ahead – How a digital geospatial strategy will support a resilient economy**

10.30   Resilience can be interpreted in many ways covering applications from civil contingency to national security. It can also relate to sustaining economic growth and stability. Both are high on the national agenda with an urgent need to adapt to climate change and protect the country from terrorism key responses related to the former challenges and finding a new economic model for a post-Brexit world under the latter.

Fortunately, to help us respond, technological advances, in the form of a plethora of new earth observation satellites, drones and street view data capture platforms, advances in robotics, big data predictive analytics and 'people as sensors', are just a few of the innovations at our disposal. To discuss these 'big issues' and how they are increasingly impacting our industry, we have assembled a panel of key influencers from the public and private sector, representing both suppliers and consumers of location information. How are these big issues increasingly impacting our industry?

11.15   Tea and Coffee Break

Conference Programme as at 18 May 2017

DAY ONE: TUESDAY 23 MAY

Innovation and disruptive geospatial solutions

SESSION CHAIR: Simon Navin, Smart Cities Projects Lead at Ordnance Survey

KEYNOTE:
Where is the disruption...   🕐 11.45

Brent Jones, Global Manager Land Records/ Cadastre, Esri, USA

This is not a question. 'Where' is actually the disruption. The concept and science of where has evolved from merely understanding where we are, to unlimited analytical capabilities and how all things interact and interrelate. A few disruptive spatial technologies that are changing the way we think, plan, act and react, will be discussed and how we are leveraging these new spatial capabilities to leap frog traditional approaches. This presentation will detail particularly exciting opportunities for the developing world in land administration.

The Autonomous Vehicle - a disruptive force in the information infrastructure of our world   🕐 12.10

Peter Beaumont, Director, EMEA Enterprise Customer & Market Development at HERE

Location has become pervasive in many areas of both business and government. This presentation will explore the role that HERE is playing within the ecosystem including the development of innovative use cases being enabled through access to connected cars and probe based traffic offerings.

Efficient outdoor stake out with autonomous robot   🕐 12.35

Jens Peder Kristensen, Chief Executive Officer, TinyMobileRobots, Denmark

The autonomous robot can find the location for marking or height measurement with the same precision of a manual surveyor, but three times faster. Indeed, while manual surveying requires a laborious search for the right coordinate, the robot simply employs an algorithm that optimises its movements. Additionally, unlike human workers, robots can tirelessly execute the task at hand with much fewer mistakes than a surveyor, needing only a change of battery every eight hours or so.

| 13.00 | End of morning session |

The importance of standards in a data centric world

SESSION CHAIR: James Kavanagh, Director Land Group, Royal Institution of Chartered Surveyors

Standards for better city decision-making   🕐 13.45

Dan Palmer, Head of Market Development, British Standards Institution (BSI UK)

Smart cities have the potential to transform the way cities provide services and empower citizens to make better decisions, through making better use of urban data. But how can cities make this data available and act on it? Standards have a key role in helping cities understand the potential of smart cities, set their priorities, and use data to put citizens' needs at the heart of decision-making.

IFC and COBie: The essential guide to BIM standards and why we need them   🕐 14.10

Phil Jackson, Building Smart and UK Representative Infrastructure Room

There is no doubt that BIM can and does provide benefits for many who are involved in the procurement of infrastructure assets. From planners, designers, constructors and the eventual operators of those assets. This paper attempts to look at the wider full life cycle of any infrastructure asset and concentrates on the systematic development of information through that life cycle demonstrating the importance and emergence of standards to support this more holistic view of BIM and its potential.

OGC and buildingSMART International: An open standards partnership   🕐 14.35

Denise McKenzie, Executive Director, Communications & Outreach
Open Geospatial Consortium (OGC)

In 2014 the Open Geospatial Consortium and buildingSMART International signed an MoU to collaborate on joint and interoperable standards for the building and infrastructure communities. This presentation will provide an update on the work to date and plans for the future including CityGML, InfraGML and IFC Alignment.

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15.00	Tea and Coffee Break

Geospatial 'spin offs' into the wider world

SESSION CHAIR: Steven Eglinton, Director, GeoEnable, Vice Chair AGI

KEYNOTE:
Digital Engineering – a real physical, personnel and cyber security challenge
UK Government Security Engineer

🕐 15.30

Geospatial Game Engines - A game changer for the way we see the World?
Gavin Duffy, Director, RealSim, Ireland

🕐 16.15

The games industry has driven many significant advances in digital media over the years. One of these has been the 'Game Engine'. It facilitates the exploration of 'other worlds', to engage, challenge and entertain us. This could also describe a platform for planning the world we live in. Feeding engineering and architectural inputs in to a geospatial game engine significantly increases our insight on the impact of proposed changes to the built environment.

CLOSING REMARKS
Steven Eglinton, Conference Chairman, Director, GeoEnable, Vice Chair AGI

DAY TWO: **WEDNESDAY 24 MAY**

GEOSPATIAL, UNDERPINNING INFRASTRUCTURE PROJECTS AND ASSET MANAGEMENT

WELCOME
Steven Eglinton, Conference Chairman, Director, GeoEnable, Vice Chair AGI

🕐 09.30

09.35 – 11.20	FACILITATOR: Antony Oliver, Editorial Consultant and Infrastructure Specialist

OPENING INTERVIEW:
Infrastructure investment at the heart of a new industrial strategy for a post-Brexit UK
Simon Rawlinson, Construction Leadership Council
and Partner, Head of Strategic Research and Insight, Arcadis

🕐 09.40

Simon heads the Arcadis multi-disciplinary Strategic Research and Insight team. Simon has 20 years' experience in construction and built environment research and innovation. He is a well-known commentator in the construction industry was appointed to the Construction Leadership Council responsible for strategy, communication and thought leadership in **October 2015.**

Simon has been a member of the UK Government BIM Task Group since 2010, and has been involved in the development and implementation of the UK National BIM strategy, focused on the commercial agenda. Most recently he has acted as editor-in-chief of forthcoming BSi guidance on Level 2 BIM

Conference Programme
as at 18 May 2017

PANEL DEBATE	**The Future of industry: Developing a strategy for smart infrastructure - A whole life approach to infrastructure design**

The infrastructure sector is racing to embrace smart technology solutions as a means to deliver the lower cost, lower emissions, whole life and truly sustainable approach to asset management that asset owners demand. The challenge for owners and across the supply chain is how to develop deliverable and affordable Returns on Investment (ROI) that can flex to adopt emerging and rapidly evolving smart infrastructure technologies. Should they switch focus from capital costs to whole life value and if so how.

PANEL

Simon Rawlinson, Construction Leadership Council and Partner, Head of Strategic Research and Insight, Arcadis

Simon heads the Arcadis multi-disciplinary Strategic Research and Insight team. Simon has 20 years' experience in construction and built environment research and innovation. He is a well-known commentator in the construction industry was appointed to the Construction Leadership Council responsible for strategy, communication and thought leadership in October 2015. Simon has been a member of the UK Government BIM Task Group since 2010, and has been involved in the development and implementation of the UK National BIM strategy, focused on the commercial agenda. Most recently he has acted as editor-in-chief of forthcoming BSi guidance on Level 2 BIM

Jennifer Schooling, Director, Centre for Smart Infrastructure and Construction, University of Cambridge

Appointed Director of the Centre for Smart Infrastructure and Construction (CSIC), at the University of Cambridge, in April 2013. CSIC is an Innovation and Knowledge Centre (IKC) with the specific aim to transform infrastructure through smarter information. Before joining CSIC Jennifer worked for Arup, the global engineering consultancy, leading the firm's Research Business and delivering strategy development to support clients in targeting their investments to improve productivity and competitiveness.

Tim Chapman, Leader of Infrastructure London Group, Arup

An Arup Director leading its London-based Infrastructure Design group. He has had extensive experience in the design of big infrastructure and devising how future infrastructure can best serve and shape future society.

Mark Enzer, Group Technical Director, Mott MacDonald

Mark is Mott MacDonald's Group Technical Director. In this role, it is his responsibility to drive the global sector leaders and the internal professional networks in pursuit of technical excellence and improved outcomes for customers. Previously Group Sector Leader for Water and Environment. Mark has extensive management experience in collaborative delivery teams, and is a keen champion of improvement and innovation in the context of collaborative delivery models. He has largely developed experience within the water industry, both in the UK and overseas, working directly with client and contracting organisations.

11.20	Tea and Coffee Break

Digital Innovation in Infrastructure

SESSION CHAIR: James Kavanagh, Director Land Group, Royal Institution of Chartered Surveyors

Geo Intelligence – trends in smart places
⏰ 12.00

Jos Creese, Chief Executive, CCL - Independent Digital Advisor for public and private sectors, Principal Analyst, Eduserv. Associate Director, Socitm. BCS Immediate Past President [2015/16] – The Chartered Institute for IT

Smart cities concepts are now widening to regions. People live, work, use services, and pass their leisure time in a complex web of local, regional and national places. Smart places can link different services and locations together, if policy and planning are joined up, bringing a range of benefits. Smart places exploit the benefit of a range of geo-based technologies connecting people, communities, business and fundamental infrastructure services in ways never before thought possible: this is digital transformation at its best.

The Internet Of Things, digital built Britain and beyond
⏰ 12.25

Simon Navin, Programme Manager, Smart Practice, Ordnance Survey

Dynamic data is essential to the construction, operation and management of assets. During this session you will hear how Ordnance Survey are supporting the integration of dynamic data into geospatial content and how we are developing our connections with BIM, a Digital Built Britain and data interoperability in Smart, the Internet of Things, 5G connectivity and Connected and Autonomous Vehicles.

Spatial awareness - using mapping overlays to identify policy synergies and conflicts   ⏰ 12.50

Andreas Schulze Bäing, Lecturer in Urban Planning, University of Manchester

Using mapping overlays is commonly used by GIS professionals. Despite this, in practice it is rare to see an awareness of spatial contexts, synergies and conflicts between different policy sectors. This paper, based on a study for the Map4England initiative of the RTPI, reports on its key findings followed by illustrating selected examples linking household growth projections to areas of relative water stress and key landscape designations. In addition the paper also refers to the practice of spatial monitoring and planning in other European countries.

13.15	End of morning session

QUESTION TIME	**What is the future of the geospatial industry?**
14.00 – 15.55	FACILITATOR: Antony Oliver, Editorial Consultant and Infrastructure Specialist

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OPEN SESSION – ALL GEO BUSINESS VISITORS WELCOME TO ATTEND

Most people are familiar with the BBC's Question Time, but for the uninitiated it is a topical debate programme hosted by David Dimbleby, where a panel of guests answer questions posed by the audience.

The GEO Business Question Time won't be televised and sadly David Dimbleby was unavailable but there will be an exciting array of panelists presided over by industry expert Antony Oliver who will field topical questions focusing on the theme, 'What is the future of the geospatial industry' resulting in a no doubt heart-felt debate that is open to anyone that is visiting GEO Business.

PANEL

Mike Hopkins, The Survey Association (TSA) Representative

Mike has 30 years' experience in the land surveying profession, starting with optical instruments and ink drawings and currently utilises a multitude of hi-tech sensors and processing techniques to deliver geospatial solutions. Being chairman of The Survey Association technical committee Mike is responsible for introducing and maintaining client guides on the many different survey techniques used by the associations 174 member companies.

Ed Manley, Lecturer in Smart Cities, Centre for Advanced Spatial Analysis (CASA), University College London

Prior to becoming a Lecturer in Smart Cities, Ed worked as a Research Associate at CASA, working on the MECHANICITY project led by Professor Michael Batty. Ed completed his doctorate at UCL in 2013 entitled 'Modelling Driver Behaviour to Predict Urban Road Traffic Dynamics', and has a MSc in Multidisciplinary Informatics from University of Leeds. Dr Ed Manley's research focuses on the use of big, new datasets to analyse human behaviour in urban areas at a highly granular scale.

Miranda Sharp, Head of Smart Cities Practice at Ordnance Survey

Miranda Sharp created Ordnance Survey's Smart Practice, setting new and perhaps surprising directions for Great Britain's national mapping agency. She heads a team offering geospatial insights, innovation, and incubation support for projects and start-ups that want to seize the golden opportunities now emerging from a 'Smarter' world. The Internet of Things will impact us all and driverless vehicles are on the near horizon, but Miranda is most enthused by what 'Smart' may hold for our local authorities and the private sector: greater connectivity (and better business models) that should generate more value for shareholders and better outcomes for us all.

Ed Parsons, Geospatial Technologist, Google

Ed Parsons is the Geospatial Technologist of Google, with responsibility for evangelising Google's mission to organise the world's information using geography. Ed was the first Chief Technology Officer of Ordnance Survey and prior to that he was at Autodesk, where he was EMEA Applications Manager for the Geographical Information Systems (GIS) Division. He earned a Masters degree in Applied Remote Sensing from Cranfield and holds a Honorary Doctorate in Science from Kingston University. He is a Visiting Professor of UCL and is a fellow of the RGS.

CLOSING REMARKS
Steven Eglinton, Conference Chairman, Director, GeoEnable, Vice Chair AGI   ⏰ 15.55