![1spatial®]

SMARTER DATA
SMARTER WORLD

Our Smarter Data Smarter World Conference, at RSA House on 8th November, was a great success.

In the Great Room, surrounded by James Barry's famous paintings of The Progress of Human Knowledge, delegates and speakers discussed data, information, knowledge and innovation. More specifically, the theme of the conference was the use of geospatial data to drive innovation. Or, as Duncan Guthrie, UK Managing Director, 1Spatial put it: how do we create something today, about which we'll say in a few years' time "How did we manage without this?"

Revolutionary new business models like those of Uber, Airbnb and Deliveroo all rely on location information.

On top of that, it's estimated that the Internet of Things will generate an astounding 403 zettabytes (1×10^{21} bytes) of data in 2018, all of which will require a location to be useful. During the day, we heard how Northumbrian Water Group's (NWG) network includes 300,000 sensors, each generating a reading every two seconds. From Northern Gas Networks (NGN), we heard how the inclusion of sensors on every pipe-joint added just seconds to the installation but yielded a wealth of insight from network performance and predictive maintenance through to on-the-job coaching for staff.

For the conference, we were joined by pioneering customers from different industries, all united by their success in using better data to drive better decisions.

Throughout the day, there was a common agreement that:

> " Whatever you do, data quality underpins innovation, and automation frequently underpins data quality. "

From **Nigel Watson, NWG's Group Information Services Director**, we heard how the firm uses hackathons and an Innovation Festival to gain new insights and approaches from its data. Amongst the achievements was an 80% reduction in failures at sewage pumping stations.

We also heard about NWG's predictive maintenance programmes; its success with releasing data as open data; and its work on digital twins, drawing on technology from the computer gaming industry and Formula 1.

NGN's Head of Innovation, Richard Hynes-Cooper, shared his approach to letting the data do the work. The firm now has real-time quality assurance on the work being done by 150 teams carrying out gas mains replacement. After work is complete, the combination of geospatial data and telemetry allows engineers with mobile phones to "see" what's happening underground, avoiding expensive and inconvenient excavation.

Good quality, fit-for-purpose, data underpins all of these innovations, and **Mike Holt, Senior Consultant at Babcock Analytic Solutions,** talked about managing quality across the data's lifecycle – effectively treating data like the valuable asset it is.

Mike discussed the importance of effective data governance and having a data quality management process, along the lines of ISO 8000-150. Among the key considerations he highlighted were:

▷ The potential of data to add value to the business

▷ The cost of mistakes if the data is of poor quality

▷ The importance of getting rid of data when it is no longer of use.

All in all, it's an approach that aligns closely with our own.

> **" Unless data quality is good, it cannot support innovation. "**

Other highlights during the day included:

▷ **Lorraine McNerney, General Manager Geospatial Systems from Ordnance Survey Ireland,** describing the agency's creation of a single source of spatial truth and a "spatial fabric for the state"

▷ **NWG's Clive Surman-Wells, Operations Solutions Manager,** discussing how the water firm saved £8.75 million by using rules-based inferences to map its sewer network

▷ **Kamrul Kashem, Senior (GIS) Analyst from Nottingham City Council,** sharing various examples of the council's use of automation to drive better (and faster) data quality, new business insights and greater efficiencies.

As well as having so many customers share their innovations, we were delighted to be joined by our partners **Ken Bragg, European Services Manager from Safe Software** and **Sam Acheson, Energy Practice Manager from Latitude Geographics.**

We closed the day with an inspiring keynote from **Dave Coplin, CEO of The Envisioners**. Offering a vision of The Rise of the Humans, Dave planted some seeds in our data-oriented brains:

▷ Data is no longer simply a means of reflecting on what happened: Data is fuel for the future

▷ As we move further into the age of AI and machine learning, we will move from binary to probability-based decision making. It's no longer a simple yes/no, but an x% probability of y

▷ As we increasingly digitise and analyse everything, success will no longer be about our products, but about our approach: It ain't what you do, it's the way that you do it.

Overall, it was an inspiring day for everyone involved. We all gained great insights and had the pleasure of networking with great people. We would like to thank all of our speakers and everyone who joined us on the day, for making it such a success.

If you'd like to read more about our approach to spatial data management, please download our Little Book of Spatial Data Management
1spatial.com/capabilities/little-book-spatial-data-management/