SEEING IS BELIEVING!

JOHN KIMMANCE LOOKS AT HOW ORDNANCE SURVEY LOCATION DATA IS DELIVERING FOR CUSTOMERS, AND DUSTS-OFF HIS CRYSTAL BALL TO MAKE SOME PREDICTIONS FOR THE YEAR AHEAD

Location data is recognised as a vital tool that underpins public services and allows for the delivery of policy, critical infrastructure, and services across Britain. From supporting local authorities, police forces and fire services, to providing adaption and mitigation for national incidents such as flooding and the recent pandemic.

OS data is accessible and easier to use than ever before with our Public Sector Geospatial Agreement (PSGA) offering almost 6,000 public sector bodies and organisations access to our high-quality data and services through the OS Data Hub (Fig.1). It is our data and APIs that underpin and support the delivery of key government services with 1.1 billion transactions across all PSGA APIs last year.

It is so important that we continue to grow the use and access to location data to deliver greater efficiencies which could be replicated by other departments, local authorities, and councils especially when budgets across government are under increasing pressure.

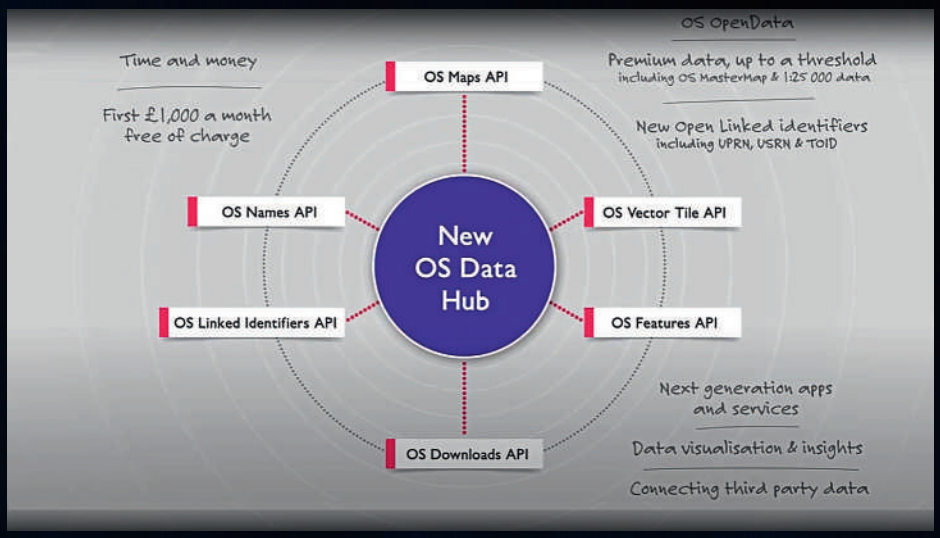

Fig.1: The new OS Data Hub offers the nation's most comprehensive geographic data for user applications

What do I think is going to be new in 2023?

Given the current economic challenges, government is focussed on stimulating GDP to drive economic growth. Location data can play an important role in enabling this and OS are leveraging our expertise and data capabilities by working across the public sector. We also have a key focus on commercial markets, working through the OS Channel and through our licenced partner programme to improve greater use of geospatial which helps governments and businesses implement change and improve operational effectiveness saving time and money.

Location data is already being used to make savings, improve services, and even save costs across government, but there are plenty more opportunities for greater use. Here are some great examples. Harrow Council used OS data to save £300,000 every year by using route optimisation techniques to save fuel and reduce the number of vehicles delivering its Special Needs Transport (SNT) services (Fig.2)

Also with its eye on efficiency and savings, Teignbridge District Council used OS data to automate its Local Land Charges search process and cut costs by £60,000. Our data has the potential to save millions when accurate and easy to use tools are used to streamline procedures, helping local authorities deliver services more efficiently and ensuring taxes go further in serving the local community. Research suggests that location data has a potential economic benefit to the UK of up to £11 billion per year.

Fig.2: Harrow Council's SNT service provides transport to residents of any age. It uses 95 vehicles and 320 staff to transport residents to and from their places of education, with each vehicle requiring a driver and an escort.

Fig.4: Example of OmniCAV photo-realistic simulation. OmniCAV is part of a wider £12.1 million government-funded package to support the development and nation-wide deployment of Connected and Autonomous Vehicles (CAVs). Image: University of Warwick

What's going to stay the same between this year and 2023?

One area of focus which is increasing is sustainability, in particular the challenges created by climate change. Location data can really help by not only identifying assets that are being or could be impacted, but also tracking the mitigations being carried out on the ground. To support this OS are constantly improving the quality, quantity and accessibility of our data which is why we recently launched OS Select + Build (Fig.3) and OS NGD API - Features so that our customers can pick and choose their data as and when they need it, which has transformed how users can access and work with OS data.

The war in Ukraine has thrown the fragility of global supply chains into sharp relief and accentuated availability of scarce resource like energy and water. We need to be driving more efficient use of energy and this is where OS data can help. Location analytics can play a critical role in finding solutions now to meet the growing needs of the future, such as the planning of electric vehicle (EV) infrastructures.

One such initiative is OmniCAV (Fig.4) whose project lead, Kirsty Lloyd-Jukes, CEO of Latent Logic, said "OmniCAV's vision is "CAVs for All": bringing safer, smarter, self-driving mobility for urban and rural areas. But first we need to know that driverless cars really can handle our challenging road conditions, on country lanes as much as crowded city streets. Virtual reality "driving tests" are the only way of doing this, which is why we've brought together 11 leading organisations to build a world-first, AI-based simulation of real Oxfordshire roads to securely and reliably test autonomous car safety."

At OS, we are constantly looking at how to improve our own efficiencies, for example by investing in automatic change detection through Artificial Intelligence which quickly identifies where things have changed and capturing these changes automatically so that our customers can benefit from a much slicker data capture. This enables us to deliver more data and even faster.

OS manages huge amounts of location data, increasingly not all captured by us but by third parties, but we have the expertise in data aggregation and provision of analytic-ready services. The value OS data provides when joined with other data is huge and the proposition of being able to link real world data together, be it population data, environmental or any other data for reporting and analytical purposes will be very valuable for our customers.

Increasingly we will see machine to machine technology becoming more pervasive, influencing methods of access, data formats and stimulating demands for new data. For example, to support our national journey to net zero there will be increased focus on solar panels, driving a requirement to understand building and land potential for solar panels and tracking the growth of these at a local, regional and national scale.

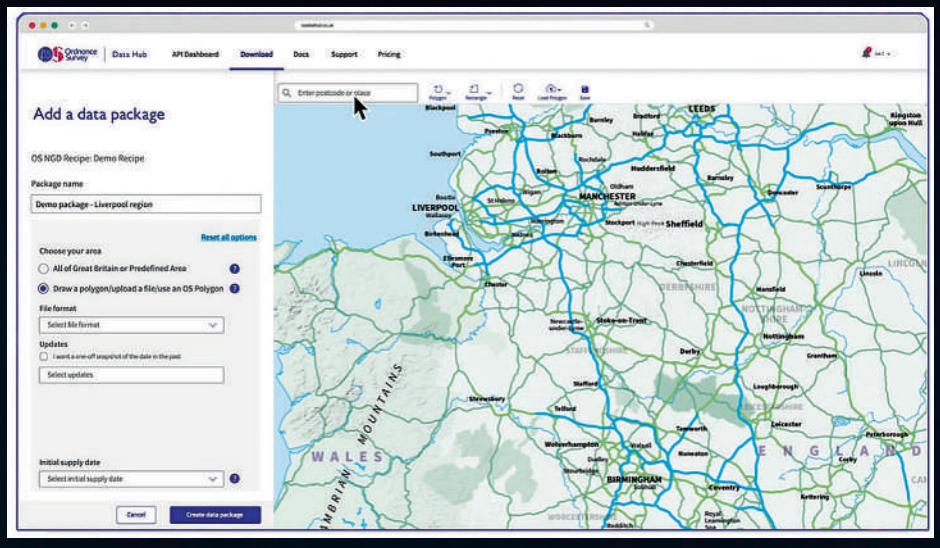

Fig.3: OS Select+Build gives simple and direct access to the OS National Geographic Database (OS NGD)

What's going to take off in 2023?

Looking ahead, the use of analytics and in particular location data, will allow businesses and governments to make better decisions that tackle sustainability top down. The volume of data is increasing exponentially, be it the proliferation of satellite data or the harnessing of millions of data from connected technology and devices, including sensors, vehicles, and phones. Accessing and aggregating this data will be increasingly complex, leading to organisations and governments to seek trusted location providers such as OS to solve big problems, such as sustainability and net zero.

Through the National Geographic Database, OS is now able to improve the speed at which customers get access to data. Data captured by one of our surveyors yesterday would be in our data today.

What would you like to change in 2023?

Location data has the power to help achieve our 2030 Climate Target Plan and support efforts to address the net zero challenge. Despite the short-term challenges of the economic and political environment, we must not take our eye off long term goals such as sustainability and climate change.

Working with people and organisations across the market will help solve these key global challenges, but complex solutions take time and there needs to be a concerted effort and sustained investment. You can't just turn on and turn off funding, you need to be investing in those challenges consistently to succeed.

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