Change and the GIS World

So what have been the recent big happenings in the world of geographic information systems and science? A fair case can be made for the coming of age of unmanned aerial vehicles (UAVs). Civilian lineal descendants of military drones now range from devices measuring just a few centimetres across that take photos or videos, to fully functional mini-aircraft or helicopters for collecting survey-accuracy Lidar. These have proved capable of flying through volcanic ash to measure particle sizes, track wild animals and map large areas, sometimes autonomously.

But my vote goes elsewhere: to the rapid expansion of the open data concept. Some of this is not new. However the signing of the Open Data Charter by the leaders of Canada, France, Germany, Italy, Japan, Russia, the United Kingdom and the United States at the G8 meeting in June 2013 was a tipping point. It commits those nations to a set of principles (‘open by default’, ‘usable by all for any purpose’, available at zero or marginal cost, etc), to a set of best practices, including metadata provision, and national action plans with progress to be reported publicly and annually. Other global bodies – notably the World Bank and the UN Economic Statistics Directorate plus some US states and cities around the world – have also signed up.

Predicted benefits of open data – and prime drivers for top-level political action – have included enhanced transparency and government accountability to the electorate, improved public services, better decision-making based on sound evidence and enhanced national competitiveness in the global information business. Most importantly for us, the common finding worldwide is that GI is the cornerstone of success in making government information widely useful.

Of course there is much hype. But behind it all there are some important developments. Some 50,000 open datasets are now available in the US, and 10,000 in the UK. The most innovative development is the Climate Corporation. This is a US start-up founded in 2006 by two former Google data scientists. It has combined 30 years of weather data, 60 years of crop yield data and 14 terabytes of soil data – all free from US government agencies. The services offered include yield forecasting to help farmers make decisions such as where and when to plant crops in order to boost productivity, plus weather forecasting and crop insurance to help manage risk. The 'precision agriculture' firm was acquired by Monsanto, the world's largest seed company, for US930 million last October. In principle, could this be replicated in Europe? Interestingly, the success of Climate Corporation seems to owe much to ‘first mover’ advantage rather than guarding intellectual property rights – a contrast to many other information traders (including some government bodies).