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# SMARTER LIVING

## MORE THAN HALF THE WORLD NOW LIVES IN CITIES AND THAT'S ONLY SET TO INCREASE. TO COPE, GOVERNMENTS ARE GOING TO HAVE CREATE 'SMART CITIES'

The 1960s were called the 'Swinging Sixties' for a reason. In countries all over the world, it was a time of great social change, and of innovation in everything from technology and industry, to fashion and music.

But despite its reputation, the reality was most of this excitement and change affected relatively small groups at the time. This was mainly because it disproportionately affected city-dwellers – according to the World Health Organization (WHO), in 1960, just a third of the world's population lived in urban areas. Now, however, WHO estimates that more than half the world's population lives in cities, growing at nearly 2% for the next decade.

Developing cities and managing services and infrastructure to cope with these increasing populations is set to be one of the biggest challenges facing local and central governments around the world. Do it right and economies will benefit, crime rates won't soar, costs won't become unmeetable and demands on resources too high. Do it wrong and it could be disastrous, potentially even costing lives.

Technology, of course, will play a role in this, particularly geospatial technologies, and in this issue, we look at just some of them that are already becoming a reality. On page 30, Tim Hughes provides an overview, looking at technologies ranging from 3D models derived from aerial and satellite imagery, through self-driving cars and smart road markings, to the water management needed to deal with flooding caused by climate change.

Satellite imagery features again on page 32, in Lena Nietbaur's report on a new service run by a German company that can search optical and radar earth observation images to determine when new construction work begins on buildings. Older techniques relied on manually searching the Internet, but with no idea how old imagery might be and companies even planting false information on web pages, Building Radar's award-winning scheme can provide current updates. It also has the potential to be able to monitor building usage and even determine when roads need repairing.

Speed limits prevent accidents and governments around the world rightly punish those who exceed them, in order to save lives. They also cut pollution, with speeding cars burning fuel far more inefficiently than at lower speeds, something of which fleet managers are also well aware. However, there are far more motorists than there are police officers and cameras, and current automatic techniques that use GPS aren't precise enough to know for sure when someone's on a given road and exceeding the speed limit. But on page 34, Jean-Paul van de Ven and Marcus Jenkins explain how their company developed an automated way to offer 'speed limits as a service' using GPS.

As cities expand and homes spring up – not always where planned – addressing becomes an increasingly difficult problem. Already, 75% of the world's countries suffer from inconsistent, complicated or no addressing systems, with the UN estimating that around four people billion are invisible as a result, unable to get deliveries, receive aid or exercise their rights as citizens.

On page 36, Giles Rhys Jones looks at a system being adopted in both developing and developed countries that uses just three simple words to locate any 3m square on the Earth's surface. Designed to be memorable and auto-correct mistakes, to work in multiple languages and to be usable on the simplest of smartphones or devices, what3words has already been deployed in diverse applications, including the UN's disaster reporting app and in Tanzania to report violence affecting its elections.

But tempting as all these technologies are, simply using them isn't going to ensure future cities are 'smart'. As with any IT project, the key to smart city technology being adopted is having the correct processes behind it. On page 39, Marc Hobell looks at what local governments need to do to ensure that any technology they invest in ends up giving citizens what they need. He also looks at examples from around the world of successful geospatial technology implementations to see what lessons we can learn.

The world's future lies in smart cities. The question is: will we be smart enough to create them?

I hope you enjoy the issue.

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