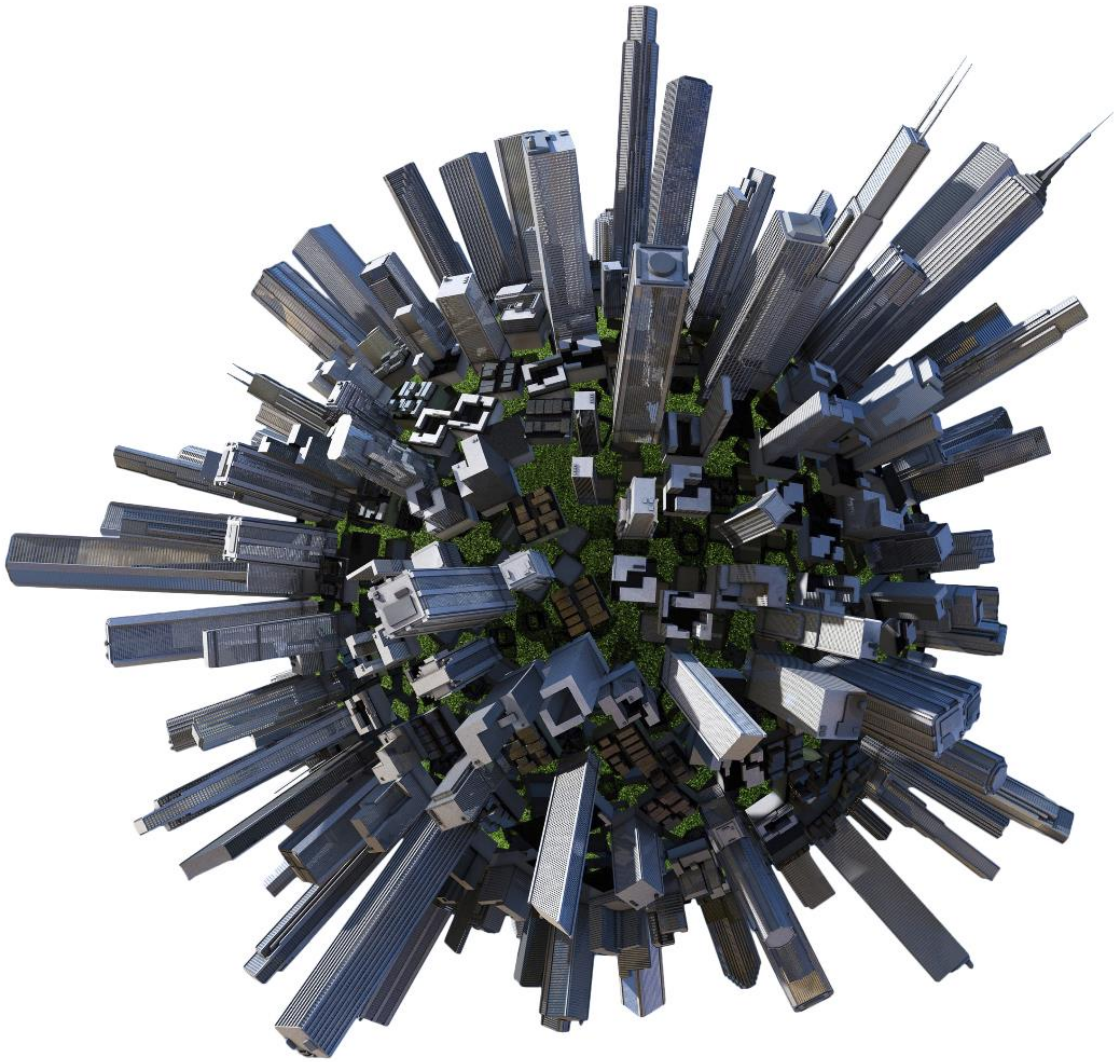
Deloitte.



Real estate predictions 2017

What changes lie ahead?

Smart Cities

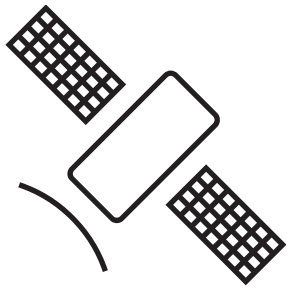
© 2017. For information, contact Deloitte Consultores, S.A.

Smart Cities

Smart cities and the vital role of the government

Urbanization, climate change, employment, digitization, mobility and resource depletion are transforming societies. More than ever there is a need for high-quality digital infrastructure for better accessibility and urban air quality, energy-efficient homes and buildings, and a healthy environment. This makes the development of smart cities increasingly relevant.

March 9, 2017



© 2017. For information, contact Deloitte Consultores, S.A.

Technology has been incorporated by cities for many years. However, the pace at which this adoption takes place is increasing rapidly as disruptive digital technologies have the potential to solve major metropolitan challenges. As a consequence, urban areas transform into ‘smart cities’.

A city is smart when investments in (i) human and social capital, (ii) traditional infrastructure and (iii) disruptive technologies fuel sustainable economic growth and a high quality of life, combined with thoughtful management of natural resources, through participatory governance.

In the transformation to become a smart city, disruptive technology is only one of the drivers. The second ingredient of smart cities is data, the lifeblood of smart solutions. The challenge is to use the power of data to create smart solutions that address real needs of city users and are perceived as meaningful by them. Their intuitive design causes them to be adopted naturally, resulting in changes of behavior that are lasting. In the end, smart solutions are all about human behavior. Finally, the third cornerstone of smart cities is smart people. Focus on employability and winning the ‘war for talent’ is vital for sustainable economic growth.

© 2017. For information, contact Deloitte Consultores, S.A.

Examples of smart city technology

An example of smart city technology applies to land use planning, which is a critical function of all cities. Because the data used from smart city technologies is much more real time and accurate, land use planning is about to become much smarter. Data sets from transportation, engineering and planning departments could be combined into a wide platform, which would drastically improve land use planning as all decision makers would have equal access to the same data. An example of this is set by Uber. Uber recently launched Uber Movement, a website that uses Uber's data to help urban planners make informed decisions about our cities. This is an example of the use of data in city planning in a new way.

Another example of smart city technology can be spotted in Rotterdam. The municipality of Rotterdam is developing a 3D-model, which should help? transform the city into a smart city. The model will be used for simulation purposes, city planning, design, city management, city marketing, and analysis. The 3D-model provides smart solutions. Users are urban designers, licensing authorities and the managers of all municipal infrastructure such as lampposts and cables and pipes. Questions like 'how far do roots of trees reach', 'to what depth are the underground containers exactly positioned', 'how does sound move through the city of Rotterdam', are answered by this model. Possible implications with new construction plans could easily be visualized by using a simulation. Rotterdam is aiming to have an even more advanced model ready by 2020, which would also provide real time information on traffic, current water levels, and the filling degree of garbage containers. The 3D-model does also give citizens insight into planned projects and the consequences for their particular district, in order to add up to their comprehension of the choices that are made by the municipality. The vision for the future of Rotterdam is a digital city with similar dynamics as the physical city.

© 2017. For information, contact Deloitte Consultores, S.A.

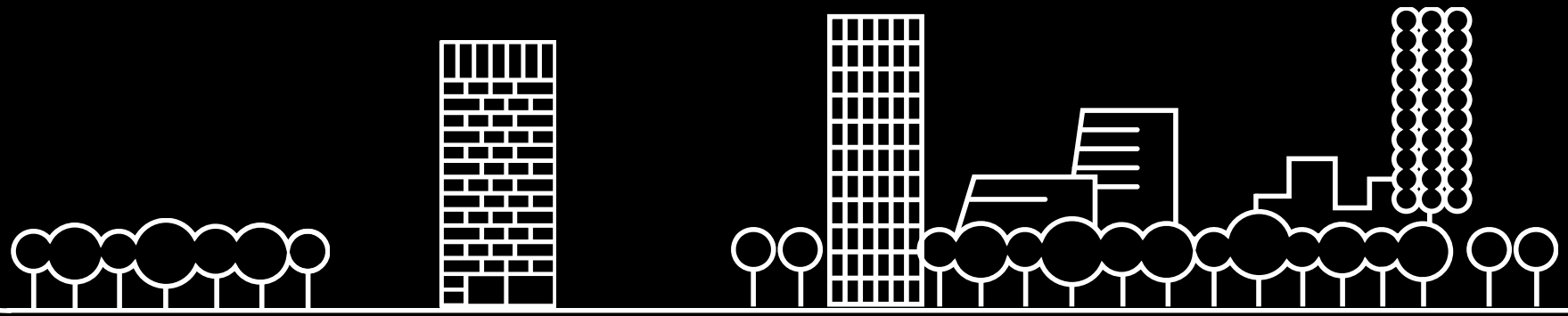
Cities don’t become smart on their own

Cities need to cooperate and learn from each other. As said by the global smart city community and coalition:

Cities are continuously subject to transformation. Now, with the need for cities to become more sustainable and the opportunities provided by digitalization, cities have a lot of work to do. Each city is developing new services and integrating new solutions, while continuous trying to connect to the needs and activities of its residents. As cities all over the world are facing this transformation, there is a need for collaboration. Cities need to make their solutions interoperable, scalable and replicable so that other cities can use them as well. This will accelerate the development and implementation of the solutions, while lowering the costs and preventing lock-in.

The need for partnerships was stressed during the EU seminar ‘Investing in Europe: building a coalition of smart cities & regions towards a Third Industrial Revolution’

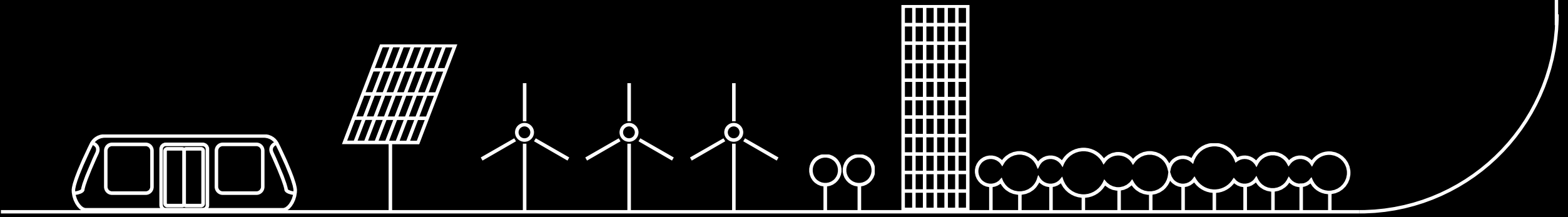
‘If the EU is to meet its climate change commitments, end energy poverty and drive sustainable growth, regions and cities must become smarter by strengthening cooperation and better exploit new technologies.’



© 2017. For information, contact Deloitte Consultores, S.A.

Shaping the future

The first examples of smart city technology use have been realized the last few years. But this is only the beginning. We expect an enormous growth of initiatives within the ecosystem. Due to partnerships, ecosystems and a lot of experimentation cities will become much smarter in the upcoming years. Governments are setting up strategies and partnerships to shape the future of becoming a smart city. Smart cities are here to stay and the government plays a vital role in this process. Awareness and the next level of maturity of initiatives is one of the big steps in 2017.



© 2017. For information, contact Deloitte Consultores, S.A.

Deloitte.

Deloitte refers to one or more of Deloitte Touche Tohmatsu Limited, a UK private company limited by guarantee (“DTTL”), its network of member firms, and their related entities. DTTL and each of its member firms are legally separate and independent entities. DTTL (also referred to as “Deloitte Global”) does not provide services to clients. Please see www.deloitte.com/about to learn more about our global network of member firms.

Deloitte provides audit, consulting, financial advisory, risk advisory, tax and related services to public and private clients spanning multiple industries. Deloitte serves four out of five Fortune Global 500® companies through a globally connected network of member firms in more than 150 countries bringing, world-class capabilities, insights, and high-quality service to address clients' most complex business challenges. To learn more about how Deloitte's approximately 245,000 professionals make an impact that matters, please connect with us on Facebook, LinkedIn, or Twitter.

This communication is for internal distribution and use only among personnel of Deloitte Touche Tohmatsu Limited, its member firms, and their related entities (collectively, the “Deloitte Network“). None of the Deloitte Network shall be responsible for any loss whatsoever sustained by any person who relies on this communication.

© 2017. For information, contact Deloitte Consultores, S.A.