

# Supportive Regulations & Incentives for Smart Cities

**SmartImpact is a two year project funded by the European Regional Development Fund under the URBACT programme. The aim is to promote Smart, sustainable urban development, helping to make cities more liveable with the support of technology.**

**This theme paper introduces the role of regulations and incentives and how they enable decision-making authorities to steer behaviour and investments towards Smart urban change.**

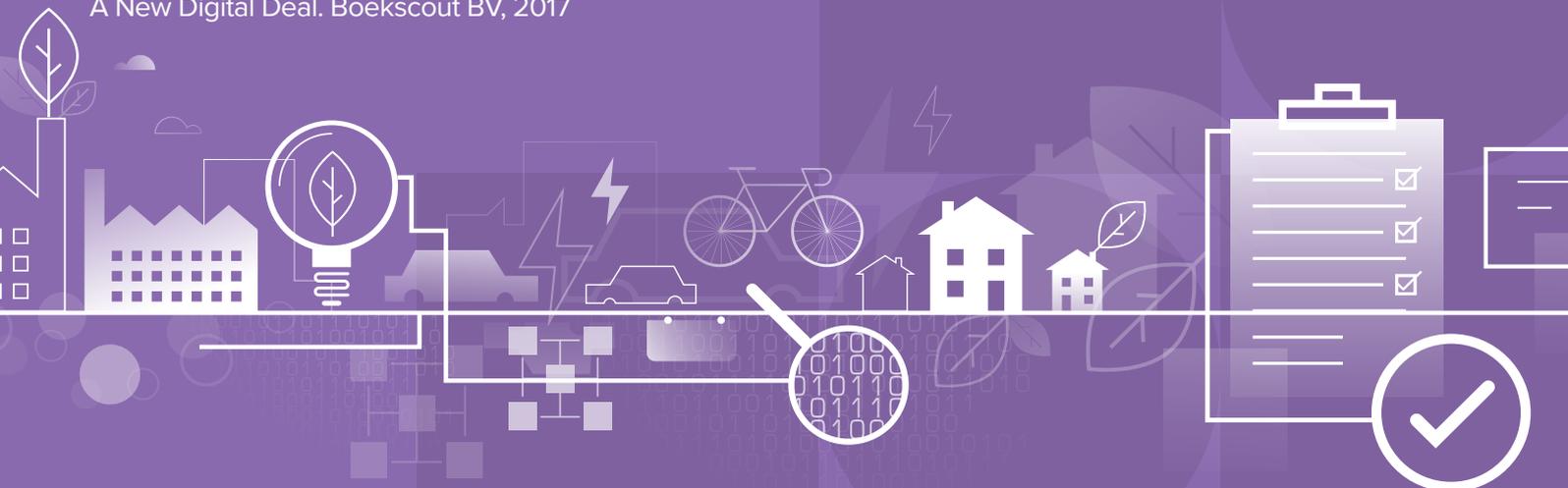
A city can be both the director and regulator in Smart city development. They can create or change laws and regulations to allow new business models and disruptive entries to the market and protect the interests of citizens and users of city services.

Regulations and incentives support Smart policies and help to capitalise on the benefits of Smart technologies. They enable the decision-making authorities to steer behaviour and investments, creating a desired future for their cities.

At their heart Smart policies strive to encourage new behaviour and discouraging older, less desirable habits, and supporting gradual but significant change. Municipalities embracing Smart city development can look to regulations and incentives as a fundamental prerequisite on their journey of change.

Local governments have the potential to use their regulatory powers to harness the opportunities innovation offers. New policies can be used to push behavioural change and investments from public sector responsibility to private or third parties.

Regulatory environments need to reflect the fact that new technologies have emerged - "Regulation 1.1 is what's required: existing regulatory mechanisms that have been amended and carry the agility to deal with digital innovations landing on top of an old world". B.Boorman, A New Digital Deal. Boekscout BV, 2017



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## Key issues for SmartImpact partners

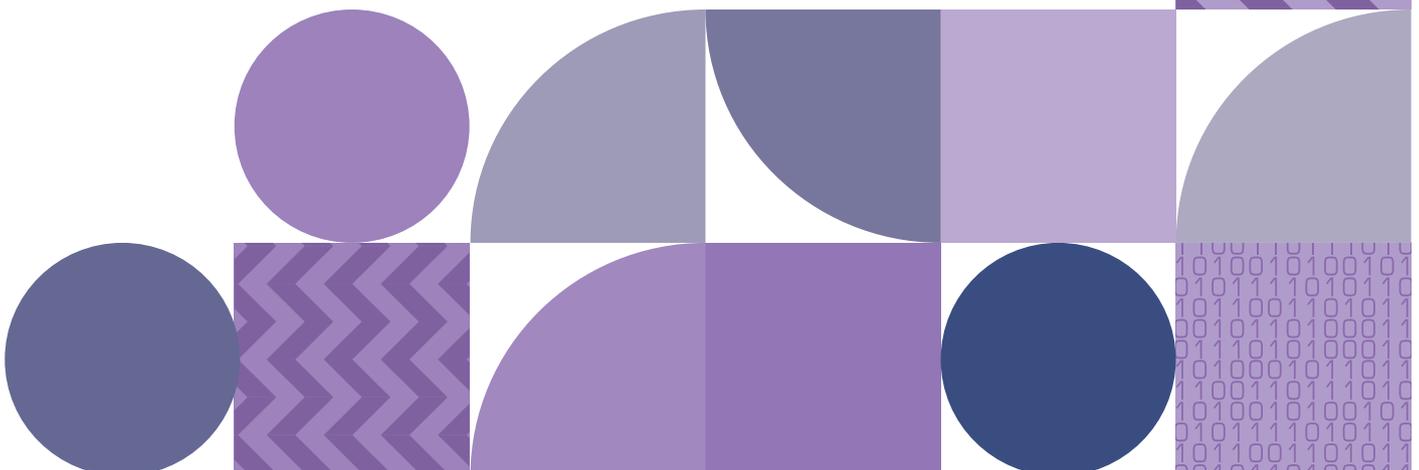
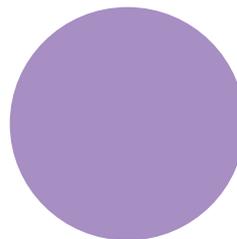
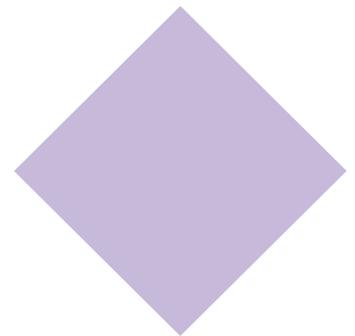
SmartImpact partner cities described the challenges they felt could be addressed through Smart policy development. Three areas were highlighted: urban mobility; buildings and energy; and data management.

A sustainable urban transport system relies on many different types of transport. Ideally, everything would work in harmony to provide citizens with a transport system to suit their needs. Smart cities need to engage transport operators by both regulating their contract requirements and incentivising change for citizen benefit.

Motivating citizens to use their car less or switch to an electric vehicle is a persistent challenge. The electric vehicle (EV) taxi incentive scheme in Stockholm has successfully stimulated changes in driver habits.

Urban buildings, whether public or private, and the energy they consume are a big challenge to sustainable cities. Through better regulation, new building developers can be forced to meet higher environmental standards. With the correct policies in place cities can significantly increase their energy efficiency.

Fundamental to Smart city development is a shift in how cities use technology to manage and analyse data. It is a question of organisation and data governance. Central is the need for new policies that help to aggregate data from a range of urban sources.





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## Smart policy characteristics

In order to drive positive Smart change, cities need to utilise the power of policies. As the governing body, the city has the important advantage of being able to define the rules of the game. The power to do this creates influential leverage points for change.

While the city can make policies, it also needs the support of other significant stakeholders. Cities need to create robust policies supported by research and analysis. The policies must reflect wider common goals, work for political players and be in line with the city's wider strategies.

Senior level commitment is imperative, great policies may fail because city leaders do not support them. From the very beginning the highest decision makers must be engaged. At the same time, for maximum buy-in the wider stakeholders, including users and citizens, need to be engaged in designing the policy.

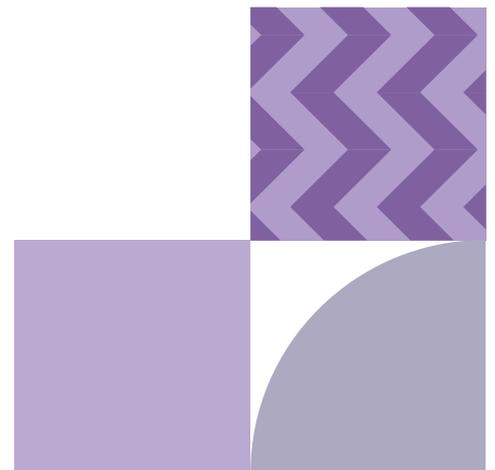
The market for Smart technologies is relatively new. It needs new business models and ways of working which are yet to be developed and implemented. Technologies also offer new opportunities to regulate, for example, the digitalisation of air quality sensing provides a new level of granularity and with it, a depth of data that can be used to both regulate and enforce.

A good way to initiate a Smart policy is to identify the hidden benefits and make them accessible. Using waste heat from data centres or consolidation centres for logistics are examples of harnessing hidden benefits.

Pilot projects can test and showcase Smart policies. It is important to prove the impacts of new policies in real life. Pilots, testbeds and real world experiments provide evidence. These opportunities can be supported by data modelling and visualisation. Well designed policies can be fostered through trial projects. From there, case studies and good practice examples can provide demonstrable benefits, supporting evidence and a delivery plan for wider engagement. Data can be the bedrock of Smart policies and its use in cost benefit analysis can inform strategy and policy.

The technology itself can also drive the need for policy change. Witness the response of cities to UBER and Airbnb. In Spain, new rules have been introduced to prevent apartment owners from renting unless they obtain a special license. Cities need to be able to respond to demands. It is essential to understand the problem and choose the right tools.

Timing is everything, the best ideas fail if they come too early or too late. Manchester City Council responded to the growth in cycling by excluding traffic from a major highway and installing segregated cycling lanes.



This paper is intended to be a guide to some of the relevant issues arising in connection with how cities can use / create / develop governance structures that can help them to drive transformative change using technology.

The other theme papers in this series can be found at: [www.smartimpact-project.eu](http://www.smartimpact-project.eu)

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