

CAN SMART CITIES BE SUSTAINABLE INNOVATION ACTORS?

CASI Policy brief
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EXECUTIVE SUMMARY

TARGETING SUSTAINABLE GROWTH

The global crisis definitely made an earmark on the European countries. The majority of the countries are still struggling in finding ways to recover their respective economies. European governments face many challenges at all levels and are pushed to look for novel solutions under times of restricted budgets and resources. Demands for international competitiveness make societal challenges even more complex to solve.

Cities have been recognized to be important economic actors. They can contribute to initiatives and long-term projects that build new innovation ecosystems which in turn can open new opportunities and perspectives.

PAY MORE ATTENTION TO SUSTAINABLE INNOVATION

The smart city concept is particularly promising in this respect. It promises competitiveness and economic growth through highly educated talent, high tech industries and pervasive electronic connections. Creating conditions for continuous learning and innovation is a prerequisite for achieving smart cities.

In order for European countries to be able to achieve Europe 2020 targets of employment, innovation, climate change, energy and poverty, progress in smart cities would be very desirable.

PUBLIC PARTICIPATION IMPORTANT

This policy brief looks at how the concept of smart cities relates to sustainable innovation and public participation. The European Innovation Partnership on Smart Cities and Communities in particular is looked at from this perspective.

The policy brief argues that while public participation is recognized as a central element in smart cities, there should be more emphasis on sustainable innovation.



The CASI project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no [612113]

**SMART CITIES FOR
SUSTAINABLE
INNOVATION AND
PUBLIC PARTICIPATION**

INTRODUCTION

Smart city projects support growth and city development by applying information and communication technologies as well as involving public and private stakeholders. Due to the growing importance of smart cities, this policy brief will look at them from the perspectives of sustainable innovation and public participation. These are key objectives of the CASI project which develops a common framework for assessment and management of sustainable innovation and considers public participation in doing so.

CASI provides an overview of the European Union's strategic priorities and relevant policies, with a focus on innovation for addressing the Horizon 2020 grand challenge "Climate action, resource efficiency and raw materials." It further identifies relevant European and national policy debates and their specific policy outputs within the framework of sustainable innovation with impacts at national and regional levels.

SYSTEMS OF PEOPLE

LEVEL OF INTERVENTION

Smart cities are systems of people interacting with and using flows of energy, materials, services and financing to catalyse sustainable economic development, resilience, and high quality of life. Nevertheless, European countries, cities and communities respond differently to the challenges of urban transformation.

**CITIZENS MAKE
CHAMPIONS**

Amsterdam, Barcelona, Copenhagen, Helsinki, Manchester and Vienna are often considered successful cities in terms of innovation development and smart city governance. There are a number of unifying factors behind these "city champions." Citizens are empowered through active participation to create a sense of ownership and commitment. Participative environments, in turn, facilitate and stimulate businesses, the public sector and citizens to contribute.

**VISIONS AND
COORDINATION
MATTER**

Having a strong local government partner as a key strategic player is important. Successful initiatives also tend to be embedded in a comprehensive city vision. Public-private partnerships are highly valuable, especially when private partners bring in developer expertise, finance and technology capabilities.

Coordination and complementation between the different stakeholders is central to smart cities. For instance, the European Innovation Partnership on Smart Cities and Communities utilizes the complementary approach when aiming for a significant improvement of citizens' quality of life, an increased competitiveness of Europe's industry and innovative SMEs together with a strong contribution to sustainability and the EU's 20/20/20 energy and climate targets.

**EUROPE AN ACTIVE
PLAYER**

Targets groups of the European Innovation Partnership and its related initiatives as well as of other smart city initiatives include cities and communities, industries, innovative SME's, research organizations and civil society actors, as well as other stakeholders at all levels.

Engagement at a high European level is central for progress in the field. Accordingly, the European Commission, the Directorate-General for Communications Networks, Content



and Technology, the Directorate-General for Energy, the Directorate-General for Mobility and Transport as well as the Sherpa Group are active players. The engagement of other institutions such as European Council and Parliament needs to be highlighted as well.

KEY OBSERVATIONS

PROPOSED MEASURES

At its core, the idea of smart cities is rooted in the creation and connection of human capital, social capital and information and communication technologies in order to generate greater and more sustainable economic development and better quality of life. The smart city and community concept has been looked at from the following dimensions: economy, mobility, environment, people, living and governance. To achieve success in all these dimensions there is a need for an adequate set of policies. Other factors for success are vision, people and process. Having that in mind, the following measures are proposed by CASI to be undertaken:

- Implementation of structural changes in the shift towards future industries with a new generation of knowledge based companies
- Creation of enabling environment for translation of new technology trends into growth and jobs
- Establishment of an effective ecosystem for nurturing entrepreneurship, innovation and, in general, creating an environment that would enable sustainability
- Increasing efficiency of use of resources
- Paying much more attention to sustainability in innovation activities
- Coming up with set of actions towards fostering an attractive environment for long-term investments
- Introducing new business and financial models, public-private partnerships that combine users, industries, and public resources at different levels

ENGAGE MORE

Presently, citizens are still insufficiently engaged to contribute to smart cities. There is a will and there are plans, but innovative forms of governance are called for. Public participation brings together policy makers, experts and citizens to work on the identification and mapping of relevant issues. Improvements to regulatory frameworks are called for as well as training and education of city stakeholders. Citizen's behaviour, choices, creativity and entrepreneurship create an enormous potential.

KEEP AN EYE ON SUSTAINABLE INNOVATIONS

While sustainability is often cited as a driving force behind smart cities, it is being overshadowed by issues relating to economic growth, technological promises, and responses to citizen demands. Sustainable innovations are in the core of sustainability, so paying more attention to them is necessary. Sustainability is smart for cities.

INVITATION TO PARTICIPATE

STAGE OF PROCEDURAL ACTION

The European Innovation Partnership succeeds the Smart Cities and Communities Initiative. This initiative initially only covered energy but was expanded to include transport and ICT's with the launch of the partnership in July 2012.



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The European Innovation Partnership includes an Invitation for Commitments as well as a first public Strategic and Operational Implementation Plan in order to further engage a broader network of stakeholders, industry, community and others. At the same time, it gives an overview of current actions as well as detailed examples of integrated smart city solutions.

OPEN INVITE

The Invitation for Commitments (deadline 15/06/2014) invites all stakeholders to step forward and support the objectives of the partnership by communicating and sharing their ideas and plans for actions at the interface of energy, transport and information and communication technologies. It is expected that joint innovative ideas and actions from across Europe will help develop a dynamic market place for innovation exchange and partnering to the benefit of cities, citizens and companies. The Invitation for Commitments is independent from Calls under Horizon 2020.

INVESTMENTS FOR UPTAKE

In most cases, new investments will be needed to generate the broad uptake of smart city solutions, to create an attractive environment for long-term investments. As the public sector has limited resources due to the economic crisis, private funding is sought for. This means that there is a need to introduce new business and financial models, public-private partnerships that combine users, industries, and public resources at different levels.

NEW KNOWLEDGE AND EUROPEAN ADDED VALUE

The Lighthouse Initiative concept is intended to support deploying smart city solutions to target 20/20/20 goals in the domains of urban mobility, districts and built environment, and integrated infrastructures. Committed city-groupings together with industries and other stakeholders are called for to develop solutions across the ICT, energy and mobility sectors.

RECOMMENDATIONS FOR POLICY-MAKERS

ENGAGEMENT

- Engage citizens, entrepreneurs, talents, academia, industry, international knowledge, public authorities to turn challenges and new technology trends into growth and jobs. The concept of smart cities and communities provide opportunities, infrastructures, networks, know-how and sharing of best practices.

PARTNERSHIPS

- Support partnerships that allow national and regional stakeholders to step out of common network boundaries into strong international alliances.

SHARING

- Share best practices and proven experiences from successful initiatives.

INDICATORS

- Set up indicators and monitor results to track progress.

SUSTAINABLE INNOVATIONS

- Pay more attention to sustainable innovations in order to achieve Europe 2020 targets.



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FURTHER READING AND REFERENCES:

- Dan Hill's critique of the smart cities movement: www.experientia.com/blog/dan-hills-critique-of-the-smart-cities-movement
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- European Commission, Smart Cities and Communities, About the partnership - How do I get involved? http://ec.europa.eu/eip/smartcities/about-partnership/how-do-i-get-involved/index_en.htm
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- EIF Breakfast Debate, Smart Cities and Communities: the EU Innovation Partnership: www.eifonline.org/events/399-smart-cities-and-communities-the-eu-innovation-partnership.html
- Green Digital Charter: www.greendigitalcharter.eu
- Research Italy, Smart Cities: European mapping and growth perspectives: www.researchitaly.it/en/researching/press-media-4/news/smart-cities-european-mapping-and-growth-perspectives
- Silver Spring Networks, Charting the Path to Smart Cities: www.silverspringnet.com/whitepapers/#chartingpath
- Tim Campbell, Beyond Smart Cities: www.beyondsmartcities.org

CASI: PROJECT DESCRIPTION

PROJECT TITLE: Public Participation in Developing a Common Framework for Assessment and Management of Sustainable Innovation (CASI)

COORDINATOR: ARC Fund, Bulgaria: Zoya Damianova.

CONSORTIUM: The CASI consortium consists of 19 partners representing 12 European countries. Country correspondents extend the reach to 28 countries.

FUNDING SCHEME: Coordination and support action, funded under the 7th Framework Programme of the European Community, SCIENCE-IN-SOCIETY-2013.1.2-1.

DURATION: 42 months, 1/2014-6/2017

BUDGET: 4.5 M€, 428 person months

WEBSITE: Will be set up soon.



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