



Analysis of Energy Vectors for Transition to Smart Cities Development

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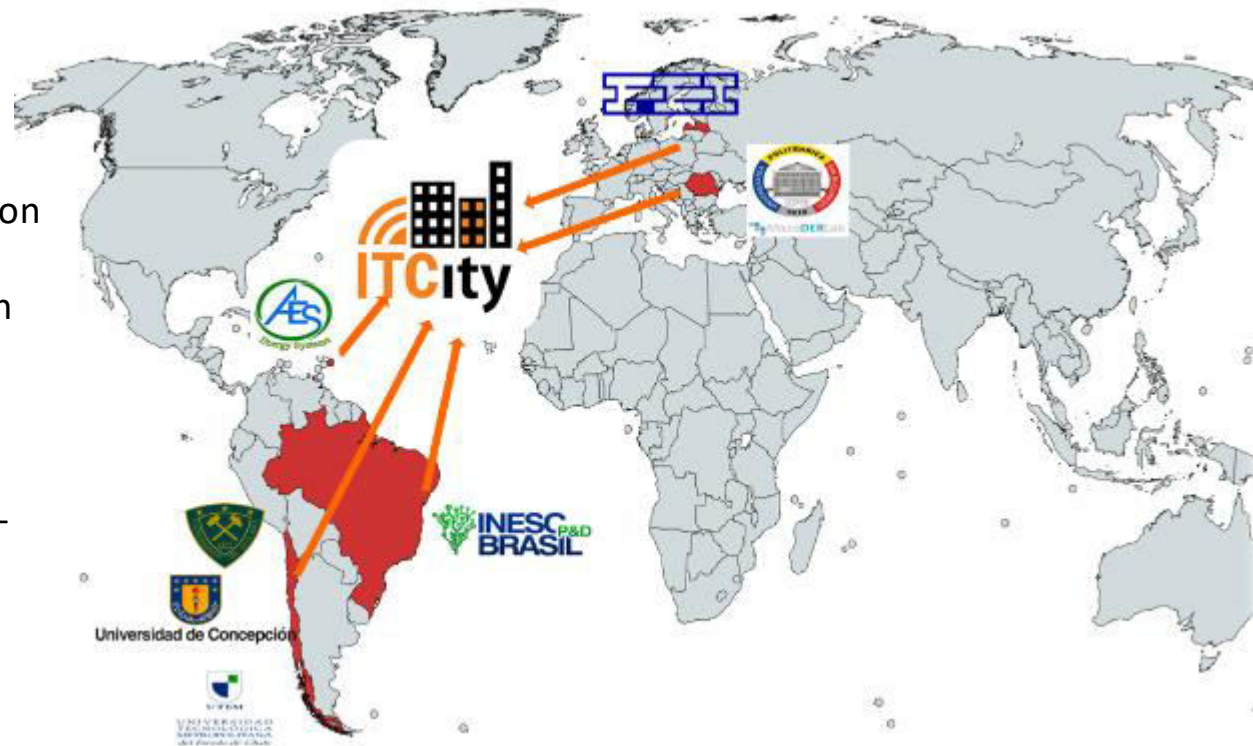
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An ICT platform for sustainable energy ecosystem in Smart Cities

Facts

- Under ERANet-LAC 2nd Joint Call on Research and Innovation for Latin America, Caribbean and European Union Countries
- Budget: 615,619.00 € / 167man-months
- Timeline: 3 years, February 2017 - January 2020
- 7 partners from 5 countries





Project Goals

- Reinforced collaboration between EU and LAC researchers, international industrial collaborators and in order to implement digital services for smarter neighborhoods
- Intelligent ICT platform development to support EU and LAC cities in their transformation into Smart Cities with key focus on intelligent use of energy and digital services implementation, achieving social, economic and environment sustainable solutions
- Data techniques applied to information delivered by ubiquitous smart metering technologies for multivector energy use in large cities





Smart City in Europe

➤ Definition for Smart Cities (taken from “European Innovation Partnership on Smart Cities and Communities - Strategic Implementation Plan”,

<http://ec.europa.eu/eip/smartcities>):

Smart cities should be regarded as 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; these flows and interactions become smart through making strategic use of information and communication infrastructure and services in a process of transparent urban planning and management that is responsive to the social and economic needs of society.

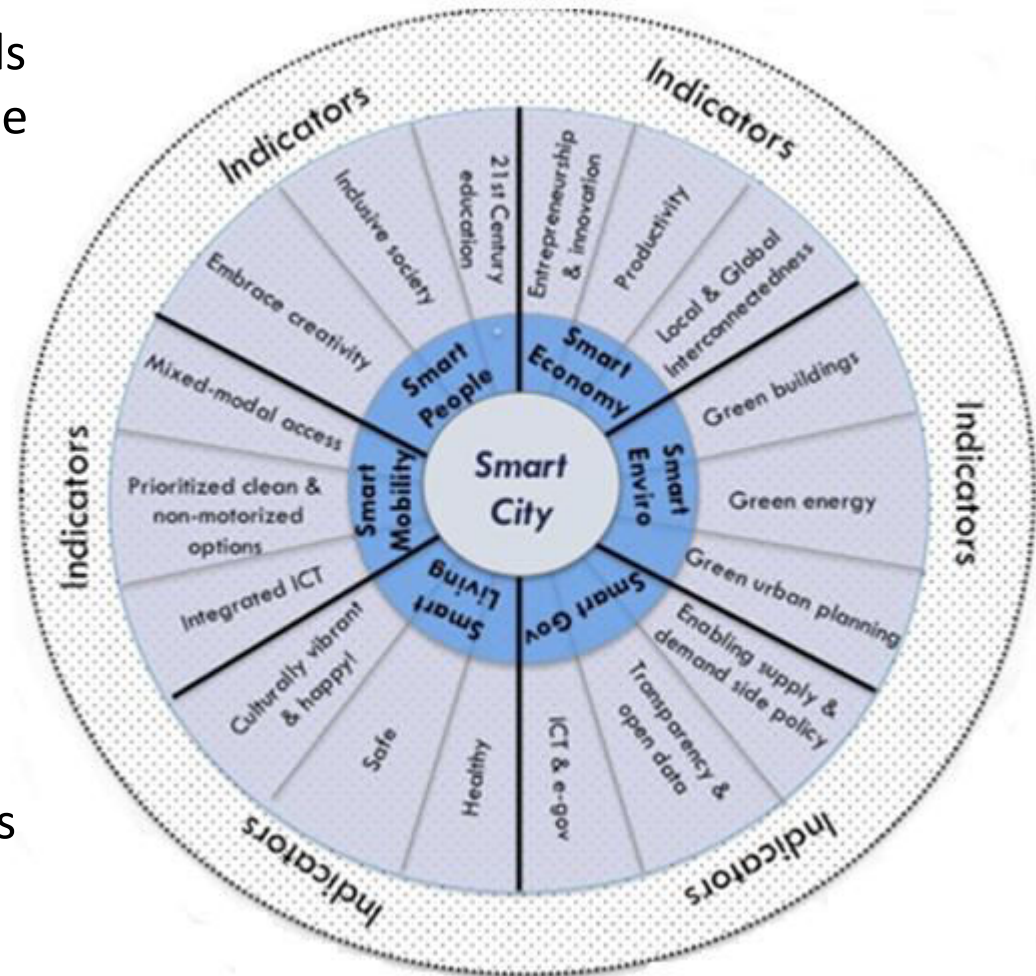
Smart City in LAC

➤ *Smart City is the one that breaks the paradigms of conventional urban planning, consisting of an innovation and system integration environment focused on urban efficiency and dynamically built with the active participation of users and institutions, through the application of information and communications technology (ICT).*

Smart Cities: vectors of developing

There are many smart city models in the world, which try to describe in the best way the necessary functions and direction of Development inherent to smart cities.

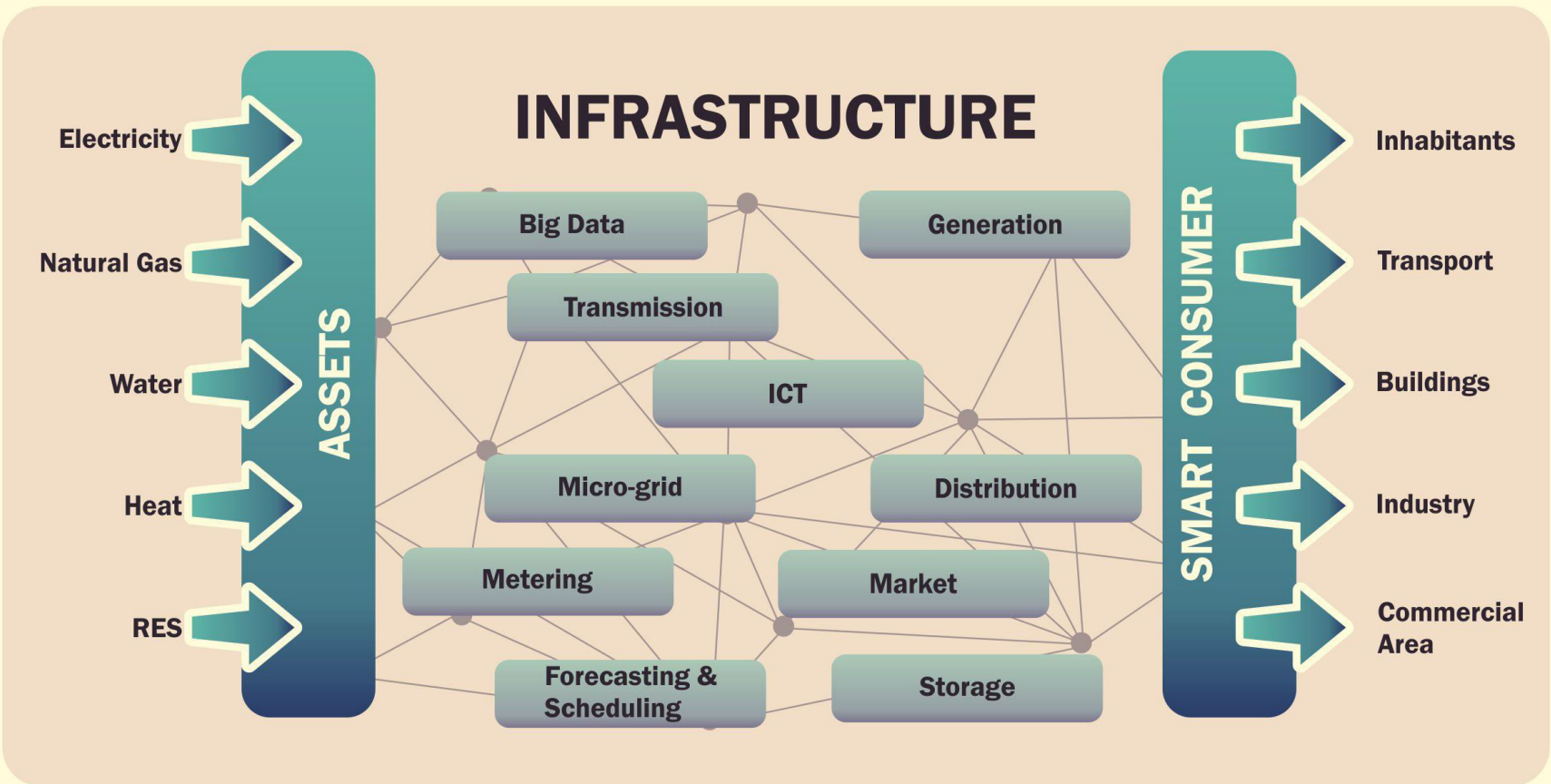
One of the most popular model divide city developing in 6 sectors with more detail splitting in each sector:



<https://www.fastcoexist.com/1680856/the-top-10-smartest-european-cities>



Smart Energy Structure





Smart City Poll

To assess most precisely the situation with **citizens understanding and awareness** of the smart cities tasks and purposes, as well as **smart cities initiatives** in their cities, IPE asked all partners to fill in the **Smart City Poll**

QUESTIONS RESPONSES 109 Total points: 0

Do you know what a smart city is? Have you heard of initiatives aimed at *

Yes

No

Very little

Do you know about projects in your city aimed at "smart" energy *

Yes

No

Very little

Are you interested in saving energy? *

Yes

No

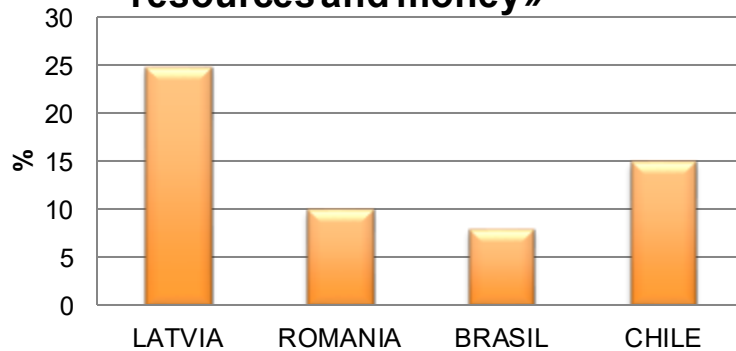
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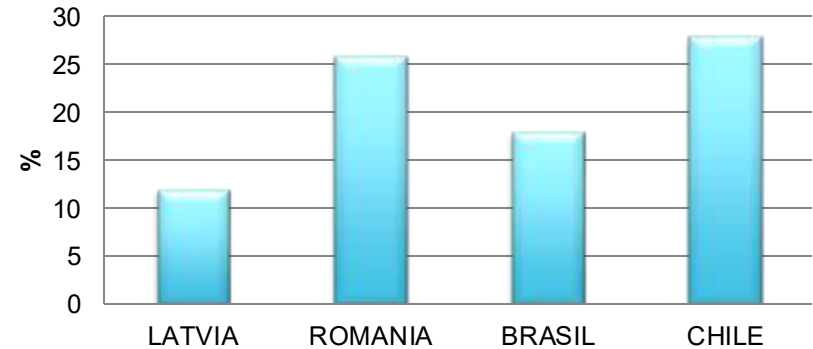


Some of the Results

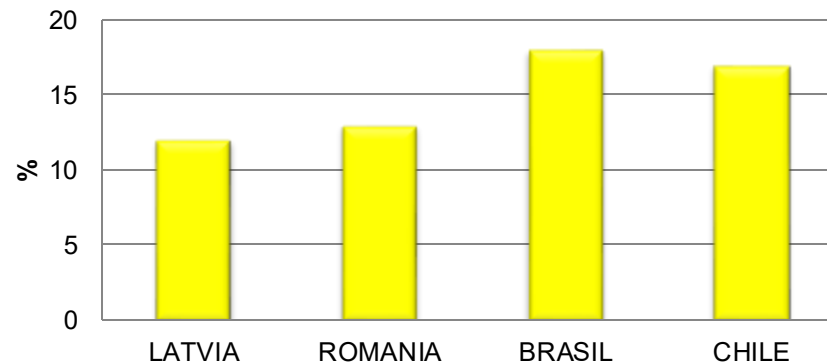
«I do not know anything about choosing another electricity consumption mode for savings resources and money»



«I am ready to switch to another mode of consumption»



«I'm ready to play the game by managing my resources in the mobile phone application»



Awareness must be the first!

As show the results of the **Survey on Smart City**, carried out within the framework of the project ITCity, a **more responsible energy consumption** and **smarter use of energy** is one of the primary tasks of smart energy city development.

It is necessary to understand and use the intellectual **technologies** and opportunities offered in the market, **together** with the understanding of **consumers** contribution to a more flexible energy system and smart city as a whole.



Gamification

The concept of **gamification** appeared in the last few years. It means **the use of typical game elements in the context of another activity** to motivate engagement and achieve certain goals.

Gamification for engagement & behavioral change™

- Game objectives are **real-world challenges**
- **Obstacles are real** but, thanks to game concepts and mechanics, are tackled with **enthusiasm** and **resolution**
- The game layer enables a **rewarding system** based on
 - extrinsic/intrinsic incentives
 - short feedback cycles





Challenge vs Conclusions

«The smart city concept essentially means efficiency, but efficiency based on the intelligent management and integrated ICTs, and active citizen participation»

*Gildo Seisedos Dominguez,
Spanish economist and lawyer who specializes
in city marketing and smart cities*





➤ We are open to new contacts and knowledge exchange!

www.fei-web.lv/itcity



Thank you for your attention!