

# SMARTGREENS 2015

4<sup>th</sup> International Conference on Smart Cities and Green ICT Systems

LISBON, PORTUGAL | 20 - 22 May, 2015



## Constructing Human Smart Cities

Prof. Doutor Álvaro de Oliveira

Visiting Professor at Aalto University, Helsinki

ENoLL President Emeritus

Human Smart Cities Network Coordinator

22<sup>nd</sup> May 2015

  
ALFAMICRO





# Agenda

- Big City Challenges
  - Technological and Social Trends
  - Urban Living Lab
  - From Smart Cities to Human Smart Cities
  - MyNeighbourhood
  - MyN – FIWARE Integration
  - Human Smart Cities Roadmap
  - Human Smart Cities Network
  - Human Smart Cities in Brazil
  - Conclusions
- 

# Big City Challenges (1/5)



**Megacities**



**Demographics Shift**



**Sustainable Food**



**Sustainable water resources**

## Big City Challenges (2/5)



**Sustainable Housing**



**Poverty**



**Drugs**



**Safety**

# Big City Challenges (3/5)



**Environmental Impact**



**Urban Waste Management**



**Corruption**



**World Financial System**

# Big City Challenges (4/5)



**Sustainable Energy**



**Mobility**



**Health**



**Education**

# Big City Challenges (5/5)



Brazil



Portugal

## Claining Democracy



Spain



Egypt



# Welcome to TheSmarterCity

Cities are complex systems of systems. As our planet becomes instrumented, interconnected and intelligent, we have the opportunity to connect these systems and make our cities smarter. See how in TheSmarterCity.

Turn on your computer's speakers 

 Launch the Fullscreen Flash Version





Welcome to  
TheSmarterCity™



Transportation  
Airports & Rail



Public Safety



Social Services



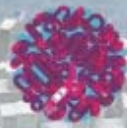
Education



Healthcare



Economic  
Development



Transportation  
Traffic



Energy & Utilities



# Plataforma integrada de gestão da Cidade Inteligente






**Smart City?**  
**Analytic City?**  
**Human City?**  
**Sustainable City?**  
**Resilient City?**

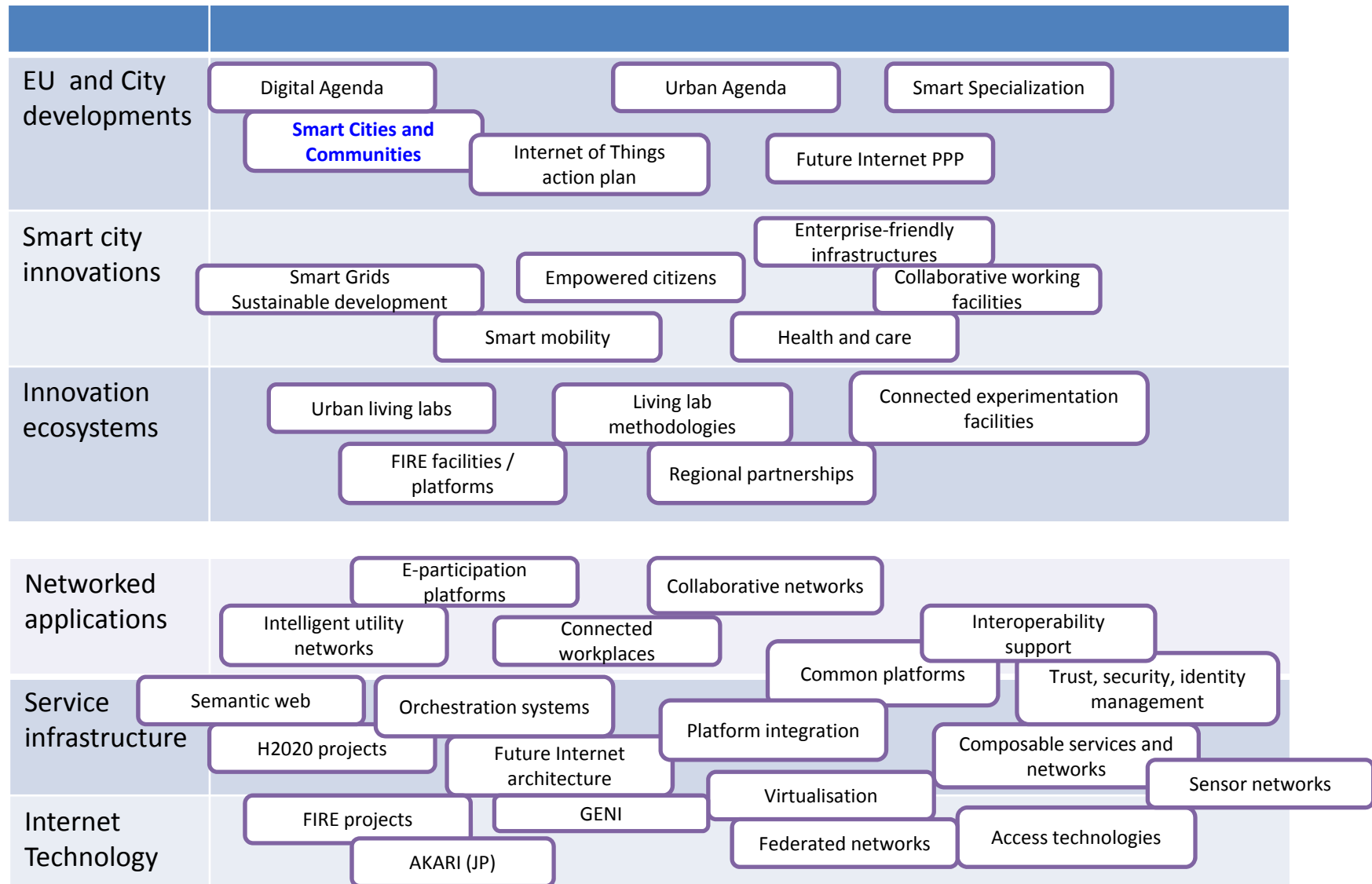
**Human Smart City**



# Technological and Societal trends

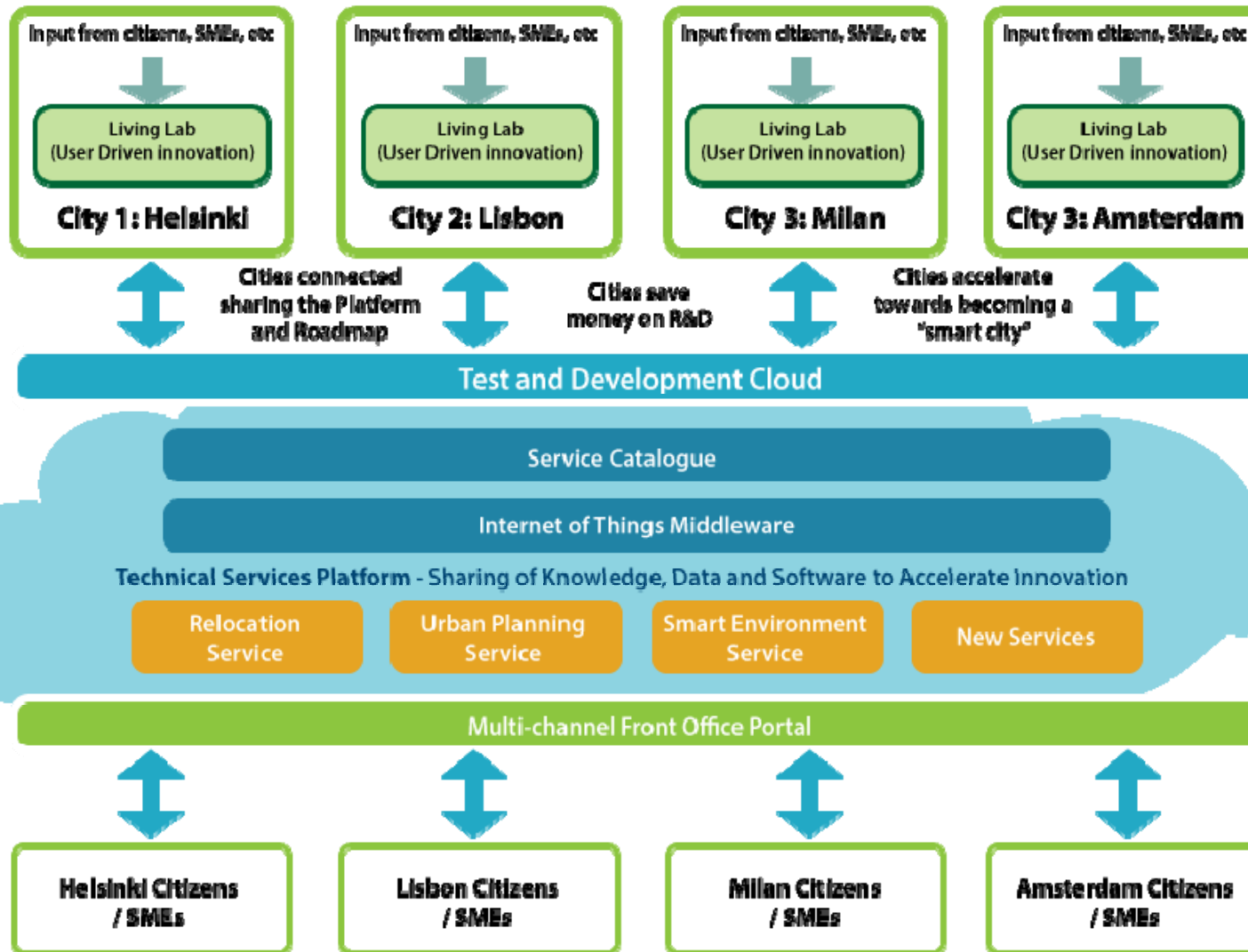
- Populations are still converging to the cities, (Forecasted 75% for 2050), worsening the challenges that cities face: mobility, energy, water, health, education, services, open government.
  - Digital technologies are transforming the way that people live, interact, learn, work, negotiate, have fun... and allow the adoption of new collaborative and participative lifestyles.
  - We are witnessing profound social and behavioural transformations, triggered by communication, contents virtualization, access to Big Data, data visualization and analytics
  - New socio-economic development and participative governance models need to be created so as to cope with these transformations.
- 

# Smart Cities Roadmap



# Roadmap for the deployment of the Smart Cities Platform

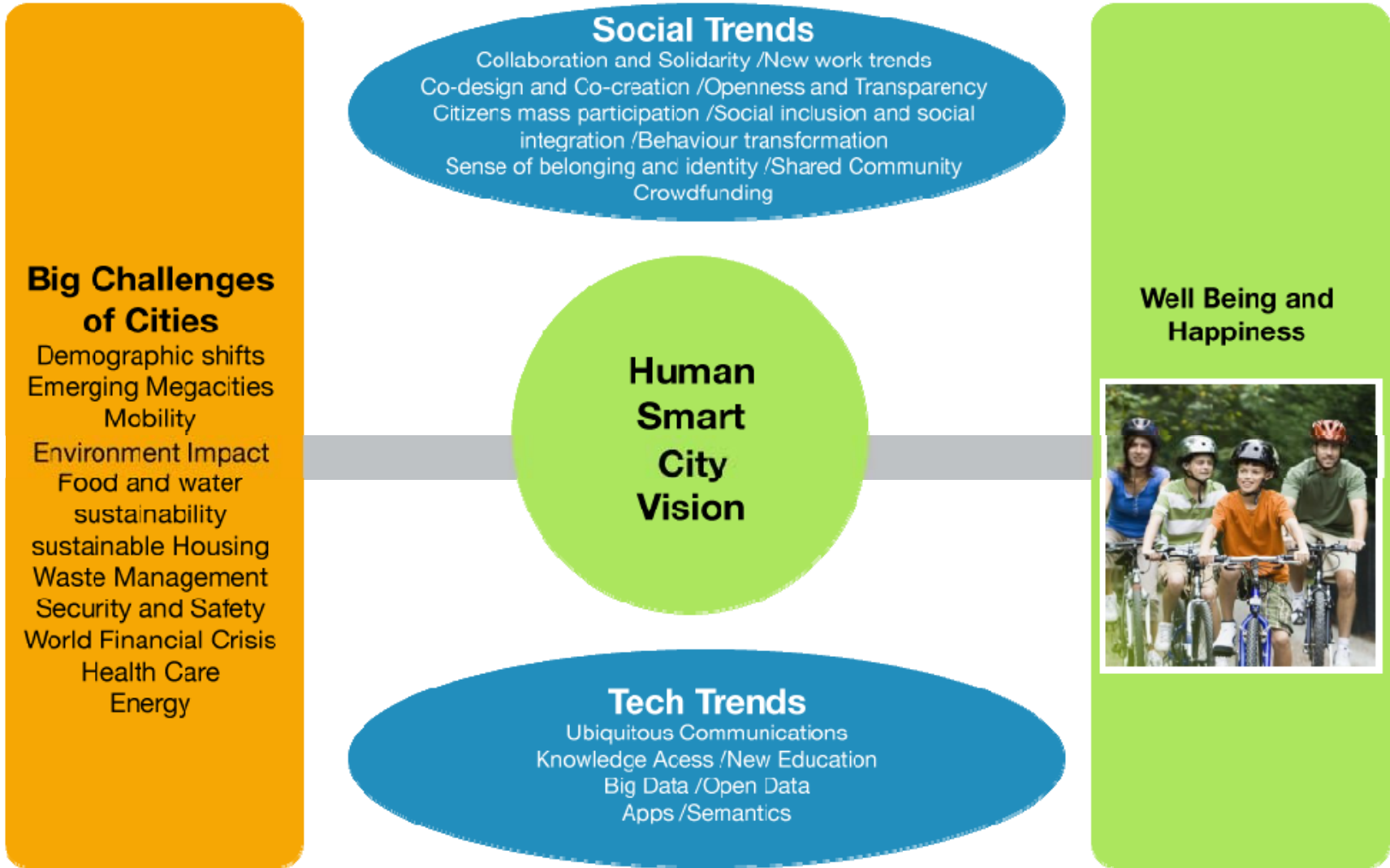
Living Labs facilitate the "public-private" partnerships involving citizens and help create and validate the innovative services, business models, processes and value networks needed



Citizens have easier access to more efficient services and are able to feedback comments directly to the administrators

# Human Smart Cities

## Strategy





# Human Smart Cities


## Vision Concept and Model

In **Smart Cities** the technical infrastructure gathers, connects and processes big data to deliver open, transparent and efficient municipal services.

In **Human Smart Cities**, the Government is open to engage and be engaged in citizens initiatives on the basis of an open, transparent and trustful relationship...

In **Human Smart Cities** the information technologies are used to solve social, economic and environmental problems with the participation of citizens.

The Government implements and supports an ecosystem of open urban innovation (**Urban Living Lab**), which supports and drives the co-design and co-creation of social and technological innovation products, services and processes in order to solve problems and focus on the **wellbeing and happiness** of citizens.





# Living Lab Innovation Ecosystem



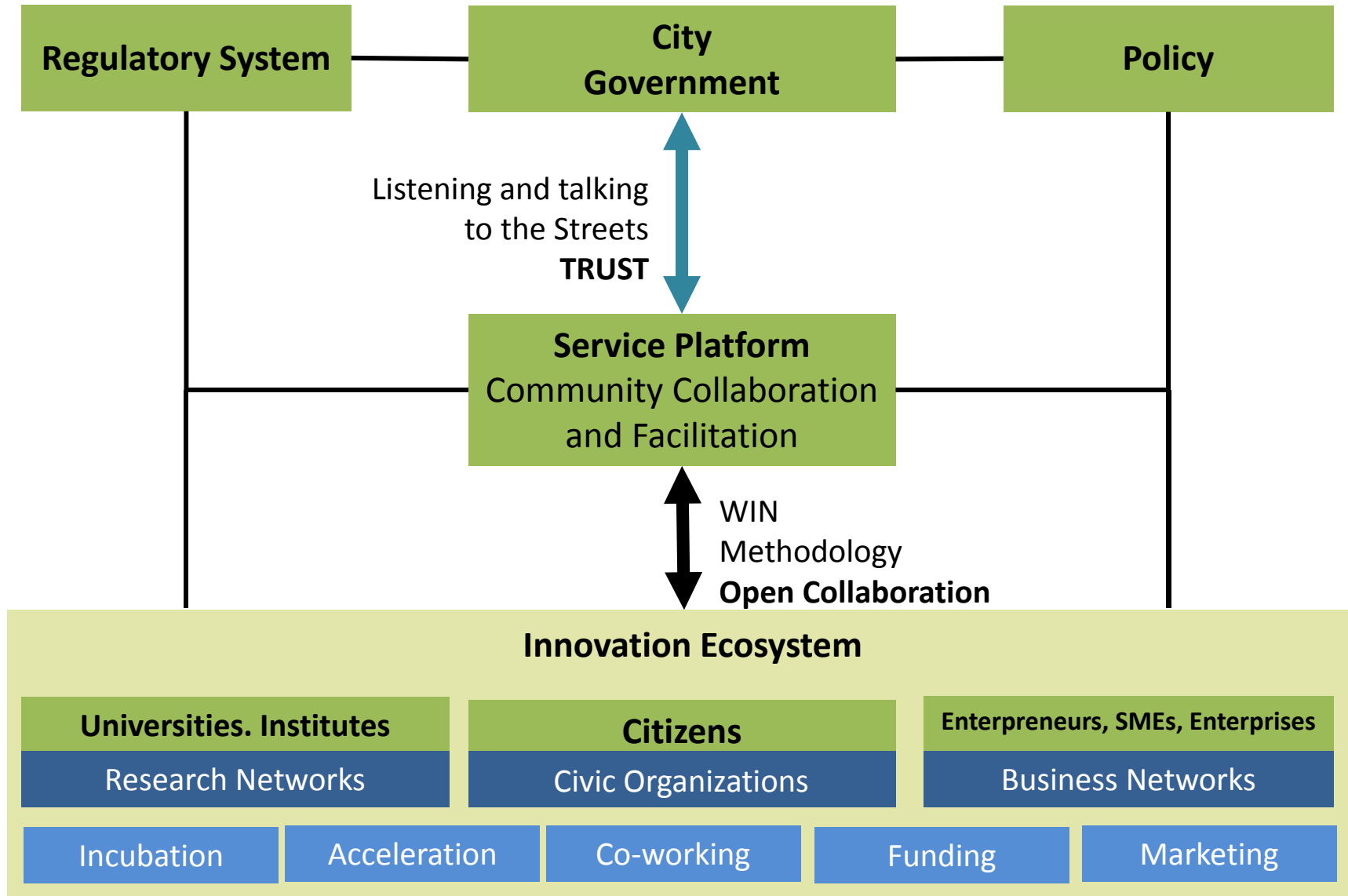
# Urban Living Labs drive Smart Cities

## Transformation Process

- The scale of problems creates the need to harness the widest possible set of resources and entrepreneurial talent for problem solving. This involves the collaboration of diverse types of policies, knowledge and resources to co-design and co-create new innovative solutions.
- These solutions need to harness the motivation of millions of individuals and their communities. Solutions cannot be pushed down at people to force changing behavior. Crowds are not managed but they need trustful leadership. They need to be involved from the problem identification phase and take ownership of the solutions.
- New, distributed and highly participatory systems are required. New roles and business models of companies and public sector, aiming to add value, need to be experimented and refined.
- **Living Labs** are innovation ecosystems where all the RDI stakeholders engage in **OPEN LIVING INNOVATION** driven by the citizens. The **Urban Living Lab** stimulates collaboration, open sharing, trust and enables behaviour transformation and leading markets.

# Human Smart Cities

## Urban Living Lab Innovation Ecosystem





# Human Smart Cities

## Urban Living Lab ecosystem

- Human Smart cities are open innovation ecosystems (Urban Living Lab) focused on people (**Social Inclusion**), promoting wealth and employment creation (**Economic development**), in a green economic model (**Environmental sustainability**).
  - Municipal Government, urban planners, universities, information and technological companies and financing institutions organize themselves in a dynamic and innovative ecosystem(**Top down support**).
  - Citizens are involved in need identification, new services creation, prototyping, “early market” (**Bottom up**).
  - Citizens are **transformation agents**. Technologies are support tools to the knowledge communication generation. Big, medium and small companies are **creating agents** of new services and processes.
  - The **Urban Living Lab** contributes to generate and locate knowledge, experience and wealth creation.
- 



## Living Lab Values

- Openness. Collaboration. Network Communication;
- Trust and transparency;
- Bottom-up Initiatives;
- Co-design and Co-creation;
- Human Centered. Well-being;
- Social Innovation;
- Sustainability.

# ENoLL Globalization



Rede Africana de Living Labs  
10/05/2011, Botswana,



Workshop de Inovação em Eficiência Energética  
19/10/2011, Beijing, China



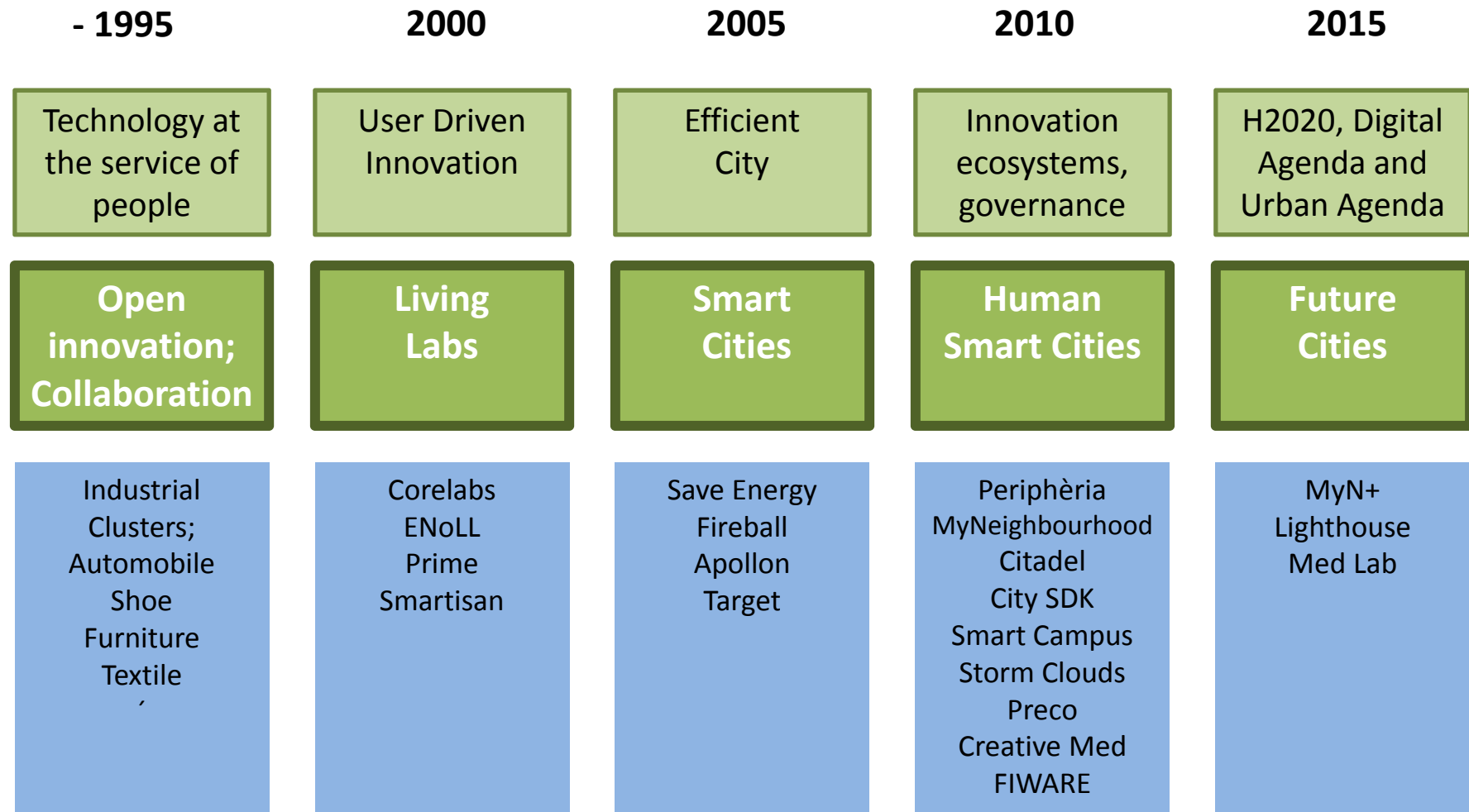
Rede Brasileira de Living Labs  
09/06/2011, Amazonia, Brasil



Network for Future Learning  
10/10/2011, OCDE, Paris - França

# Technology at the service of people

## Evolution of technological and social innovation(Alfamicro)



# From Smart Cities to Human Smart Cities

**Energy Efficiency** Optimization of energy usage leads to energy efficiency.

**Local production and Consumption**

**User Behaviour Transformation.**



**Infrastructure** A Smart City with Big Data and centralized planning and management stands to be the ground for enhancing economy efficiency, ensuring safety and comfort of the population.

**Citizens use Big Data and Apps to achieve Smarter Living**

**Social Innovation** Citizen driven services (WIN Methodology, MyN Platform and Design Thinking and Gamification Methodologies)

**Interaction, Collaboration, Participation, User Behaviour Transformation**

**City Governance** Listening and Talking to the streets. Openness, transparency and trust. Innovation Ecosystem

**Citizens engagement transform the Smart City in the HUMAN SMART CITY**

**Innovation Ecosystem.** An orchestrated system focused on innovation and entrepreneurship taking advantage of a friendly environment to support new business and market take up.

**Creation of Wealth and Jobs.**

**Environment** Rational usage of resources and innovative technologies can solve many environmental problems. Smart City is a city with clean air, clean water and green parks.

**User Behaviour Transformation drives the city resilience**

**Health** Telemedicine equipment and planning improve the effectiveness of prevention and treatment as well as reduction in the numbers of medical errors.

**User Behaviour Transformation leads to healthier lives and effective treatment.**

**Mobility** Intelligent transportation system implies operational control of all modes of transport in real time with the ability to resolve the problem instantly.

**Citizens is part of the sensing system User Behaviour Transformation.**



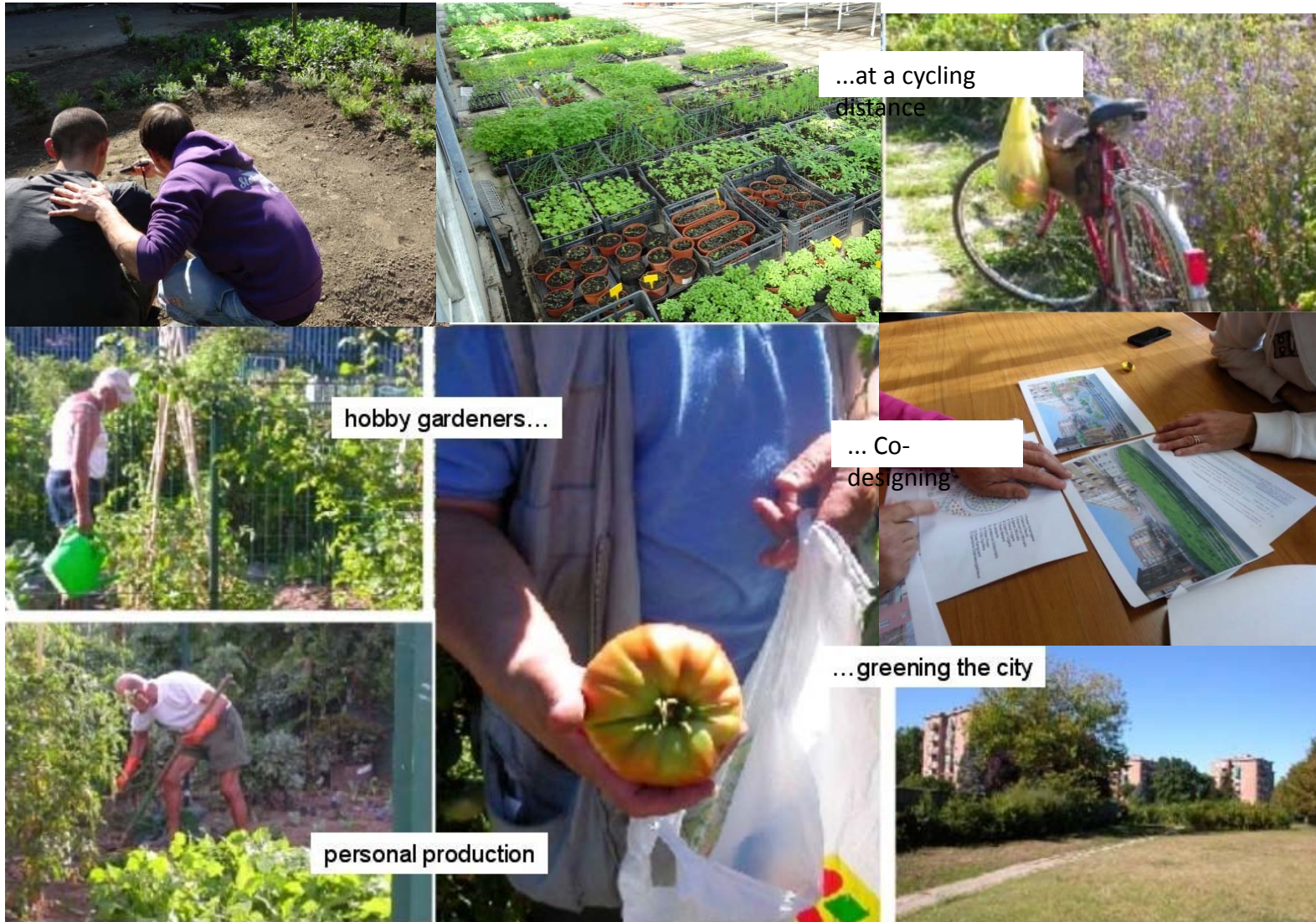
# Human Smart City

Social Innovation - **Interaction Living Lab**, Manaus, Amazônia



# Human Smart City

## Urban Farming– MyNeighbourhood, Milão





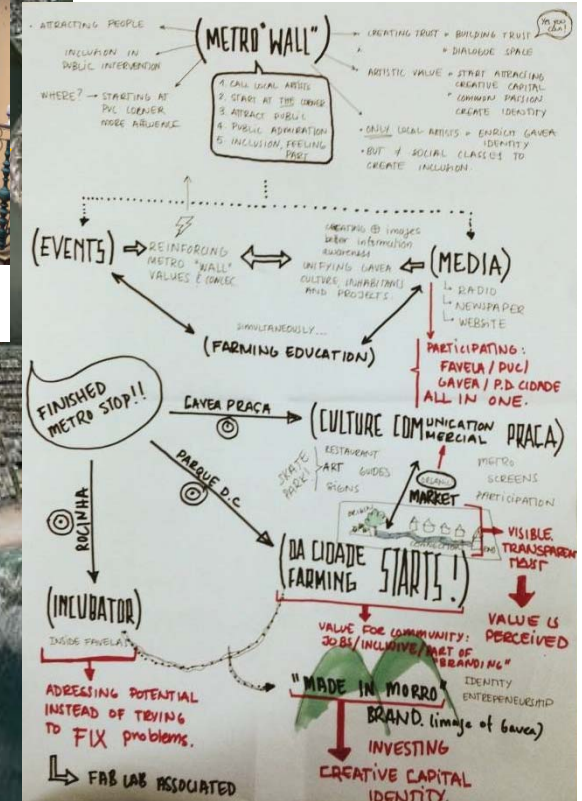
Border "River"



Gavea "Rich area"



Rocinha "Favela"



Co-designed integration ideas

## Human Smart Cities

Bridging Rocinha and Gávea Communities

Aalto University (Helsinki, Finland) and PUC University (Rio de Janeiro, Brasil)

# Human Smart City

Social Innovation – Rio Living Lab, Rio de Janeiro



# Human Smart City

## Social Innovation - Manaus, Amazônia



# Human Smart City

## Integrated Mobility – Fireball, Helsinki



# Human Smart City

Behaviour Transformation– **Save Energy**, Helsinki



# Human Smart City

## Microfinancing – Habitat Living Lab, Vitória, Brasil



CRÉDITO PRODUTIVO,  
HABITACIONAL E PARA  
CONSUMO EM MOEDA  
LOCAL CHAMADA **BEM**.

1 BEM = 1 REAL

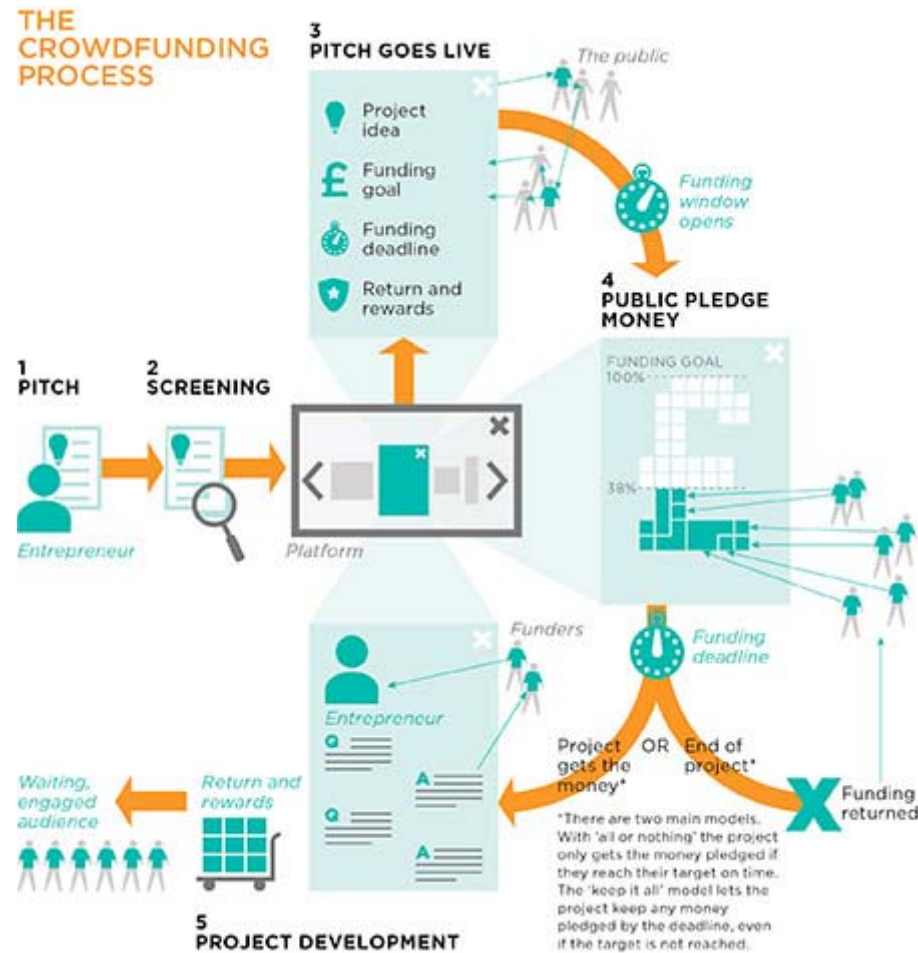


Source: Miriam M. Pinto



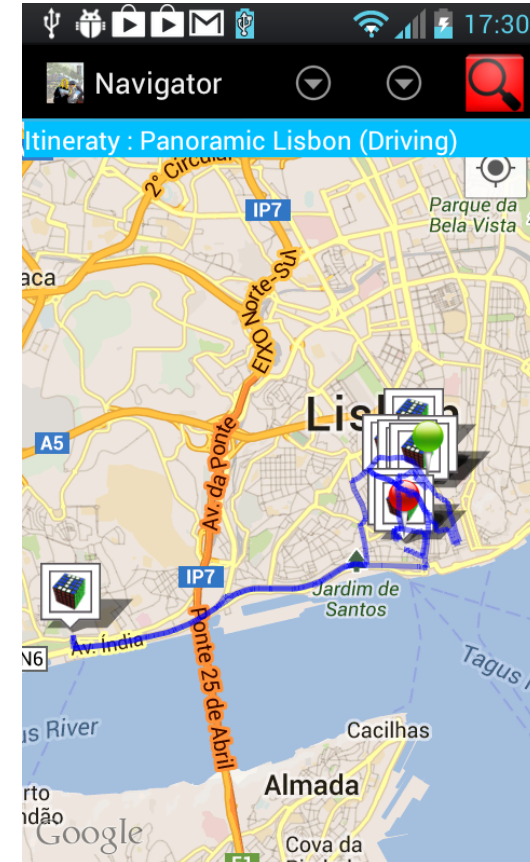
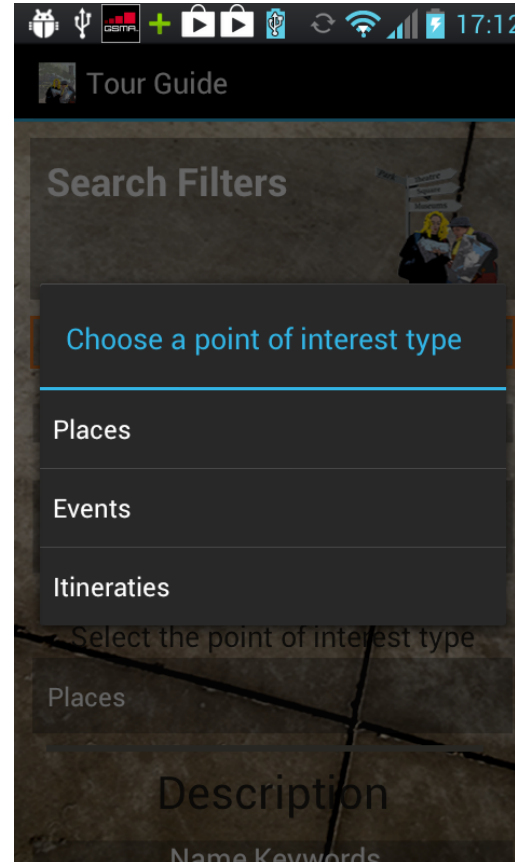
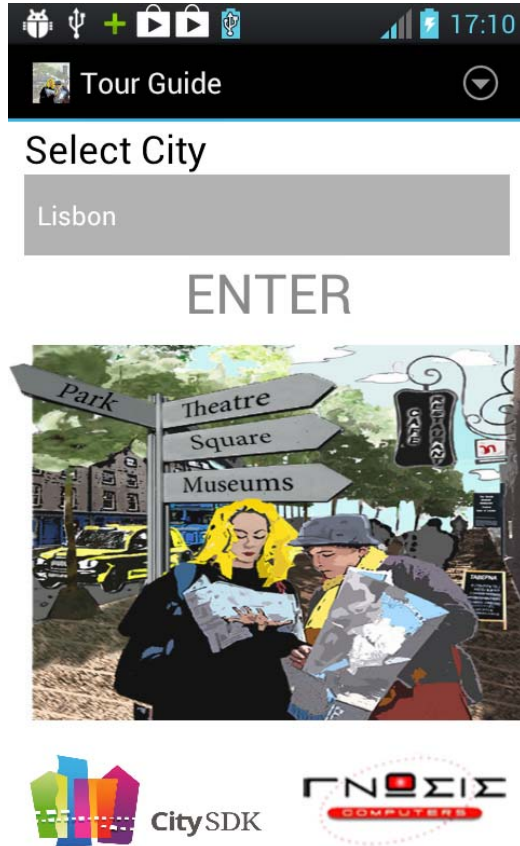
# Human Smart City

## Crowdfunding – MyNeighbourhood, Lisboa



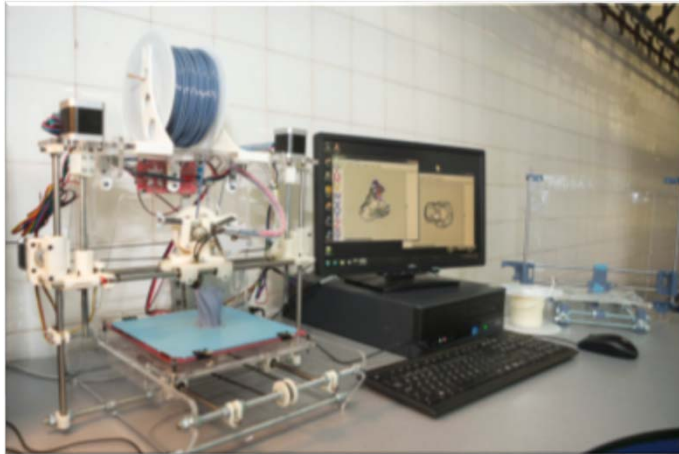
# Human Smart City

Interoperability - City SDK, Lisboa



# Human Smart City

## Fab Lab – MyNeighbourhood, Lisboa



Modern cities became  
places of  
human  
isolation  
and  
social  
exclusion.



Human Smart Cities are  
places of  
human  
interaction  
and  
social  
inclusion!



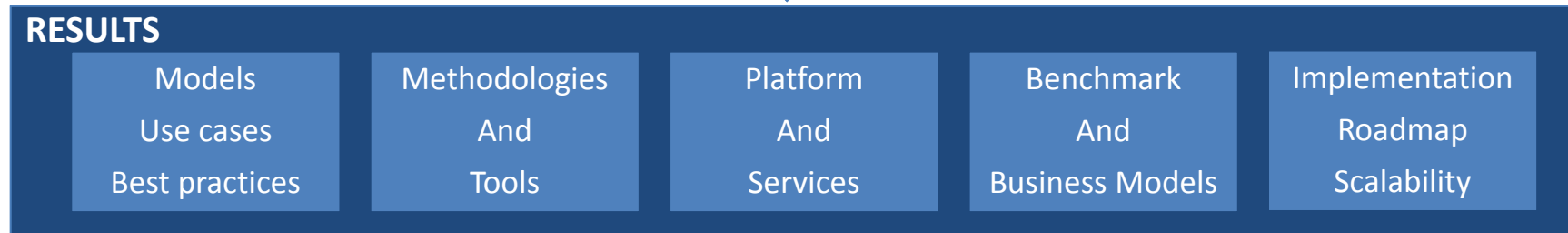
MyNeighbourhood

# Human Smart City Transformation Process

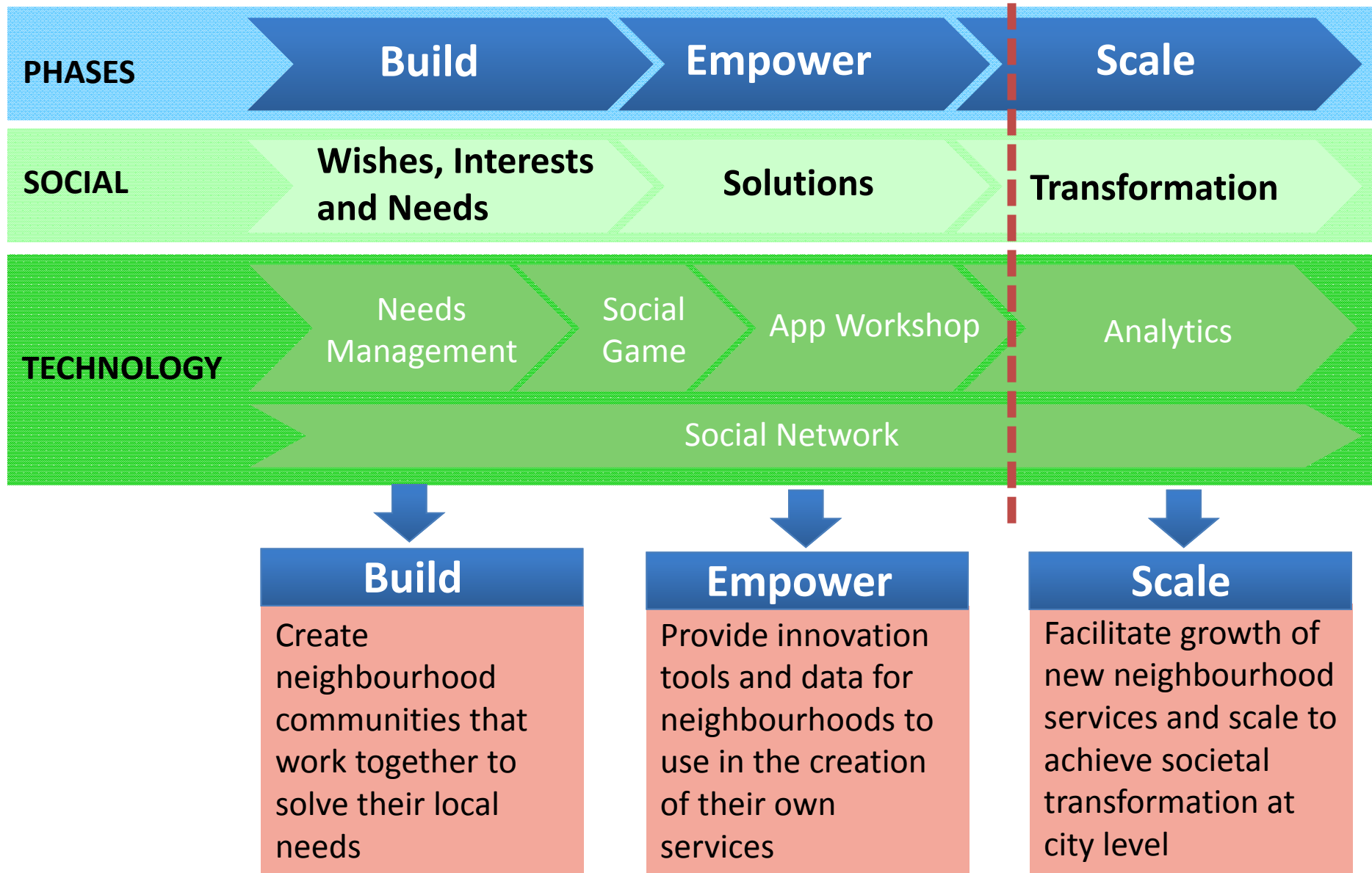
## METHODOLOGIES AND TOOLS



## SOCIETAL TRANSFORMATION



# MyNeighbourhood Project



# MyN UrbanLiving Lab

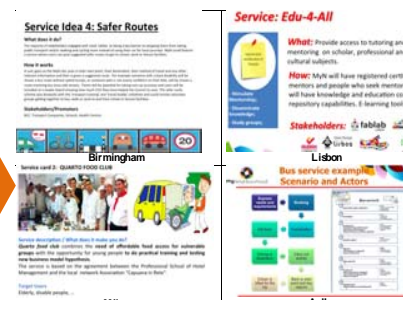
*From ideas to solutions*



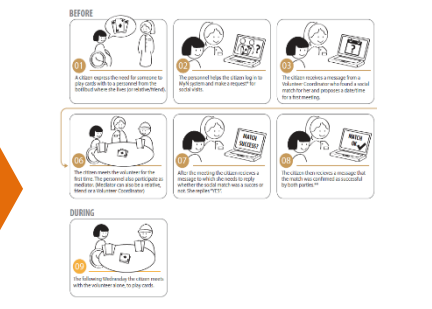
Context analysis



Co-design workshops



Solution Idealization



Solution development

# Context Analysis and Citizens engagement and motivation in Mouraria, Lisbon



- Identify local community leaders;
- Identify Current Activities and Projects;
- Selection of key stakeholders to be involved in the Project;
- Presentation of MyNeighbourhood;
- Alignment of interests;
- Engagement in co-design and co-creation workshops with the community leaders and progressively extending to the citizens.



# Community engagement

Meetings, workshops and events



# Co-design and Co-creation activities

## Co-design of ideas



# MyN Co-design

## Tools of WIN methodology



## Wishes, Interests and Needs (WIN)



# Co-design and Co-creation activities

WIN Methodology application



# Community Engagement

Openness, transparency, trust and collaboration



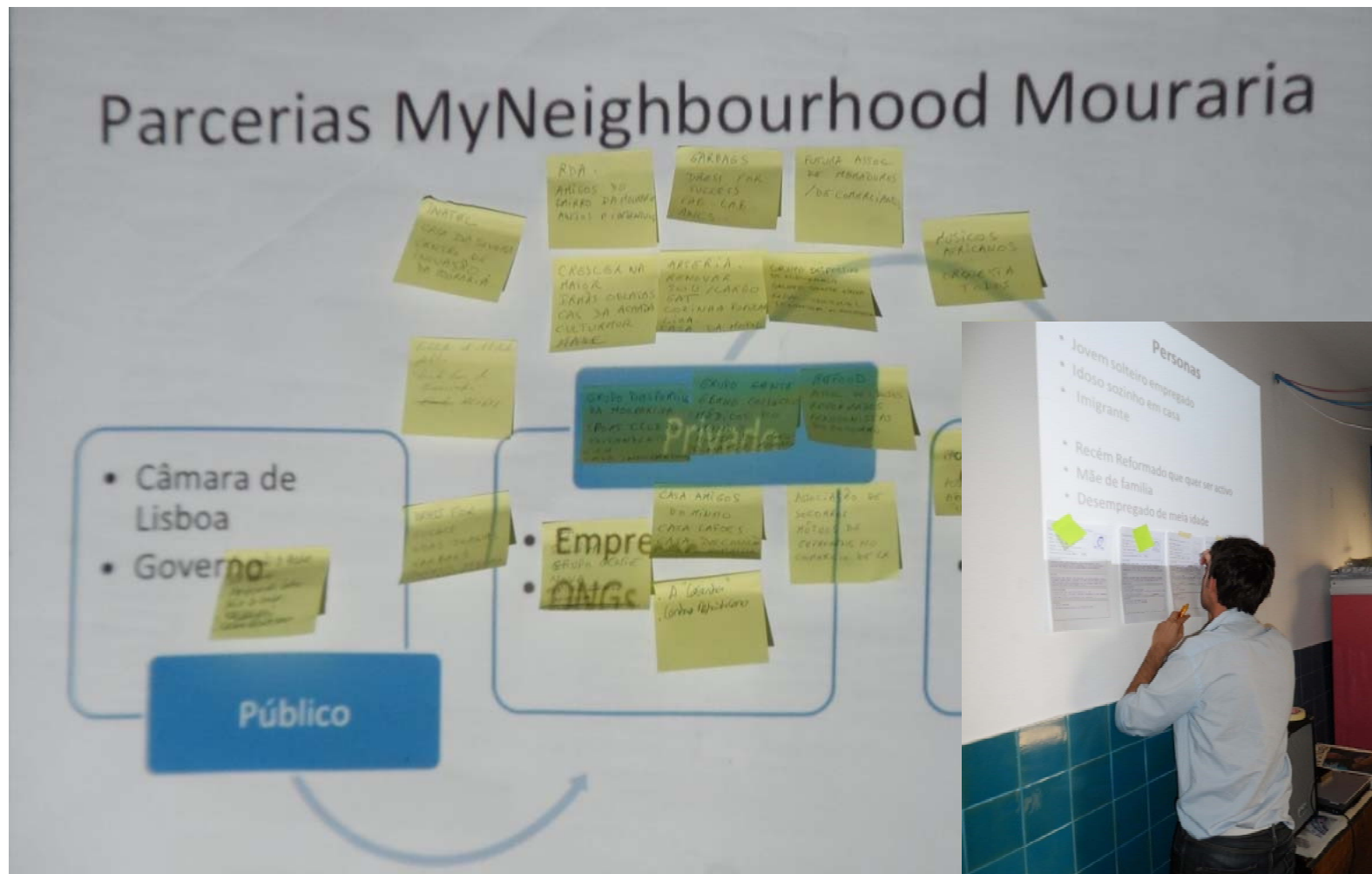
# Co-design and Co-creation activities

## Co-design of services



# Co-design and Co-creation activities

## Services validation





# Human Smart Cities

## Co-designed Services

- Energy Efficiency
  - Mobility
  - Urban Farming
  - Elderly Services
  - Kinder gardens
  - Local shops
  - Participatory Budget
  - Community Events
  - Precautionary Medicine
  - Tourism
  - Innovation services
  - Public Spaces Adoption
  - ....
- 



# MyN Services

Aalborg



**Accessible City**



**Voluntary Help**

# MyN Services

## Birmingham



**Women on Wheels**



**Buddies**

# MyN Services

Lisbon



Made in Marvila



Ó vizinho!

# MyN Services

Milan



Quarto Food Club




Quarto Gardening





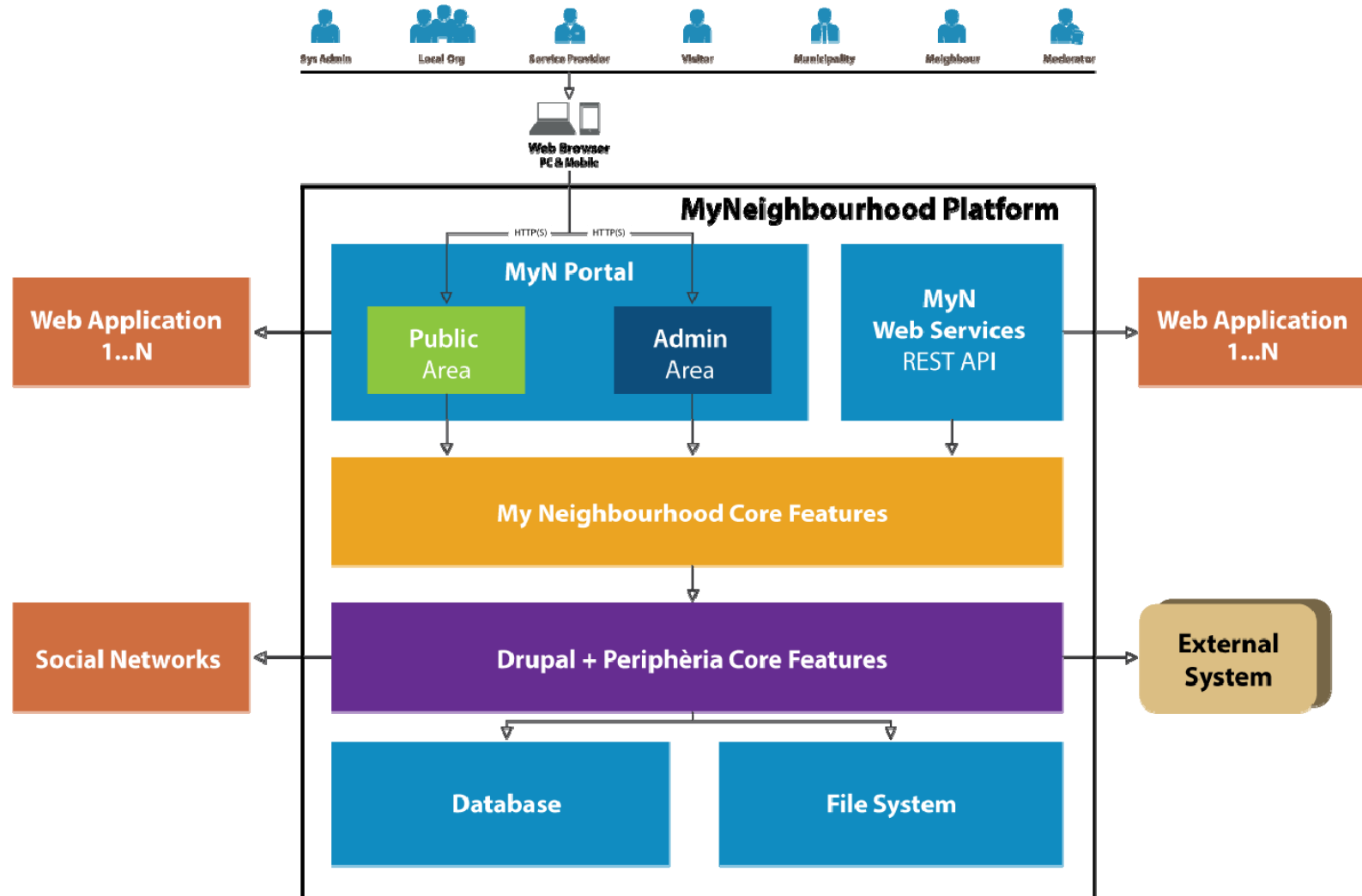
# MyN Ramp up population activities Citizens Engagement

- Events with a hidden venue (only revealed in the Platform):  
Pedi paper, Bike tours...
  - Adopt the MyN Card (with discounts and free entries in museums) in all the pilots;
  - Events and local campaigns;
  - Select community leaders to promote the use of the platform;
  - Urban art in the neighbourhood;
  - Online contests;
  - Flash mob;
  - ...
- 



# Platform Co-design Results

## MyN Platform Architecture





# Solving Issues

Community  
**Novidades de Marvila**

Events Blog Discussions Wiki Members

## Problemas no túnel entre a Rua Direita de Marvila e Rua José Patrocínio

 **Odete Cardoso**, 4 weeks ago

Esta passagem foi criada para substituir a passagem de nível do comboio acontece que durante a noite a iluminação está deficiente havendo bastantes assaltos em diversas ocasiões, existe um candeeiro instalado na rua direita marvila desde sempre mas nunca funcionou este túnel é muito utilizado para circular especialmente porque dá acesso à capela mortuária na igreja Santo Agostinho.

Sugere-se a correção da iluminação e da segurança pelas entidades responsáveis


 Report Abuse

 Estes Assuntos devem ser comunicados aos serviços de iluminação publica da camara de lisboa

**José Falcão**, 4 weeks ago

 A situação da iluminação está resolvida a rua direita Marvila parece outra cumprimentos.


**Ernesto Silva**, 3 days ago



EDIT CHALLENGE


0 ideas so far. Have one?  
ADD MY IDEA

8 likes

  
UNLIKE


FOLLOW

Share with your friends




Location

Rua Pedro de Azevedo, Lisboa



Map data ©2014 Google Terms of Use

Dado ao estado da conservação do jardim solicita-se que a quem de direito tome providências: esta árvore está seca e tem vindo a cair aos bocados em cima de automóveis causando prejuízos, o recelo: é um local onde passam muitas pessoas especialmente com crianças devido à proximidade com o jardim de infância do Vale Fundão e o parque infantil, passeio escolhido também por muitos idosos para treinarem os seus passinhos, o risco é grande verifiquem por favor esta situação antes que aconteça alguma desgraça.

 Report Abuse

REPLY

REPLY

# Plataform Status

May

Aalborg  
Birmingham

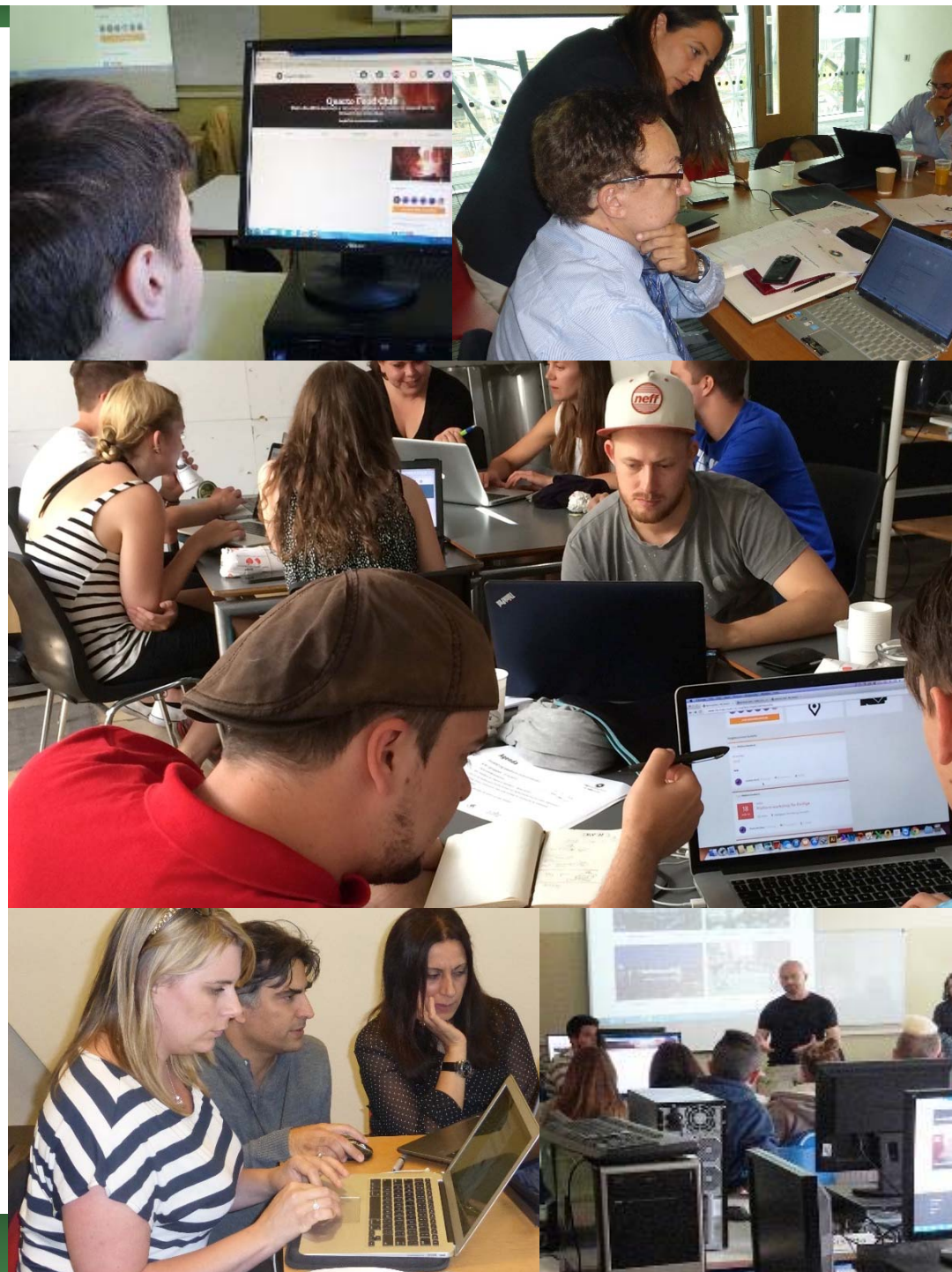
Lisbon

Milan

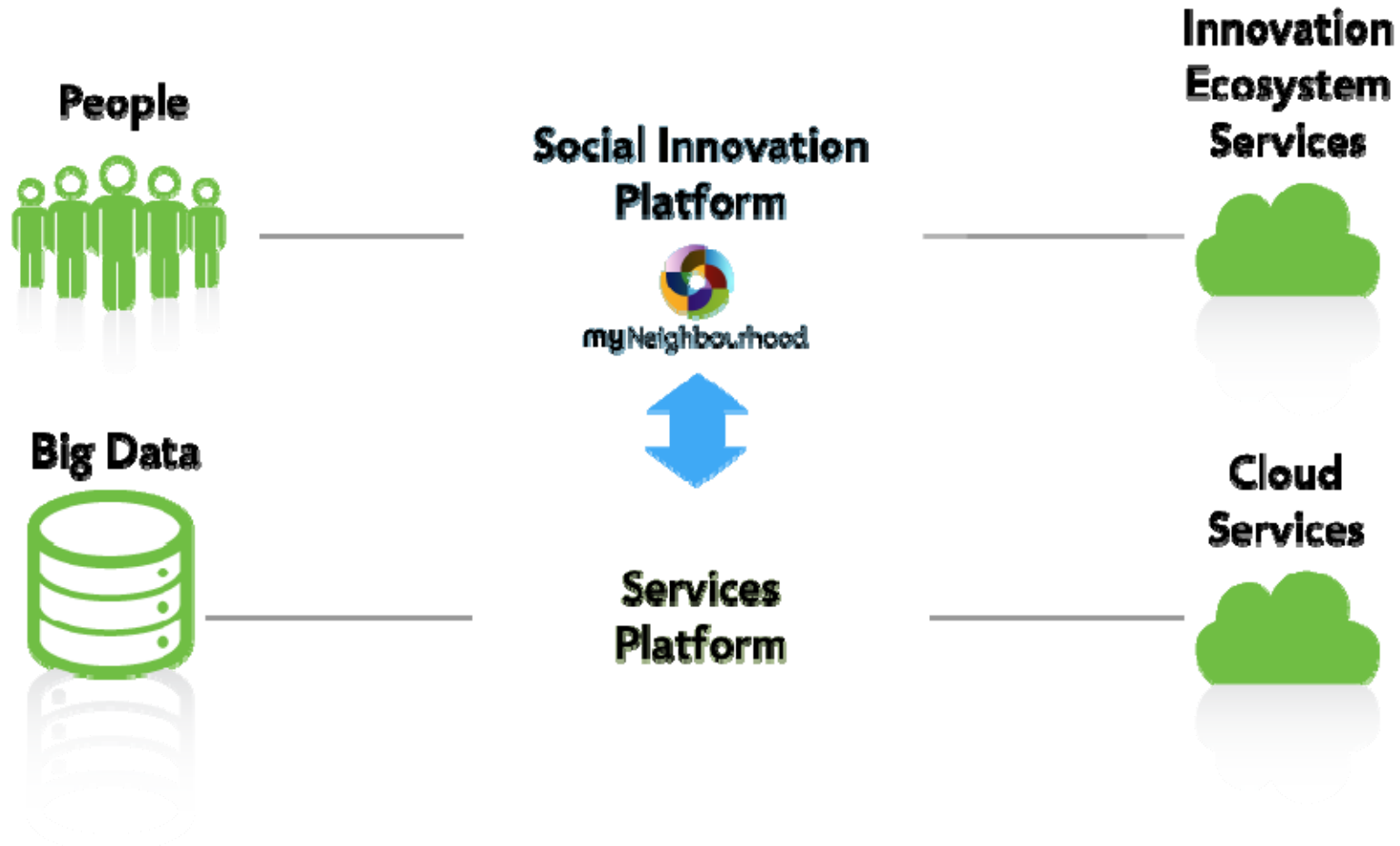
Brussels

115 Communities

**WWW.MY-N.EU**

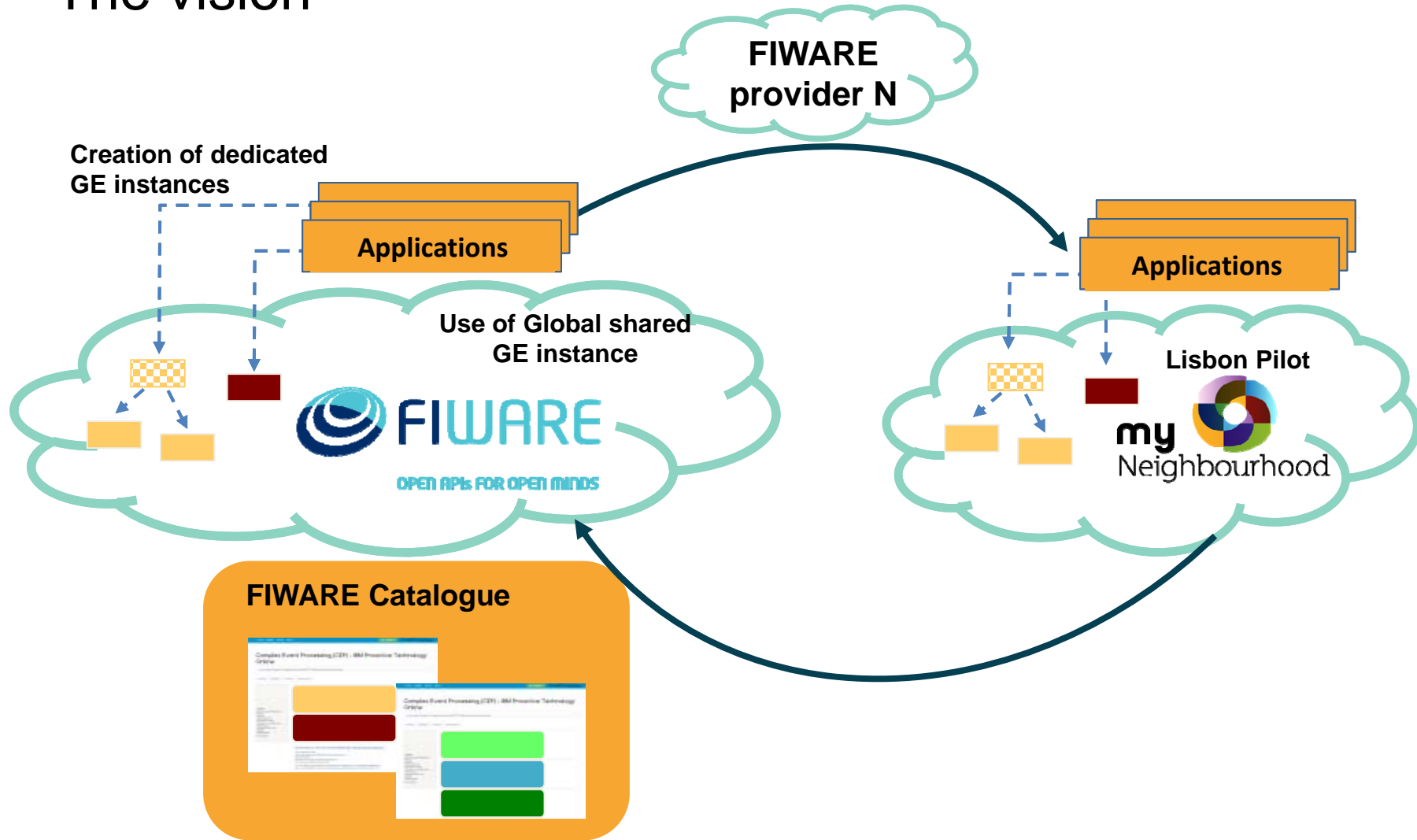


# From the Smart City to the Human Smart City



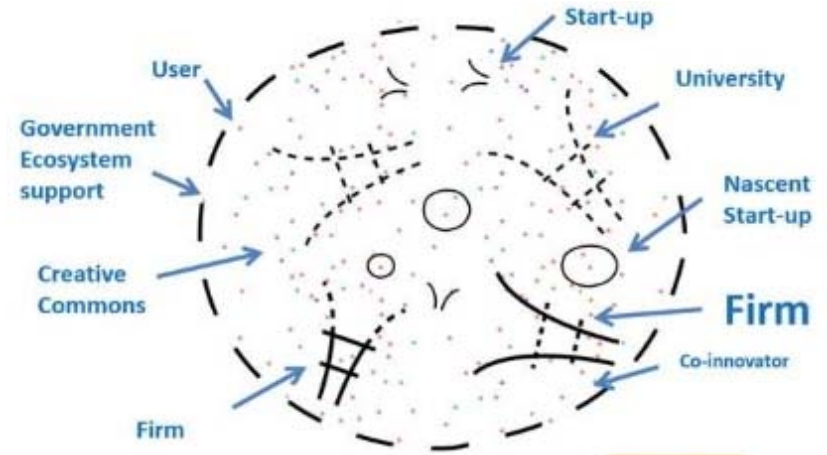
# Building the FIWARE ecosystem

## The vision



# MyN FIWARE – integrated platform

## Urban Living Lab ecosystem



Open Standard  
Platform



ecosystem

open sustainable global





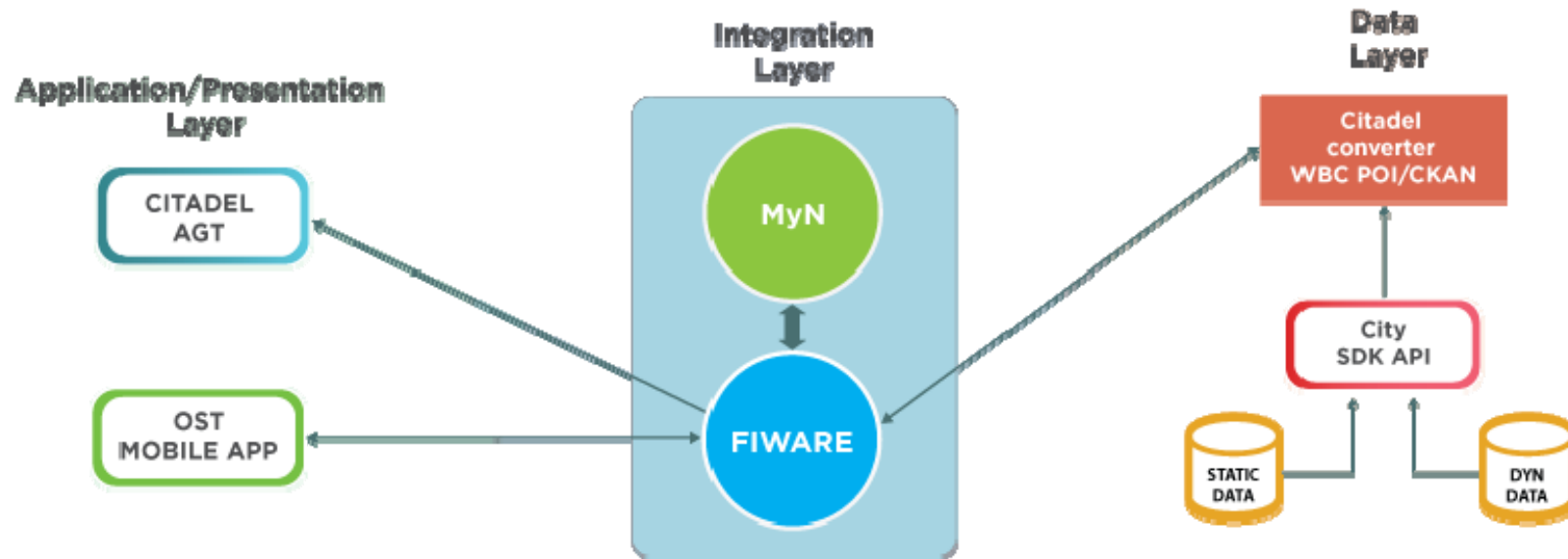
# What are FIWARE Benefits for Human Smart Cities?

# Why an open standard platform?

- Avoid vendor lock-in:
  - Southbound to sensors
  - Northbound to applications (open data and APIs)
  - Portability among platform providers
  - Interoperability of solutions enabled by the platform
- Larger community of developers
  - True innovation
  - Better prices
- Not any standard is enough
  - Modularity
  - Allow different business models
  - Integration with standard open data platform
  - Non-intrusive
  - Privacy and Security by design

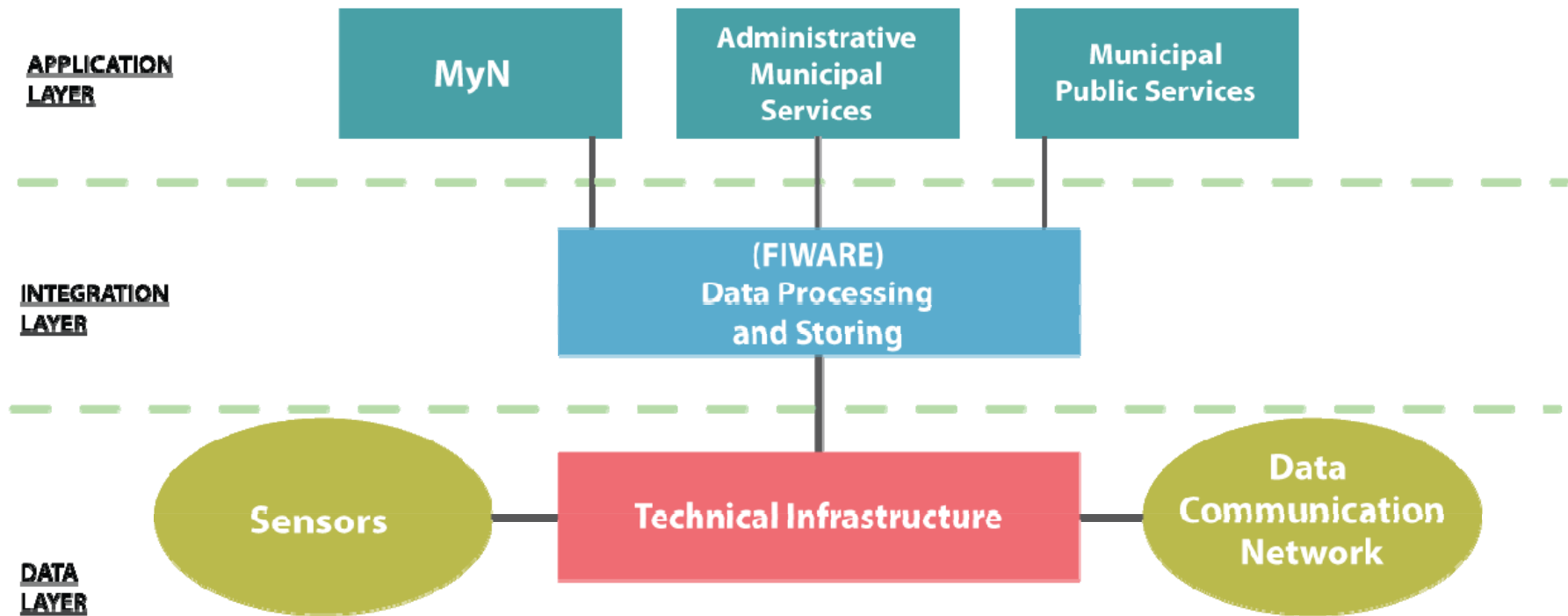
# Human Smart Cities

Social Innovation driven by MyN and Future Internet





# Human Smart City Integrated Solution



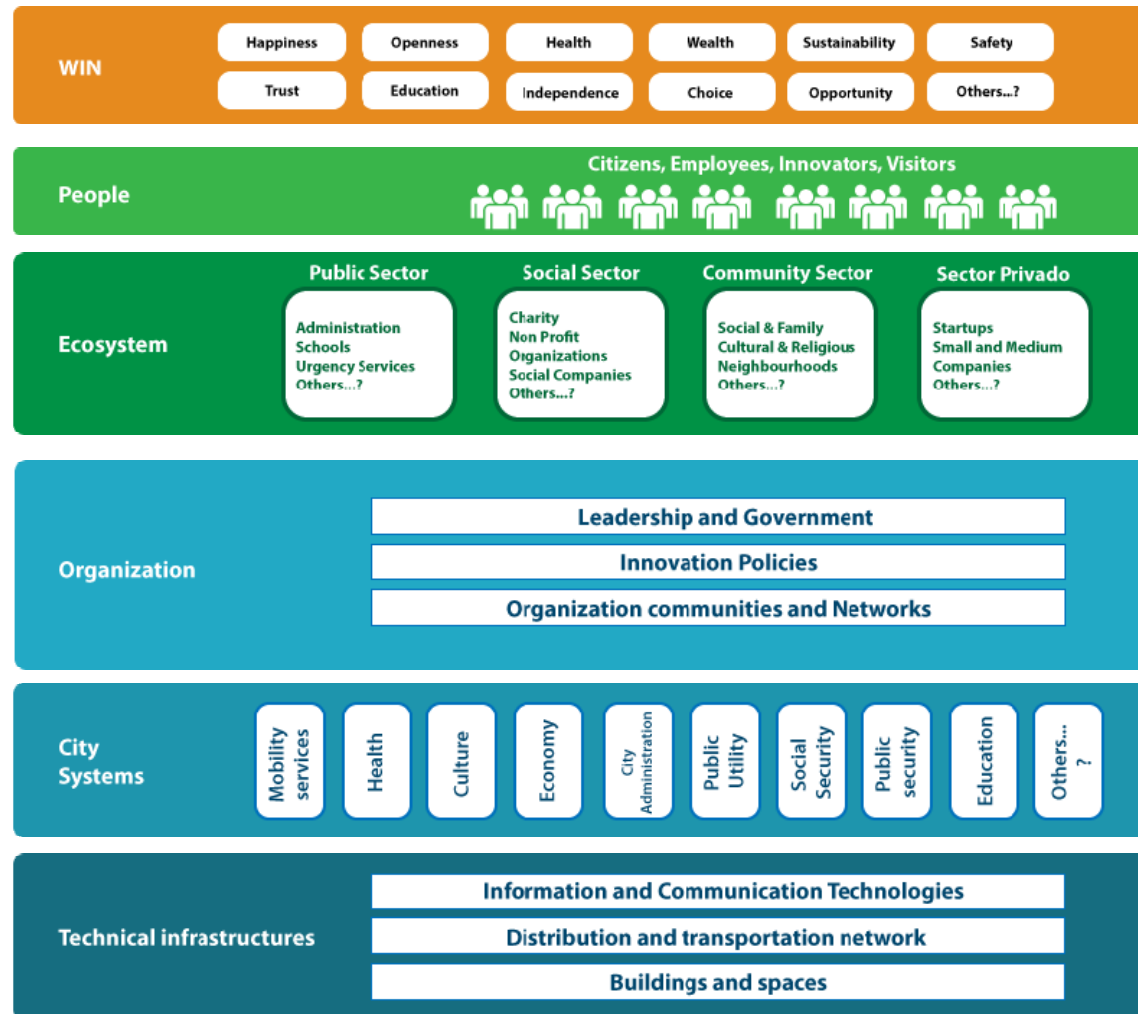
# Human Smart Cities

## Municipal and Innovative Citizens Services



# Human Smart City Architecture

## Technical and social components



# Human Smart Cities Roadmap

## Five Stages of Maturity

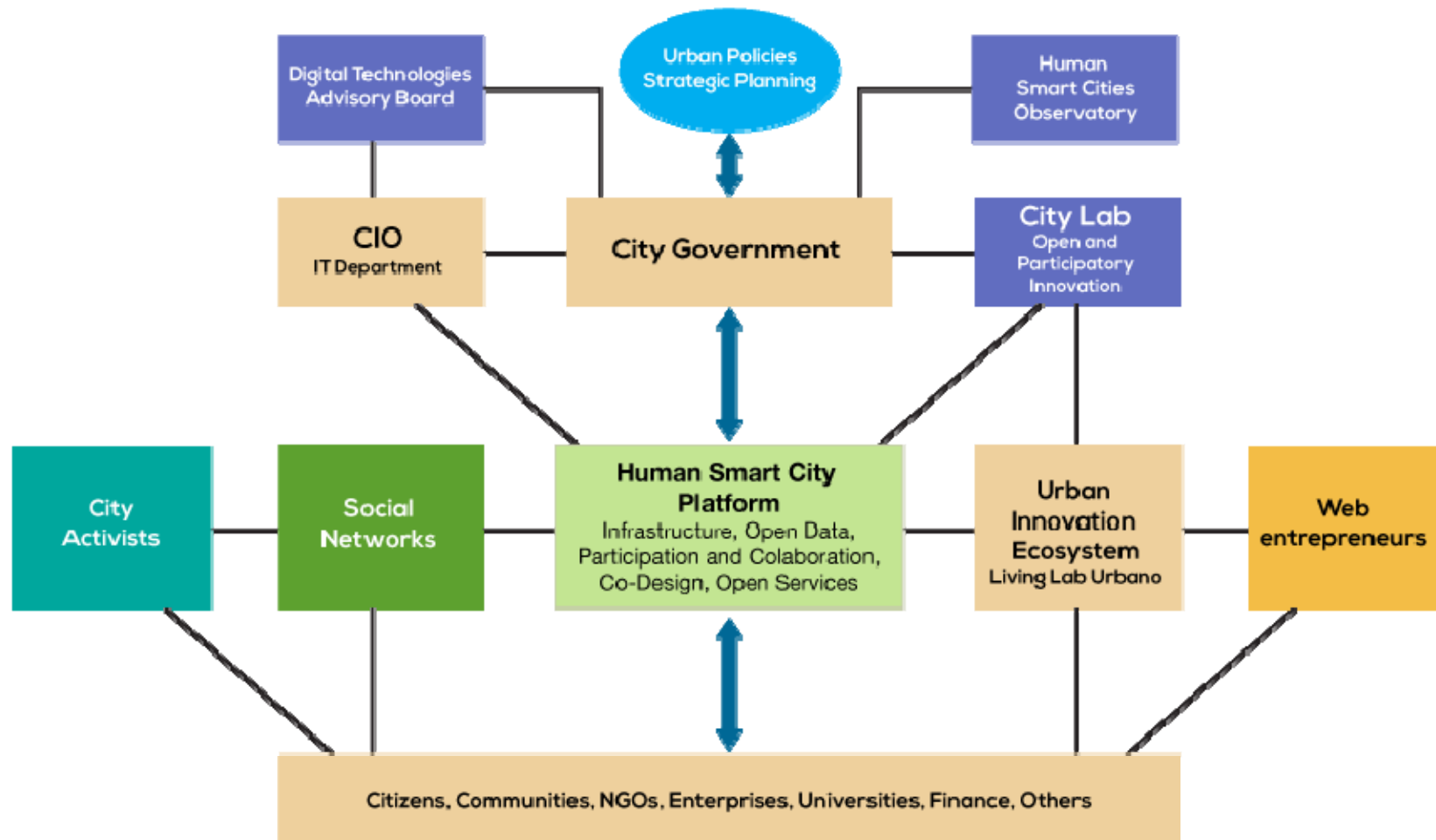
	Phase 1: Ad Hoc	Phase 2: Opportunistic	Phase 3: Repeatable	Phase 4: Managed	Phase 5: Optimized
<b>Key Characteristics</b>	Siloed	Intentional	Integrated	Operationalized	Sustainable
<b>Goal</b>	Tactical Services Delivery	Stakeholder Buy-In	Improved Outcomes	Prediction and Prevention	Competitive Differentiation
<b>Outcome</b>	Proof of concepts and business case development via ROI from pilot projects	Cross-organization deployments and development of foundational strategy governance	Replicable success in project process and outcomes across multiple organizations	Enterprise-wide strategy, process, data, etc., bring improved service-delivery via adaptive sense and-respond systems	Agility, innovation and continuous improvement in service delivery bring competitive advantage

# Mapa de maturidade das Cidades Inteligentes e Humanas

Human smart cities framework	Level 1	Level 2	Level 3	Level 4
<b>Material infrastructures</b>				
<b>Focus on ICT</b>	ICT projects scarcity	Investment in ICT (Smart Grid)	Integrated investments in ICT projects	Real time operation optimization in the city
<b>Data flows integration</b>	No data integration	Small scale data integration	Data creative mashups, bringing the data to a shared platform	Open Data and Crowd-sourcing initiatives
<b>Digital Services provision</b>	Limited access do Digital Services	Some digital services	Integrated digital services around the city	Cloud based services diversity for citizens
<b>Immaterial infrastructures</b>				
<b>Value measurement</b>	Individual business projects	Non financial value analysis	Social/environmental/ financial analysis	Holistic value analysis, supporting financial sources diversity
<b>Government</b>	Government departmental structure	Inter-departmental cooperation	Interdepartmental management sectors of the human smart city	Government structure and shared objectives at the city level combined with an international scale
<b>Focus on ICT</b>	Limited ICT resources	Some strategic outlook on ICT	Technological view to the city	City CIO support of the technological view and strategy
<b>Citizens engagement through services co-design and co-creation</b>	Limited citizens engagement	Basic need analysis at the project level	Citizen feedback loops	Civic participation on service design

# Innovating Democracy

Open, Transparent and Participatory Governance



# A new Governance Framework 1/2

- A City driven to sustainable Well Being
- Openness. Transparency. Trust. Participation.
- Inclusive dialogue.
- Adaptive leadership.
- Learning to listen and understand problems.
- Governance transformation.
- Political courage to address complexity. Experimentation.
- Shared vision, strategies and action plans.
- Value creation for the City and the Citizens
- Social Innovation.
- Innovation Ecosystem.
- Wealth and jobs creation
- New urban culture. Creative Industries.
- Learning to create value. Common good.
- Explore the competitive advantage.



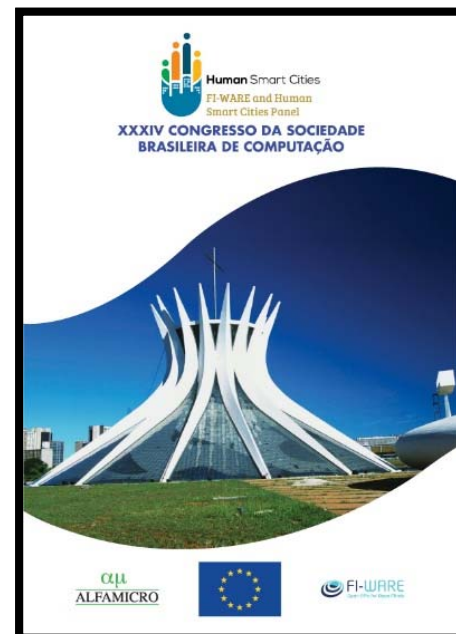
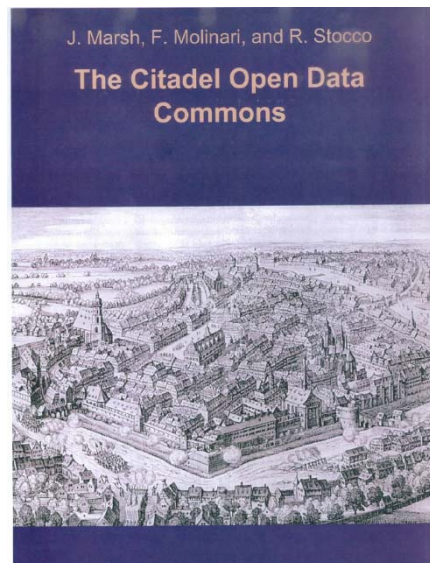
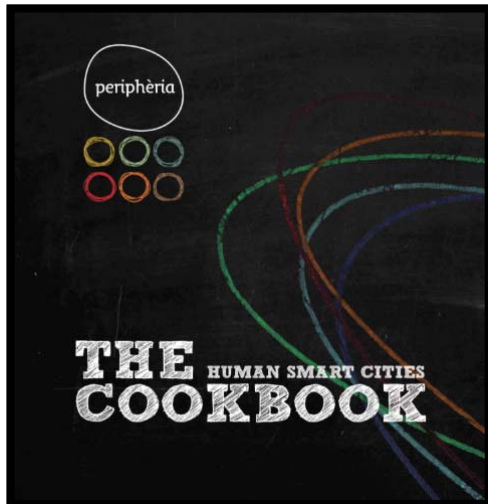
## A new Governance Framework 2/2

- The Citylab role. Driver of transformation
- Civic services.
- New Public Instruments. PPIs, PCPs and PPPPs
- Improving Democracy - Listening and talking to the streets
- Security and Privacy.
- Methodologies:
  - WIN Methodology
  - Design Thinking
  - Co-design, Co-creation and Co-production
  - Gamification



# Human Smart Cities Network

## Tools and Methodologies



Forum PA – Human Smart Cities Conference  
Rome, Italy – 30th May 2013



MANIFESTO  
THE HUMAN SMART CITIES  
Networking Citizen-driven Innovation

Human Smart Cities Conference  
Bologna, Italy - 17th October 2013  
Human Smart Cities Launching



Human Smart Cities Conference  
Lisbon, Portugal – 12th-13th March 2014  
Human Smart Cities Network Consolidation



Human Smart Cities Panel  
Brasilia, Brazil – 29th July 2014



[www.humansmartcities.eu](http://www.humansmartcities.eu)

# Human Smart Cities European Network

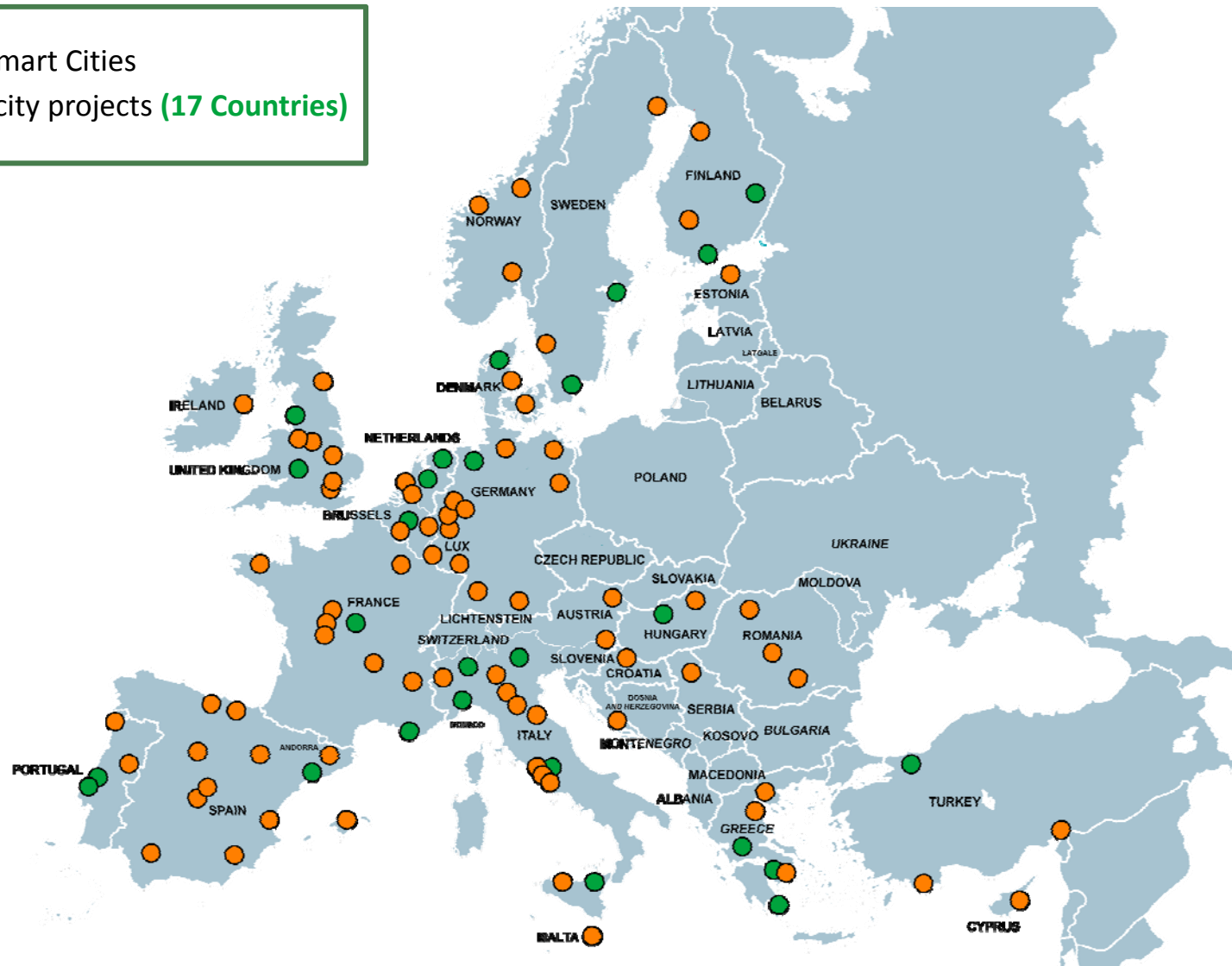
## And Alfamicro interventions



Human Smart Cities

103 Human Smart Cities

27 Alfamicro city projects (17 Countries)



# Human Smart Cities in Brazil

## Events 2013 - 2014

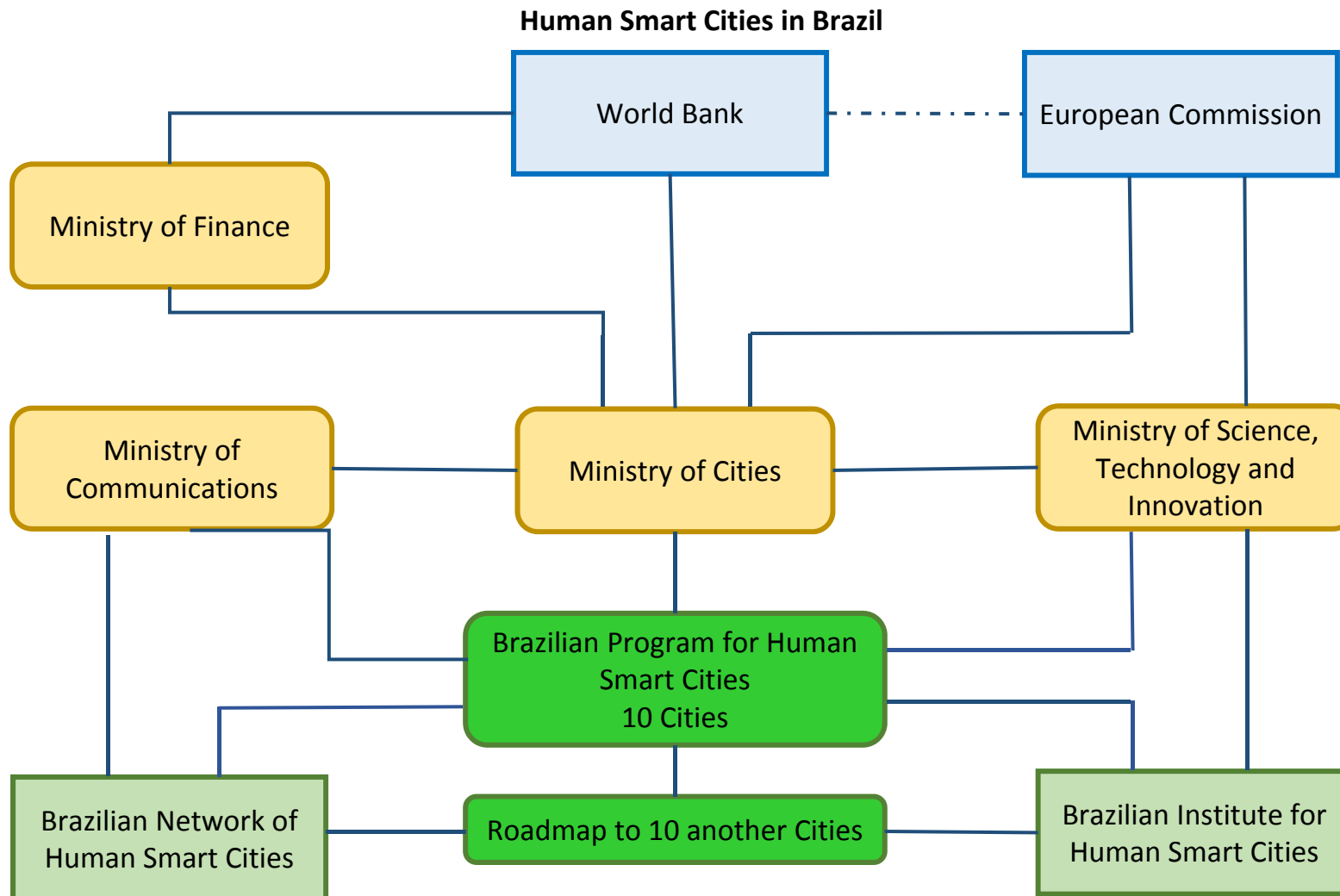
- Smart Cities, Future Cities, Rio de Janeiro, Florianopolis, Campinas, Brasilia, Brasil,
- Aalto University, MIT Media Lab, PUC Rio, 02 – 07 June 2013
- Jornadas Iberoamericanas sobre Laboratórios Cidadãos, Vitória, Espírito Santo, 5<sup>th</sup> August 2013;
- Conferência das Cidades do Conhecimento, CIKI 2013, Porto Alegre, Rio Grande do Sul, 13<sup>th</sup> and 14<sup>th</sup> November 2013;
- Latin America Human Smart Cities Conference, Rio de Janeiro, 24<sup>th</sup> and 25<sup>th</sup> April 2014;
- Conferência Human Smart Cities, PUC (Catholic University), Rio de Janeiro, 17<sup>th</sup> March 2014;
- Workshops and field work on the Human Smart Cities Methodology and tools, Rocinha “Favela” and Gávea, Aalto University – PUC Rio, 17<sup>th</sup> to 21<sup>st</sup> March 2014
- Seminário Human Smart Cities in Brazil, Sebrae Rio, Rio de Janeiro, 20<sup>th</sup> March 2014;
- International Conference on Innovative Cities, Curitiba, Paraná, 7<sup>th</sup> May 2014;
- Rio Smart Cities Conference, Rio de Janeiro, 12<sup>th</sup> to 14<sup>th</sup> May 2014;
- XXXIV Congresso da Sociedade Brasileira de Computação, Brasília, 29<sup>th</sup> July 2014;
- Cidades Inteligentes e humanas Ecosystema de inovação da saúde, São Paulo – Cidades Inteligentes, Painel 3: A Integração das Informações de Saúde no contexto de Cidades Inteligentes São Paulo, Brasil, 28<sup>th</sup> August 2014;
- Cidades Inteligentes e Humanas, Futurecom, São Paulo, Brasil, 15<sup>th</sup> October 2014.
- III Encontro dos Municípios com o Desenvolvimento Sustentável (EMDS) – Nova governança Federativa e o papel das cidades no Brasil e no mundo, Brasília, Brasil, 7 – 9 April 2015;
- Meetings on the Forum. Presentation at the event. Participation on the General Assembly of the Fórum on the 7<sup>th</sup> of April 2015.
- XXXIII Simpósio Brasileiro de Redes de Computadores e Sistemas Distribuídos, Vitória, Espírito Santo, 18<sup>th</sup> – 19<sup>th</sup> May 2015.

# Human Smart Cities in Brazil

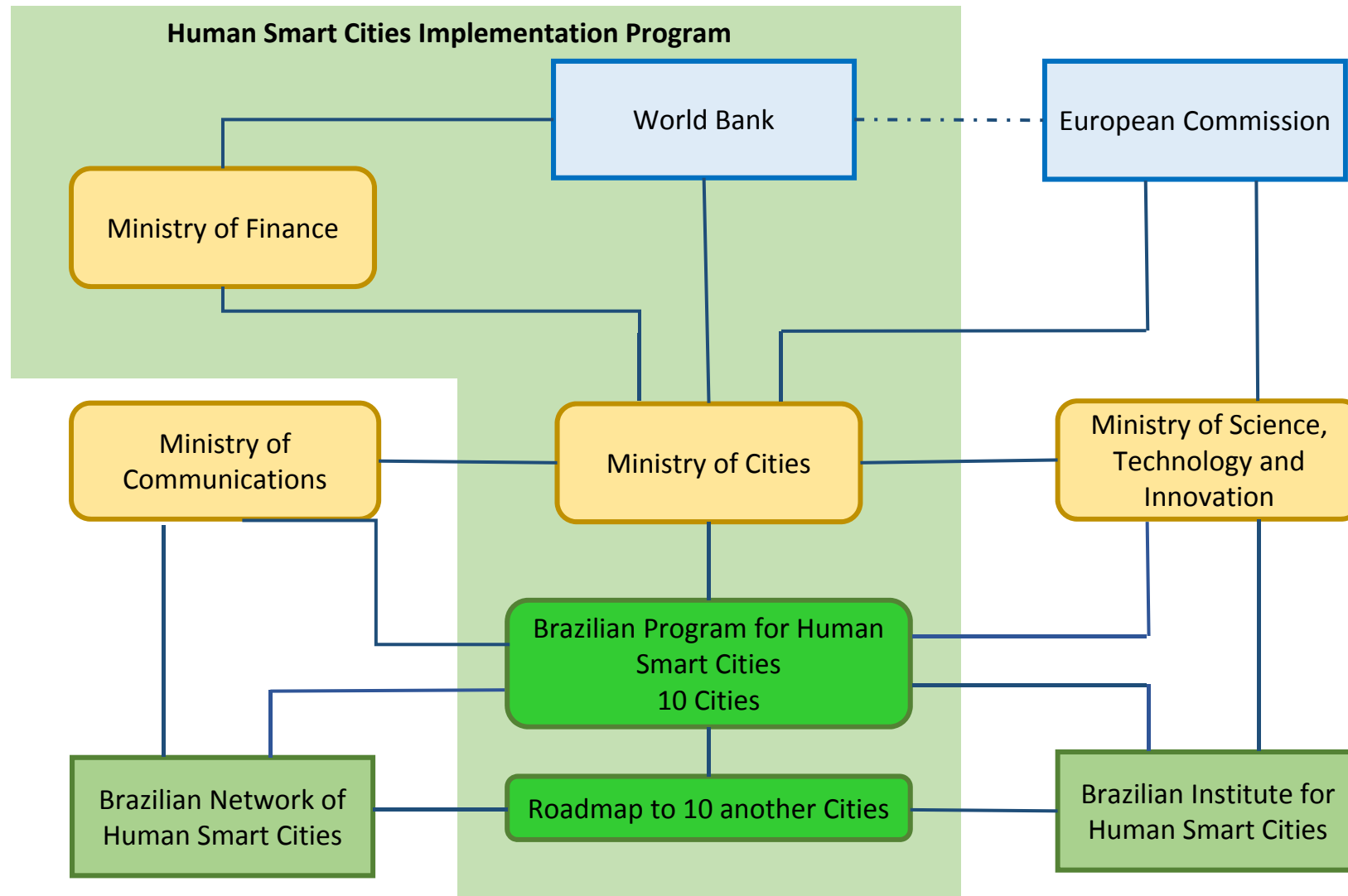
## Federal Government Initiatives

- Meeting with Dr. Carlos Vieira, executive secretary of the Ministry of Cities, 04th December 2014
- Meeting with Dr. Américo Bernardes, Ministry of Communication , 28<sup>th</sup> July, 04<sup>th</sup> of December 2014 and 04<sup>th</sup> of March 2015
- Meeting with Dra. Juliêta Verleun, Ministry of Finance, 03<sup>rd</sup> of March 2015
- Meeting with Dra. Luanna Roncaratti, Ministry of Science, Technology and innovation, 04<sup>th</sup> of March 2015
- Meeting with Dr. Flávio Dolabella Ministry of Cities, 04<sup>th</sup> of December 2014 and 04<sup>th</sup> of March 2015
- Meeting with Interministerial taskforce for Human Smart Cities, (Representatives of Ministry of Cities, Ministry of Finance, Ministry of Communication and Ministry of Science, Technology and innovation), 08<sup>th</sup> of April 2015.
- Meeting with the Ministry of Cities, Brasília, 21<sup>st</sup> of May 2015.

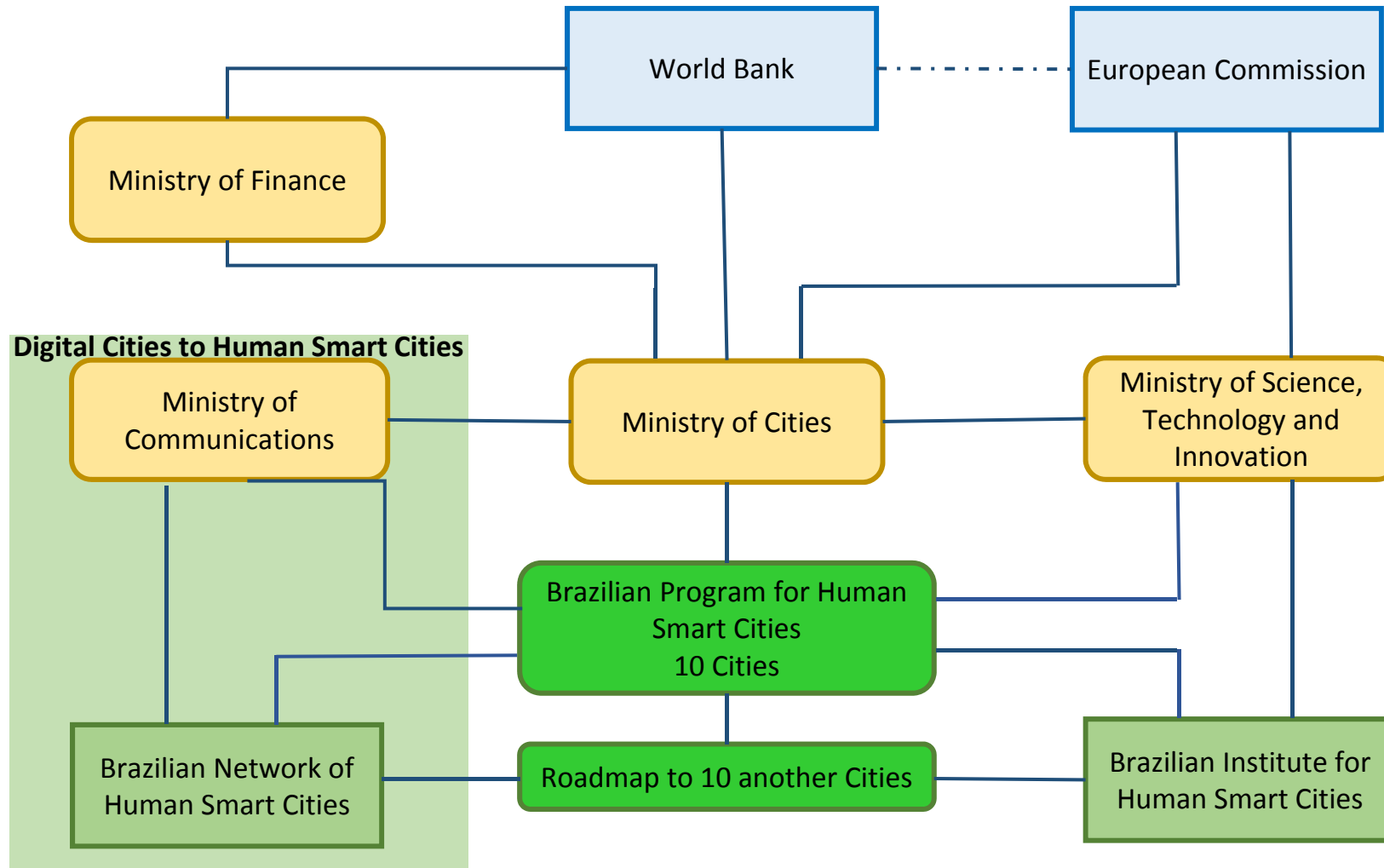
# Human Smart Cities in Brazil



# Human Smart Cities Implementation Strategy

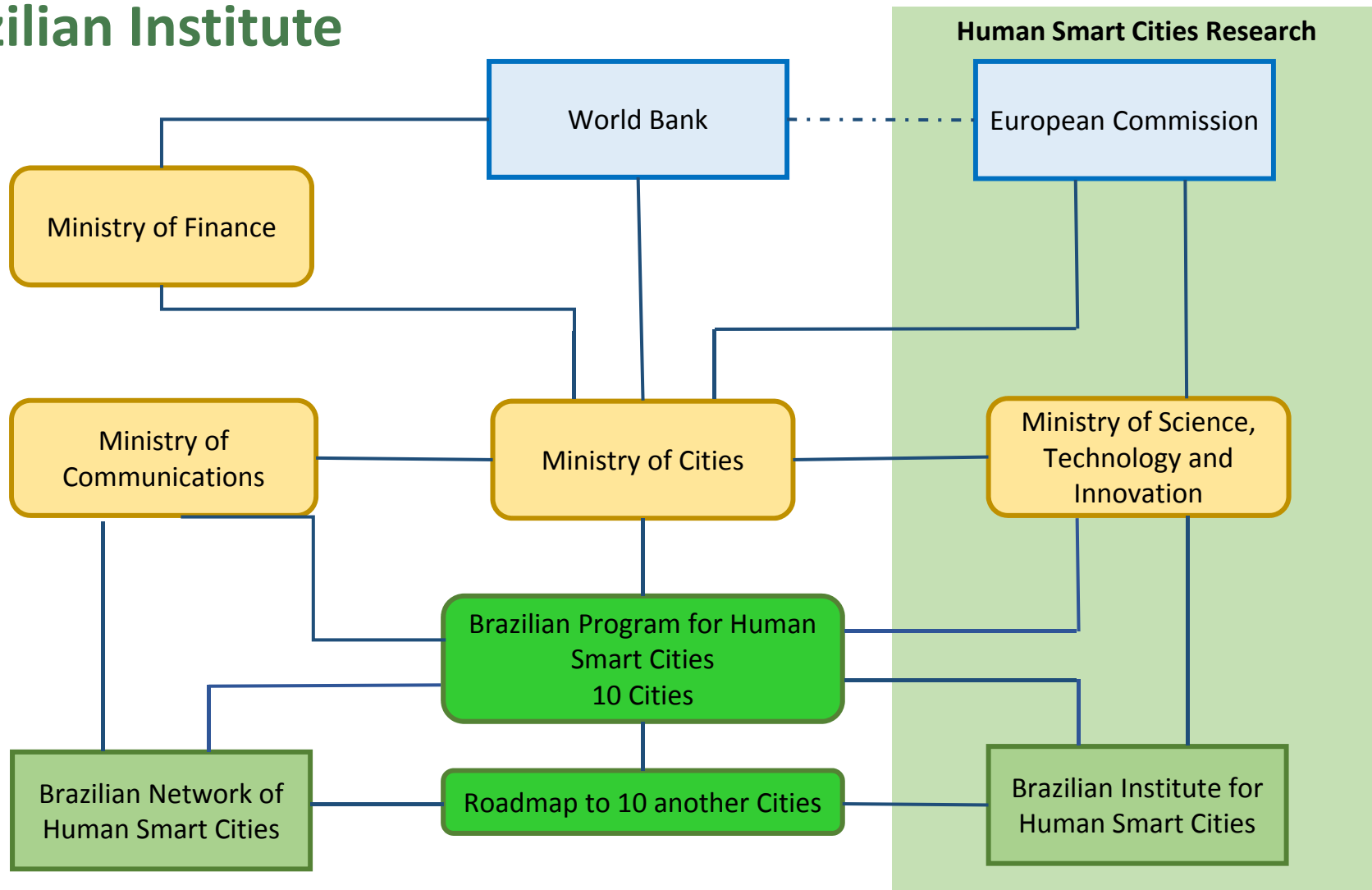


# Human Smart Cities Network



# Human Smart Cities

## Brazilian Institute





# Human Smart Cities Network in Brazil

1. Anapólis - Goiás
2. Belém – Pará
3. Belo Horizonte – Minas Gerais
4. Brasília - Brasília
5. Campinas – S. Paulo
6. Colinas de Tocantins - Tocantins
7. Curitiba – Paraná
8. Fortaleza – Ceará
9. Florianópolis – Santa Catarina
10. Manaus – Amazonas
11. Olinda – Recife
12. Porto Alegre – Rio Grande do Sul
13. Recife – Pernambuco
14. Rio de Janeiro - Rio de Janeiro
15. Serra – Espírito Santo
16. S. Mateus – Espírito Santo
17. Surucaba – S. Paulo
18. S. Carlos – S. Paulo
19. Taquaritinga - São Paulo
20. Vitória – Espírito Santo

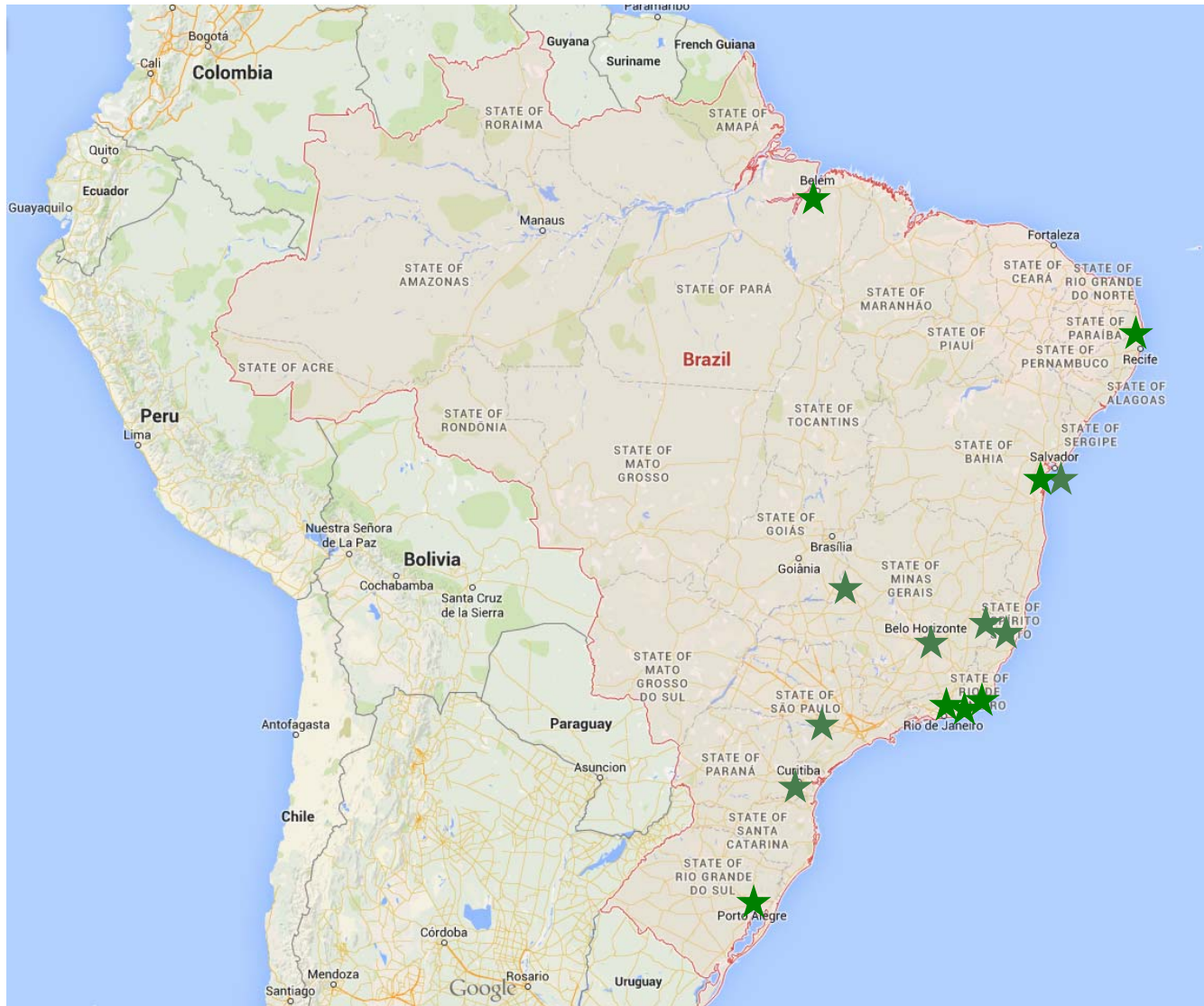
# Human Smart Cities Network in Brazil



# Human Smart Cities Institute in Brazil

- Universidade Federal Minas Gerais - UFMG (Belo Horizonte)
- Universidade Federal da Uberlândia - UFU (Uberlândia)
- Universidade Federal do Espírito Santo - UFES (Vitória)
- Instituto Federal do Espírito Santo – IFES (Vitória)
- Universidade Federal de São Paulo - UFSP (São Paulo)
- Universidade Salvador - UNIFACS (Salvador)
- Universidade Federal Paraná – UTFPR (Curitiba)
- Universidade Federal da Bahia - UFBA(Salvador)
- Universidade Federal de Pernambuco - UFPE (Recife)
- Universidade Federal do Pará - UFPA (Belém)
- Universidade Federal do Rio de Janeiro - UNIRIOTEC (Rio de Janeiro)
- Universidade Federal Fluminense – UFF (Niterói)
- Universidade Federal do Rio Grande do Sul - UFRGS (Porto Alegre)
- Pontfícia Universidade Católica – PUC (Rio de Janeiro)

# Human Smart Cities Institute in Brazil



# Human Smart Cities in Brazil

Funding opportunities explored by Alfamicro/Smarter Services

- 10 Cities to implement the Human Smart Cities Open Platform (FIWARE - MyN);
- World Bank Funding Opportunity (300 Million USD) ;
- Inter-Ministry Task Force lead by the Ministry of Cities and with the participation of the Ministry of Finance, the Ministry of Communication and the Ministry of Science, Technology and Innovation;
- Planned Workshop on the 1<sup>st</sup> and 2<sup>nd</sup> of July 2015, organized by both the Brazilian Federal Government and the European Commission and with the participation of the World Bank.

# World Bank Meeting

10/07/2012, Washington D.C. EUA



# Human Smart Cities in Brazil

## Other funding opportunities

- BNDES – PMAT Programme (1 Billion Reais, approximately **330 Million Euros**);
- FINEPE –Strong interest to finance large Smart Cities projects in the perspective of creating innovation Ecosystems;
- SEBRAE – Potential funding of SMEs, micro companies, start-ups in the web-entrepneurship innovation ecosystem of cities;
- FIWARE as an Innovation ecosystem
- Banco Interamericano de desenvolvimento - Interested to fund the Smart Cities Projects. Requires further contacts.

# Human Smart Cities

## European call for Action



### What we have:

- Future Internet (FI-PPP) and Human Smart Cities methodologies and tools convergence
- Security by design
- Strong Privacy legal framework
- Digital and Urban Agenda Policies

### What is necessary:

- Strong political leadership
- Business-driven initiatives
- Disruptive Value Creation
- Global ambition

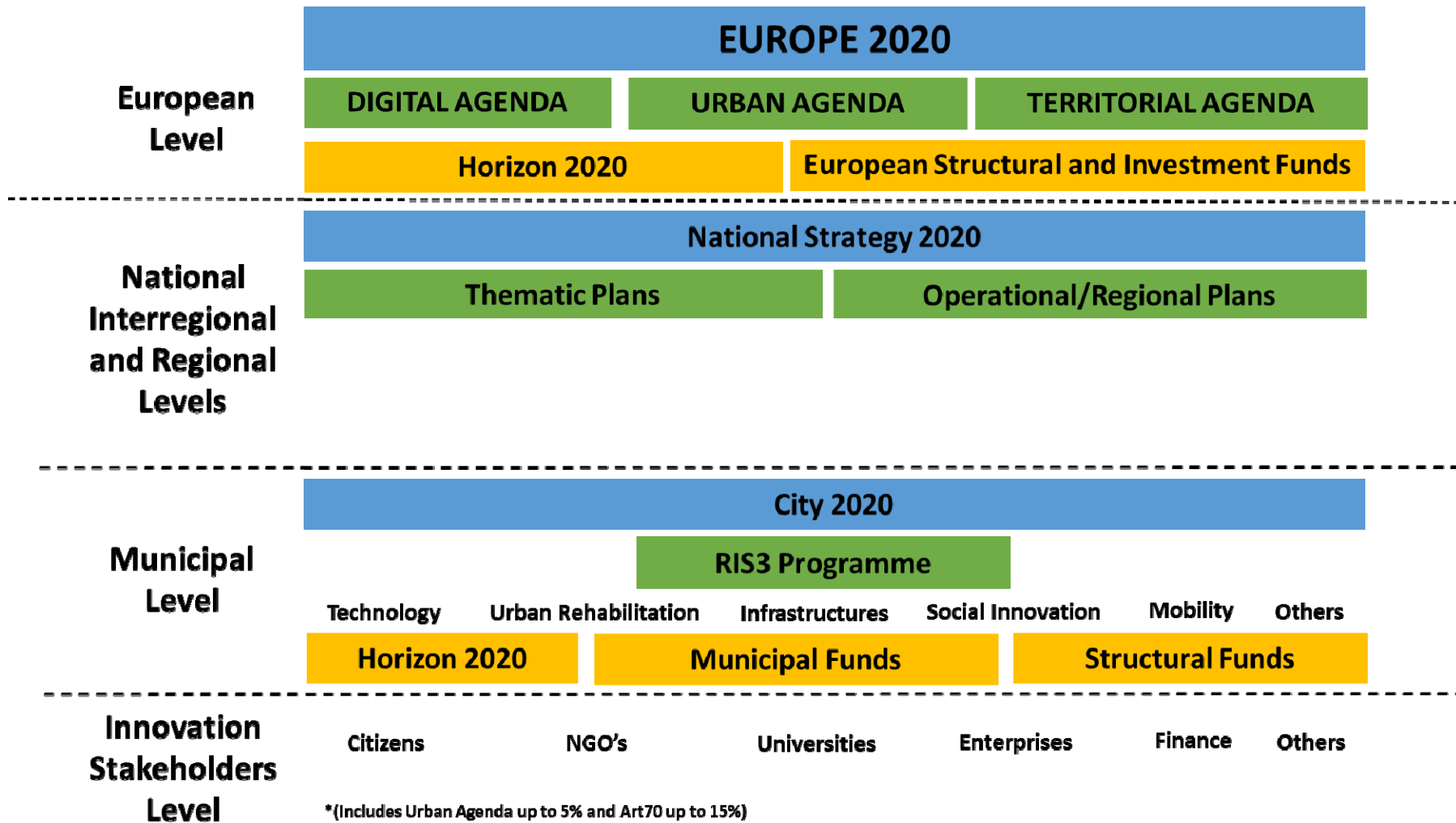
**A new environment for the creation of “new jobs”, “new business models” and “sustainable prosperity”.**



# EU Policy Recommendations

- Effective delegation to urban authorities. Citizens participation promoted towards a culture transformation. Tackle economic, environmental, climate, demographic and social challenges. Implement integrated interventions at neighborhood level
- Ensure convergence of European policy mechanisms towards the Human Smart City. Encourage the joint application of H2020 and Urban Agenda policies.
- Accelerate implementation of ICT urban infrastructures such as Communications, Future Internet and Internet of Things (FI-PPP) Promote the vision of the Human Smart City supported by FIWARE/MyN.
- Focus on the social innovation, participatory governance, innovation ecosystem as the source of wealth and jobs. Empower citizens to co-design and co-create solutions for their Wishes, Interests and Needs (WIN). Promote a sizeable number of Human Smart City large scale projects with visible and measurable impact that may create the critical mass to achieve exponential growth. Support the Human Smart Cities Network.

# Europe 2020 – Integration of Policies, Programmes and Funds



# EU Policy Recommendations

- Effective delegation to urban authorities. Citizens participation promoted towards a culture transformation. Tackle economic, environmental, climate, demographic and social challenges. Implement integrated interventions at neighborhood level
- Ensure convergence of European policy mechanisms towards the Human Smart City. Encourage the joint application of H2020 and Urban Agenda policies.
- Accelerate implementation of ICT urban infrastructures such as Communications, Future Internet and Internet of Things (FI-PPP) Promote the vision of the Human Smart City supported by FIWARE/MyN.
- Focus on the social innovation, participatory governance, innovation ecosystem as the source of wealth and jobs. Empower citizens to co-design and co-create solutions for their Wishes, Interests and Needs (WIN). Promote a sizeable number of Human Smart City large scale projects with visible and measurable impact that may create the critical mass to achieve exponential growth. Support the Human Smart Cities Network.




# Conclusions

**Human Smart Cities** technical infrastructure is an engine to drive more efficient municipal services focused on citizens Wishes, Interests and Needs (WIN).

**Human Smart Cities** use technologies as an enabler to connect and engage government and citizens, aiming to rebuild, recreate and motivate urban communities, stimulating and supporting their collaboration activities leading to a joint increase of social wellbeing.

**Human Smart Cities** hear and speak to citizens and provide technical support and Policy to become the city government more transparent, participatory, efficient and a mirror of the citizens' will.

**Human Smart Cities** empower citizens to co-design and co-create solutions for their **WINS**, recreating a new sense of belonging and identity to **co-create a better and happier society**.







**Thank You**

Álvaro Oliveira

**Alfamicro**

alvaro.oliveira@alfamicro.pt

Skype: alvaroduarteoliveira

Phone: +315 214 866 784

