

# ICT and Energy Efficiency for Residential Districts: a Smart City Perspective

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# Strategic Vision from Buildings to Cities

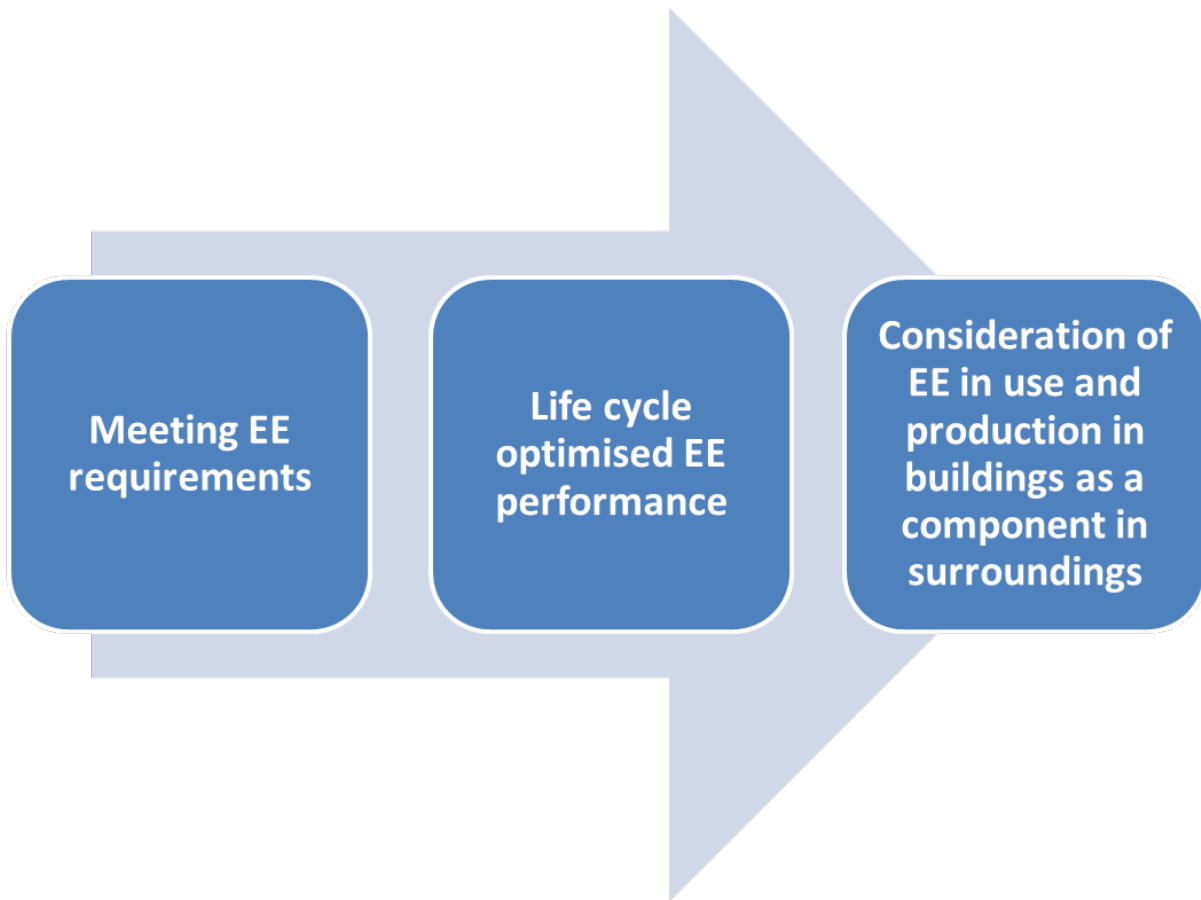


**Smart Buildings**

**Smart Districts**

**Smart Cities**

# Towards Connected Buildings



Europe is leading the way to optimise ICT enabled **use and production of energy** in buildings so that **needed conditions** are designed and provided by using **renewable energy** sources in energy production

# ICT Applications Cover Building Lifecycle

## A p p l i c a t i o n   a r e a s

Design

Structure & envelope

Energy equipment + systems

Construction process

Performance monitoring + management

End of life

Integration by means of ICT

Integrated processes, new business models & services

Integration of buildings systems

Integration with mobility, infrastructures, smart cities & citizens

Integration with grids & local/district energy systems

ICT infrastructures

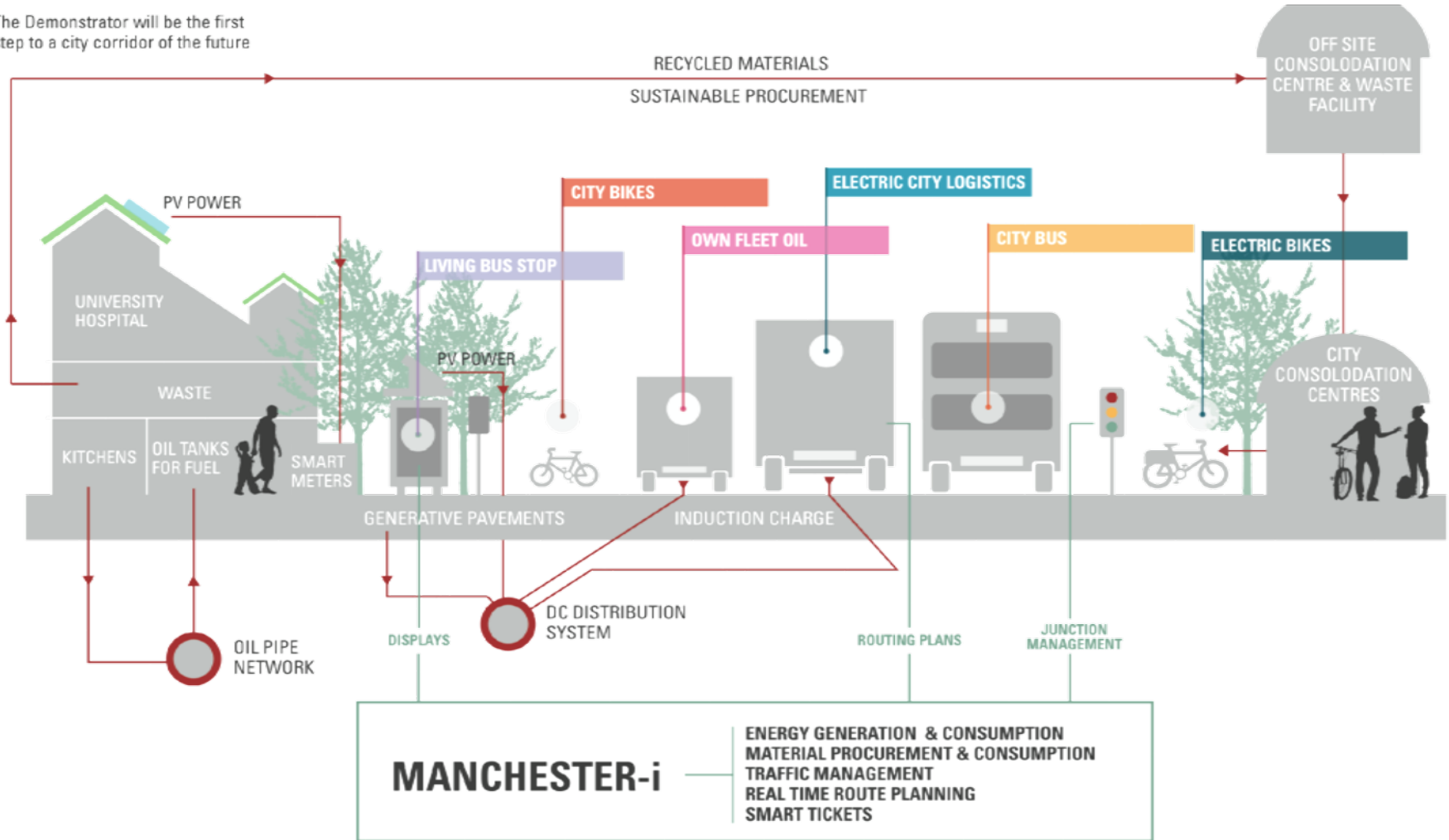
Knowledge sharing, awareness, education & training

# EE neighbourhood elements

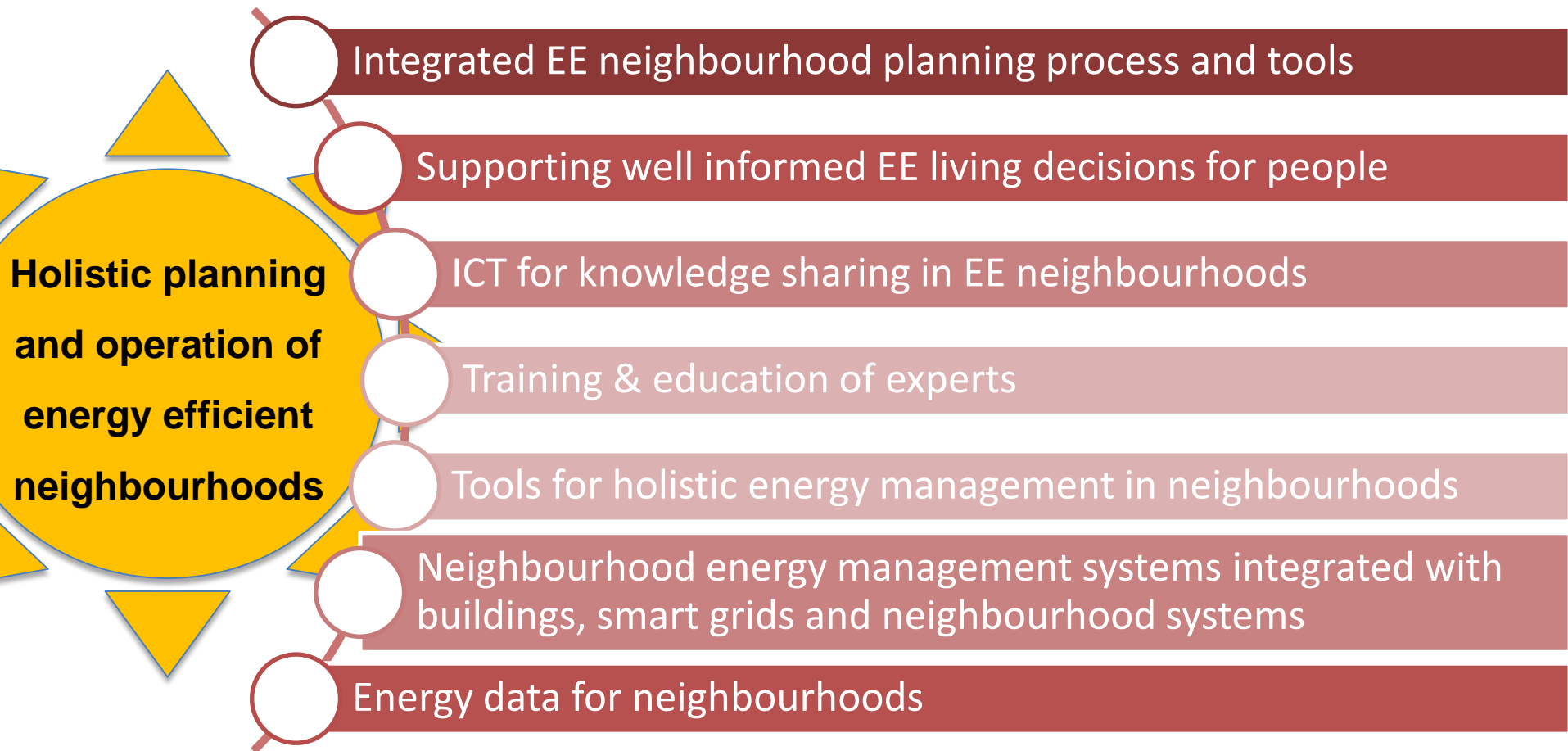


# Smart Cities as Intersection of Energy, Transport and ICT

The Demonstrator will be the first step to a city corridor of the future



## Key ICT needs: Implementation recommendations



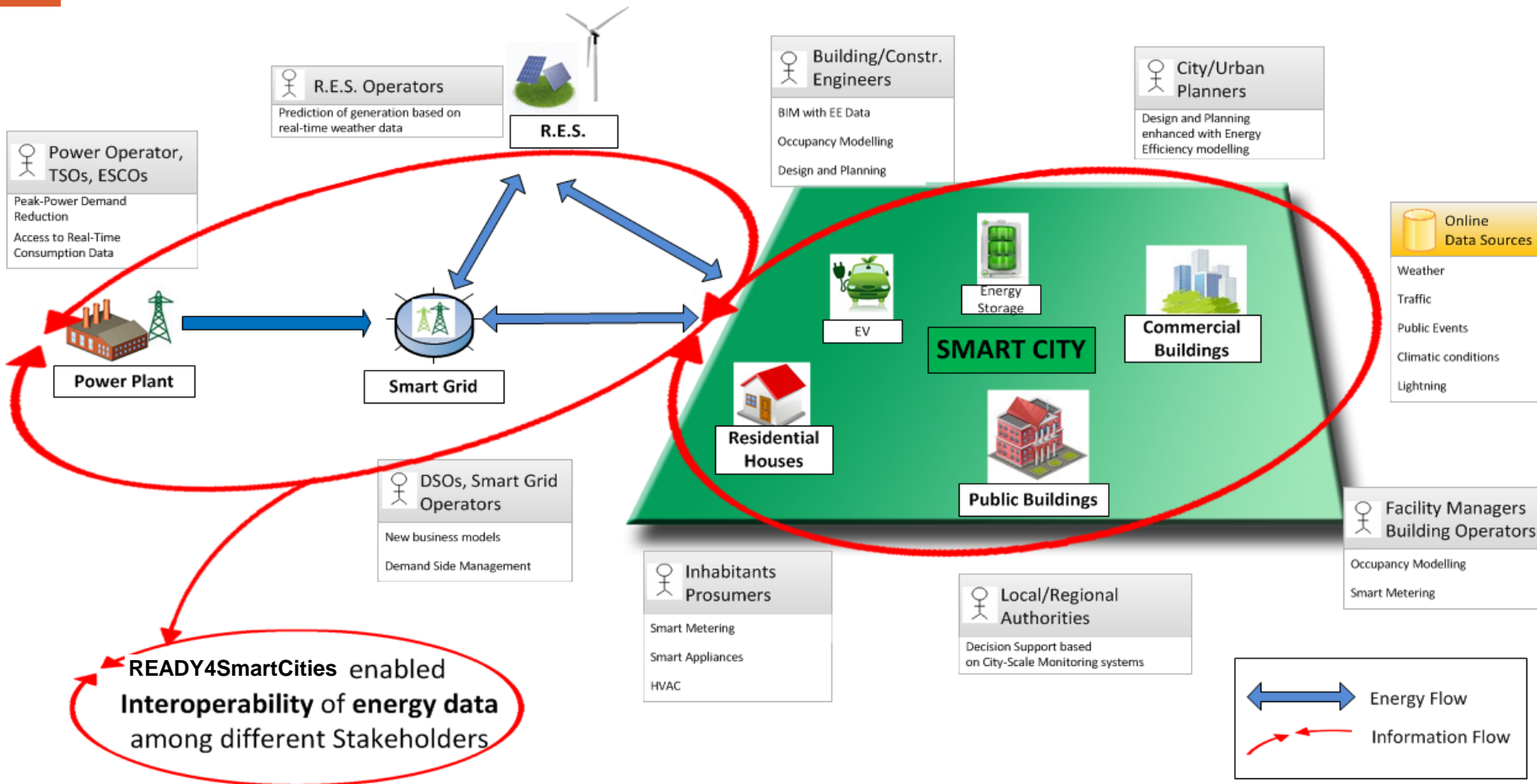


## READY4SmartCities

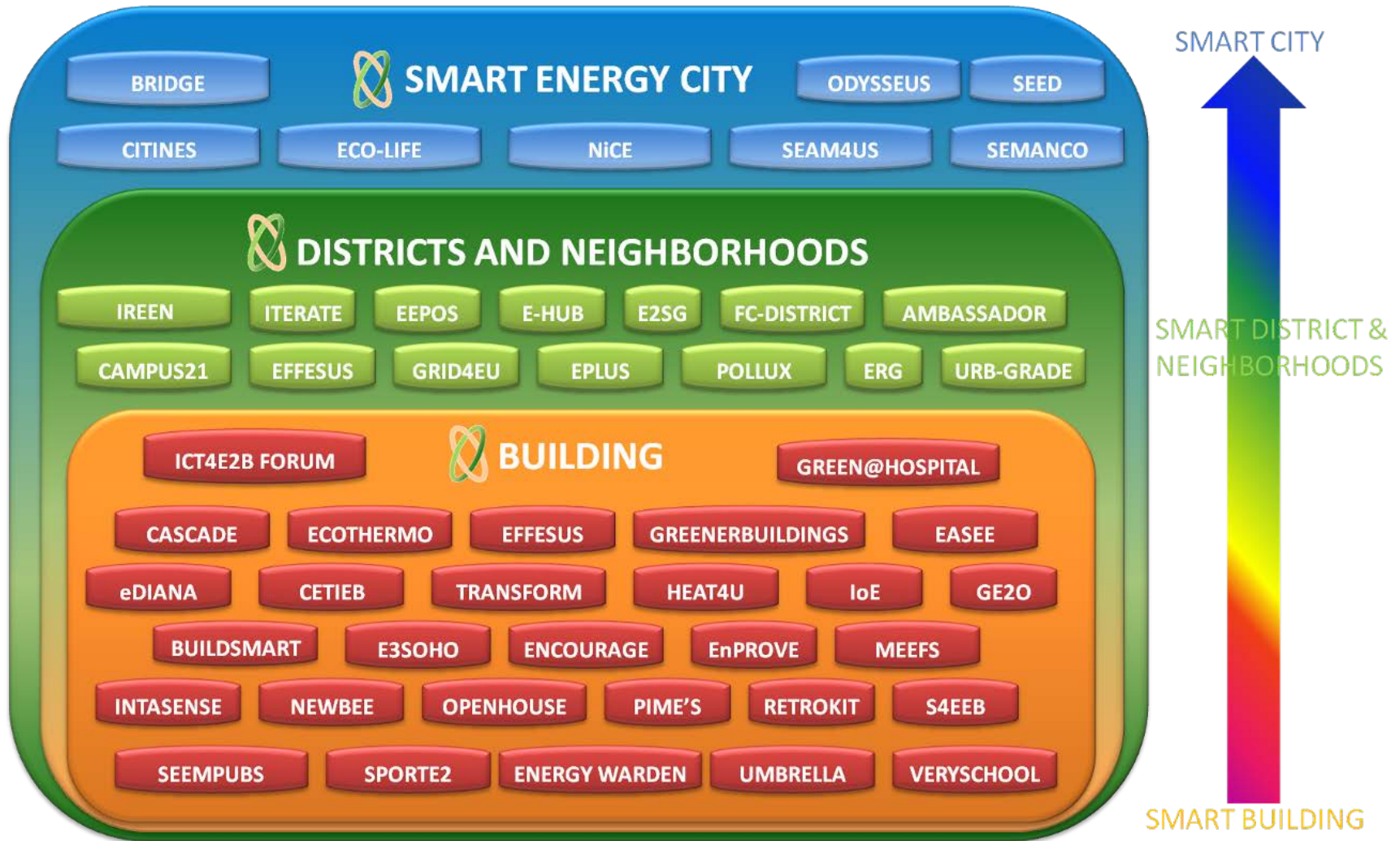
- Definition of a new data ecosystem that will accommodate cross-domain data and will allow the exploitation of such data at global scale
- Identification of a set of ontologies relevant to Smart Cities and the different requirements and guidelines on how to use (publish and interchange) data described according to those ontologies.
- An holistic and shared vision, allowing feasible step-by-step action plans for city authorities and other relevant stakeholder groups to develop and use ICT-based solutions for energy system in urban and rural communities towards future Smart Cities



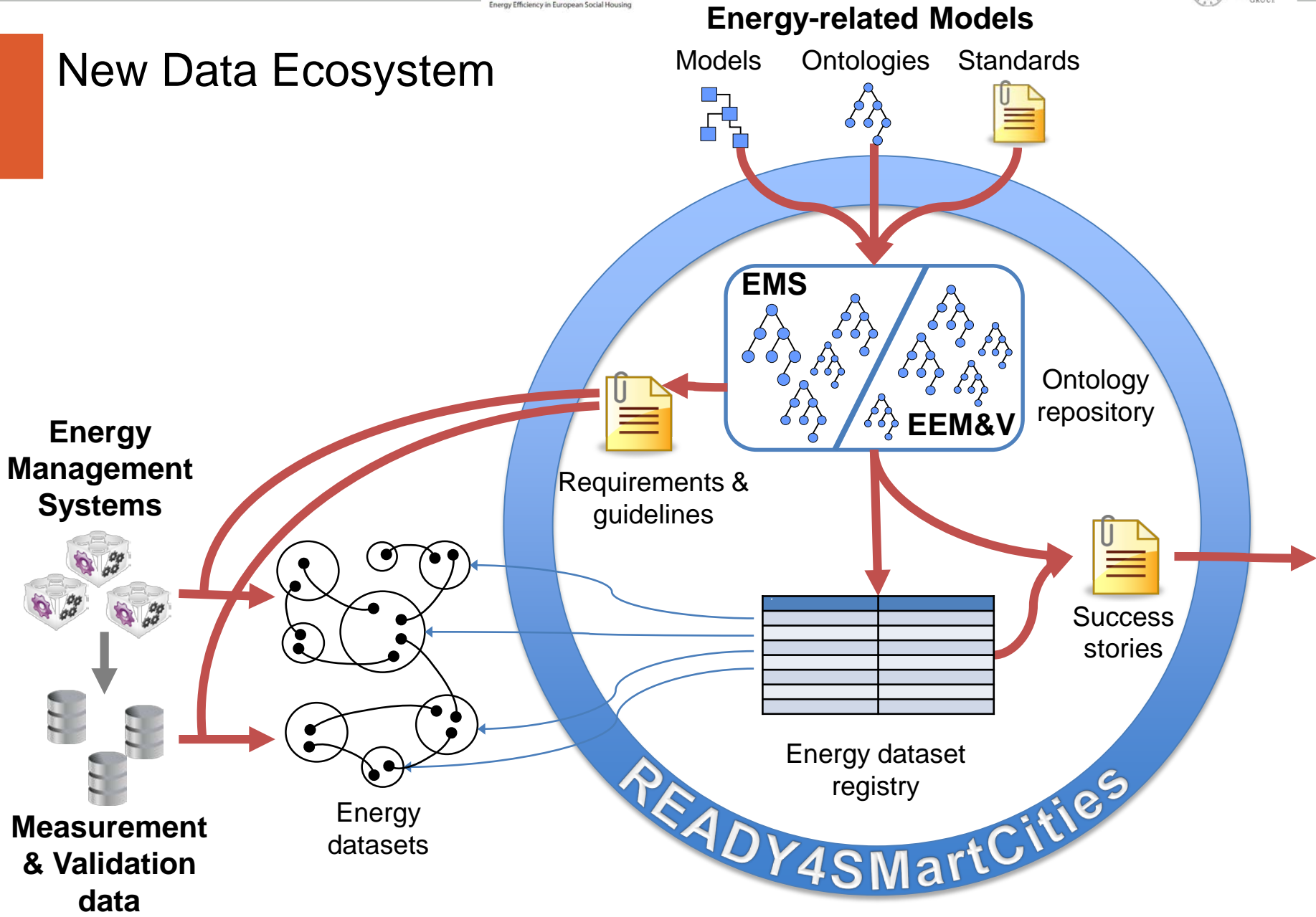
# Stakeholders Involvement



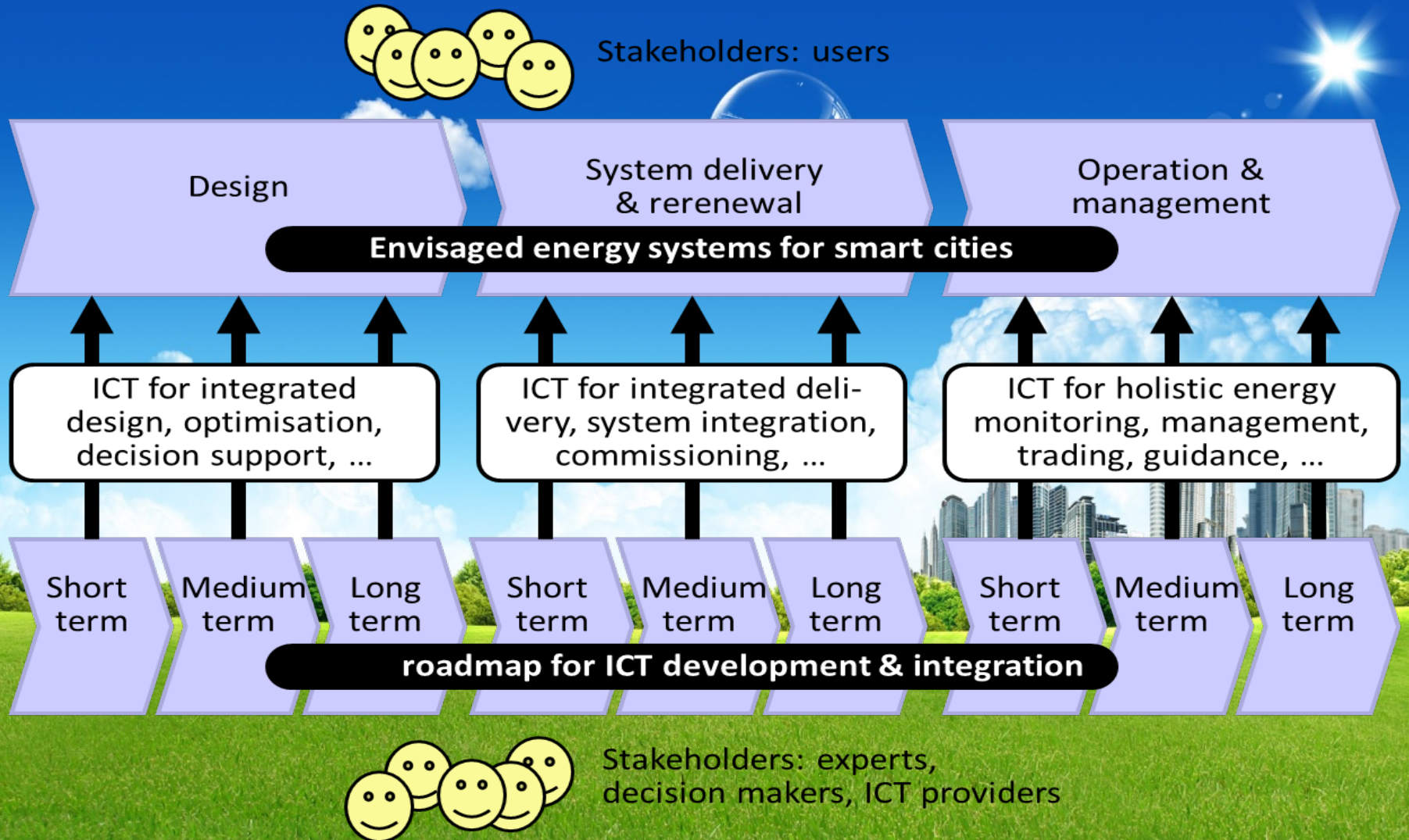
# European Front-end Activities Coordination



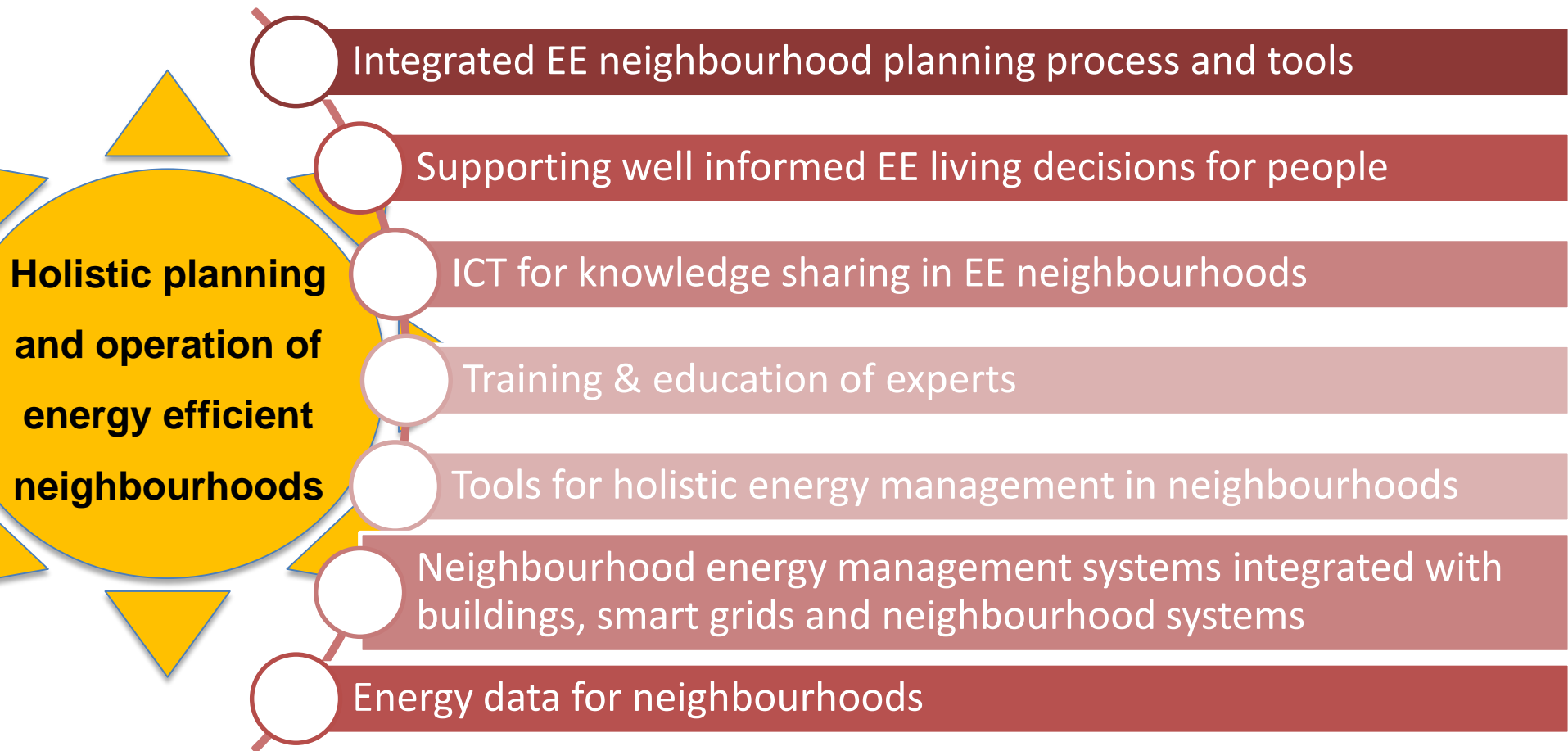
# New Data Ecosystem



# Holistic and Shared Vision



## Key ICT needs: Implementation recommendations



## Knowledge Sharing Repositories

- Research and Technology Roadmap  
<https://webgate.ec.europa.eu/fpfis/wikis/display/RTDRmap/Home>
- Smart Cities  
<https://webgate.ec.europa.eu/fpfis/wikis/display/eeCities/Home>
- Validation and ee Measurement Methodologies  
<https://webgate.ec.europa.eu/fpfis/wikis/display/ValMet/Home>
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