H2020: Energia e TIC

Eunice Ribeiro
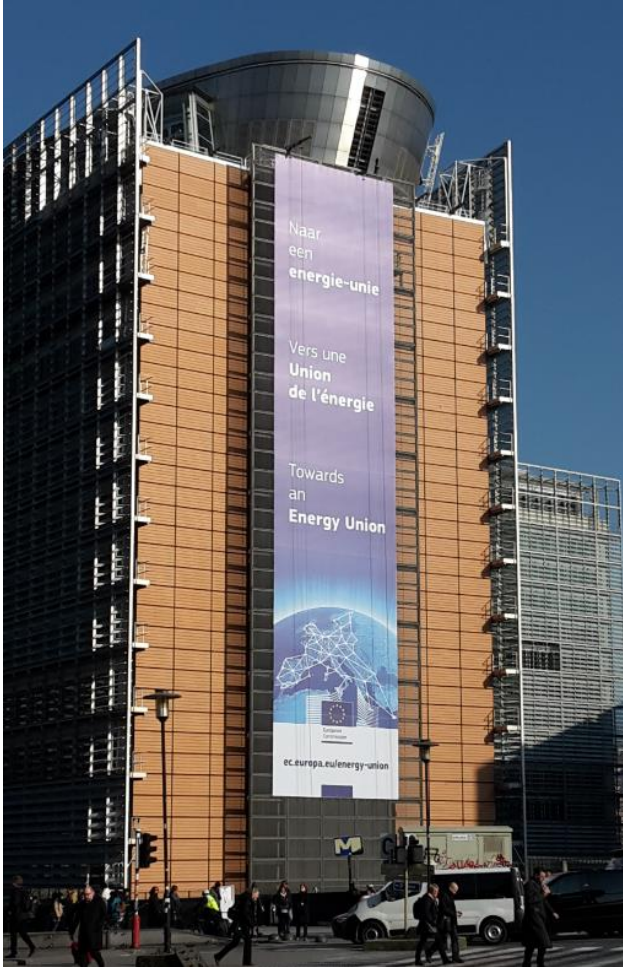Ponto de Contacto Nacional do H2020

H2020
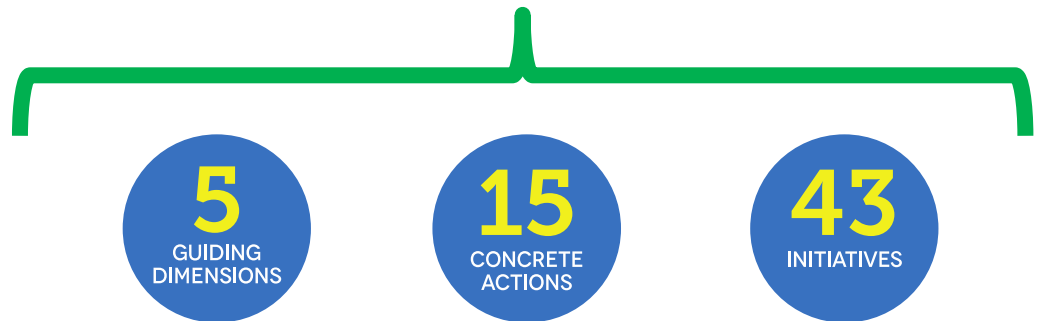
A aplicação das TICs é transversal.

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União da Energia

*"I want to reform and reorganise Europe's energy policy in a new **European Energy Union.**"*

Jean Claude Juncker

http://ec.europa.eu/priorities/energy-union-and-climate_en
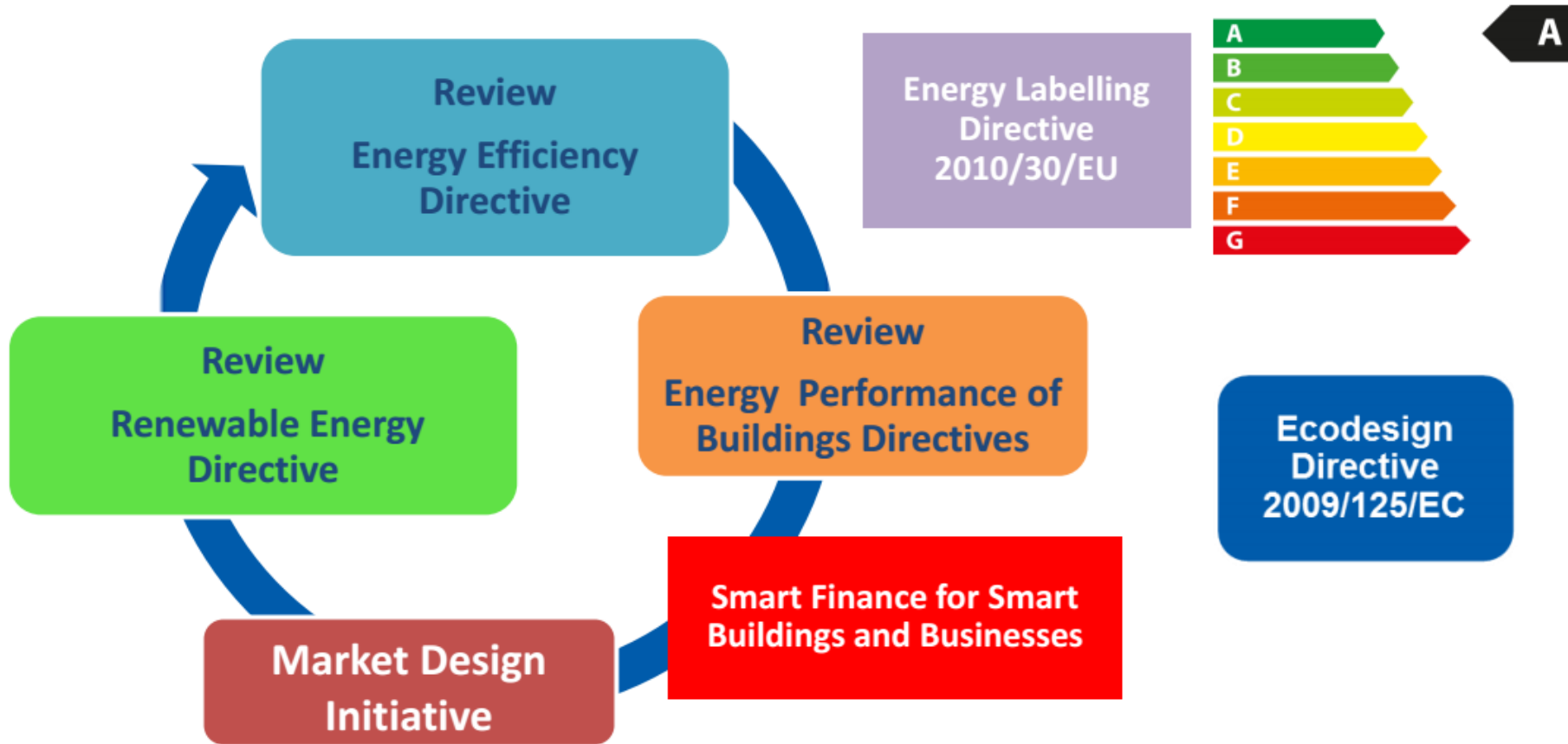
5 GUIDING DIMENSIONS

15 CONCRETE ACTIONS

43 INITIATIVES

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Metas a alcançar

Objetivos Energéticos e Climáticos

2020

-20 %
Emissões dos Gases de Efeito Estufa

20%
Energias Renováveis

20 %
Eficiência Energética

10 %
Interconexões

2030

≥ - 40 %
Emissões dos Gases de Efeito Estufa

≥27 %
Energias Renováveis

≥ 27%*
Eficiência Energética

15 %
Interconexões
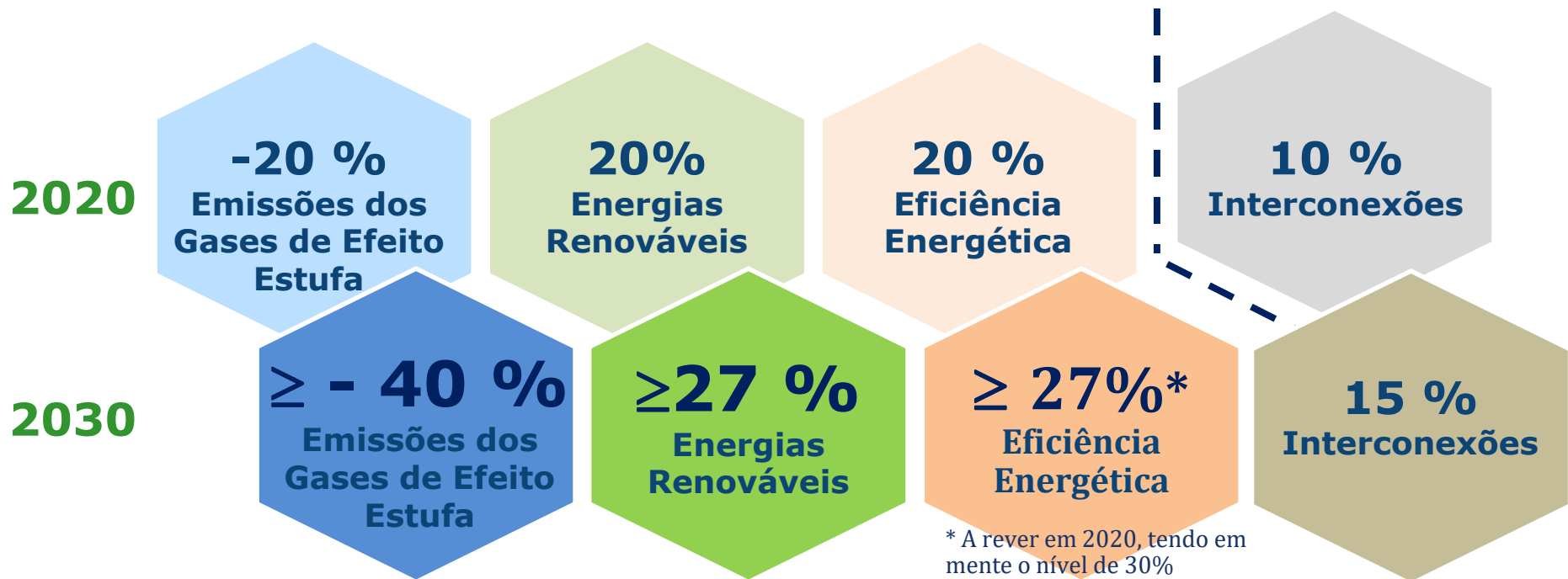
* A rever em 2020, tendo em mente o nível de 30%

Atualização da Legislação

Review Energy Efficiency Directive

Review Renewable Energy Directive

Review Energy Performance of Buildings Directives

Market Design Initiative

Smart Finance for Smart Buildings and Businesses

Energy Labelling Directive 2010/30/EU

Ecodesign Directive 2009/125/EC

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SET Plan

Key Actions: priorities
1&2 – Renewables: Wind
1&2 – Renewables: PV
1&2 – Renewables: CSP/STE
1&2 – Renewables: Geothermal and Ocean
3.1 – Consumers at the centre
3.2 – Smart cities and communities
4 – Energy systems
5 – Energy Efficiency in buildings
6 – Energy efficiency in Industry
7 – Transport: e-mobility (batteries)
8 – Transport: renewable fuels
9 – CCS/CCU
10 – Nuclear

https://setis.ec.europa.eu/towards-an-integrated-SET-Plan

Digitising the European Industry

Mainstreaming digital innovation across all sectors:

Setting up a pan-European network of Digital Innovation Hubs

Strengthening leadership in digital technologies
- Public-Private Partnerships
- Industrial platforms
- Large scale pilots & test beds

Preparing People for the digital age: Skills & Training

Regulatory framework:
- Free flow of data & data ownership
- Safety & liability of autonomous systems & Internet of Things

Challenges & opportunities of the Internet of Things

CLOUD

European Cloud Initiative in a data-driven economy:
- European Open Science Cloud
- European Data Infrastructure
- Widening access & building trust

High Performance Computing · Quantum

STANDARDS

Fast development in 5 priority areas:
- 5G
- Cloud Computing
- Internet of Things
- Data Technologies
- Cybersecurity

DIGITAL PUBLIC SERVICES

eGovernment Action Plan:
- New Digital Single Gateway
- eJustice Portal
- "Once-only" principle in Administrations
- Cross-border Health services
- eProcurement & "Once-only" in public procurement

To focus investments
(Horizon 2020, EU Investment Plan, EU Structural & Investment Funds, national & regional funds, private sector)

MOBILISING €50bn of public & private investments

" Digital is transforming European industry. It's changing the way we produce cars or chemicals, and how banks deliver financial services. Our challenge is to turn the 4th Industrial Revolution to our advantage, to reap the opportunities it brings. "

Günther H. Oettinger
@GOettingerEU
#4IR

European Commission
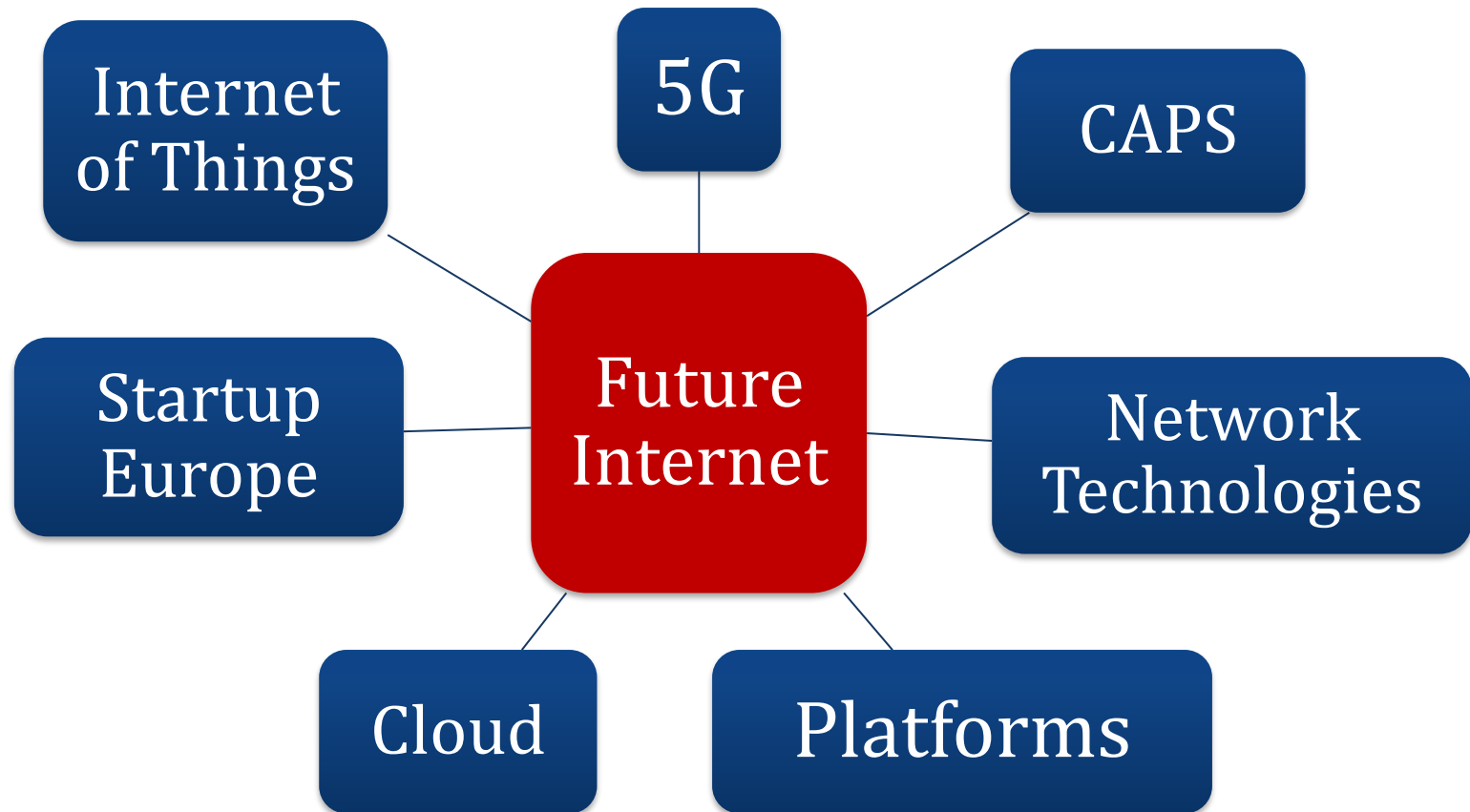
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Programa de Trabalho ICT

Concurso H2020-ICT-2016-2017

- **Components and Systems**
- **Advanced Computing and Cloud Computing**
- **Future Internet**
- **Content**
- **Robotics**
- **KETs: Micro-nano-electronics and Photonics**
- **Innovation & Entrepreneurship**
- **Responsibility & Creativity**
- **International Cooperation**
- **Open Disruptive Innovation**

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Programa de Trabalho ICT

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ICT – Future Internet

Future Internet	TOPIC	Inst.	TRL	M€/proj	Total (M€)
ICT 7 - 2017	**5G PPP Research and Validation of critical technologies and systems**	RIA	-	5 – 8	100
		CSA	-	3	3

Mais informação:

https://5g-ppp.eu/white-papers/

http://utc.org/europe/

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ICT – Content

Future Internet	TOPIC	Inst.	TRL	M€/proj	Total (M€)
ICT 15 - 2017	**Big Data PPP: Large Scale Pilot**	IA	-	10 – 15	25

Scope: demonstrate how industrial sectors will be transformed by putting data harvesting and analytics at their core
Impact: Increase productivity, increase market share, doubling the use of big data tech of the sector, demonstrators

ICT – International Cooperation

Future Internet	TOPIC	Inst.	TRL	M€/proj	Total (M€)
ICT 39 - 2017	**International partnership building in low and middle income countries**	IA	-	1 – 2	13

Targeted countries: Low and middle income countries in sub-Saharan Africa and ASEAN countries

ICT – UE - Brasil

Concurso H2020-EUB-2017

- **Cloud Computing**
- **Internet of Things**
- **5G networks**

Internet of Things	TOPIC	Inst.	TRL	M€/proj	Total (M€)
EUB-02-2017	**Utilities: energy management at home and in buildings**	IA	-	1,5	4,5

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Programa de Trabalho Energia

ENERGY EFFICIENCY – 25 TÓPICOS

SMART CITIES AND COMMUNITIES – 1 TÓPICO

Programa de Trabalhos 2016-2017 – Energia Segura, Não Poluente e Eficiente

COMPETITIVE LOW CARBON ENERGY – 37 TÓPICOS
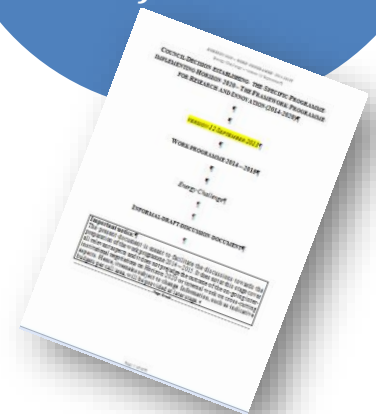
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Energy Efficiency

	TOPIC	Type of scheme	EC Contribution
EE 6 – 2016/2017	**Engaging private consumers towards sustainable energy**	CSA	1-2M€

Keywords: awareness of the collective consumer action, actions to motivate changes, prosumers, vulnerable consumers, ict-solutions, understading energy bills

EE 7 – 2016/2017	**Behavioural change toward energy efficiency through ICT**	IA	1-2M€

Keywords: ICT-based solutions (smart meters, smart plugs, smart appliances), energy savings, factors influencing consumer choices and behaviour

EE 12 –2017	**Integration of Demand Response in Energy Management Systems while ensuring interoperability through PPP (EeB PPP)**	CSA	3-4M€

Keywords: Solutions to optimize the interaction between buildings and Intelligent Energy Management Systems towards optimizing, at building level, energy consumption, renewable energies production and local storage

EE 20 –2017	**Bringing to market more energy efficient and integrated data centres**	IA	2-3M€

Low Carbon Energy

Towards an Integrated Energy System	TOPIC	Type of scheme	TRL	EC Contribution
LCE 1	Next generation innovative technologies enabling smart grids, storage and energy system integration with increasing share of renewables: distribution network	RIA	3-6	2-4 M€

Keywords: solutions beyond the state of the art; Areas for 2016: storage (EV) or synergies between energy networks

LCE 4	Demonstration of smart transmission grid, storage and system integration technologies with increasing share of renewables	IA	5-8	15-20 M€

Keywords: Power transmission technologies and management of large scale generation to increase share of renewables; large scale storage relevant to the transmission network; flexibility and integration of storage in transmission grid; wholesale market facilitating the participation of variable renewables.

LCE 5	Tools and technologies for coordination and integration of the European energy system	RIA	3-6	2-4 M€

Keywords: Planning tools, TSO/DSO collaboration tools, neutral data access points, synergies between electricity, gas and heat networks, socio-economic and environmental aspects
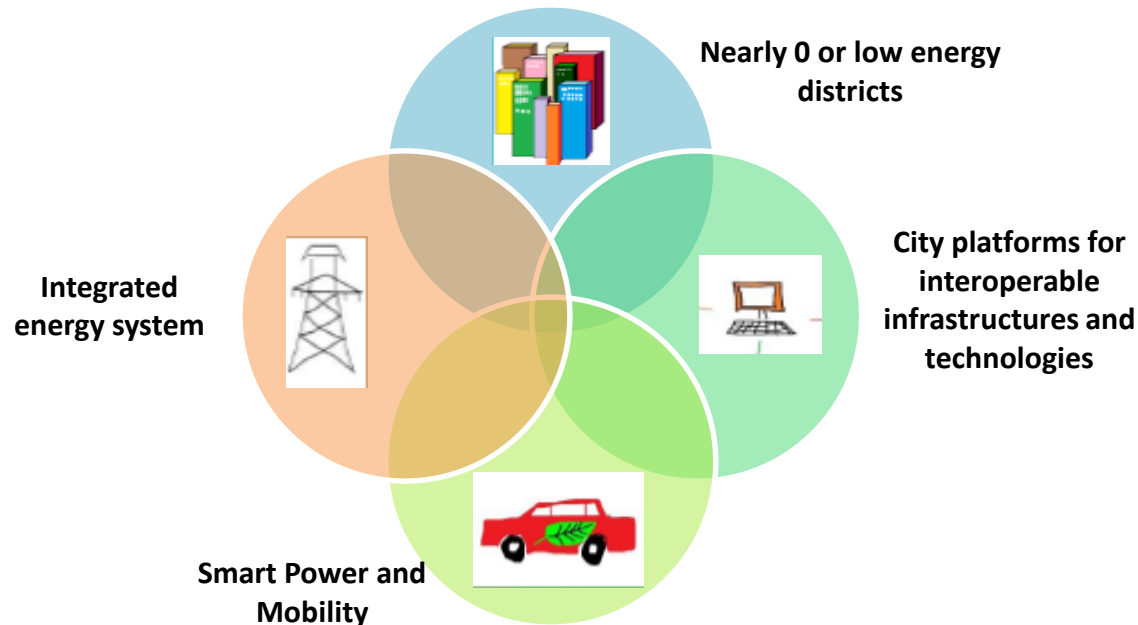
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Smart Cities and Communities

Smart Cities and Communities	TOPIC	Type of scheme	EC Contribution
SCC 1 – 2016/2017	**Smart Cities and Communities lighthouse projects**	IA (> TRL 7)	12-18 M€

Keywords: smart homes, smart energy, ICT systems and electric vehicles, integration, replication of solutions

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Dúvidas?

Contacte-nos!
Estamos ao vosso dispor através dos nossos contactos.

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