



# Horizon 2020 Smart Cities and Communities Call SCC1 - 2017

**Smart Cities Infoday**

***Guimaraes, 27/10/2016***



**Eric Lecomte**

DG Energy

Unit C2 – New energy technologies,  
innovation, clean coal

Energy

# Contents

- **Policy Context**
- **Smart Cities Context**
- **Portuguese cities involvement in EU initiatives**
- **H2020 – Smart Cities – call SCC1**
- **Regional Funds**

# The Paris agreement – 12 Dec. 2015

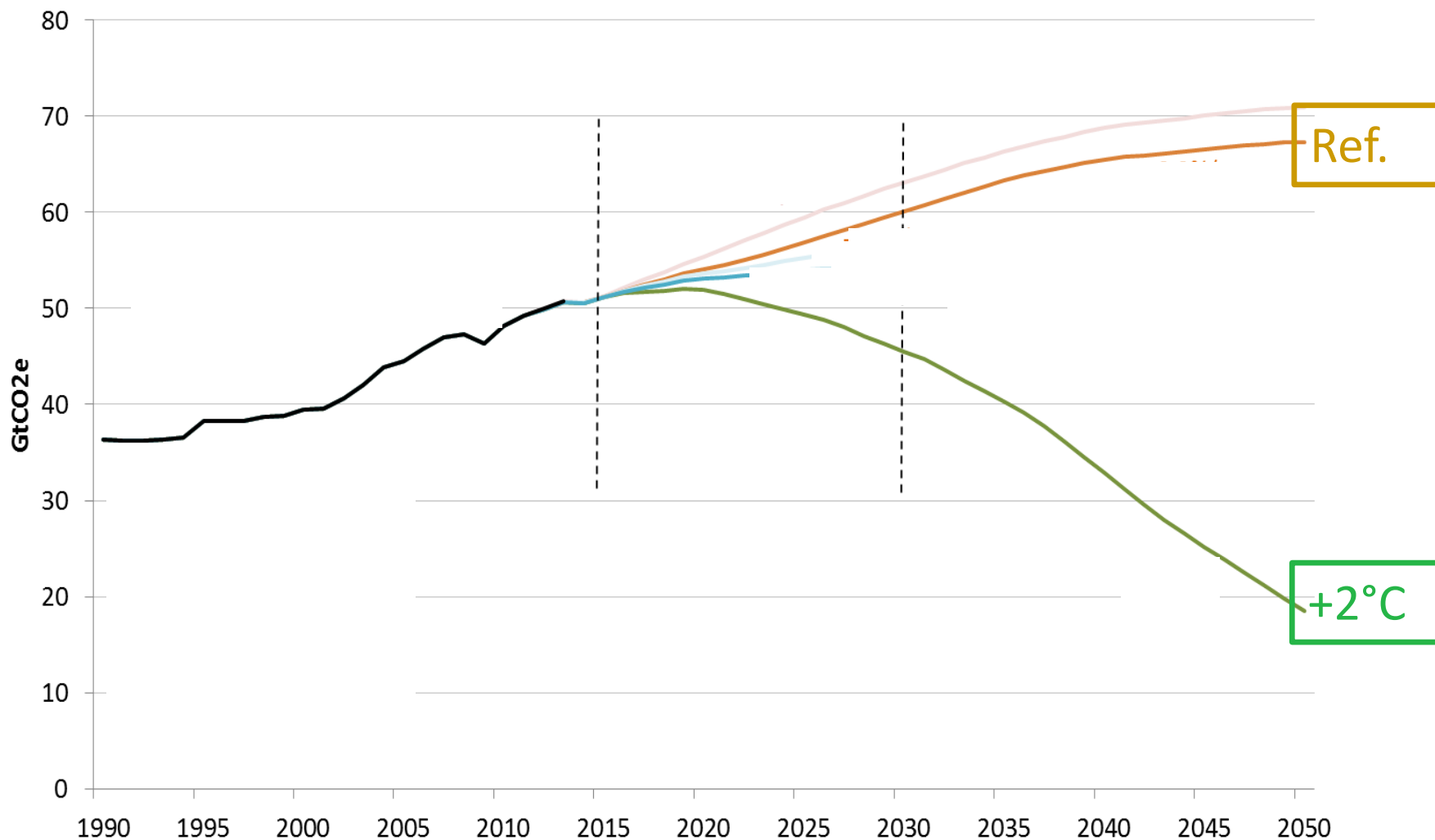
- Global objective **"well below +2°C"**,
- **Intended Nationally Determined Contributions (INDC)**



**PARIS2015**  
CONFÉRENCE DES NATIONS UNIES  
SUR LES CHANGEMENTS CLIMATIQUES  
COP21·CMP11

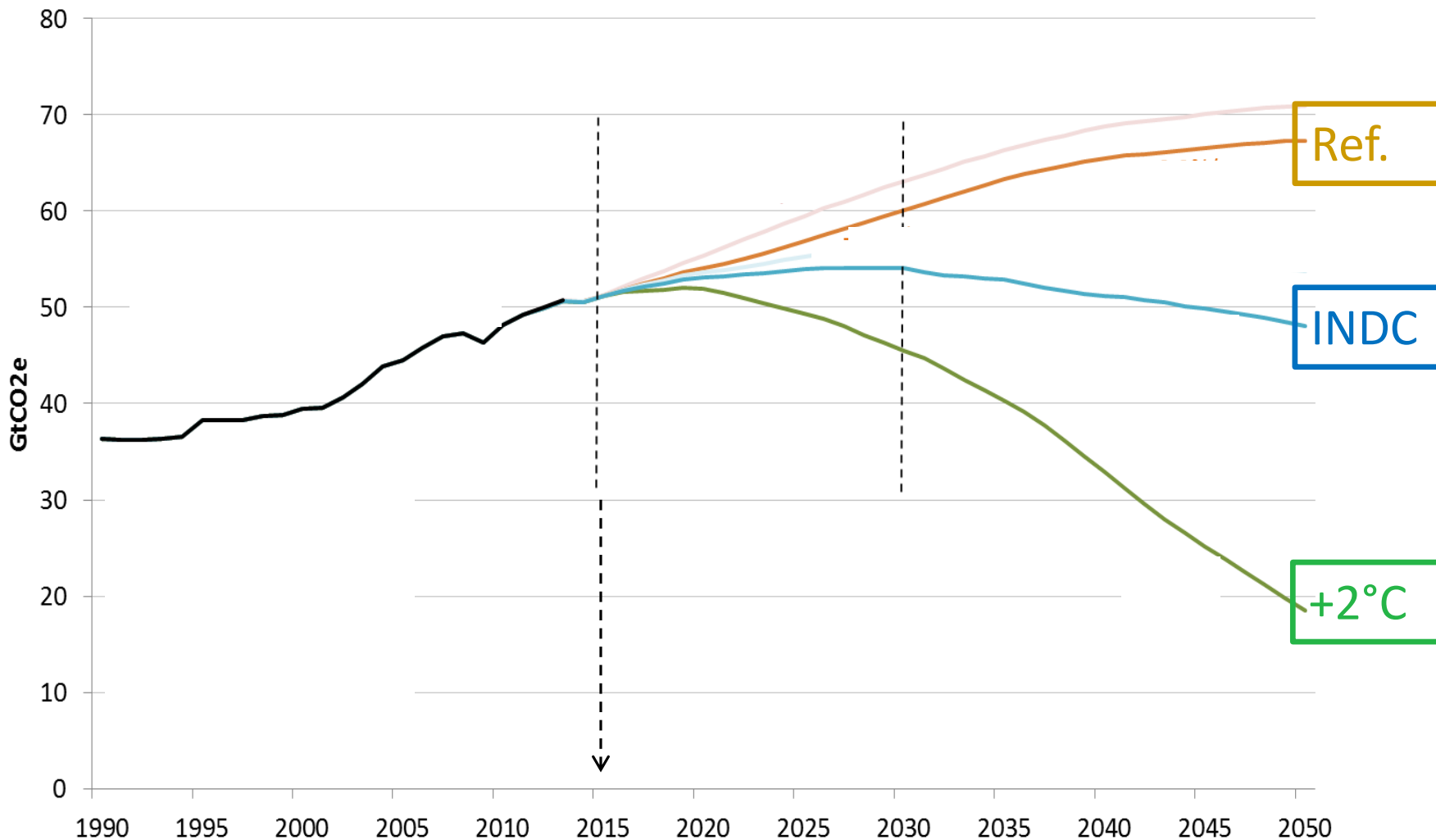
<http://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf>

# Key scenarios - Global Annual GHG emissions



Source: POLES-JRC; [Policy Brief on INDCs analysis](#)

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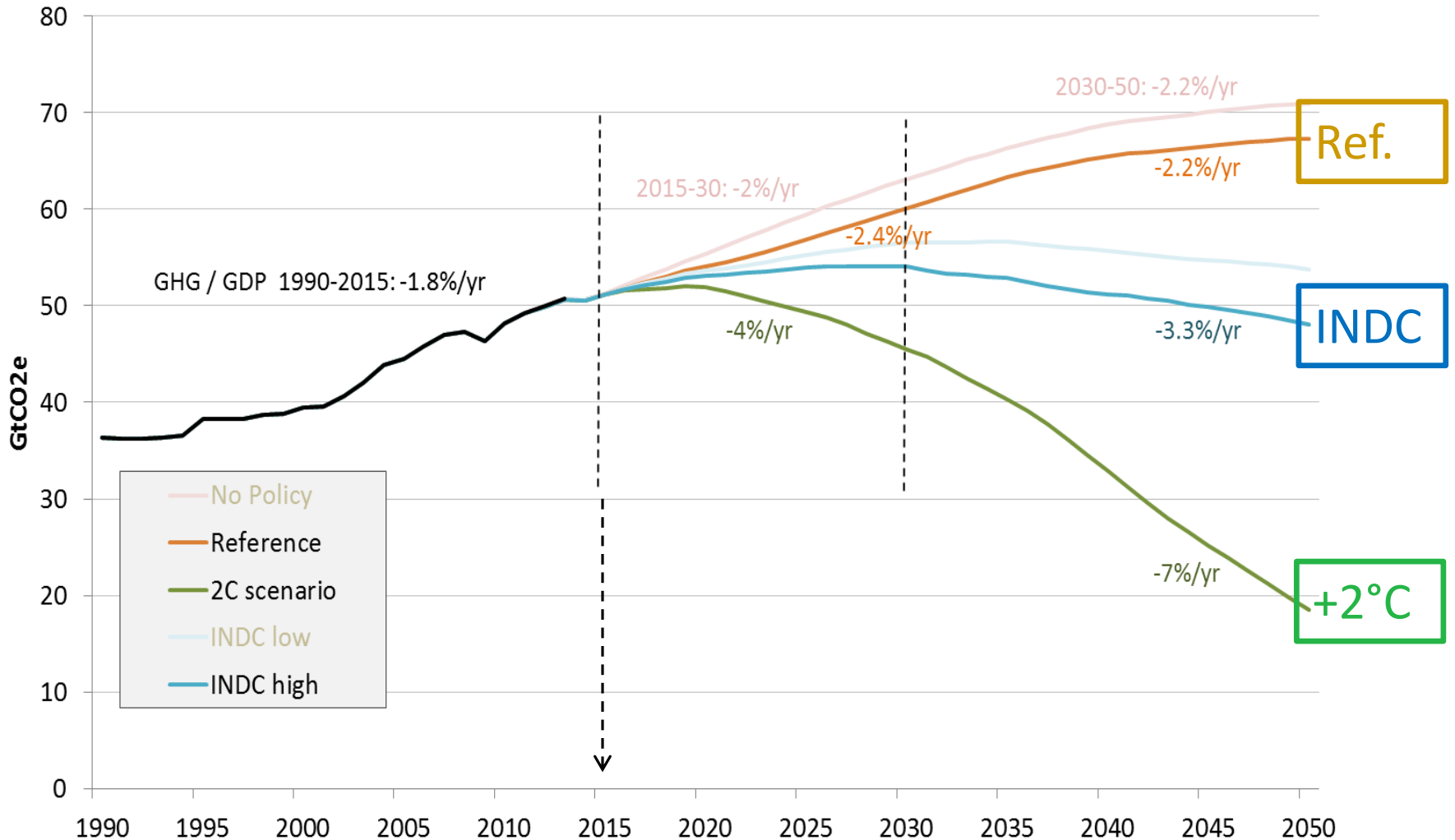
**+1°C  
Now**

Source: POLES-JRC; [Policy Brief on INDCs analysis](#)



# Key scenarios

## Global Annual GHG emissions



**+1°C  
Now**

Source: POLES-JRC; [Policy Brief on INDCs analysis](#)

# The 2015 Paris agreement

- **On 22 April 2016, 174 countries signed the agreement in New York**
- **with 5-year strengthening:**
  - stock taking 2018 / new INDC 2020
  - stock taking 2023 / new INDC 2025
  - ...
- **Biennial reporting** & peer review
- **Financial support** for adaptation & mitigation (100 bn\$/year)

# EU Climate and Energy Objectives

**2020**

- **20%** less greenhouse gases
- **20%** renewable Energy
- **20%** Energy savings



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**2030 (=EU28 INDC)**

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- **27%** renewable Energy
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**2030 (=EU28 INDC)**

- **40%** less greenhouse gases
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**Energy  
Union**



# The Energy Union's 5 dimensions

1. Energy security, solidarity and trust,
2. A fully integrated internal energy market,
3. Energy efficiency first,
4. Transition to a long-lasting low-carbon society,
5. An Energy Union for Research, Innovation and Competitiveness.

5

GUIDING  
DIMENSIONS

# EU policy framework for energy efficiency

## Energy Efficiency

Directive  
2012/27/EU



## Energy Performance of Buildings

Directive  
2010/31/EU

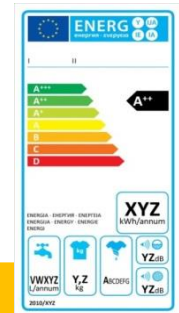


## Ecodesign

Directive  
2009/125/EC

## Energy Labelling

Directive  
2010/30/EU



## Financing Energy Efficiency

European Structural Investment Fund; Horizon 2020; LIFE + funding;  
European Fund for Strategic Investments; Member State programmes; etc.



# The **Energy Union's** 5<sup>th</sup> dimension

## Research & Innovation

**5**  
GUIDING  
DIMENSIONS

Developing **EU technological leadership** in low carbon technologies by

- reducing energy consumption,
- developing renewable sources,
- empowering consumers and
- boosting growth and jobs.

# The **Energy Union's** 5<sup>th</sup> dimension in practise



**Competitiveness**  
aspects of European  
R&I policy

**Strategic Energy  
Technology Plan,**  
including **Smart  
Cities** and smart  
financing

**Strategic transport**  
research and  
innovation R&I  
agenda

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- **Portuguese cities involvement**



## Cities – Key for Europe

- 78% of EU's population lives in cities.
- 85% of EU's GDP is generated there.
- Cities deliver on jobs, growth, investments, innovation and CO<sub>2</sub> reduction ...





# Smart Cities and Communities Context

## Stakeholders

- Cities & Regions
- Industry
- Research
- Associations
- etc. ...





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## EU Initiatives

- CIVITAS
- Green Digital Charter
- **CONCERTO**

## Lighthouse Projects

Implementation &  
replication with EU funding



Smart Cities &  
Communities



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EU Smart Cities  
Information  
System

[www.smartcities-infosystem.eu](http://www.smartcities-infosystem.eu)



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Smart Cities &  
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Smart Cities &  
Communities



## Covenant of Mayors

Political  
commitments  
without EU funding



## SCC-EIP Market Place

Commitments  
Implementation  
without EU funding



European Commission

**European Structural and Investment Funds**

ERDF

Cohesion Fund

ESF

EAFRD

EMFF

Vehicles

CLLD

ITI

Financial Instruments

**European Funding Programmes**

LIFE

Urban Innovation Actions

URBACT III

CIVITAS Activity Fund

Territorial Cooperation

Horizon 2020

Financial Instruments Advisory (fi-compass)

**Project Development Assistance**

ELENA EIB

ELENA KfW

Horizon 2020 Call EE22

JASPERS

EIAH

Grants

**Financial Institutions Financing**

EFSI

Municipal Loans

Deep Green (PF4EE)

NCFE

EEEF

Loans & Guarantees

**Alternative Financing Schemes**

EPC

Crowd-Funding

Soft Loans, Guarantees

Revolving Loan Funds

On Bill Financing

Other

Covenant of Mayors - Quick Reference Guide

[http://www.covenantofmayors.eu/support/funding-instruments\\_en.html](http://www.covenantofmayors.eu/support/funding-instruments_en.html)

**6,000+** signatory cities,

**STEP 1** Signature of the Covenant of Mayors

Initiation

Feedback Monitoring

**STEP 3** Submission of your Implementation Report

Monitoring and reporting progress

Implementation of concrete CO<sub>2</sub> reduction policies and measures

**400+** Monitoring reports



Implementation

Adaptation of the administrative structure

Building support from stakeholders and citizens

Compilation of a Baseline Emission Inventory

Establishment of a long-term vision with clear objectives

Development and approval of the action plan

**STEP 2** Submission of your Sustainable Energy Action Plan (SEAP)

**5,000+** SEAPs adopted



# Smart Cities & Communities European Innovation Partnership

Why?

Challenges

- **Fragmented markets**
- **Lack of new business models and financing solutions**
- **Need for knowledge sharing and capacity building**



# Why Smart Cities and Communities?

## Opportunities

- Improving quality of life, competitiveness and sustainability
- Exporting European knowledge in a strong growth market estimated globally at €1.3 trillion in 2020



European  
Commission



## What we do

### Together we

- develop and implement solutions
- facilitate networking and partnering
- accumulate and share knowledge
- build capacity
- focus on Energy, Transport and ICT



## The 6 Action Clusters

4000 partners,  
370 commitments,  
31 countries.

Commitments grouped  
in initiatives

General Assembly  
24 May 2016, Eindhoven



# EU Smart Cities Initiatives

## 1. CONCERTO & Smart Cities projects



## 2. SCC-EIP- Market Place - Commitments



## 3. Covenant of Mayors



## 4. CIVITAS



## 5. Green Digital Charter



## 6. eea





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# Cities involvement in EU initiatives

<b>Status</b> <b>August</b> <b>2015</b> <b>Country</b>	<b>1-</b> <b>Concerto</b> <b>&amp;SCC FP7-</b> <b>H2020</b>	<b>2-</b> <b>SCC-EIP-</b> <b>MP</b>	<b>3-</b> <b>Covenant</b> <b>of</b> <b>Mayors</b>	<b>4-</b> <b>CIVITAS</b>	<b>5-</b> <b>Green</b> <b>Digital</b> <b>Charter</b>	<b>6-eea</b> <b>european</b> <b>energy</b> <b>award</b>
<b>All</b>	<b>201</b>	<b>299</b>	<b>6347</b>	<b>63</b>	<b>46</b>	<b>1320</b>

# Cities involvement in EU initiatives

Status August 2015 Country	1-Concerto &SCC FP7- H2020	2- SCC-EIP- MP	3- Covenant of Mayors	4- CIVITAS	5- Green Digital Charter	6-eea european energy award
<b>All</b>	<b>201</b>	<b>299</b>	<b>6347</b>	<b>63</b>	<b>46</b>	<b>1320</b>
at	9	3	25	1	1	179
be	5	5	240	1	1	0
de	32	23	64	4	1	307
dk	10	10	37	2	0	0
es	14	37	1449	5	5	0
it	13	36	3478	9	7	42
fr	11	12	84	4	4	60
<b>pt</b>	<b>5</b>	<b>3</b>	<b>120</b>	<b>3</b>	<b>1</b>	<b>0</b>
ch	6	4	8	0	0	629
ua	1	0	93	0	0	1

# EU Cities involvement in EU initiatives

<b>Status as of August 2015 (for information only - SCIS and European Commission do not accept liability for any errors or omissions)</b> City name (local language) (7830 cities)	Country	Number of initiatives where city is active (max 6)	1-Concerto & Smart-Cities FP7-H2020-projects as LEADcity.x-FOLLOW.y => LxFy (202 cities)	2-SCC-EIP-MP - Number of Commitments (299 cities)	3-Covenant of Mayors - Status - (6347 cities)	4-CIVITAS Number of projects (63 cities)	5-Green Digital Charter (46 cities)	6-eea european energy award - status - (1320 cities)
Aachen	de	5	L1F1	2	MONI	1		eea-gold
Barcelona	ES	5	L1F0	9	SEAP	1	GDC	
Bologna	it	5	L0F1	8	SEAP	1	GDC	
Bristol	UK	5	L2F0	3	SEAP	1	GDC	
Genova	IT	5	L3F0	3	MONI	1	GDC	
Gent	BE	5	L1F0	4	SEAP	1	GDC	
Malmö	SE	5	L2F1	2	MONI	1	GDC	
Nantes	fr	5	L1F0		SEAP	1	GDC	eea-50%
Venezia	IT	5	L0F2	1	MONI	1	GDC	
Amsterdam	NL	4	L5F0	10	SEAP		GDC	
Bordeaux	fr	4	L0F1		SEAP		GDC	eea-50%
Eindhoven	nl	4	L1F1	5	SEAP		GDC	
Firenze	IT	4	L2F0	4	MONI			eea-50%
Genève	CH	4	L1F0	1	SEAP			eea-gold
Glasgow	UK	4	L1F0	5	MONI		GDC	
Göteborg	se	4	L2F1	5	MONI	1		
Grenoble	fr	4	L3F0	1	SEAP			eea-50%
Köln	DE	4	L2F0	2	SEAP			eea-sign
Lisboa	PT	4	L1F0	2	MONI		GDC	
Lyon	fr	4	L4F0	2	SEAP			eea-sign
Málaga	es	4		5	MONI	1	GDC	
Manchester	UK	4	L1F0	7	SEAP		GDC	
Milton Keynes	UK	4	L1F0	1	MONI		GDC	



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Lisboa	PT	4	L1F0	2	MONI		GDC	
Porto	PT	3	LOF2		MONI	1		
Águeda	pt	2		1	MONI			
Coimbra	PT	2		3		1		
Funchal	pt	2			MONI	1		
Moura	pt	2	LOF1		MONI			
Abrantes	pt	1			MONI			
Albergaria-a-Velha	pt	1			SEAP			
Alcanena	pt	1			SEAP			
Alcochete	pt	1			SIGN			
Alijó	pt	1			SEAP			
Almada	pt	1			SEAP			
Alter do Chão	pt	1			SEAP			
Alvaiázere	pt	1			MONI			
Amares	pt	1			SIGN			
Guimarães	pt	1			MONI			



# Thank you very much for your attention!

*More information on :*

- *Energy Efficiency Directives:*  
<https://ec.europa.eu/energy/en/topics/energy-efficiency>
- *Smart Cities Projects:* <http://smartcities-infosystem.eu/>
- *Covenant of Mayors:* [www.covenantofmayors.eu](http://www.covenantofmayors.eu)
- *European Innovation Partnership on Smart Cities:*  
<https://eu-smartcities.eu/>

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# ADDITIONAL SLIDES

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## 10 Actions

- **EU # 1 in Renewable Sources:** (1) Develop highly performant renewables technologies and (2) Cost reduction
- **Consumer in a smart system:** (3) Smart homes and (4) Resilience, security and smartness of the energy system
- **Efficient energy systems:** (5) in buildings and (6) in industry
- **Sustainable transport:** (7) Become competitive in the global battery sector and (8) Renewable fuels
- **Carbon Capture Storage and Use** (9)
- **Safety in nuclear** (10)