smar+
en.
ci+y

SmartEnCity Academy for Zero Carbon Transition

Session starts at 2 PM

TOWARDS SMART ZERO CO_2 CITIES ACROSS EUROPE

VITORIA-GASTEIZ + TARTU + SONDERBORG

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

eman ta zabal zazu
Universidad del País Vasco
Euskal Herriko Unibertsitatea

SmartEnCity Academy for Zero Carbon Transition

- **SmartEnCity – Towards Smart Zero CO2 Cities across Europe**
  - 3 Lighthouse Cities
  - 2 Follower Cities
  - 37 partners
  - 02/2016 - 07/2021 (5.5 years)

- **SmartEnCity Academy**
  - online training course for cities, municipalities and smart decision making
  - tailored step-by-step guidance
  - interactive discussions

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

More information and updates about the lessons at

https://smartencity.eu/outcomes/smartencity-academy/

Questions to

info@smartencity.eu

Please note that this lesson will be recorded and uploaded to
https://smartencity.eu

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Lesson 1: Overview

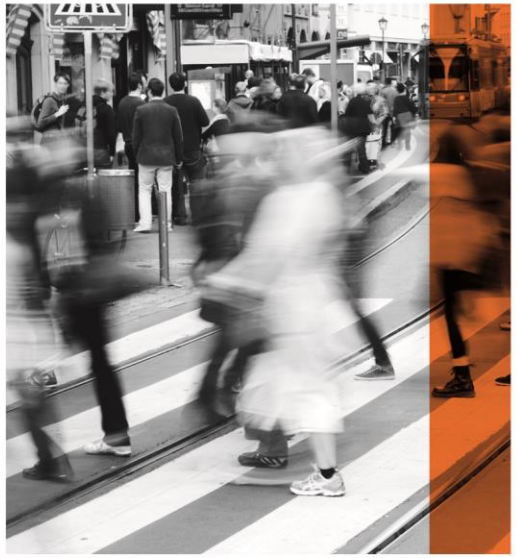
The SmartEnCity Way towards Zero Carbon City: The Cities4ZERO Strategy and Integrated Energy Planning

- **Moderator:** Koldo Urrutia Azcona, TECNALIA Research & Innovation

- **Speakers & Topics:**
  - Cities4ZERO Urban Transformation Strategy for Cities' Decarbonisation (Koldo Urrutia Azcona)
  - Integrated Energy Planning approach and process in:
    - Sonderborg (Peter Rathje, ProjectZero Sonderborg)
    - Tartu (Jaanus Tamm, Tartu City Government)
    - Vitoria-Gasteiz (Aitor Albaina Vivanco, City of Vitoria-Gasteiz)
  - Panel discussion & questions from the audience

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

smar+
en.
ci+y


SmartEnCity Academy Lesson 1:
The SmartEnCity Way towards Zero Carbon City: The Cities4ZERO Strategy and Integrated Energy Planning

Koldo Urrutia Azcona,
TECNALIA Research & Innovation

TOWARDS SMART ZERO CO_2 CITIES ACROSS EUROPE

VITORIA-GASTEIZ + TARTU + SONDERBORG

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

eman ta zabal zazu
Universidad del País Vasco
Euskal Herriko Unibertsitatea

Lesson 1:

The SmartEnCity Way towards Zero Carbon City:

Cities4ZERO Strategy and Integrated Energy Planning

Main objective:

Invite cities to take ACTION!!

It's doable; not easy, but not "rocket science" either

How??

1. *A bit of theory >* ***Strategy to incorporate cities into action – Cities4ZERO***
2. *A bit of reality >* ***Sonderborg, Tartu and Vitoria-Gasteiz***
3. *A bit of discussion?? –* ***Roundtable discussion***

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO:

The journey towards the *SMART ZERO CARBON CITY*

Urban transformation process supporting the energy transition of European cities

Koldo Urrutia Azcona - Researcher
Innovation in Smart Sustainable Cities & Urban Environment
Tecnalia Research & Innovation

tecnalia Inspiring Business

eman ta zabal zazu
Universidad del País Vasco
Euskal Herriko Unibertsitatea

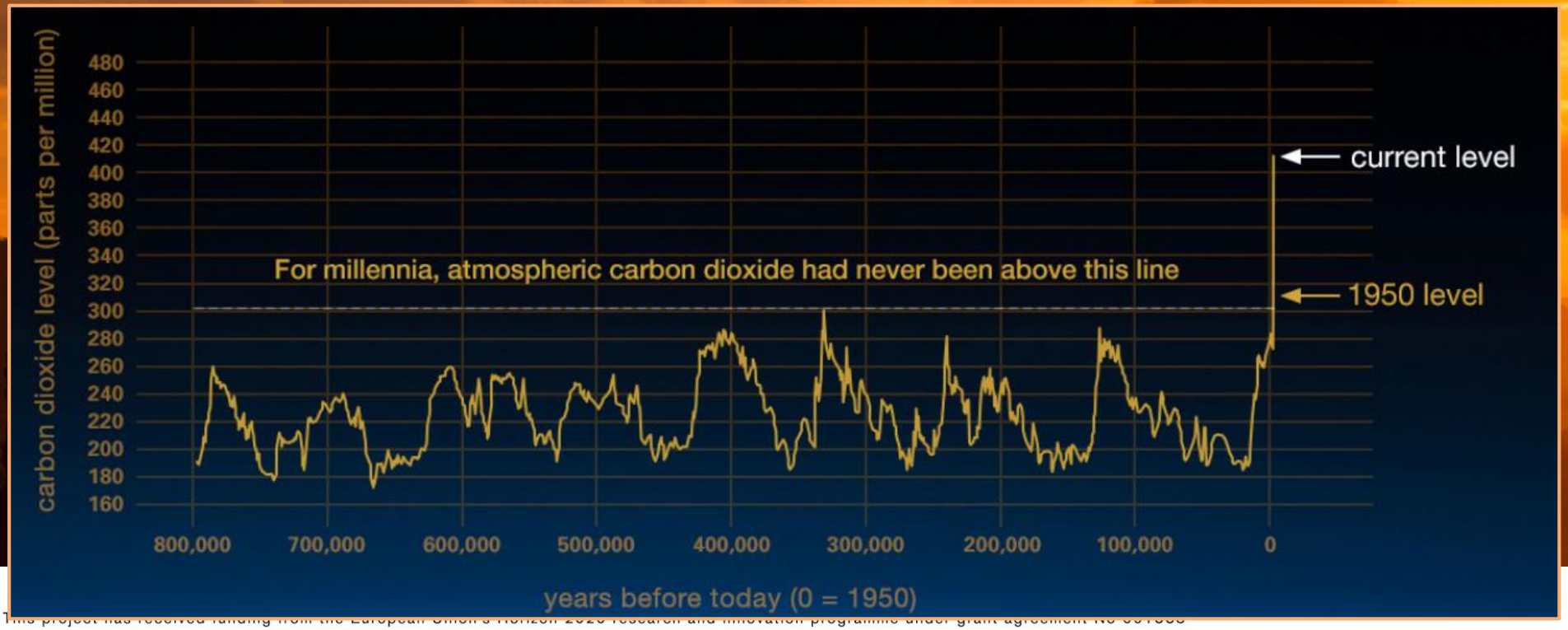
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

GLOBAL IMPACT…

FOSSIL-FUELS PATH DEPENDENCY

UNFORESEEN **CLIMATE CHANGE** CONSEQUENCES

GREEN HOUSE GAS EMISSIONS; we are beating all records!



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691636

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

SO… WHAT DO WE DO ABOUT IT??

We will focus on cities, at municipal level

THE *SMART ZERO CARBON CITY* CONCEPT

*"A **Smart Zero Carbon City** (SZCC) is a **resource-efficient urban environment where carbon footprint is eliminated**; energy demand is kept to a minimum through the use of demand control technologies that save energy and promote raised awareness; energy supply is entirely renewable and clean; and resources are intelligently managed by aware and efficient citizens, as well as both public and private stakeholders"*

FINE, VERY NICE…
BUT, HOW CAN CITIES ACHIEVE IT??

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

CITIES INTO ACTION!!

SMARTENCITY PROJECT IS TRYING TO DO SO

ADAPTING A METHDOLOGY TO DIVERSE LOCAL CONTEXTS

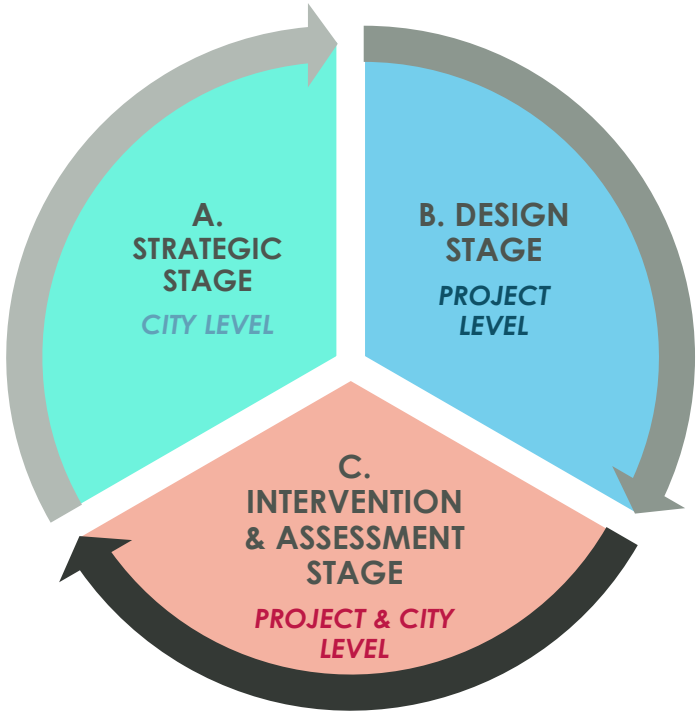
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO:

The journey towards the ***SMART ZERO CARBON CITY***

Implementation methodology based on three stages:

A. Strategic stage
B. Design stage
C. Intervention & Assessment



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO:

The journey towards the ***SMART ZERO CARBON CITY***

1 ENGAGE

Step 1. Local Partnership towards the *Smart Zero Carbon City*

2 ANALYSE

Step 2. City Background Information Package

3 DIAGNOSE

Step 3. Strategic City Diagnosis

4 ENVISION

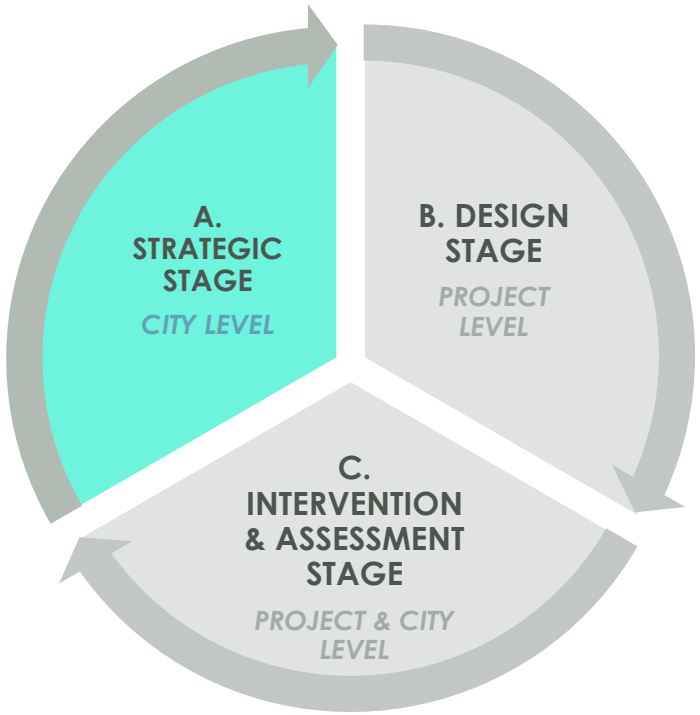
Step 4. Scenarios generation and **vision**

5 **PLAN** CITY LEVEL

Step 5. **Integrated Energy Plan** (IEP) & **Action Plan**

6 INTEGRATE

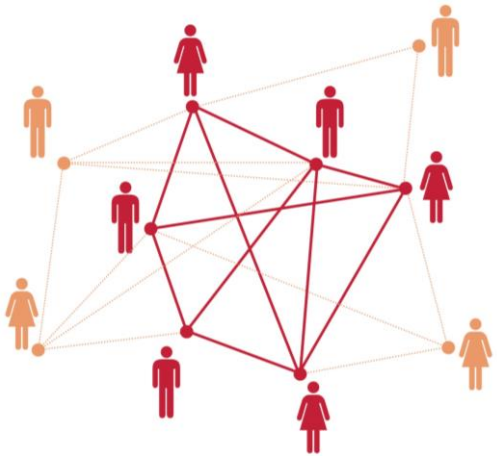
Step 6. Integration of IEP into Municipal Planning



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

1. ENGAGE!

LOCAL PARTNERSHIP TOWARDS THE Smart Zero Carbon City



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 **Engage!** | 2 Analyse | 3 Diagnose | 4 Envision | 5 PLAN | 6 Integrate

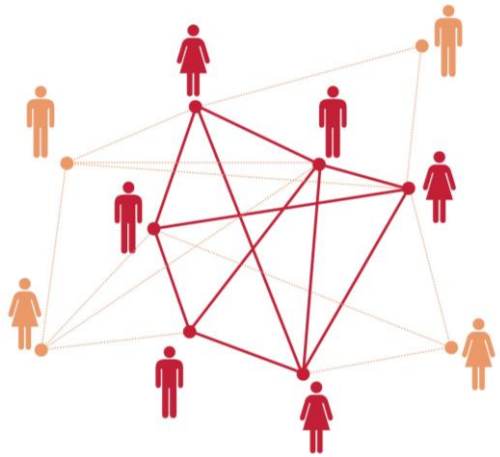
Step 1.
Local Partnership towards the *Smart Zero Carbon City*

Key stakeholders at city level

- **Quadruple helix principle**: government, industry, academia, citizenship
- **Group set-up & pre-planning tasks**.

Governance model definition

- Open innovation
- **Decision-making** procedures
- **Committees**
- **Institutional analysis** and creation (if necessary)
- **Governance activities** (*spheres*)
  - Strategic, Tactical, Operational, Reflexive



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

2. ANALYSE!

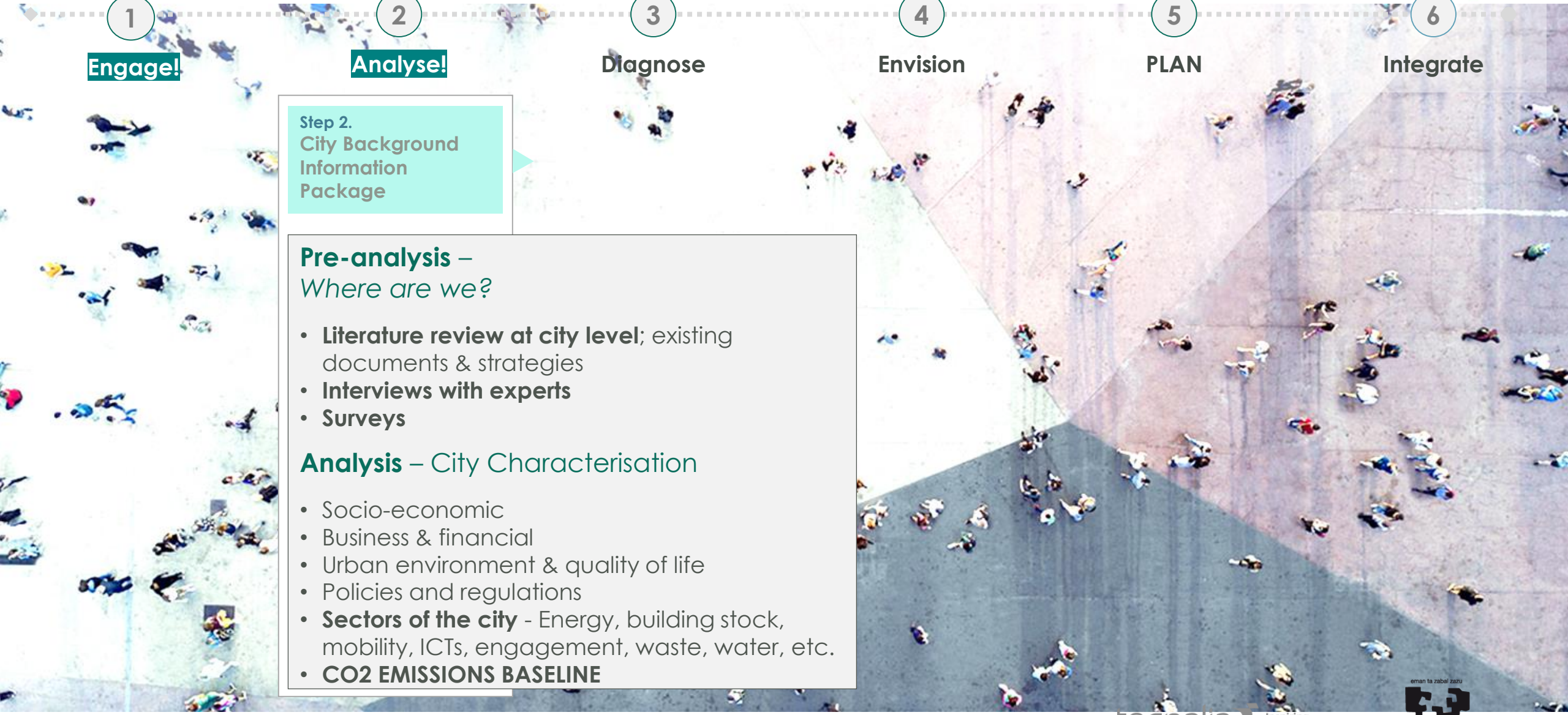
CITY INFORMATION GATHERING:

CITY BACKGROUND INFORMATION PACKAGE

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 Engage! | 2 Analyse! | 3 Diagnose | 4 Envision | 5 PLAN | 6 Integrate



Step 2.
City Background Information Package

Pre-analysis –
Where are we?

- **Literature review at city level**; existing documents & strategies
- **Interviews with experts**
- **Surveys**

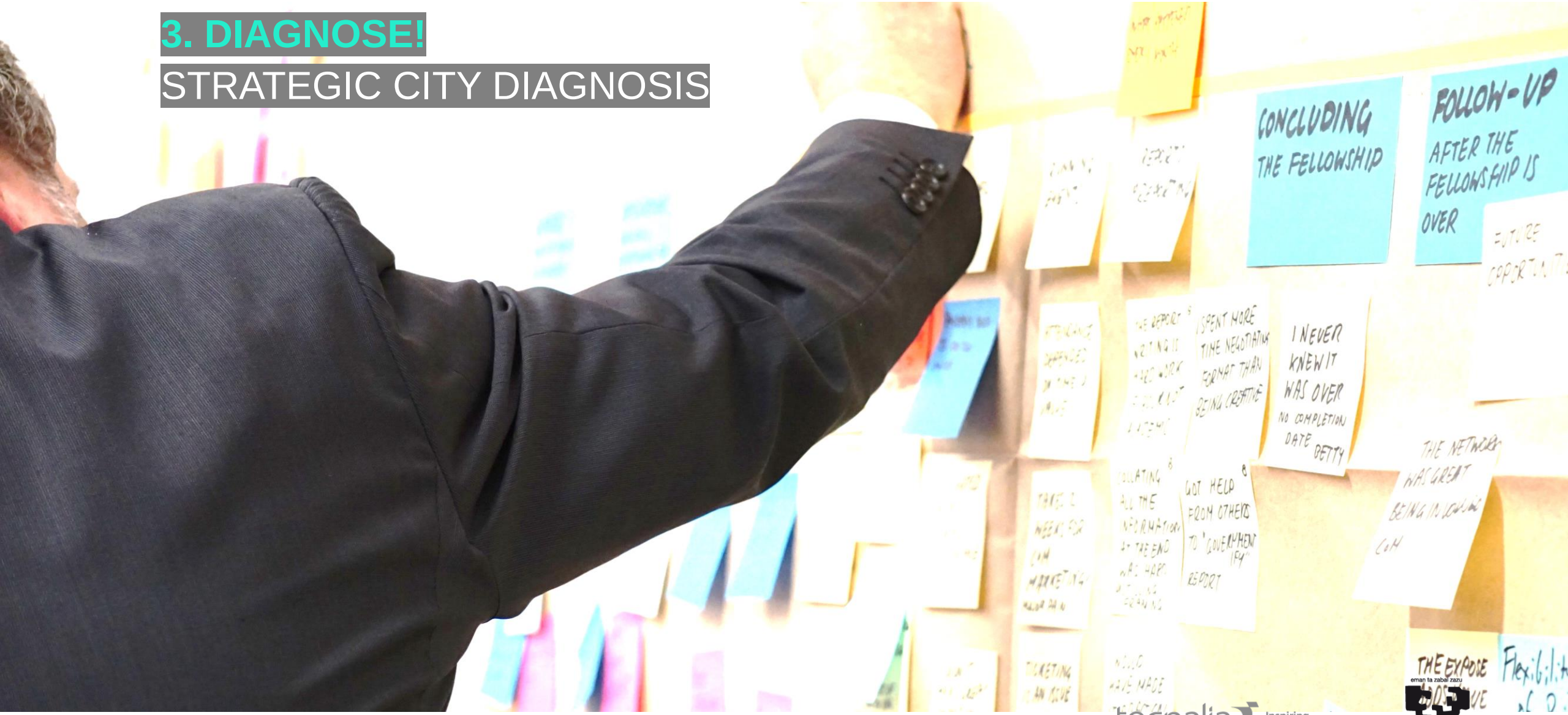
Analysis – City Characterisation

- Socio-economic
- Business & financial
- Urban environment & quality of life
- Policies and regulations
- **Sectors of the city** - Energy, building stock, mobility, ICTs, engagement, waste, water, etc.
- **CO2 EMISSIONS BASELINE**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

3. DIAGNOSE!

STRATEGIC CITY DIAGNOSIS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 Engage! | 2 Analyse! | 3 Diagnose! | 4 Envision | 5 PLAN | 6 Integrate

Step 3.
Strategic City Diagnosis

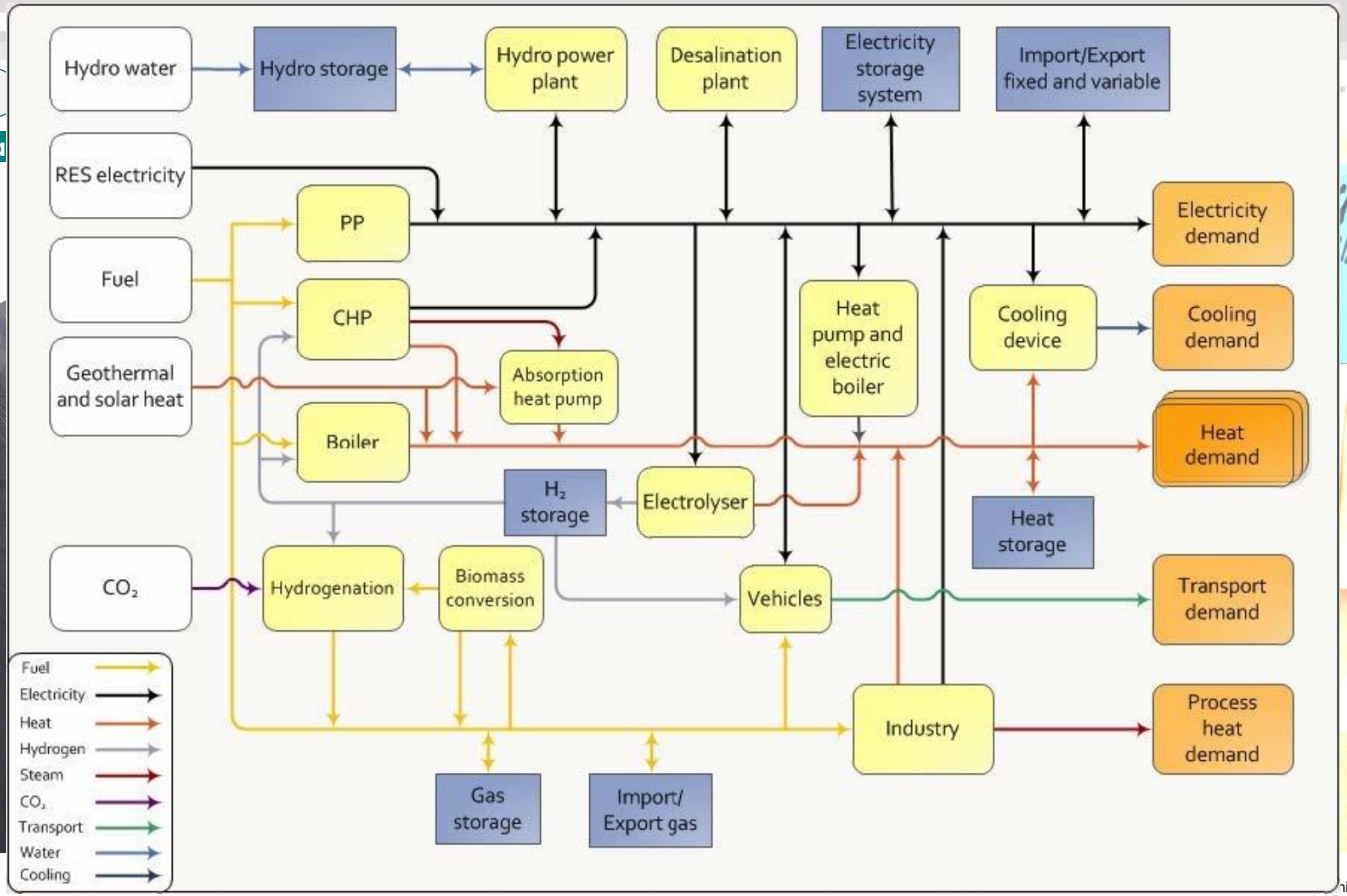
Taskforce set-up for Diagnosis (*Step 3*) & Vision (*Step 4*)

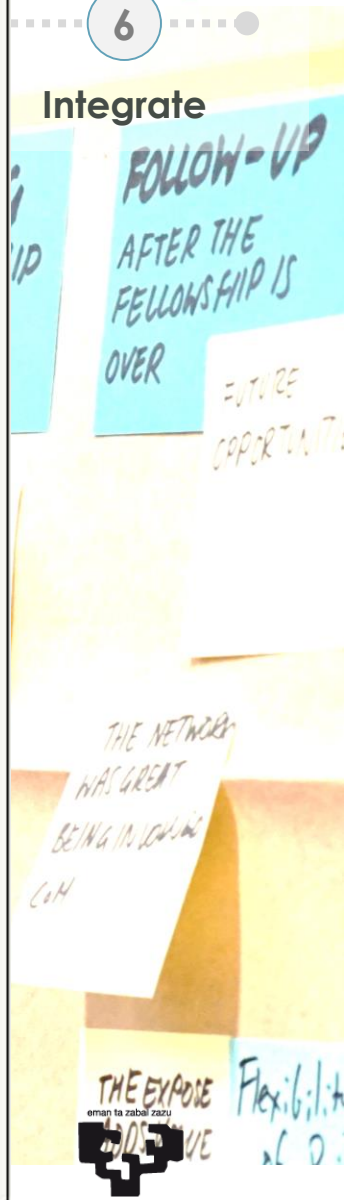
- **Key stakeholders & groups**
- Probability and relevance of **critical topics**
- **Input for scenarios generation**

Strategic City Diagnosis

- **SWOT analysis**
- *City-trends analysis*
- **Connection to national and international targets, policies & institutions**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

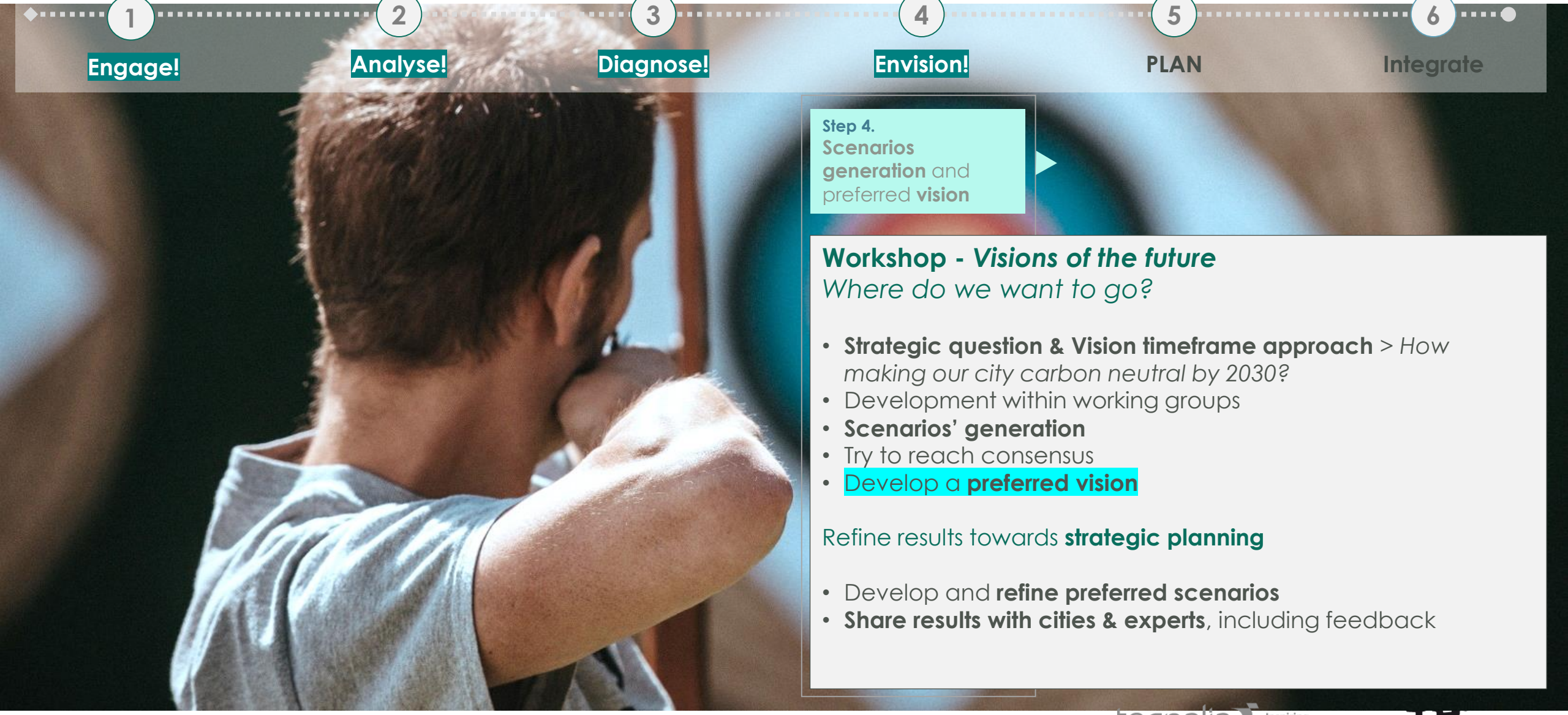
4. ENVISION!

SCENARIOS GENERATION & **CITY VISION**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 Engage! | 2 Analyse! | 3 Diagnose! | 4 Envision! | 5 PLAN | 6 Integrate



Step 4.
Scenarios generation and preferred **vision**

Workshop - *Visions of the future*

Where do we want to go?

- **Strategic question & Vision timeframe approach** > *How making our city carbon neutral by 2030?*
- Development within working groups
- **Scenarios' generation**
- Try to reach consensus
- Develop a **preferred vision**

Refine results towards **strategic planning**

- Develop and **refine preferred scenarios**
- **Share results with cities & experts**, including feedback

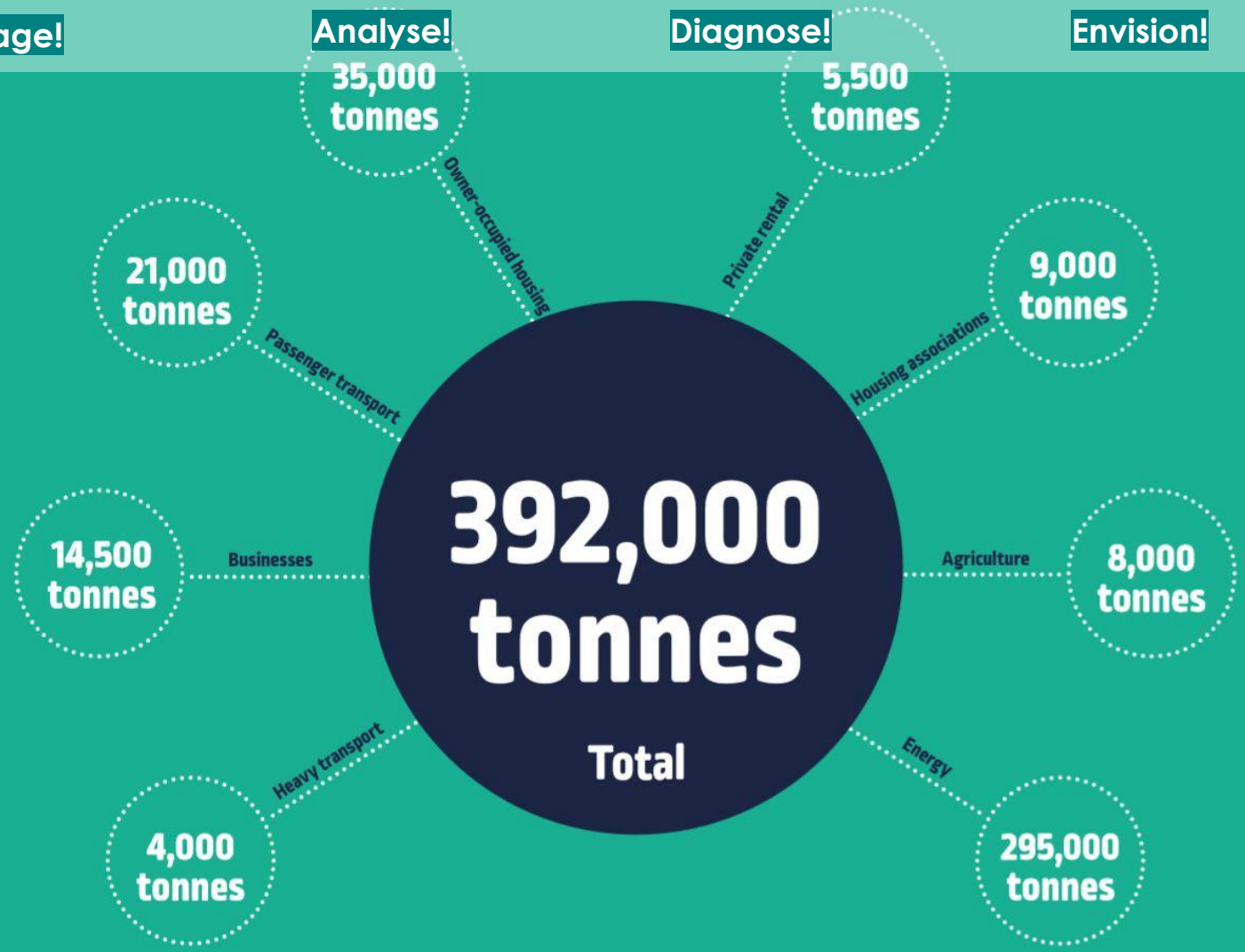
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

5. PLAN!
INTEGRATED ENERGY PLAN (IEP)
& ACTION PLAN

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 Engage! | 2 Analyse! | 3 Diagnose! | 4 Envision! | **5 PLAN!** | 6 Integrate



Step 5.
Integrated Energy Plan (IEP)
& **Action Plan**

Develop an **Integrated Energy Plan** (IEP)

- Bear in mind stakeholders, materials and decisions made in ***Steps 1,2,3&4***
- **Vision & overall City Objective**. **Strategic City Goals**
- **Main IEP Axes** & **Strategic Lines**
- Main funding sources identification

Develop an **Action Plan**

- **Actions & tangible targets**
- Contribution to *Strategic* City Goals
- Roadmap & timeframe (5-year max.)
- Potential **Key Projects identification**,
- **Indicator System** at city level

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

6. INTEGRATE!

INTEGRATION OF IEP INTO **MUNICIPAL PLANNING**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 Engage! | 2 Analyse! | 3 Diagnose! | 4 Envision! | 5 PLAN! | 6 Integrate!

Step 6.
Integration of IEP into Municipal Planning

Integrate IEP contents **into Municipal land-use** planning and strategies

- **Update/ modification of Land-use** City Masterplan
  - Ensure **legal viability and land-use provision**.
  - **Local legislation and municipal competences**.
- IEP & Action Plan **acknowledgement by all departments** and strategies of the city
- **Breaking sectorial silos**, fostering **cross-cutting collaboration** among municipal departments

Integration steered by LP towards SZCC (***step 1***), which entails key stakeholders from the municipality

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy

1 Engage! | 2 Analyse! | 3 Diagnose! | 4 Envision! | 5 PLAN! | 6 Integrate!

Step 1. Local Partnership towards the *Smart Zero Carbon City*

Step 2. City Background Information Package

Step 3. Strategic City Diagnosis

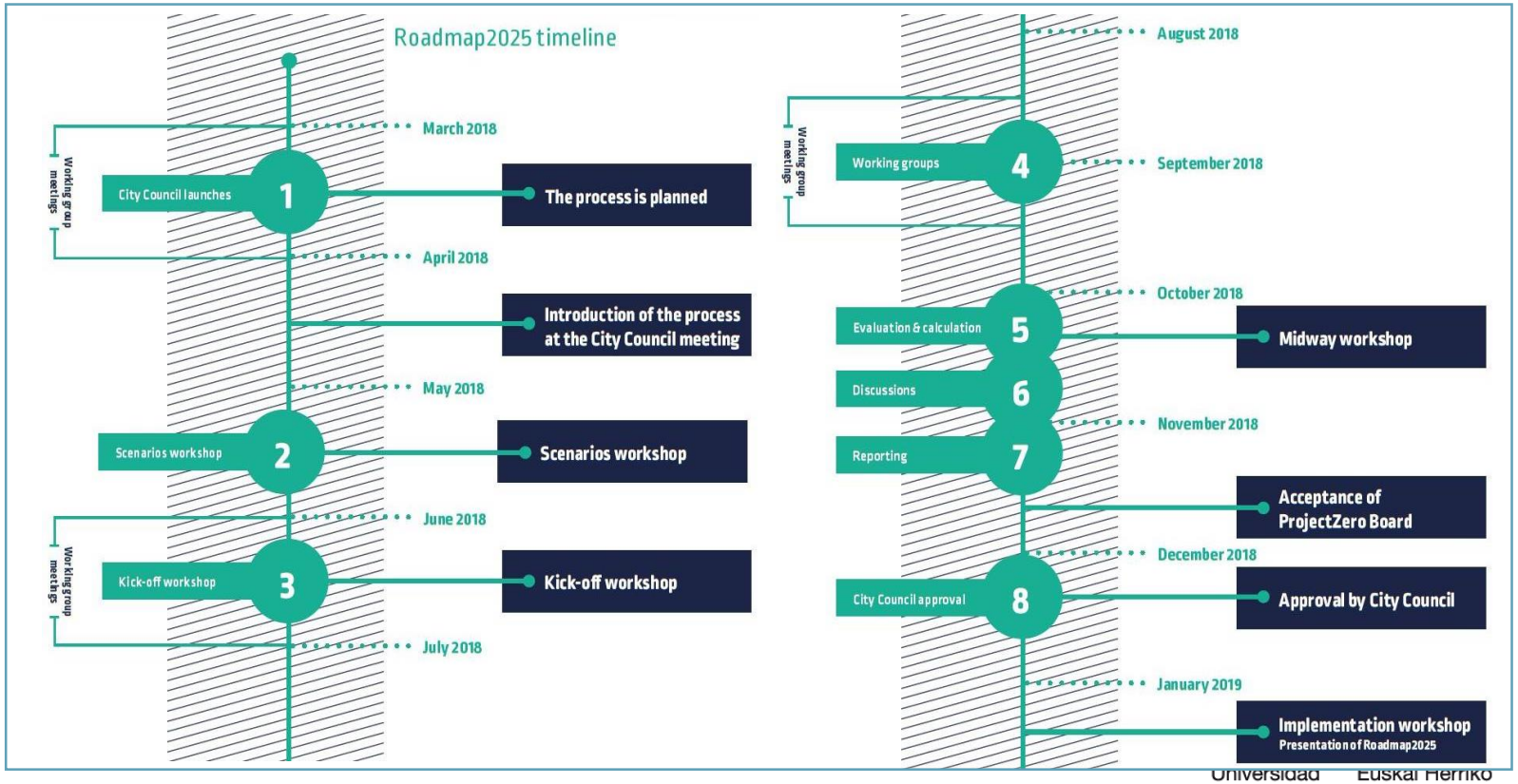
Step 4. Scenarios generation and preferred vision

Step 5. Integrated Energy Plan (IEP) & Action Plan

Step 6. Integration of IEP into Municipal Planning

The journey:
towards the ***SMART ZERO CARBON CITY***
in your own way :)

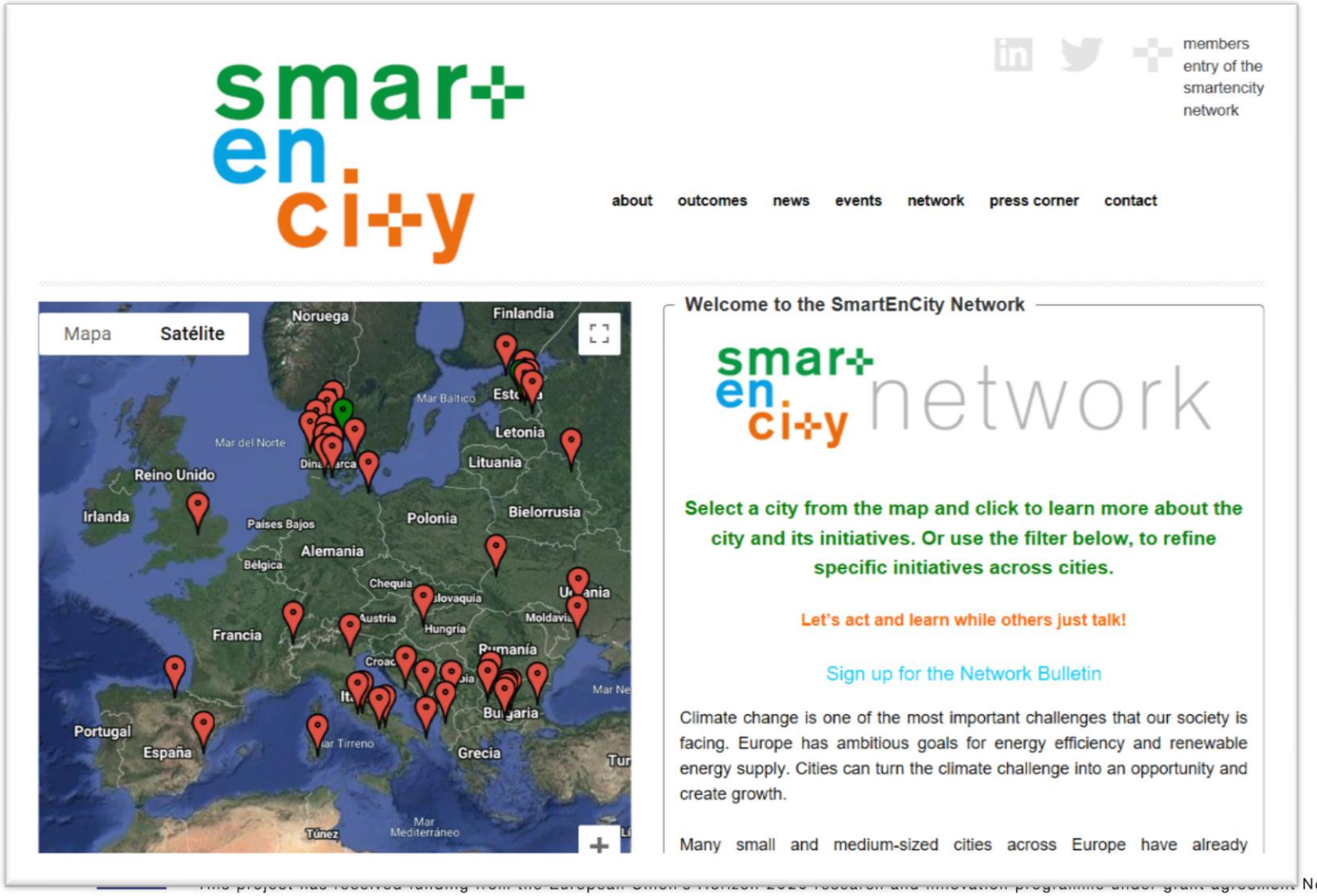
- *Sonderborg way*
- *Tartu way*
- *Vitoria-Gasteiz way*
- *Lecce way*
- *Asenovgrad way*



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Universidad del País Vasco | Euskal Herriko Unibertsitatea

JOIN THE SMARTENCITY NETWORK!!

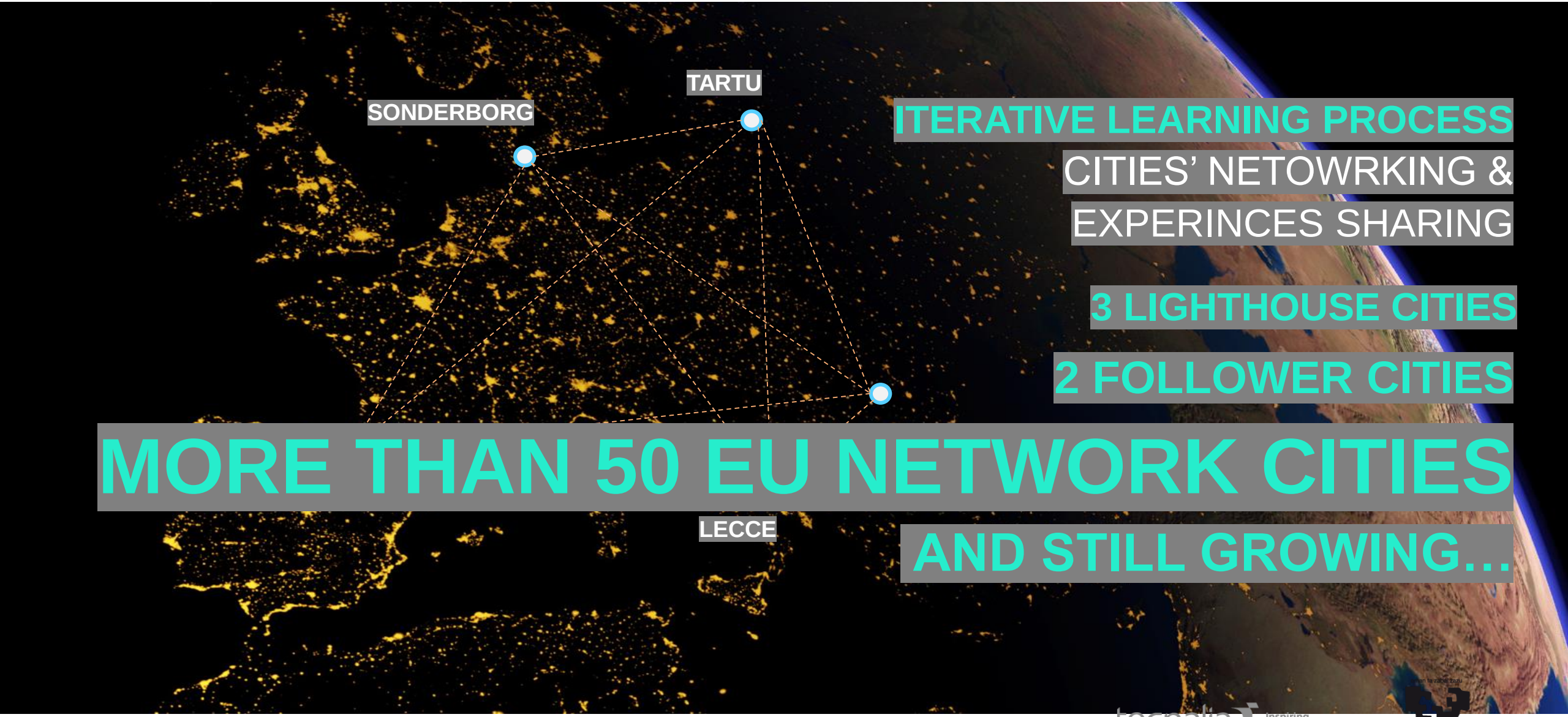


Networking and resources:

- City solutions
- Webinars
- Tools
- YouTube channel
- Scientific papers
- Monthly news bulletin

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Cities4ZERO strategy



ITERATIVE LEARNING PROCESS

CITIES' NETOWRKING & EXPERINCES SHARING

3 LIGHTHOUSE CITIES

2 FOLLOWER CITIES

MORE THAN 50 EU NETWORK CITIES

AND STILL GROWING…

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

JOIN US AT

http://smartencitynetwork.eu/

"You don't have to be a capital city

to make a major difference"

How does **YOUR JOURNEY** look like?

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

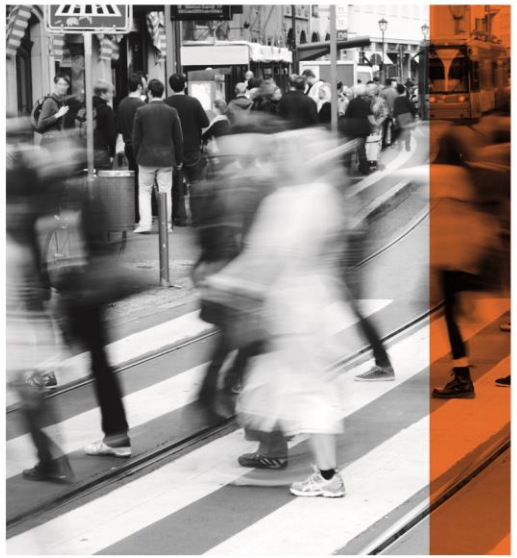
Koldo Urrutia Azcona – Researcher
Innovation in Smart Sustainable Cities & Urban Environment
Tecnalia Research & Innovation

Koldo.Urrutia@tecnalia.com

www.tecnalia.com

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

smart city


Integrated Energy Planning Approach and Process in Sonderborg

Peter Rathje, ProjectZero

TOWARDS SMART ZERO CO_2 CITIES ACROSS EUROPE

VITORIA-GASTEIZ + TARTU + SONDERBORG

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

eman ta zabal zazu
Universidad del País Vasco
Euskal Herriko Unibertsitatea

The Integrated Energy Planning approach and process in **Sonderborg, Denmark - introduction**

Sonderborg Municipality

- 76,000 citizens
- 500 km2 territory – 2/3 on an island
- Main income from industry, farming/food and tourism

Ambition since 2007: Transitioning into a ZEROcarbon energy-system by 2029

- 38.3% reduction achieved by 2018

Our challenge: creating the #3 Roadmap for 2025

- Remove 400,000 tons of carbon emissions
- Built on the learnings and values since 2007
- Co-create a new participatory platform !

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

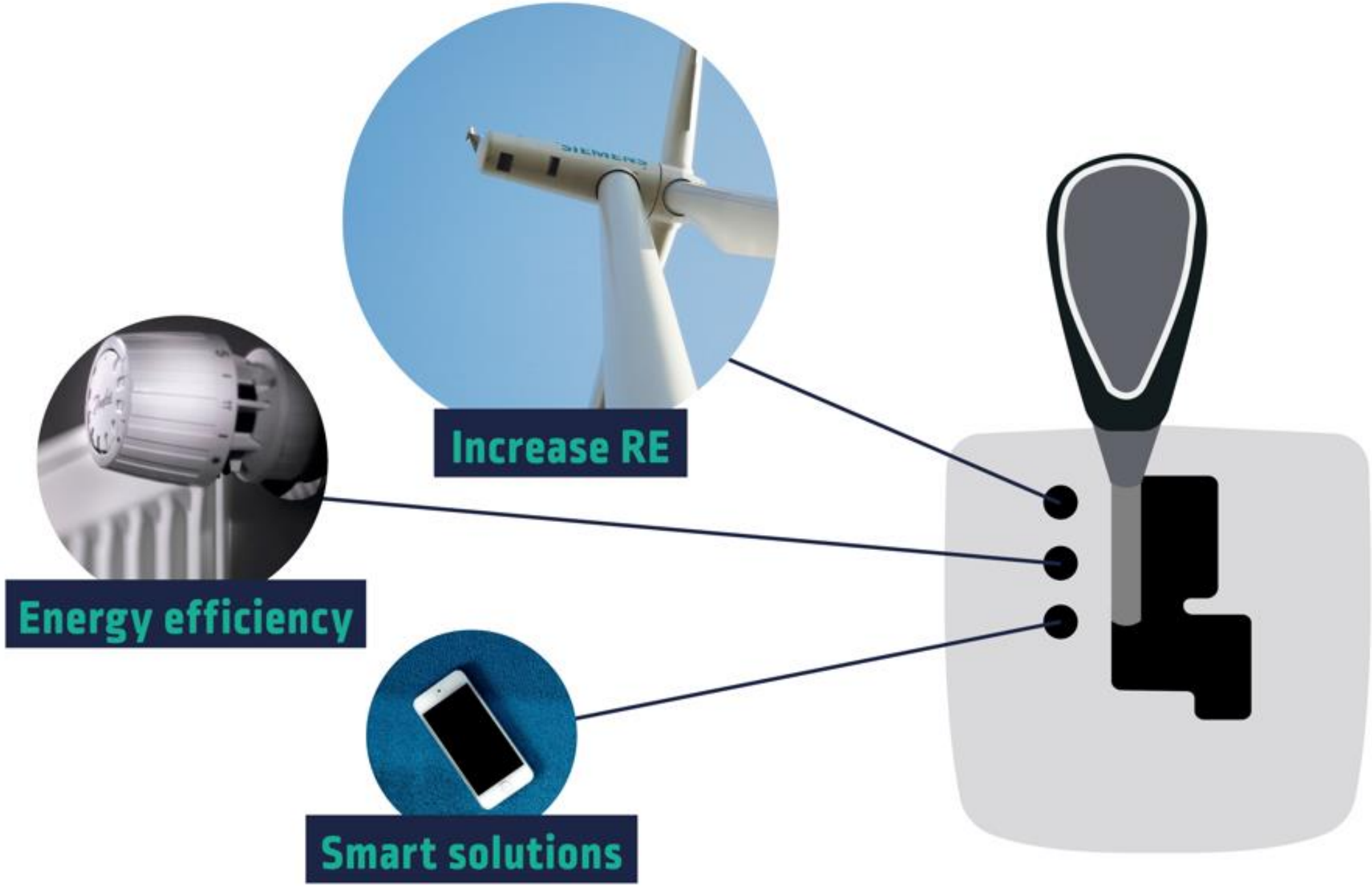
Roadmap2025

Integrated Energy Planning in Sonderborg
The ProjectZero approach

Bright Green Business
ProjectZero


2007:
700.000 ton CO_2
2017:
444.000 ton CO_2
-35%
2025:
175.000 tons CO_2
-75%
2029
-100%

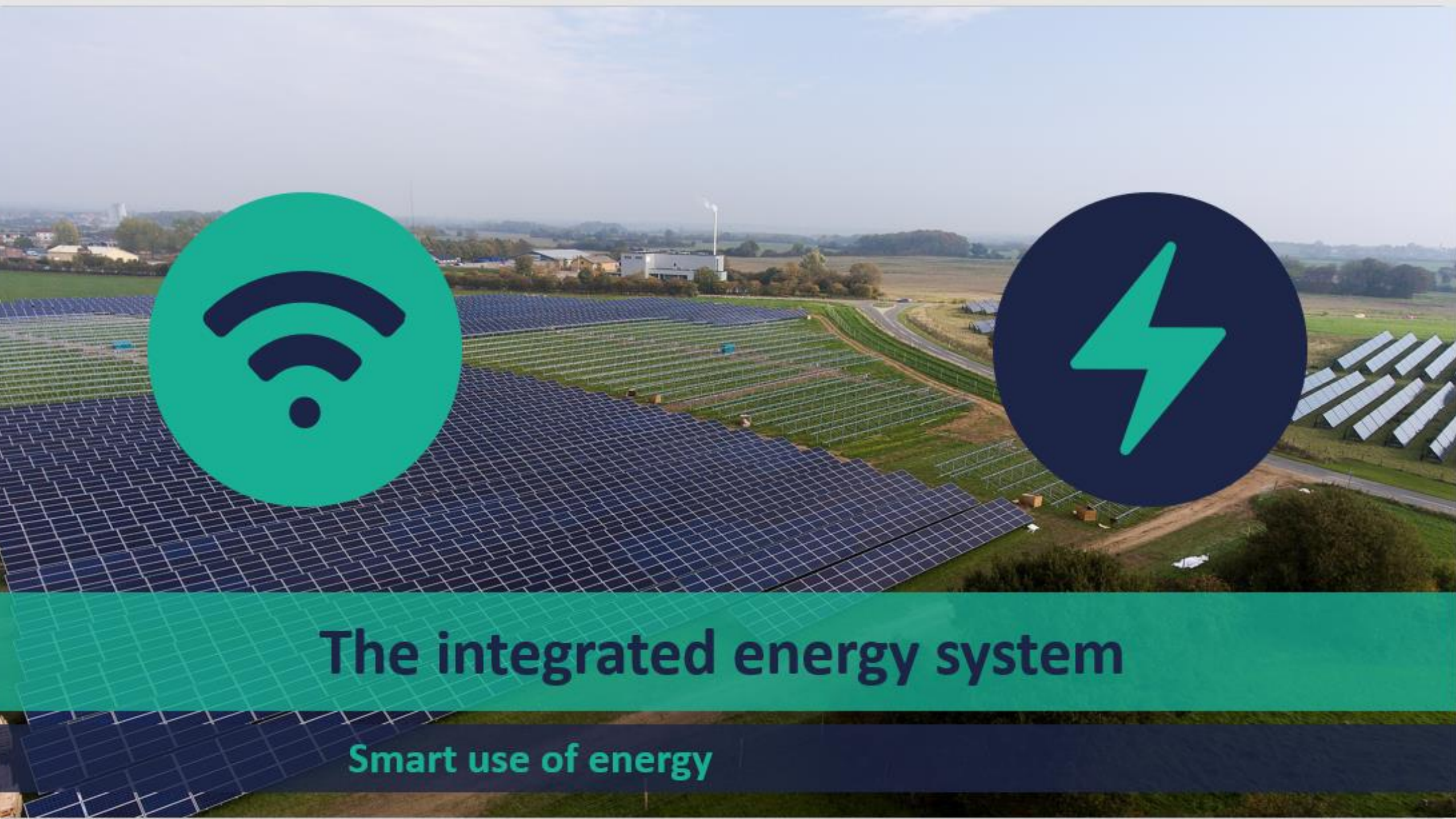

Climate
Jobs
Good Life
Sonderborg´s Vision


Increase RE
Energy efficiency
Smart solutions

Total annual carbon reduction in the 8 areas in 2025

8 Working-groups have created 50+ projects – now in execution phase!

Time to Act – based on a shared picture and joint responsibilities



The integrated energy system

Smart use of energy


Plan
Plan
Do
Perform
Check
Monitor
Act
Improve


Envision
Plan
Authority
Education
Sønderborg Forsyning

Integrated Energy Planning approach and process in **Sonderborg, Denmark – Lessons learned**

Key is motivation and engaging “people”

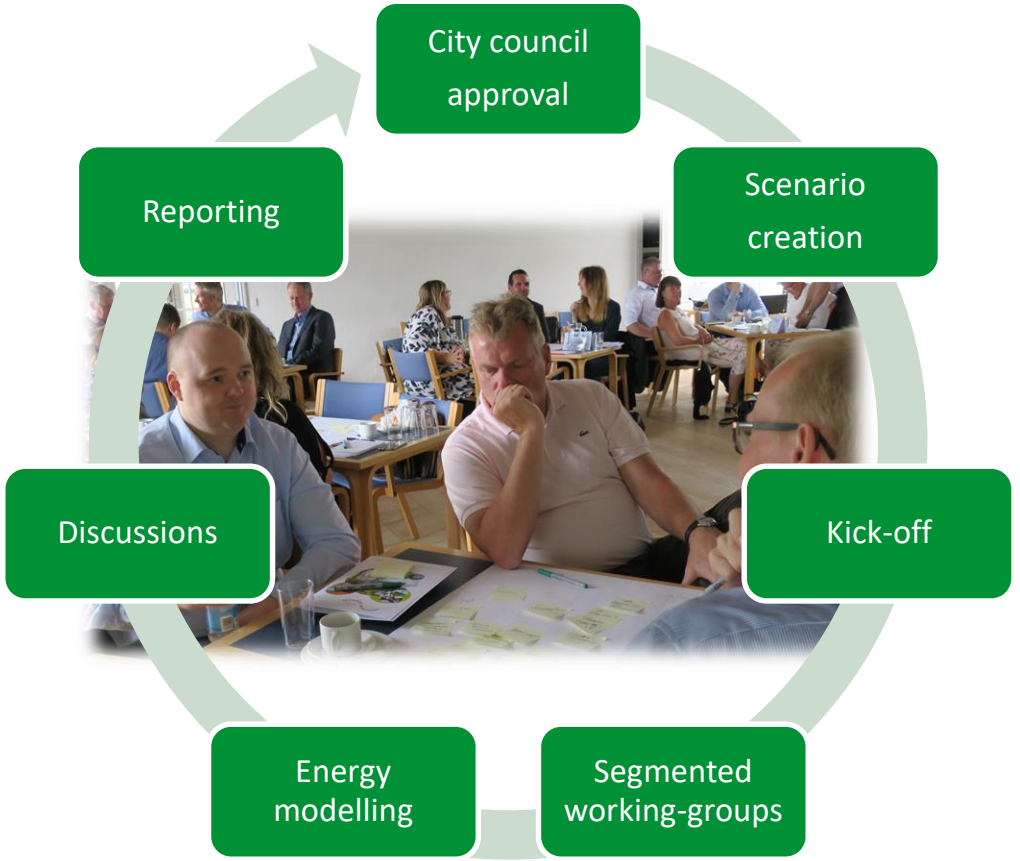
- City council ownership
- 100+ people involved – local experts and stakeholders
- On a joint journey into the unknown future
- Creating relations, partnerships & plans
- Speeded up the Roadmap2025 implementation
- Created a strong local story-telling

Predefine the Process & Organization

- A structured process – predefined and safe!
  - 8 step model based on the IEP-process
- Segmentation into 8 working groups
- Timeline: April => December 2018

Secure a professional support

- Technical, process and communication skills



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Contact

SmartEnCity

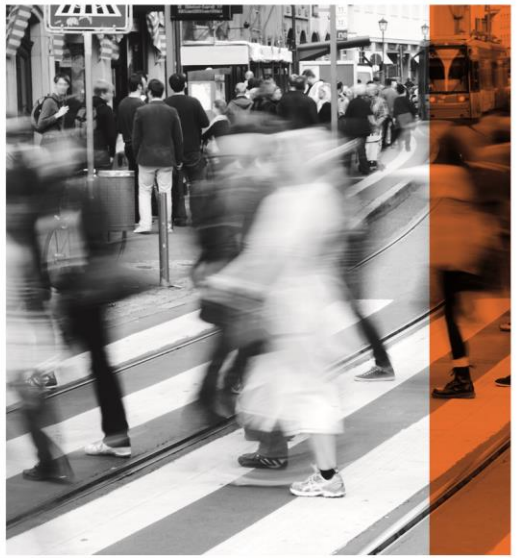
Peter Rathje
ProjectZero,
Sonderborg, Denmark

peter.rathje@projectzero.dk

www.projectzero.dk

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

smart city


Integrated Energy Planning Approach and Process in Tartu

Jaanus Tamm,
Tartu City Government

TOWARDS SMART ZERO CO_2 CITIES ACROSS EUROPE

VITORIA-GASTEIZ ✣ TARTU ✣ SONDERBORG

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

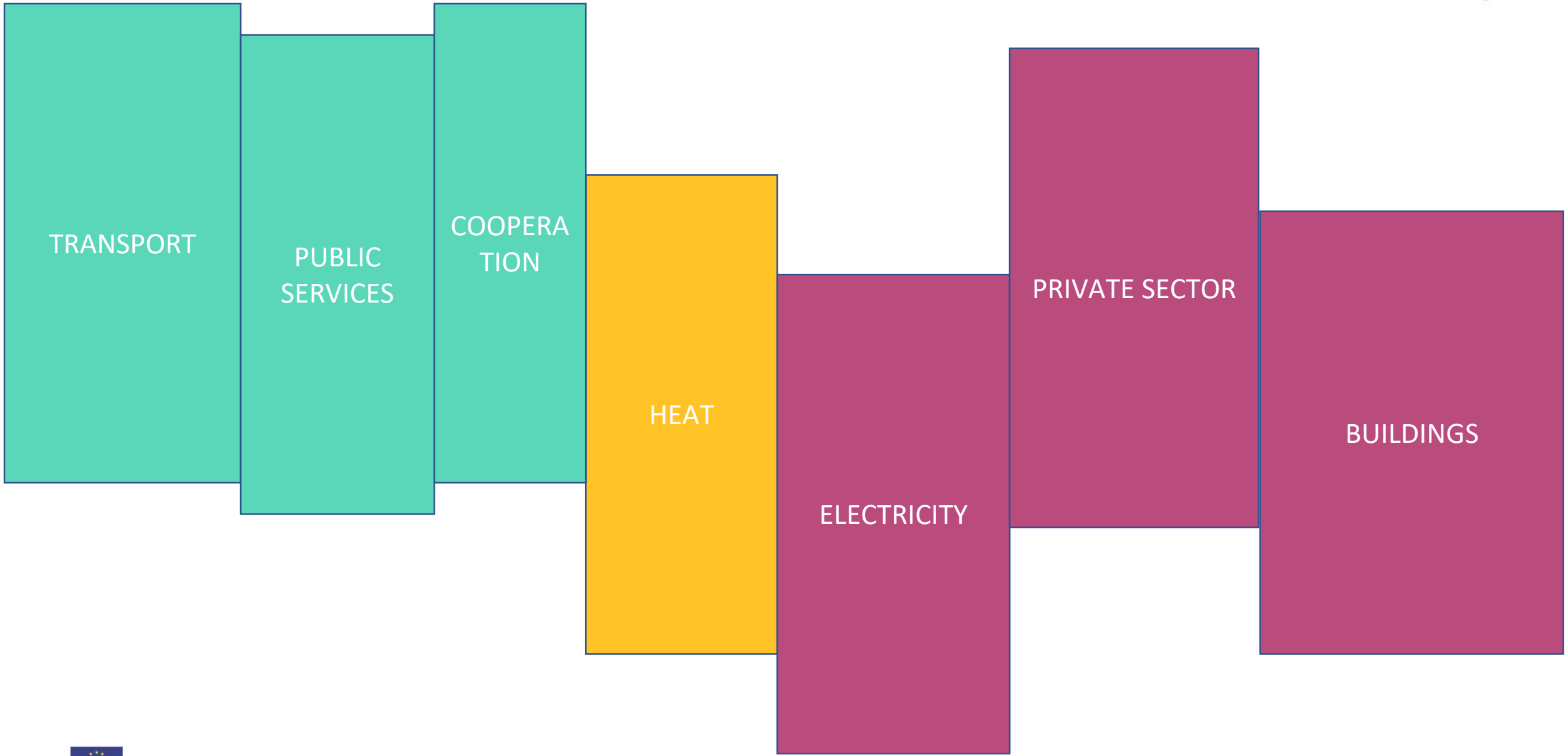
eman ta zabal zazu
Universidad del País Vasco
Euskal Herriko Unibertsitatea

SEAP – Covenant of Mayors 2015 - 2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

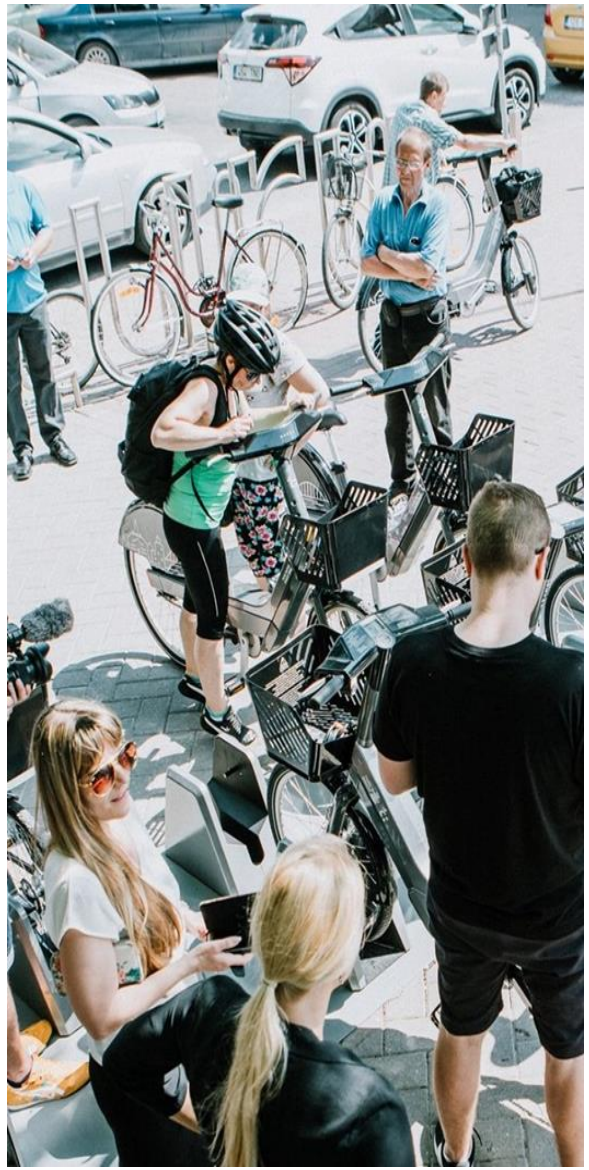
SEAP – Covenant of Mayors 2015 - 2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883



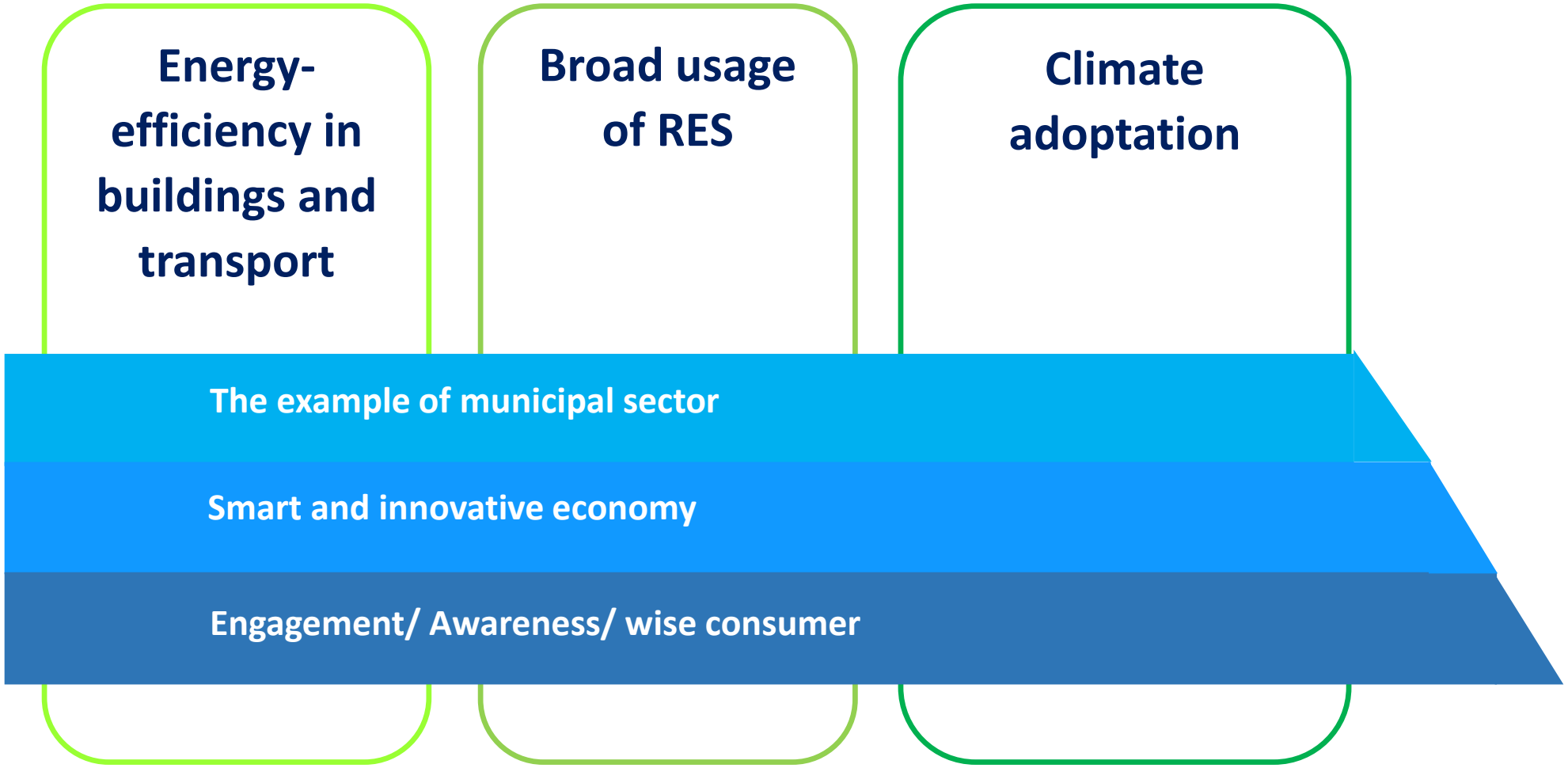
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Engagement – Cooperation



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Pillars



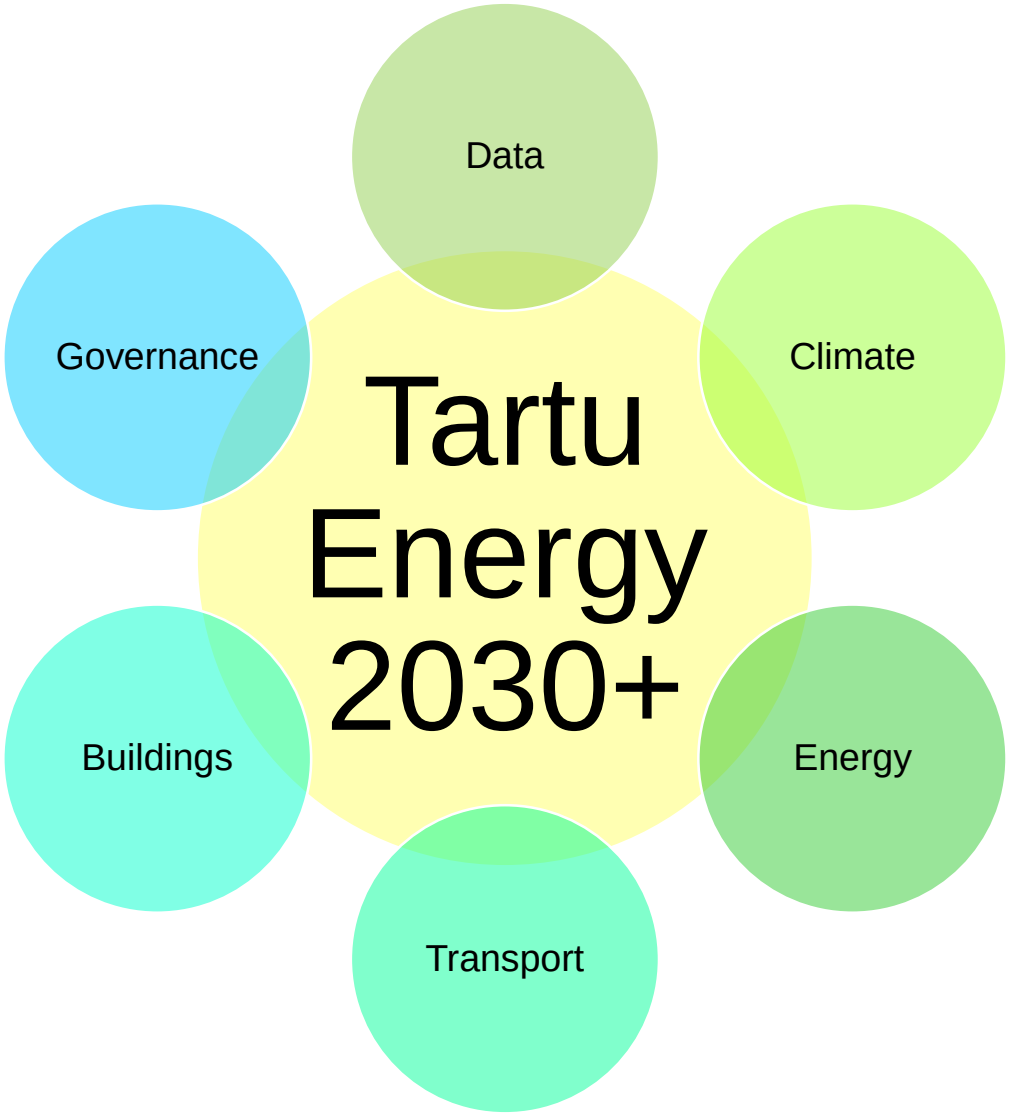
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Energy – and Climate Action Plan 2030+

VISION:

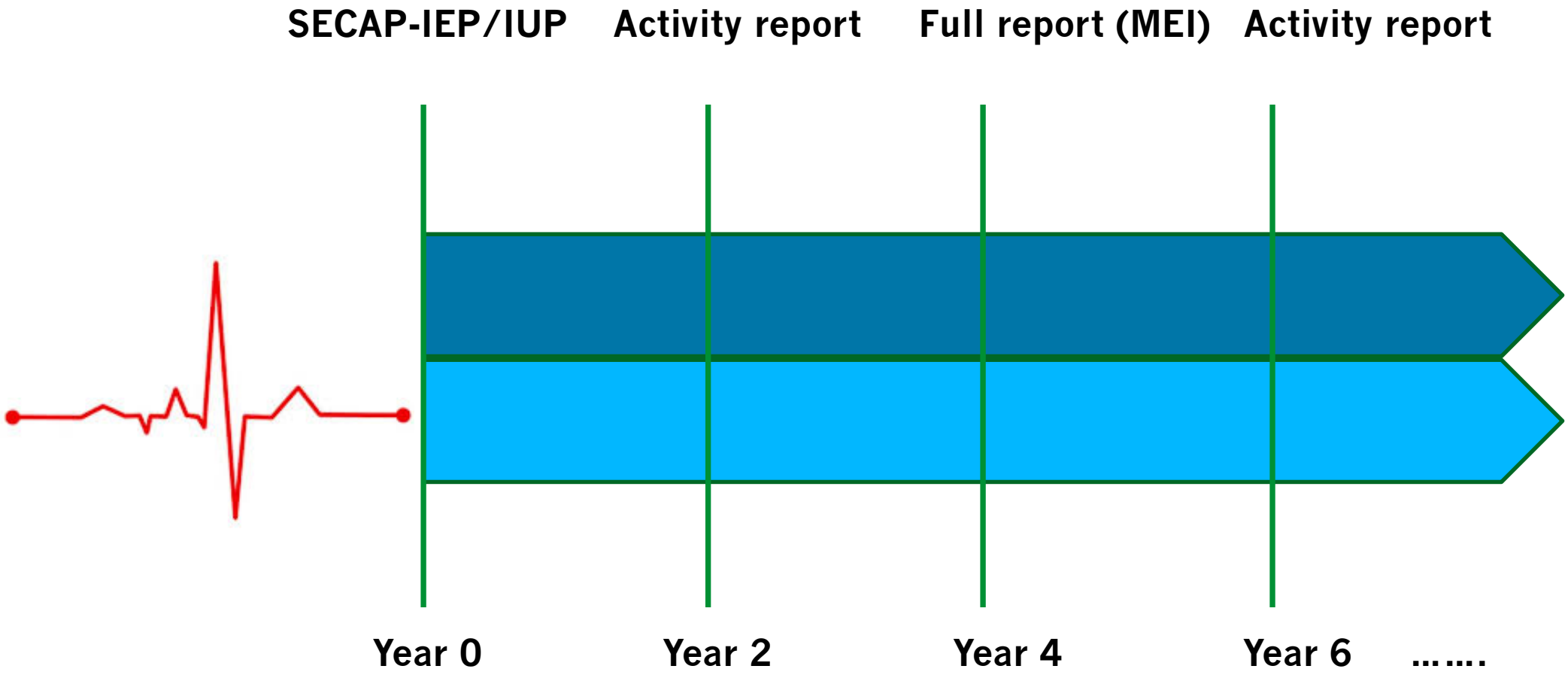
Tartu is a smart community with good energy and a green pioneer.

– 40%



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

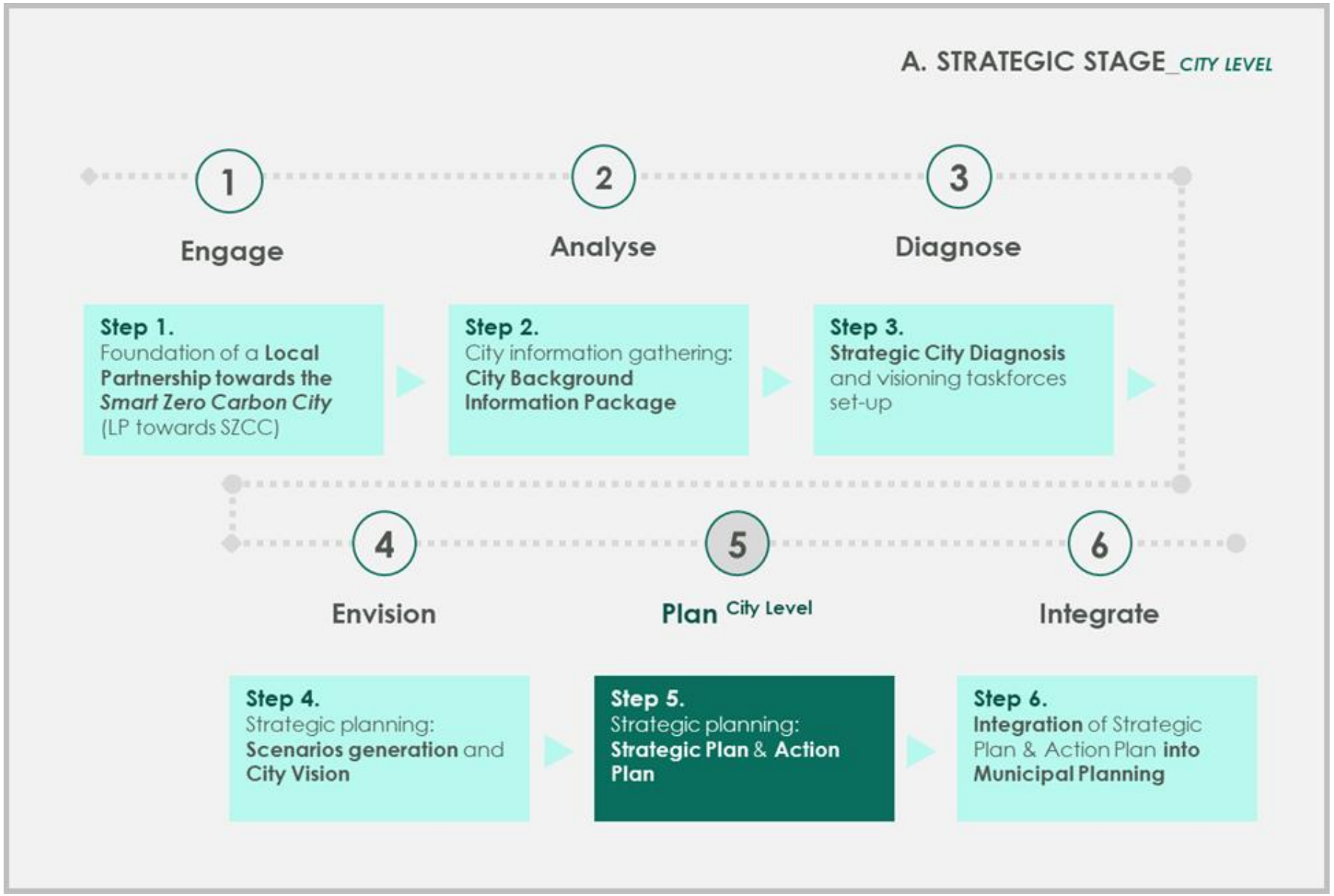
Monitoring, keep the process alive…



(MEI- Monitoring Emission Inventory)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Steps into future ….. Process



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Submission

Expected submission in March – April 2020

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Critical success factors

- ✓ Common vision
- ✓ Clear and tangible goals/measures
- ✓ Data collection and data management
- ✓ Engagement of private sector

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Contact

Jaanus Tamm

Tartu City Government

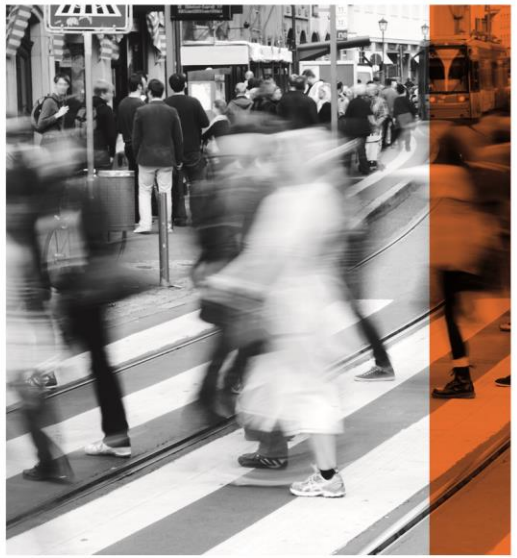
Raekoja plats 3, Tartu, Estonia

+372 7361266

Jaanus.Tamm@raad.tartu.ee

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

smart city


Integrated Energy Planning Approach and Process in Vitoria-Gasteiz

Aitor Albaina Vivanco,
Environmental Studies Centre
at Vitoria-Gasteiz City Council

TOWARDS SMART ZERO CO_2 CITIES ACROSS EUROPE

VITORIA-GASTEIZ + TARTU + SONDERBORG

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

eman ta zabal zazu
Universidad del País Vasco
Euskal Herriko Unibertsitatea

Vitoria-Gasteiz strategy/vision (2050)

Carbon neutral

Climate resilient

With safe, sustainable and affordable energy services for all

Prosperous, modern and competitive

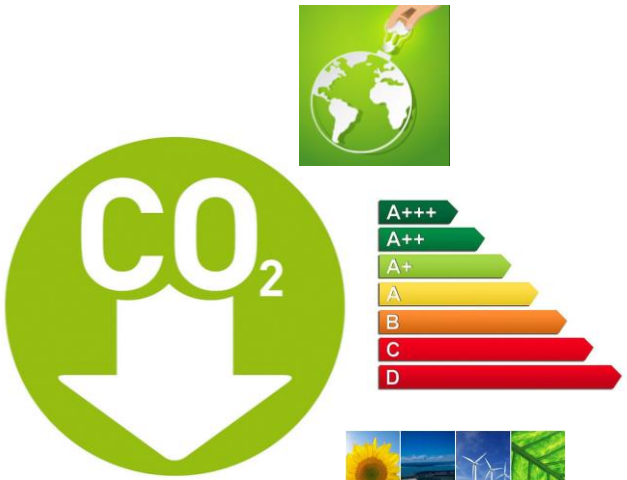
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Vitoria-Gasteiz renews its commitment to the Covenant of Mayors for Climate and Sustainable Energy

GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY



40% by 2030

Resilience capacity

Share experiences / disseminate results

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

SmartEnCity - Vitoria-Gasteiz´s Integrated Energy Plan process

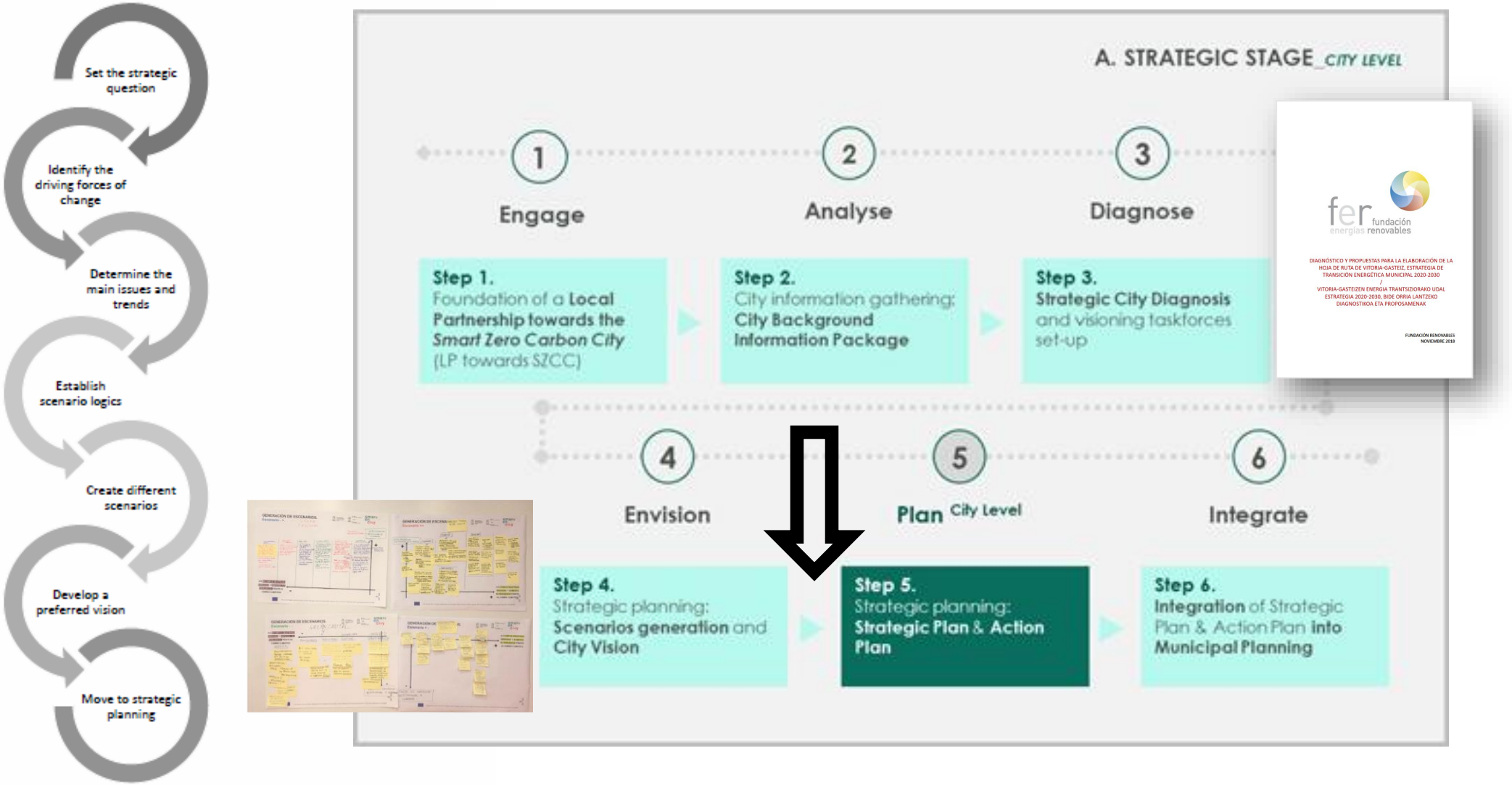


Figure 5: Scenario planning process
Source: Erdogan et al. (2009)

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Energy diagnosis and context

2015 vs. 2006 data (city level except from industry); main results of the diagnosis:

- **Slightly increase of E consumption (3%)**
- **CO2 emissions decrease by 10%**
- **This is due to changes in the energy mix (increase of renewable share) plus the fact that natural gas is more efficient than petrol derived fuels.**

Fuente energética	2006		2015		Variación 2015 / 2006	
	Consumo (GWh)	Emisiones (tCO_2)[6]	Consumo (GWh)	Emisiones (tCO_2)	Consumo (%)	Emisiones (%)
Energía eléctrica	687	305.860	680	225.053	-1%	-26%
Gas natural	710	143.951	963	195.359	+36%	+36%
Derivados petróleo	1.185	313.378	966	256.435	-19%	-22%
Otros	68	77.879	123	81.988	+81%	+5%
Total	**2.650**	**841.068**	**2.732**	**758.835**	**+3%**	**-10%**

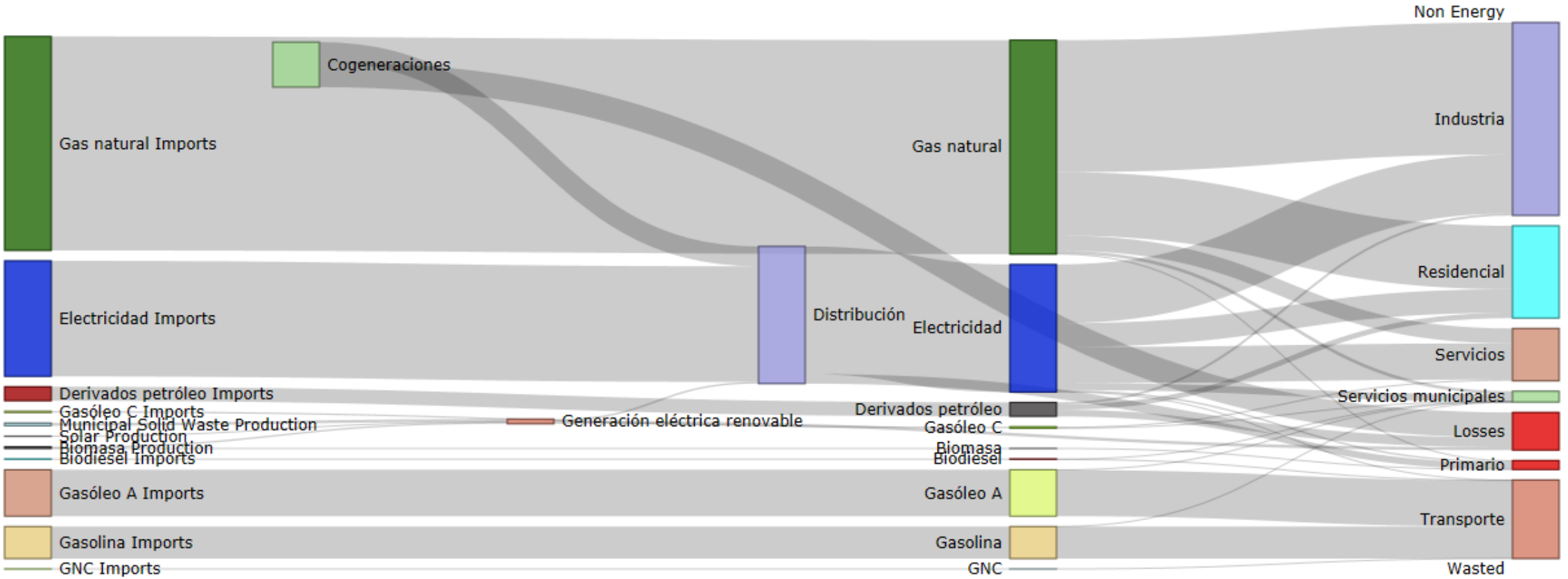
Sectores	2006		2015		Variación 2015 / 2006	
	Consumo (GWh)	Emisiones (tCO_2)[8]	Consumo (GWh)	Emisiones (tCO_2)	Consumo (%)	Emisiones (%)
Residencial	965,3	269.927	1.072,7	259.385	+11%	-4%
Servicios	549,6	202.227	576,9	161.984	+5%	-20%
Movilidad	923,5	243.971	856,1	224.055	-7%	-8%
Primario	85,2	79.421	82,6	76.440	-3%	-4%
Ciclo hidrológico[9]	11,7	5.939	10,6	3.492	-9%	-41%
Equipamientos y servicios municipales	117,9	37.810	136,0	34.754	+15%	-8%
	103,9[10]	34.034[9]	114,4[9]	28.983[9]	+10%	-15%
Gestión residuos y limpieza	10,7	5.845	18,9	6.159	+76%	+5%
Total	**2.650**	**841.068**	**2.732**	**758.833**	**+3%**	**-10%**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Energy balance Vitoria-Gasteiz – 2017



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

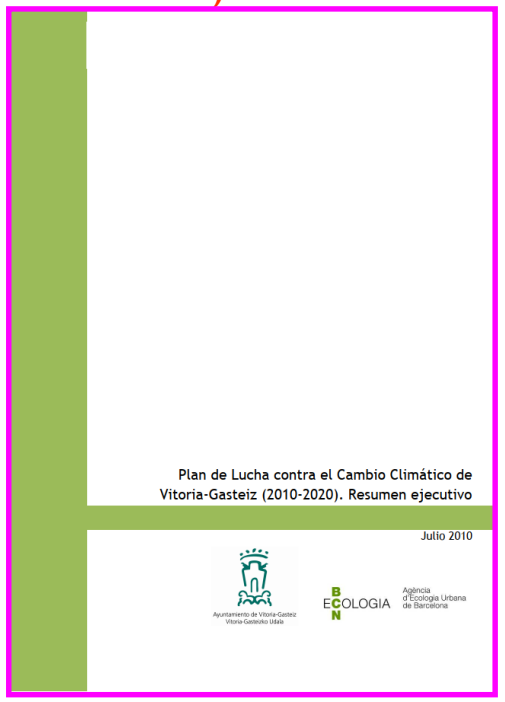
Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

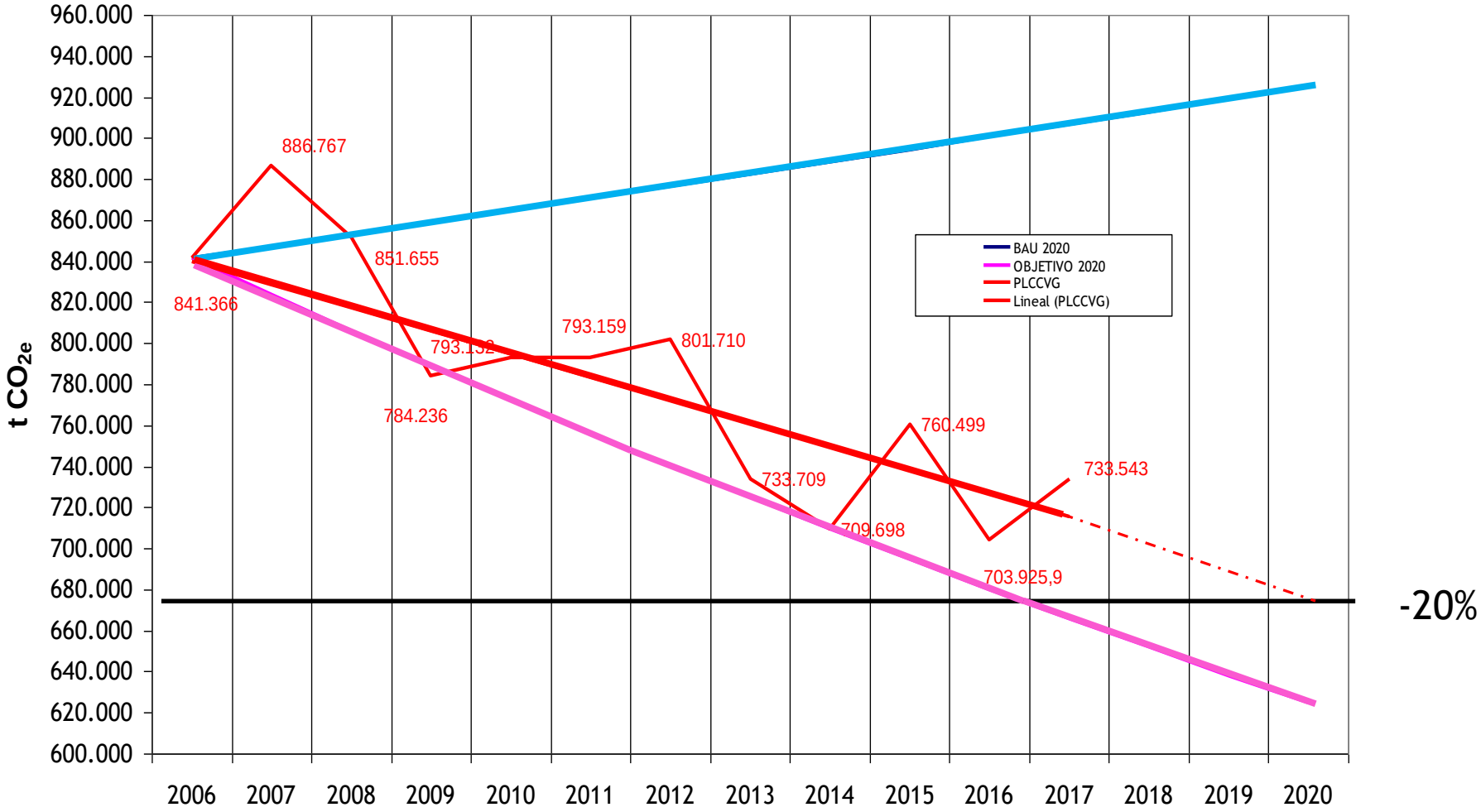
GHG emissions trend. Vitoria-Gasteiz 2006-2017

BaU (2006)

Target 2020 (VG Plan against CC, 2010-2020)

GHG emissions trend (2006-2017)



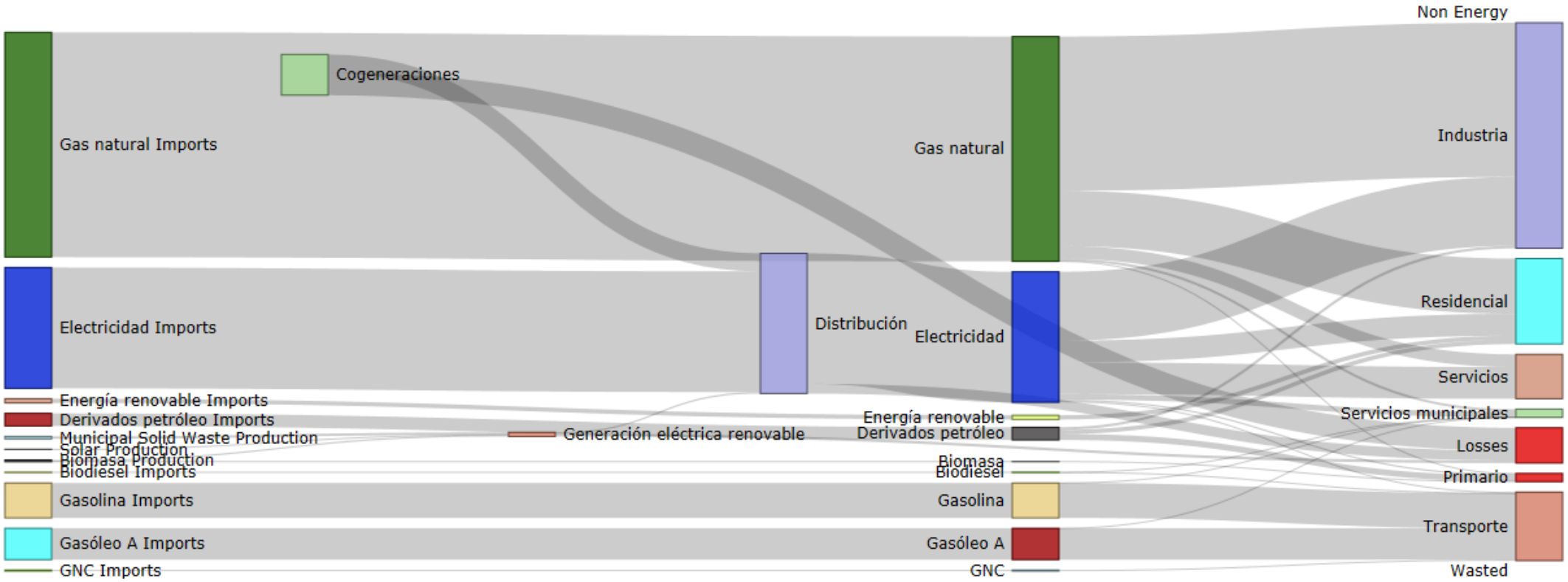


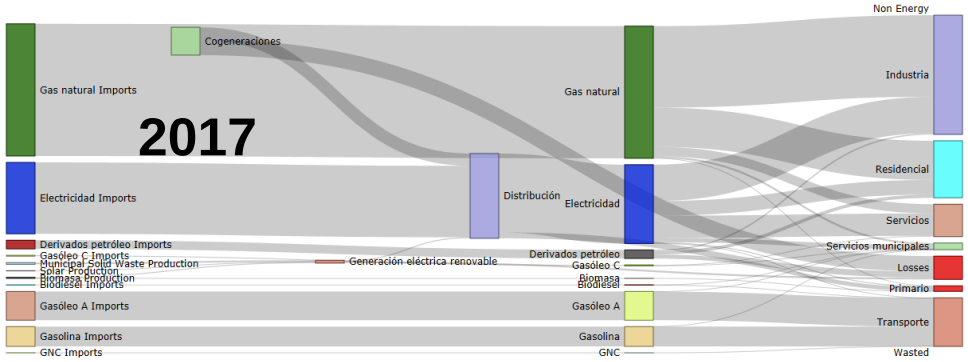
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Energy balance Vitoria-Gasteiz – BAU 2030





This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Basque Country targets for 2030 and 2050

GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

-40% CO_2 by 2030 Adapt

KLIMA 2050 BASQUE COUNTRY

Climate Change Strategy of the Basque Country to 2050

Objectives of the Climate Change Strategy of the Basque Country 2050

Objective 1.	Objective 2.
To reduce GHG emissions in the Basque Country by at least 40% by 2030 and by at least 80% by 2050, with respect to 2005. To achieve 40% renewable energy consumption out of the final consumption by 2050.	To ensure the resilience of the Basque territory to climate change.

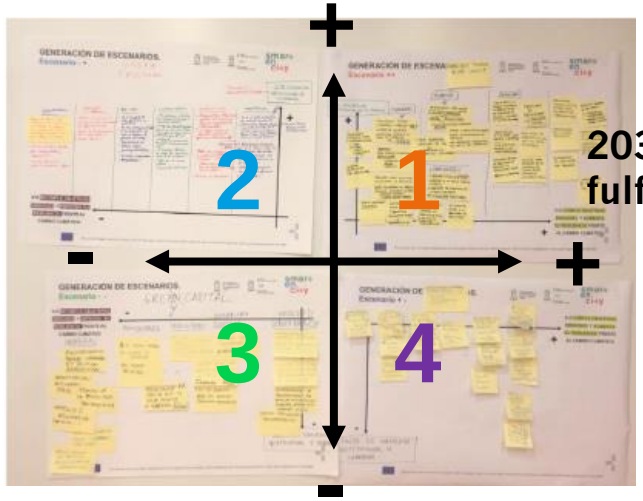
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

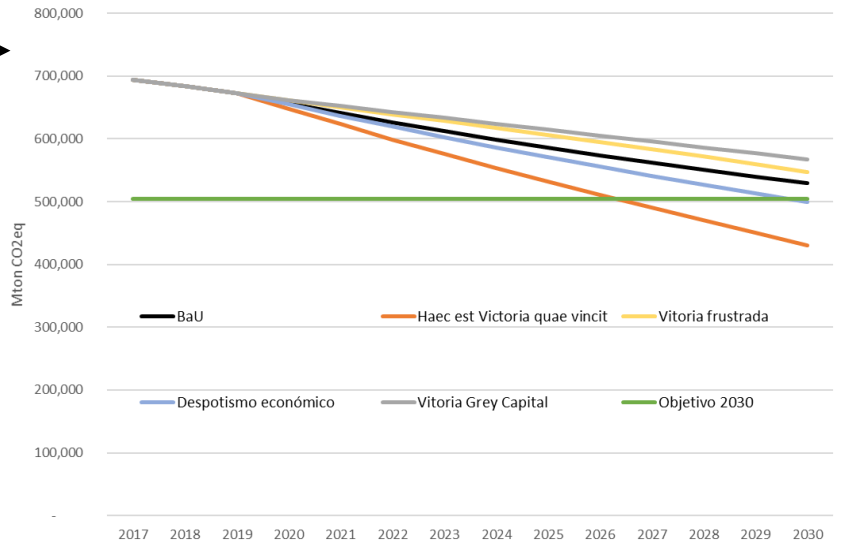
Foresight workshops (January-February 2020)

Awareness (citizens & city council)



2030 target fulfilled

Vitoria-Gasteiz 2030



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Preferred vision (2030; work in progress)

ENERGY GENERATION AND RENEWABLES	BUILDING AND REFURBISHMENT	MOBILITY	GOVERNANCE	OTHERS

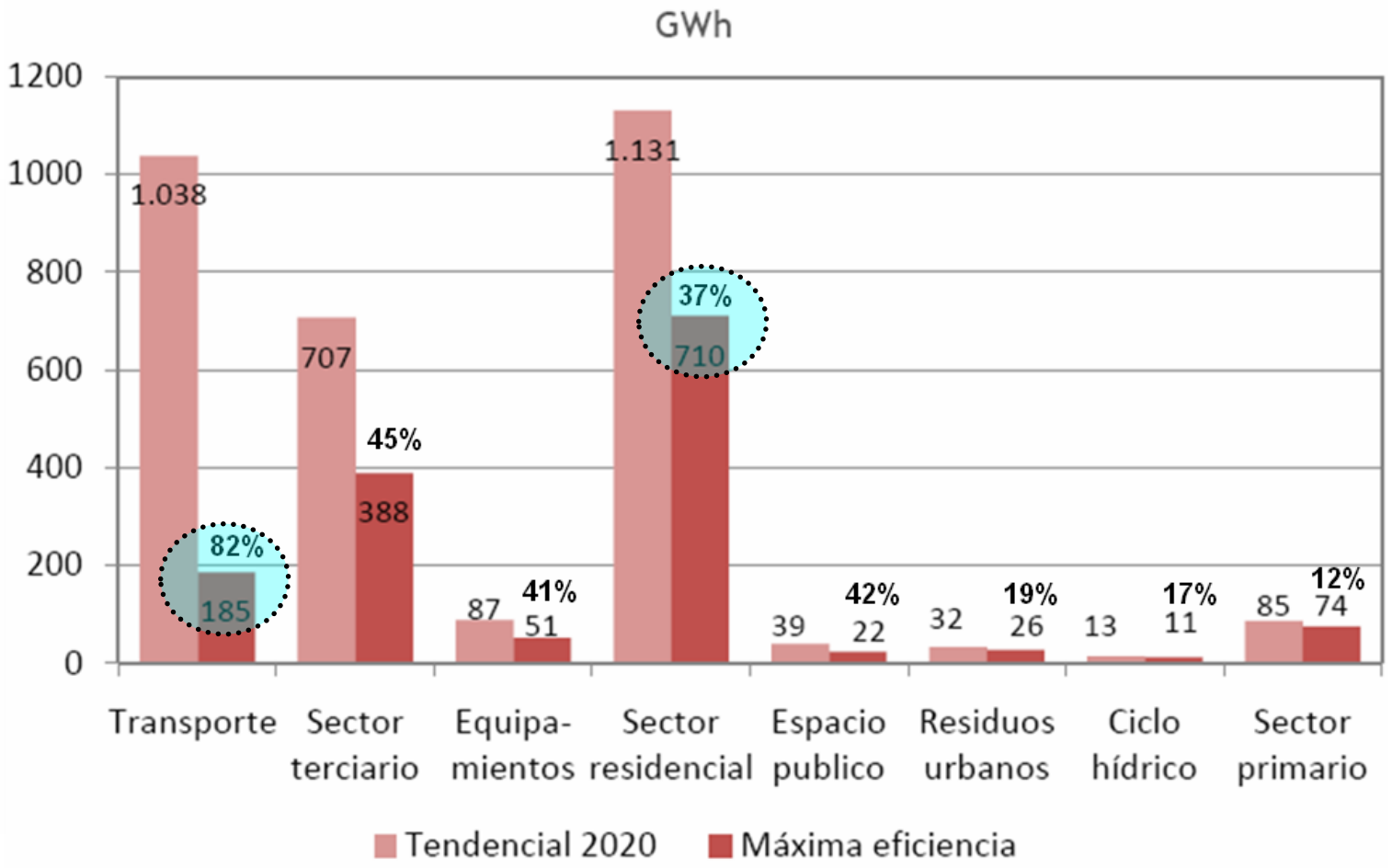
IEP (Energy Transition Strategy + Action Plan 2021-2030);
-draft for summer 2020
-participatory process until end of year

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

What do we need to become a Carbon Neutral City?



Consumo energético tendencial 2020 y de máxima eficiencia por sectores

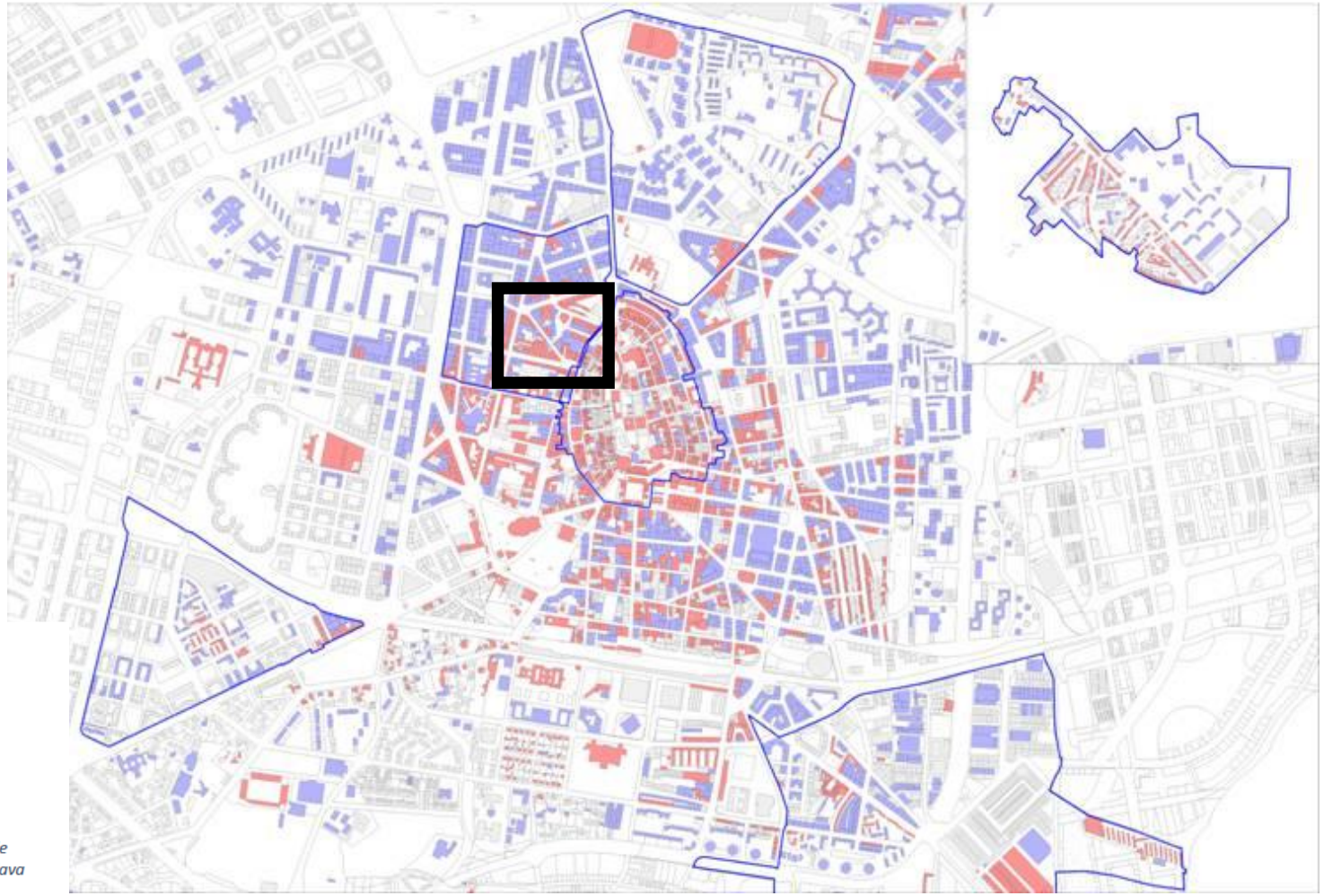
This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

The potential in building refurbishment.

- **36% of energy consumption in the residential sector.**
- **43,000 dwellings built between 1960-1980**



Normativa y año de construcción	Edificios sitos en el término municipal de Vitoria-Gasteiz
Sin normativa (hasta 1979)	10.586
NBE-CT-79 (1980-2006)	10.811
CTE (2007-2013)	2.735
CTE nueva revisión (2014-actualmente)	437
TOTAL	**24.569**

Tabla 11. Edificios existentes en el término municipal de Vitoria-Gasteiz desglosados por normativa y año de construcción. Fuente: datos facilitados por Servicio de Tributos Locales y Catastro de la Diputación Foral de Álava

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

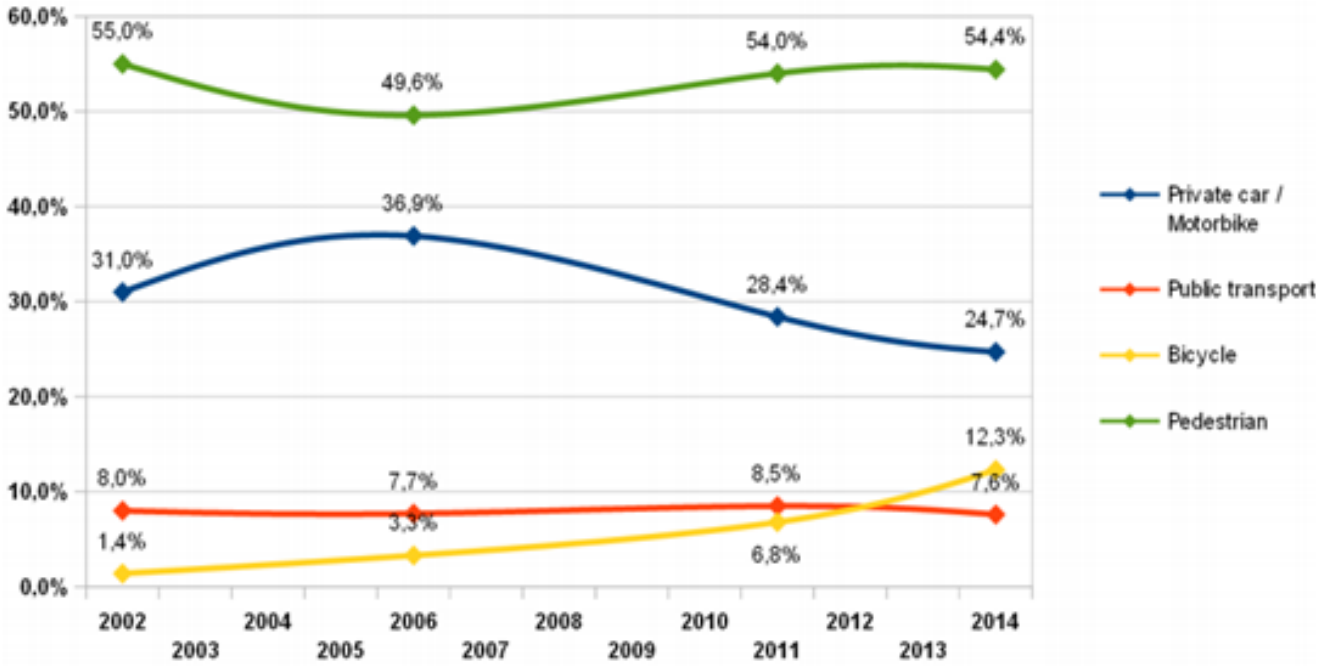
Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

The potential in sustainable mobility

Vitoria-Gasteiz's SUMpsP (since 2007; updated 2019-2020)

- **Main motto:** "Giving back the Public Space to the people"
- **How?** Discouraging **private vehicle use** whilst, at the same time, improving **public transport** and promoting active mobility modes (**walking**/**cycling**).
- **Vitoria-Gasteiz's SUMpsP:** Superblocks (new urban cell), new parking policy (less places & more expensive), improved and electric PT (high capacity EVs: e-bus/tram, higher frequencies) and active mobility modes promotion (better infrastructures/PS



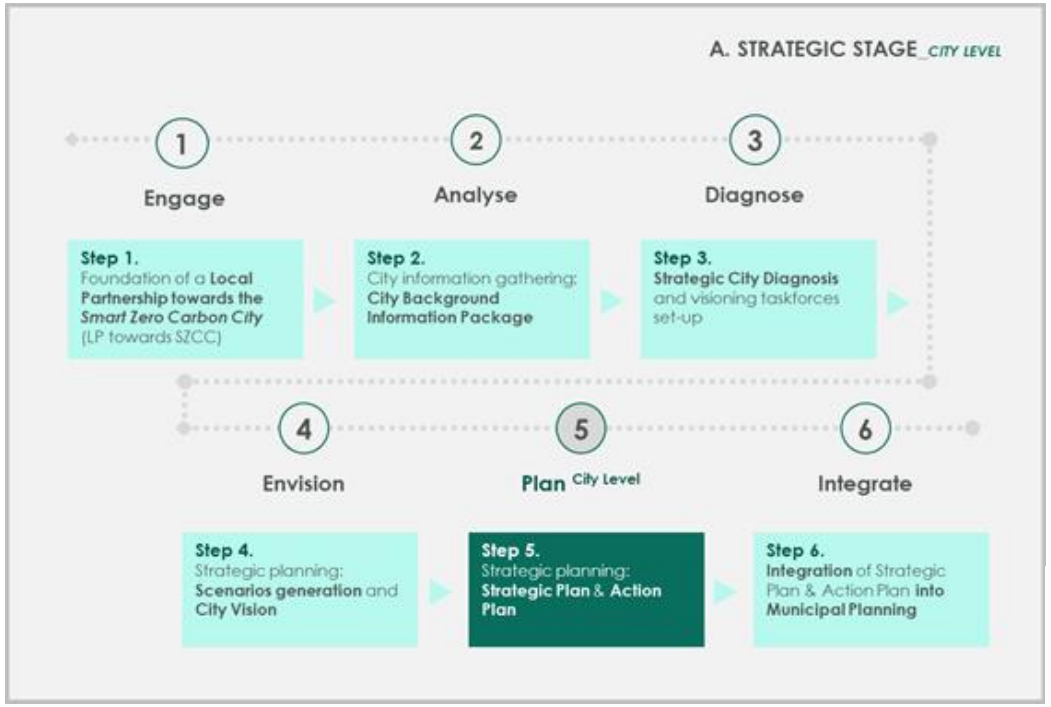
Sectores	2006		2015		Variación 2015 / 2006	
	Consumo (GWh)	Emisiones (tCO_2)[8]	Consumo (GWh)	Emisiones (tCO_2)	Consumo (%)	Emisiones (%)
Residencial	965,3	269.927	1.072,7	259.385	+11%	-4%
Servicios	549,6	202.227	576,9	161.984	+5%	-20%
Movilidad	923,5	243.971	856,1	224.055	-7%	-8%
Primario	85,2	79.421	82,6	76.440	-3%	-4%
Ciclo hidrológico[9]	11,7	5.939	10,6	3.492	-9%	-41%
Equipamientos y servicios municipales	117,9	37.810	136,0	34.754	+15%	-8%
	103,9[10]	34.034[9]	114,4[9]	28.983[9]	+10%	-15%
Gestión residuos y limpieza	10,7	5.845	18,9	6.159	+76%	+5%
Total	**2.650**	**841.068**	**2.732**	**758.833**	**+3%**	**-10%**

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

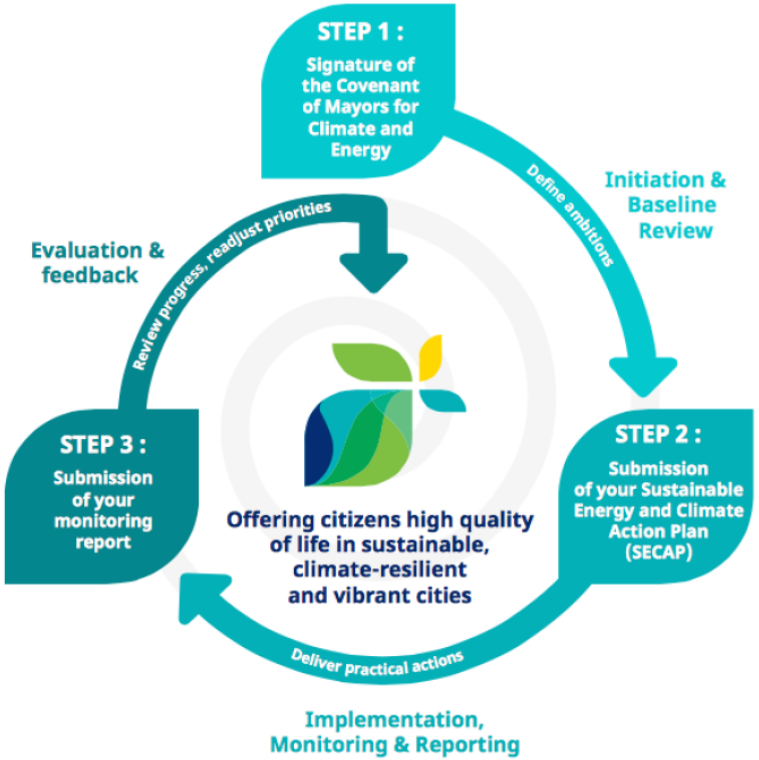
Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

SECAP process



IEP



Adaptation plan

SECAP

GLOBAL COVENANT of MAYORS for CLIMATE & ENERGY

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

Contact

Aitor Albaina Vivanco

Environmental Studies Centre of the Vitoria-Gasteiz city council

aalbaina@vitoria-gasteiz.org

Ayuntamiento de Vitoria-Gasteiz
Vitoria-Gasteizko Udala

Centro de Estudios Ambientales
CEA
Ingurugiro Gaietarako Ikastegia

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

ROUNDTABLE DISCUSSION

Engage! Please submit your questions on our *chatbox*

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

SmartEnCity Academy for Zero Carbon Transition

An online training course for cities, municipalities and smart decision making:

- **Four** lessons
- **External professionals** from the Smart City field as guest speakers

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Lessons 2, 3 and 4

- **Lesson 2: Mastering Governance & Political Barriers: Engage and Integrate**
  - **Date**: 14 April 2020, 2 PM
  - **Content**: Panel Discussion with political representatives. Focus on how governance can be secured through organizational setups.
  - **Guest Speaker**: Baha Kuban, Demir Enerji (Remourban)

- **Lesson 3: Where Are We Now? City Analysis and Diagnosis**
  - **Date**: June 2020 (exact date tbc)
  - **Content**: What needs to be included in a city description? Focus on Lighthouse City Sonderborg and Follower City Asenovgrad.

- **Lesson 4: Envision and Planning: The SmartEnCity Planning Process**
  - **Date**: September 2020 (exact date tbc)
  - **Content**: How has the planning process been used in practice? What obstacles needed to be solved? Focus on Lighthouse Cities Tartu and Vitoria-Gasteiz and Follower City Lecce.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

SmartEnCity Academy for Zero Carbon Transition

An online training course for cities, municipalities and smart decision making:

- **Four** lessons
- **External professionals** from the Smart City field as guest speakers
- **Interactive** discussions, **tailored** to your needs & answering your questions:
  - **Assessment** questionnaire prior to lessons
  - **Feedback** form after lessons
- **SmartEnCity Certificate** after successful attendance to all four lessons

Become your city's/organization's ambassador for a carbon free future!

Further support needed? Join the SmartEnCity Network at http://smartencitynetwork.eu/

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883

Contact

SmartEnCity Coordination Team

TECNALIA Research & Innovation

Francisco Rodríguez Pérez-Curiel

francisco.rodriguez@tecnalia.com

Silvia Urra Uriarte

silvia.urra[a]tecnalia.com

SmartEnCity Press Contact

Steinbeis-Europa-Zentrum

Bettina Remmele

remmele@steinbeis-europa.de

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 691883