



## Discovering opportunities with EIT Climate-KIC

**Warsaw, May 30<sup>th</sup> 2018**



Climate-KIC is supported by the  
EIT, a body of the European Union

Sybren Steensma, EIT Climate-KIC



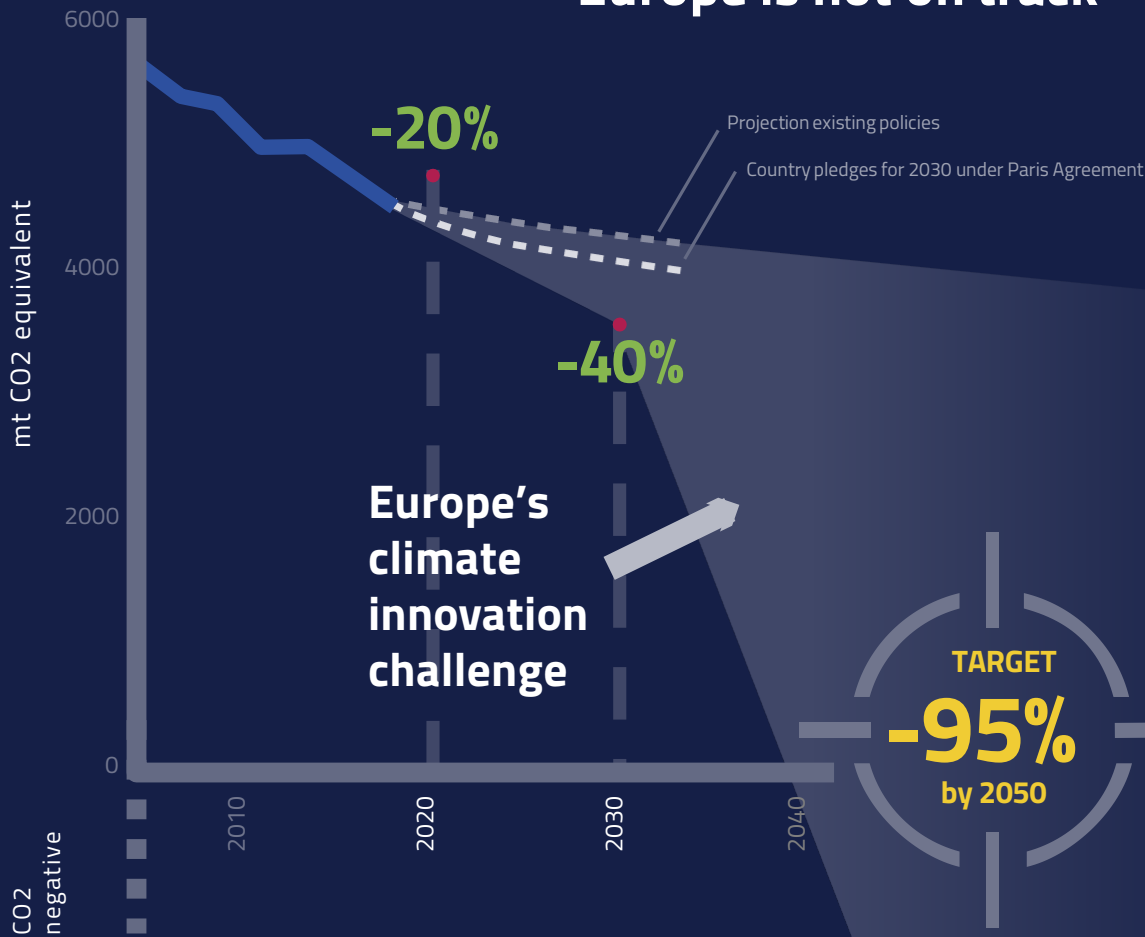
## **Topics to discuss:**

- **General introduction to EIT Climate-KIC (CKIC)**
- **Working with us: WHY**
- **Working with us: HOW**
- **Working with us: WHAT**

A woman with long brown hair, wearing a white t-shirt with text, is standing and speaking into a microphone. She is addressing a large group of people seated in an audience. The scene is overlaid with a blue tint. The text 'What is Climate-KIC and what do we do?' is centered over the image.

# What is Climate-KIC and what do we do?

# Europe is not on track



6x

3 Faster than the global average

6-8%

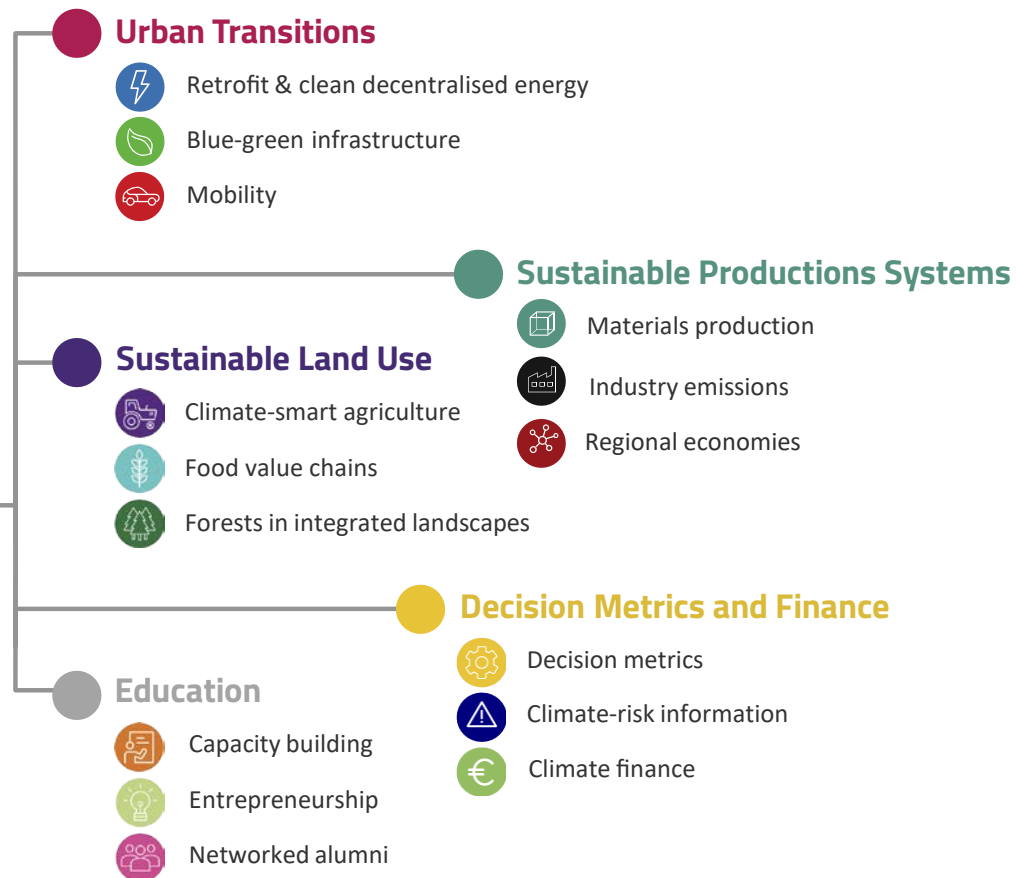
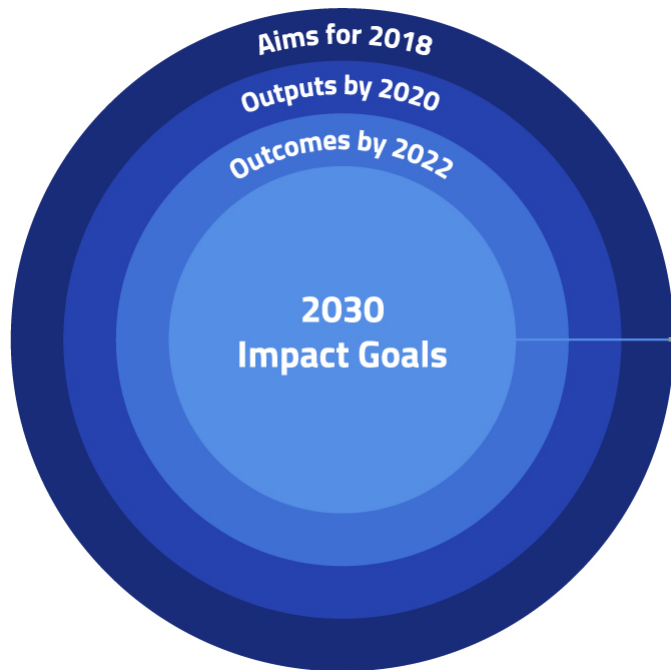
2 Reduction in carbon intensity every year to 2050 and beyond

1 European target consistent with 1.5°C Paris Agreement goal

**Our goals cover key innovation impact areas to help us focus on drivers of systemic change.**



# 2030 Impact Goals and Transformation Pathways



# The EIT Climate-KIC Partnership Community

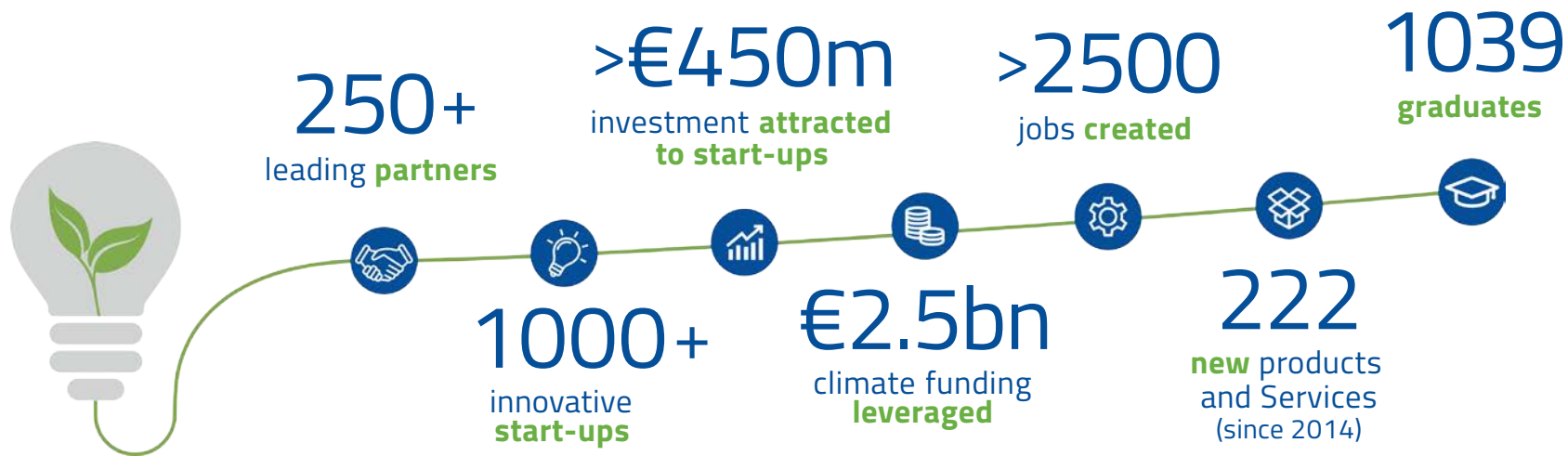




# EIT Climate-KIC Community

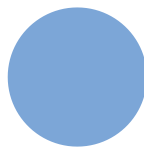
## Impact from approx. 75 mEUR annual budget

Data: Q3 2017

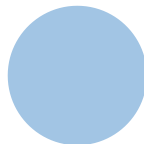




# Countries covered by EIT Climate-KIC programming in 2018



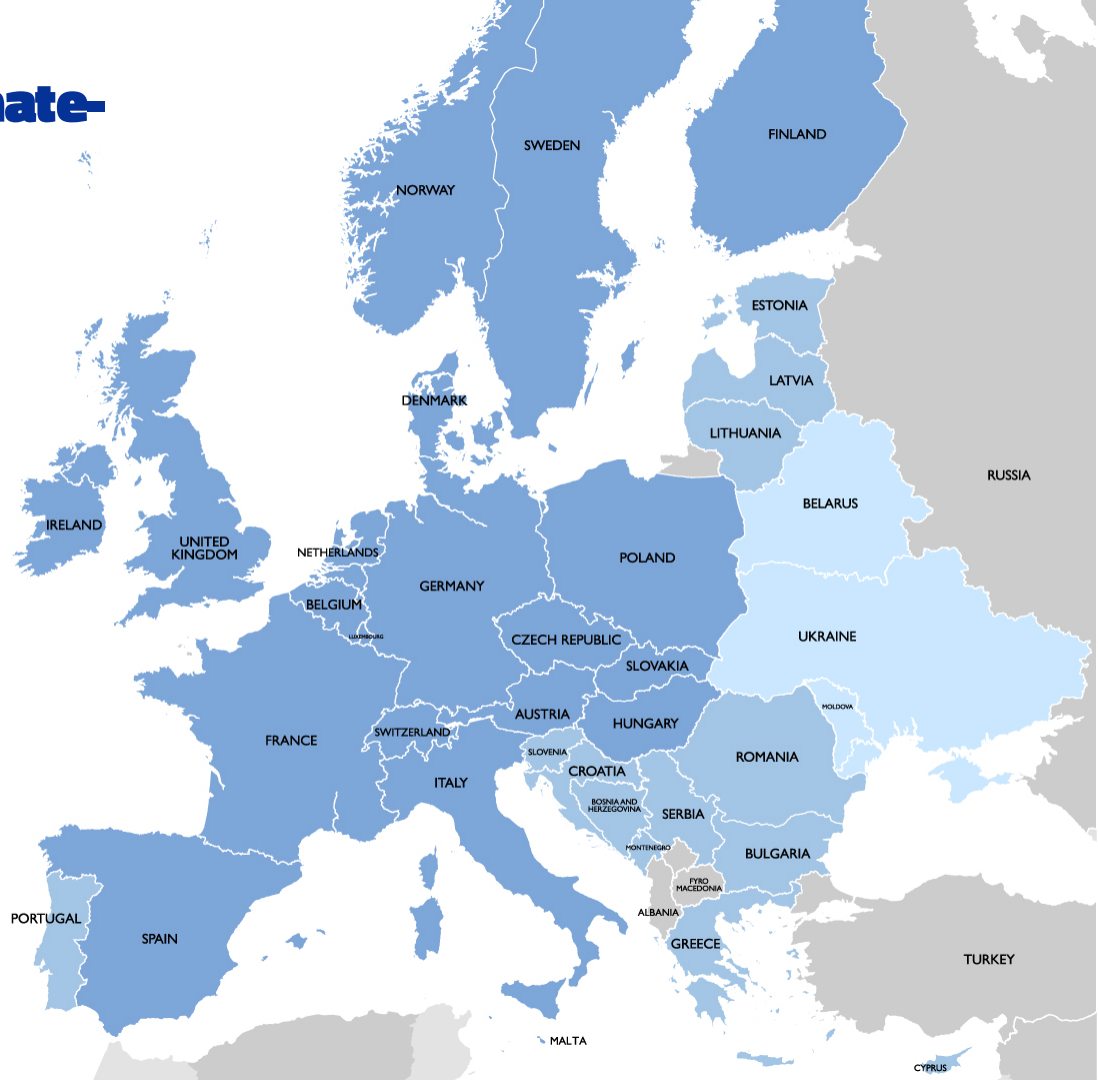
Countries covered by Climate-KIC Geographies



Countries in EIT RIS programme



Countries covered by the LEDS Europe and Eurasia Partnership





# **Our vision: transforming cities with district projects**

***Examples from Europe, USA, Canada***

## Development initiated 2006:

- 80 acre Brown Field Site – 120 years of industrial use
- 6 million sq ft of development and 16,000 new residents
- Community built on environmental, social and economic sustainability principles
- Low-carbon district energy a key strategy to achieving CO<sub>2</sub> targets cost-effectively



- ✓ Innovate and test at a neighbourhood or district scale
- ✓ Align policies, scale, and capital





## Neighbourhood Energy:

- ✓ Can achieve zero emissions without radical changes to current building practices
- ✓ Enables zero emissions retrofits for existing gas-heated buildings
- ✓ Enables recycling of waste heat and better resource management
- ✓ Allows buildings constructed today to achieve the GHG targets of tomorrow

# SE False Creek Neighbourhood Energy Utility

(operational since 2010)



- **Environmental Performance:**
  - Eliminates building boilers and >60% of GHG emissions (*using waste heat recycled from sewage system*)
- **Customer Base:**
  - Has grown 260% since 2010 (4.5M square feet of buildings now connected)
- **Customer Rates:**
  - Costs fully recovered from customer rates, which are competitive with traditional forms of heating.

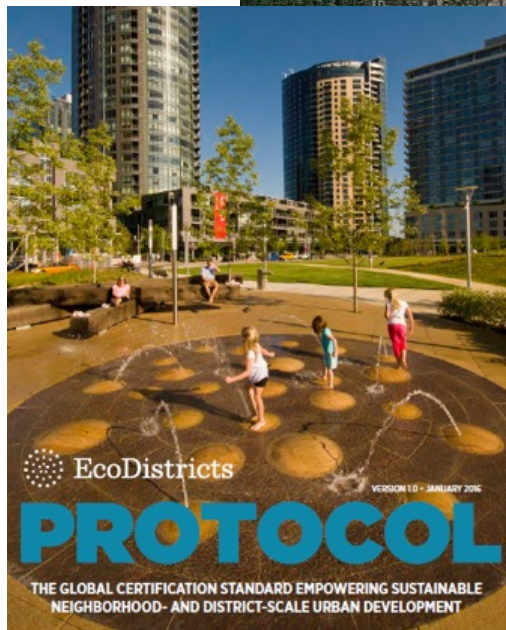


One innovation has transformed how the City thinks about building energy use

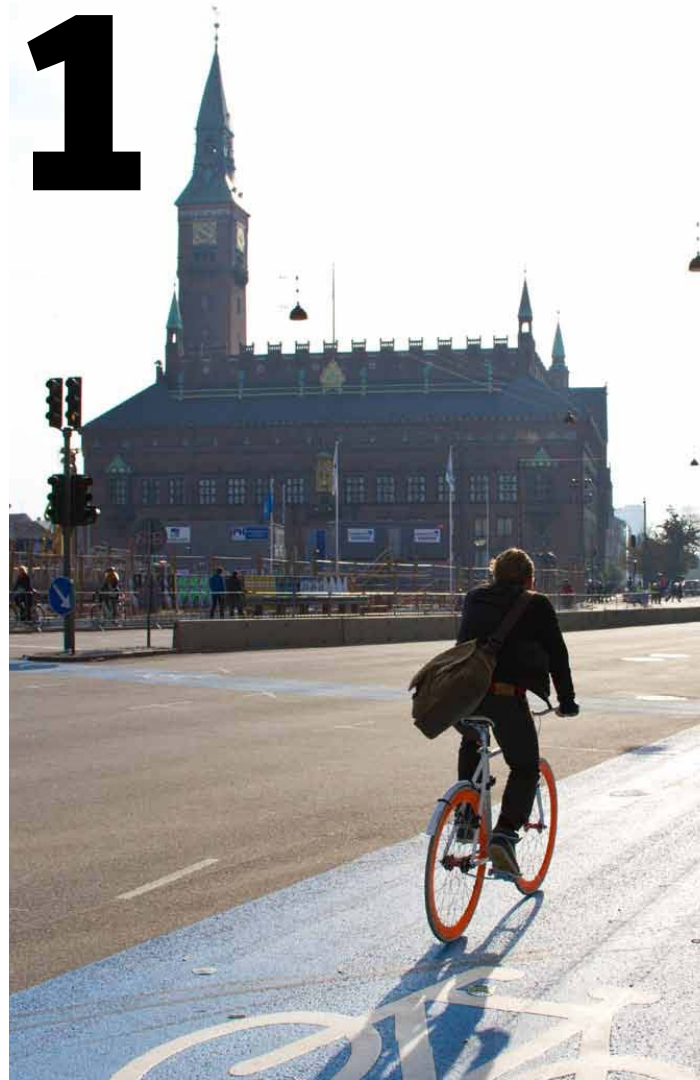


## Portland – Home of EcoDistricts

- ✓ Living Labs to accelerate innovation
- ✓ Tied to business strategies for competitive edge & growth
- ✓ City as a partner with business & community
- ✓ Shared vision & goals
- ✓ Learn from both successes & ‘failures’
- ✓ Scale by replication



IN 2025, COPENHAGEN WILL BE THE WORLD'S FIRST CARBON NEUTRAL CAPITAL AND THE CITY'S BUSINESSES AND UNIVERSITIES WILL BE SPEARHEADING THE DEVELOPMENT OF GREEN SOLUTIONS GENERATING EMPLOYMENT AND GREEN GROWTH.



# Budapest Riverbanks

- Budapest is committed to making the riverbank areas more liveable and citizen friendly, but transport corridors along the river present a major challenge.
- New Smart Sustainable Districts project starting June 2018.
- Goals include: community engagement, partnership building, building government collaboration, and developing business plan



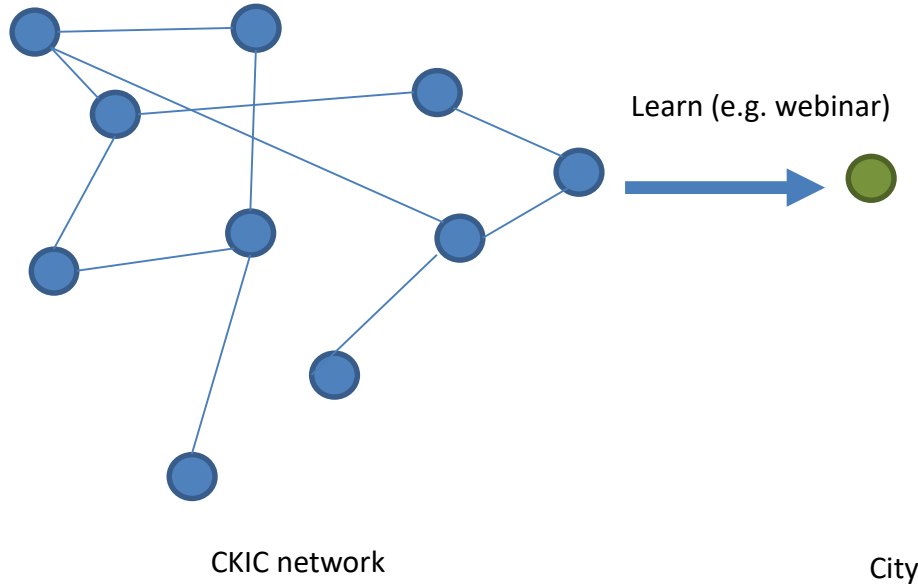


# How to work with EIT Climate-KIC





# How to benefit from Climate KIC and her network



## **Short term (1-3 months):**

Engage with ongoing projects

Learn from ongoing projects

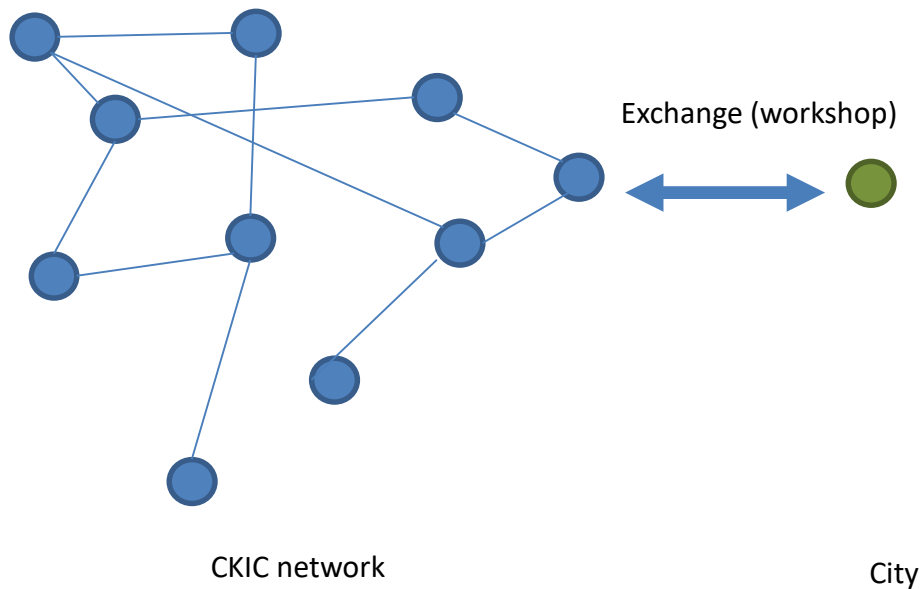


# How to benefit from Climate KIC and her network

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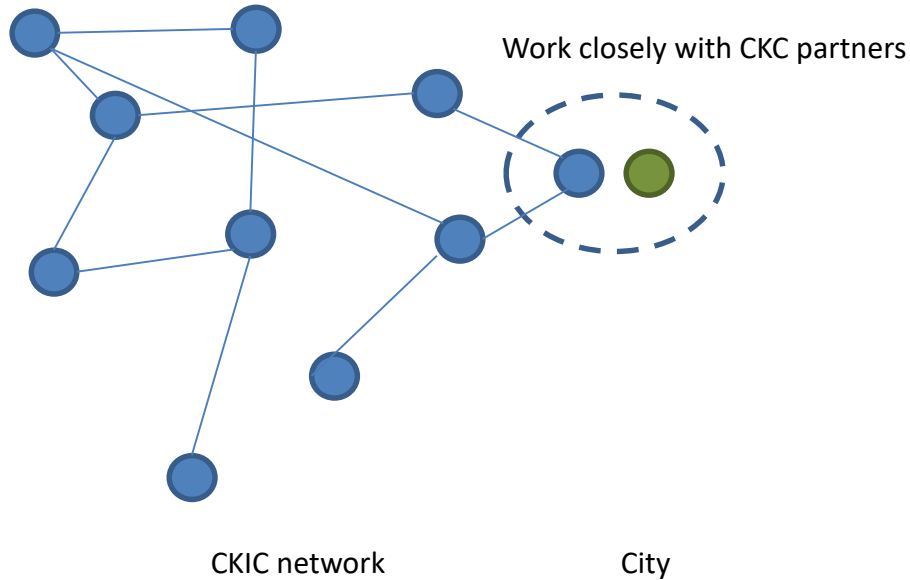
Engage with ongoing projects

Learn from ongoing projects





# How to benefit from Climate KIC and her network



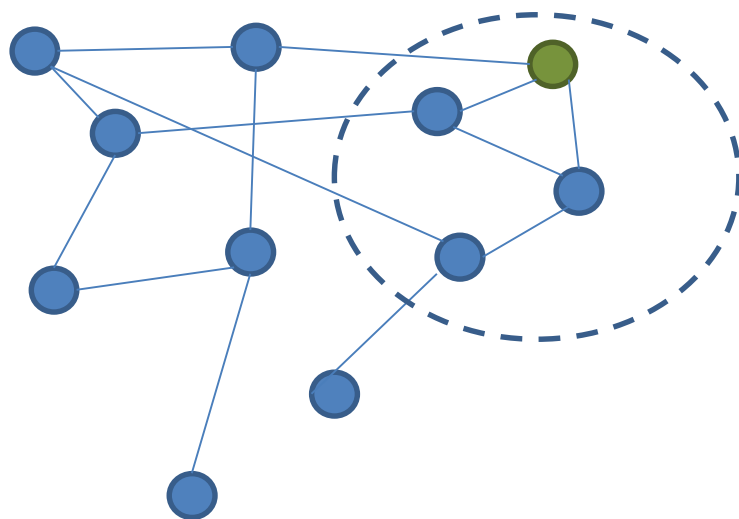
## Structural opportunities

Work with a CKIC partner on new/existing CKIC project



# How to benefit from Climate KIC and her network

Create new proposal for  
EIT Climate KIC funding



CKIC network

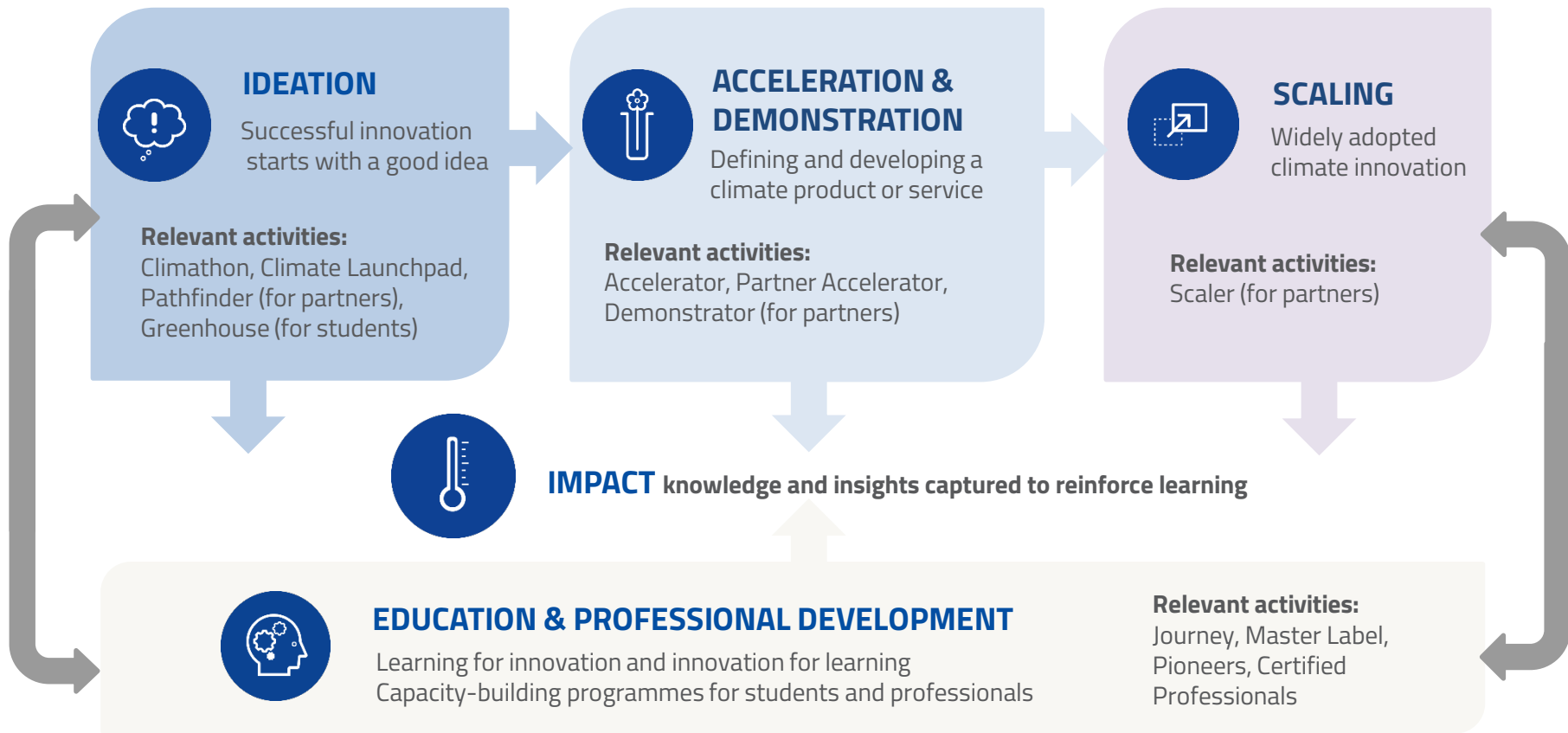
City

## **Structural opportunities**

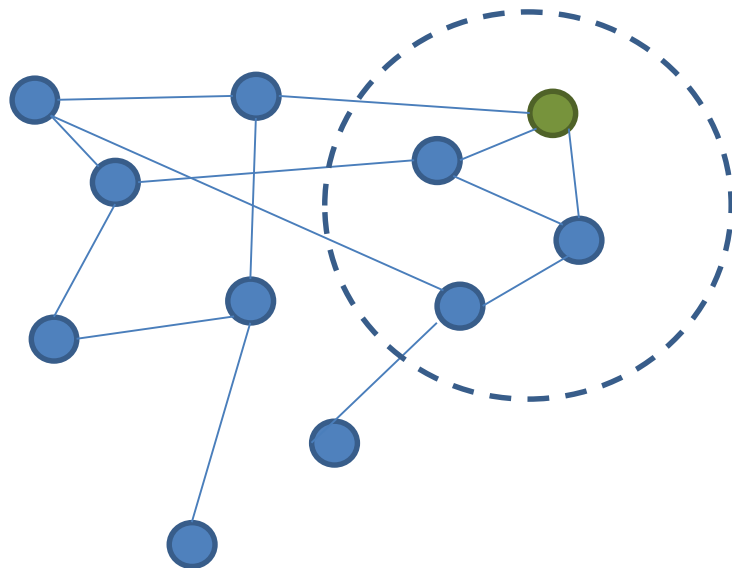
Join network as partner and submit  
proposal for EIT Climate KIC funding

Annual partnership fee: EUR 12.500,-

# End-to-end innovation



# How to benefit from Climate KIC and her network



CKIC network

City



With CKIC partners, submit to INTERREG, ESIF and other funds

## *Polish Partners participating in winning consortia:*

- **H2020:** „Coordinated energy-related PPIs actions for cities (CEPPI)”. Beneficiary: Wrocławskie Centrum Badań EIT+ (municipal research agency), Grant: 118 562,50 EUR
- **ERASMUS+.** Beneficiary: Municipality of Wrocław. Grant: : 137 736.00 €



# How to benefit from EIT Climate KIC network

<i>Timeline (estimate)</i>	<i>Engagement</i>	<i>Example</i>
Short term (1-3 months)	Learn from ongoing CKIC projects Engage with ongoing CKIC projects	<i>Participate in Climathon</i> <i>Use online training</i> <i>Join a roundtable discussion from a project</i>
Structural opportunities (1-9 months)	Work closely with a current CKIC partner on a CKIC project	<i>Urban Challenge – bring CKIC solutions to your challenges</i>
	<b>Join as a partner, submit a proposal for EIT Climate-KIC funding</b>	<i>Initiate a new funded project together with other CKIC partners</i>
Long term opportunities (9+ months)	Together with CKIC develop projects for other EU funds, e.g. H2020, ELENA, Interreg	<i>Several upcoming H2020 calls</i>



# Overview of current projects and activities for and with cities (highlights)

***Important questions for this workshop:***

- ***Which activities would you like to engage with, or learn from?***
- ***Which activities inspire to think about a new customized project?***





CLIMATHON

## What is Climathon?

### Taking action in your city

Originally conceptualised as a 24-hour hackathon by Climate-KIC, Climathon has since taken off as a global movement, engaging citizens on climate action — and providing cities with continued support on the unique challenges they face.

Now in its fourth year of operation, Climathon has grown tremendously, encouraging more cities and innovators across the globe to drive climate action. Climathon has grown from 19 cities in its first year, to 104 in 2017.

**Setting the climate challenge:** Cities identify their climate challenges and call on their citizens to come up with innovative solutions.

**Coming up with solutions:** Citizens, city officials, and sponsors connect under a shared vision for a healthier city, which is manifested in a 24-hour hackathon to find innovative city solutions

**Beyond the hackathon:** Innovation happens when diverse perspectives are brought together — creating both tangible climate solutions for cities and empowered communities. Climathon is more than a hackathon, it's a movement.



Climathon held in Zurich  
130 innovators

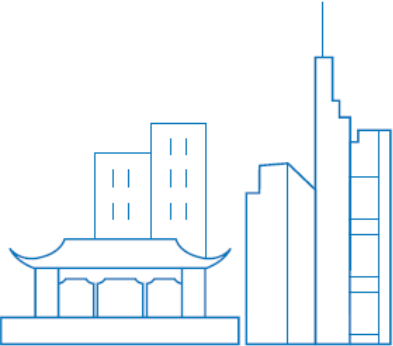


energie360  
CLIMATHON  
Climathon Zurich  
#Climathon

Europe's largest public-private  
innovation partnership

TGHU 804534 45G1

# Next Climathon edition: 26 October 2018

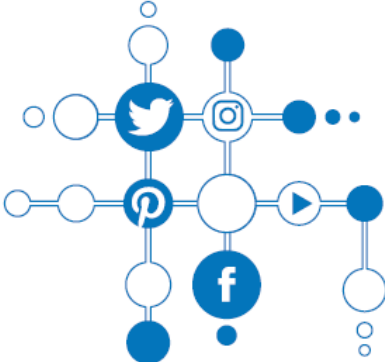


Over 100 cities

CLIMATHON

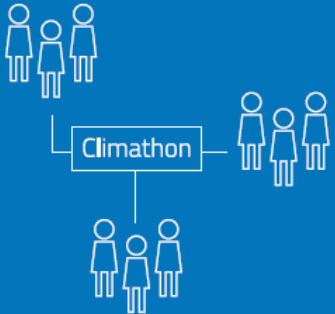


24 hours



19,000 posts on social media

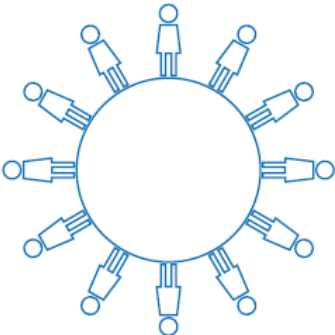
CLIMATHON



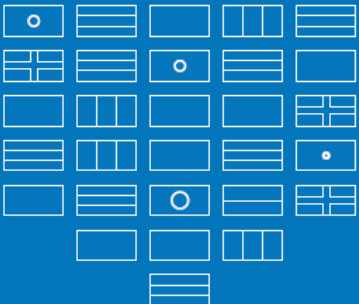
33 million people absolute reach online



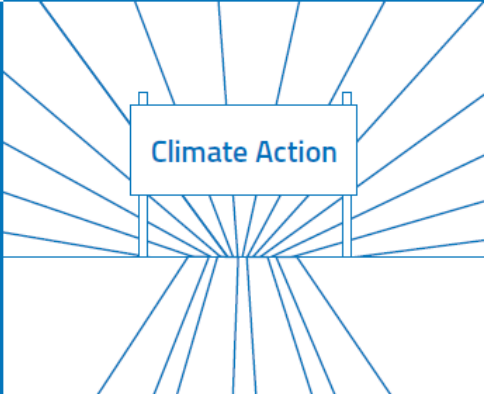
6 continents



4,500 participants worldwide



45 countries



1 goal

# Urban Challenges - Solutions Matchmaking

## Step 1. Articulate the need

- Setup a workshop to understand needs
- Rule out what is known, and highlight promising avenues to pursue
- Tailor robust criteria to ensure appropriate search strategy

*Generates understanding of needs and context*

## Step 2. Identify and Assess Innovations

- Tailored searches of specialist databases
- Promote challenge to crowd source solutions with outreach to appropriate networks
- Leverage experts for search and assessment

*Identifies and filters innovations*

## Step 3. Report and Recommend

- Report documenting insights and findings
- Closed or open pitch events connecting solution providers to customers

*Consolidates insights and recommends best options*



# Innovation Example: Pure cAIR for SO2FIA

## THE SOLUTION

- An Open Innovation approach to source mobility, energy and retrofit solutions to tackle Sofia's air pollution problem

## THE IMPACT

- Sofia is the most polluted capital in Europe: the Bulgarian economy loses € 3 billion annually from indirect health costs resulting from air pollution.
- 15 viable solution proposals were received, 7 were selected for the boot-camp and pitching phase
- The pitch event was held in parallel to SOFAIR conference, a high-level conference on European air quality (attend by 80 delegates)

## CKIC'S ROLE

- The project implemented the Urban Challenges programme structure: define, discover, analyse, and connect.
- In 2018 Phase II of the project will begin to work towards a feasibility study and the implementation of the winning solution



# Innovation Example: Decision Support Tool for Zero Emissions Bus Transportation, NL

## THE SOLUTION

- Decision Support model based on total cost of ownership (TCO) approach to accelerate the transition towards zero emission bus transportation.

## THE IMPACT

- TU-Delft and Twynstra Gudde refined and optimised a TCO model for electric bus services in municipal transport. The 'Zero Emission Bus Foundation gained governmental commitment to switch Dutch public transport to 100% emissions-free buses by 2025.
- Den Bosch and Eindhoven have used the TCO model in their transition towards zero emission bus transport.

## CKIC'S ROLE

- Supported the pathfinder project to enable policy innovation, implementing a benefits-based approach.



# Innovation Example: 2ndSKIN

Existing Building  
Block



Saves c. **68 kg CO<sub>2</sub> eq./  
year** compared to a regular  
renovation



Zero Energy on  
the meter



2ndSKIN  
Renovation  
Sequence





## Energy management in Wrocławskie Centrum Badań EIT+

Research centre  
located in restored hospital area

Smart sensors and energy  
management system (EMS) in  
the cloud brought 20% energy  
savings

- Change of habits
- Fault location

ROI < 1 year

Climate-KIC: small grant within „Transition Cities” project  
(Innovation Scheme)



# Building Market Briefs (BMB)

BMBs provide in-depth knowledge into:

- Key national **framing conditions** and **major trends** (e.g. carbon targets, legal frameworks and investment rates);
- **Market size** and **building stock morphology**;
- Industry perceived **market barriers**, based on surveys;
- Business **opportunities**;

Key **findings** and targeted **recommendations** are summarised in a quantitative **Indicator Factsheet** and a qualitative **Executive Market Summary**.



# City Finance Training Hub

- Supporting cities authorities in developing skills for structuring sustainable investment projects, making them investment grade.
- Many financial mechanisms are available for cities (PPPs, ESCOs, revolving funds, etc.).
- Courses on Green Bonds, result-based finance, deal-making, cost-benefits analysis...
- Blended learning approach: online & physical.
- Project-oriented training: concrete cases.

<https://learning.climate-kic.org/local-training-hub>





# GreenFrame: Green Bonds for Buildings

- “Climate Bonds Standard”: identifying whether assets are eligible for green bonds
- Building on the experience of developing standardised frameworks for assessing low-carbon investments in the green bond market
- Calibrating the framework in accordance with city-specific factors
- Available for both commercial and residential buildings



# How to get started with a district project: Join a Smart Sustainable Districts Project Accelerator Workshop

