



# Climate action and circular economy



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

Salvatore Martire,

Interreg CE CIRCE2020 Final Conference (webinar)

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# Our Partnership Community

The image displays a vast network of partners, categorized into three main groups:

- Top Section:** A wide array of logos including TUM, UCL, JTC, FAM, UH, TRACTEBEL, and many others.
- Core Partners (Central Blue Box):** A collection of prominent logos such as Veolia, Chalmers University of Technology, E.ON, Hit, South Pole Group, and others.
- Bottom Section:** Logos for Futureproofed, AgriParisTech, COWI, and numerous other organizations.

At the bottom left, there is a legend: **● ● ● Futureproofed**. At the bottom right, the **eit Climate-KIC** logo is visible.

An aerial photograph of a tractor working in a field. The field is filled with rows of young green plants, likely seedlings, spaced out in a grid pattern. The tractor is positioned in the upper right quadrant of the image, moving through the rows. The overall scene is captured from a high angle, showing the repetitive patterns of the agricultural landscape.

EIT Climate-KIC addresses the interdependent challenges of climate change and sustainable development through systems innovation

# Our 10-year track record in climate innovation

**1600+**  
climate-positive  
start-ups incubated

**€3.4bn+**  
climate funding  
leveraged

**595**  
new products  
and services

**€550m+**  
total value of  
funds managed



**391+**  
formal partners,  
across 28 countries  
(including *Linked 3<sup>rd</sup>*  
*Parties*)



**>€1bn**  
investment attracted  
to start-ups



**>2300+**  
full-time jobs created  
since 2010



**44,000**  
participants in our  
education activities



# Circular Economy can play a crucial role in climate action

- Material production alone risks exceeding the total remaining carbon budget for a 2°C scenario
- Even with 100% low-carbon energy by 2050, emissions far exceed the available carbon budget
- Demand-side opportunities can unlock circularity
  - A more circular economy can cut emissions from heavy industry by 56% by 2050

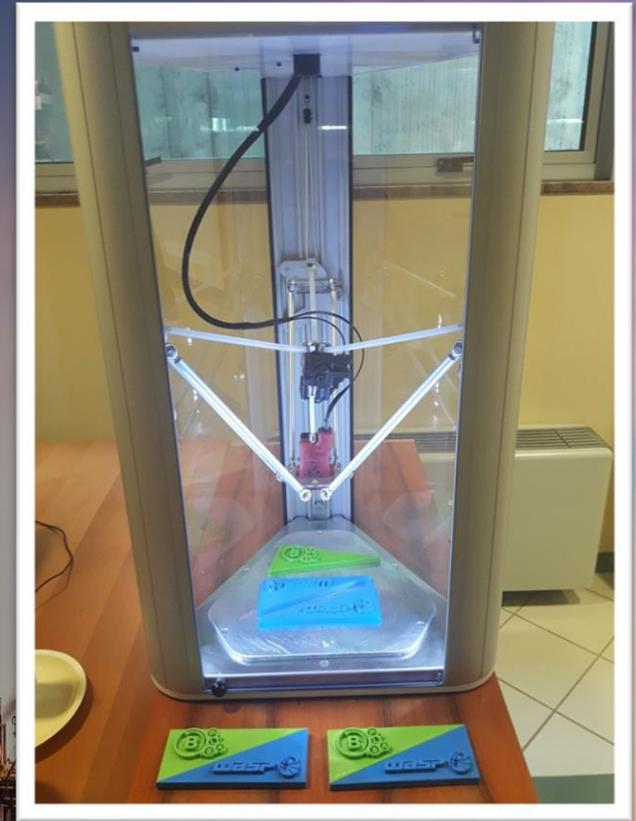
The circular economy, a powerful force for climate mitigation,

Material Economics, 2018

# Recovery of by-products – BPLAS project

Nearly 40% of chemical energy of food ends up in wastes or in wastewaters. Wastewater organics are concentrated through aerobic wastewater treatment plant (WWT) yielding biosolids with an overall EU production equal to 20 Mton/y (Eurostat 2017).

The B-PLAS project is realizing fully automated plant that allows to convert food waste, waste sludge and other organic residues into Polyhydroxyalkanoates (PHA). PHA is a bio-based and bio-degradable plastic, suitable for packaging, disposable items, medical application and 3D printing.



# InnoWEEE Demonstrator

## The Problem

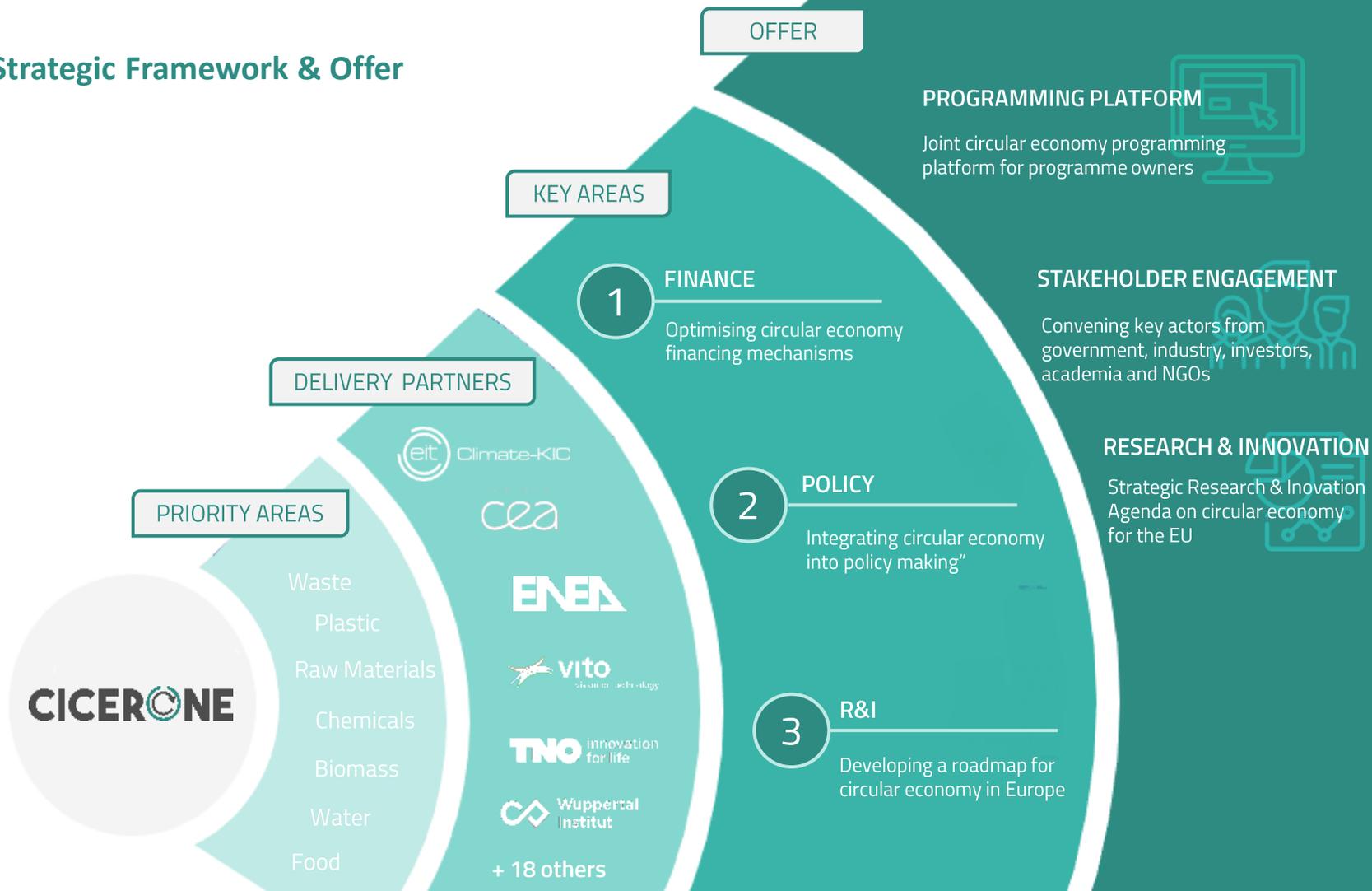
The collection of WEEE (Waste Electrical and Electronic Equipment) is carried out through an articulated and complex chain that make room for often illegal parallel channels.

It is therefore necessary to work on the one hand to improve the traceability of flows, on the other hand for a cultural change supported by a reward system for virtuous behavior

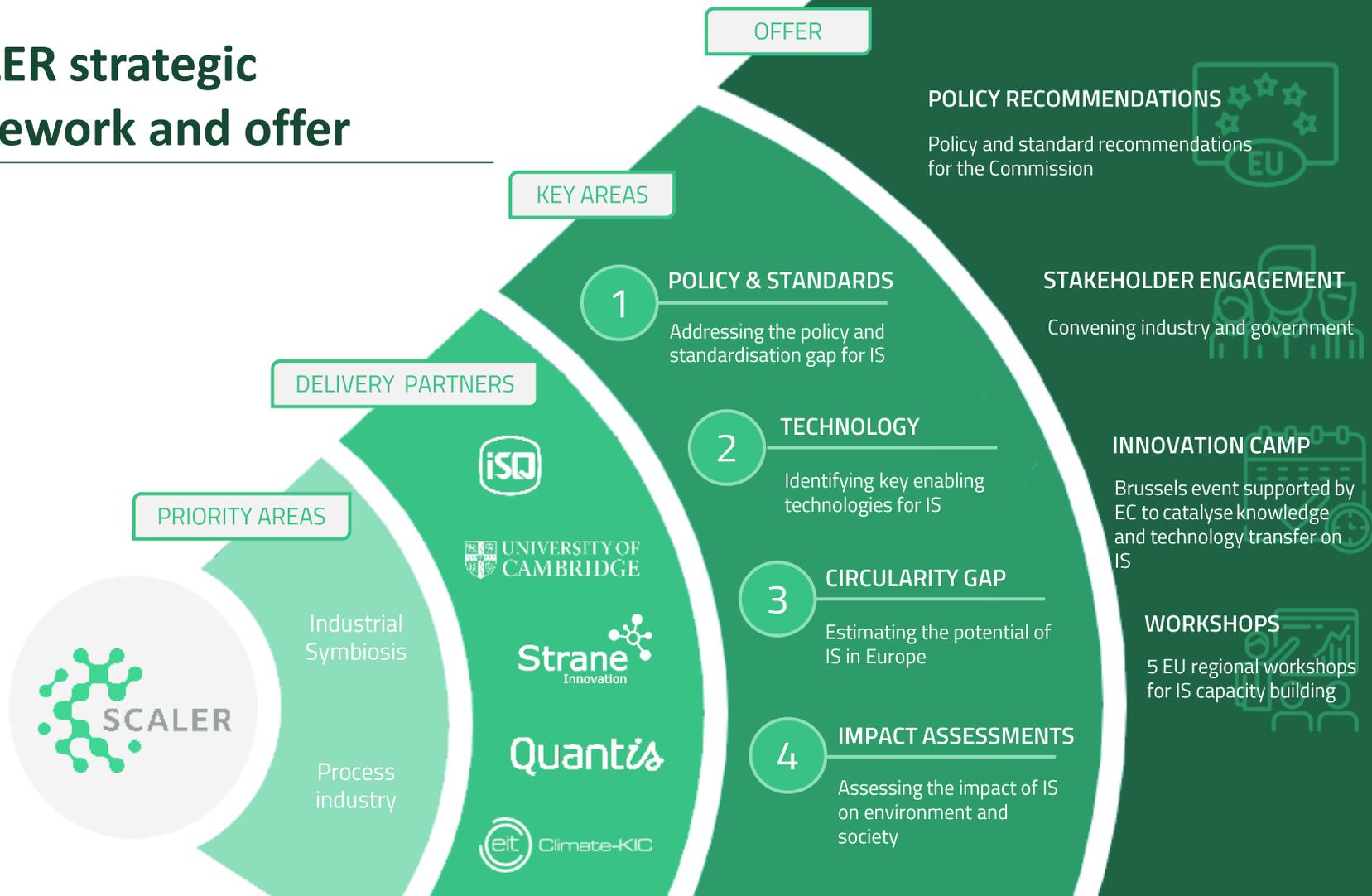
## The Solution

InnoWEEE aims to increase the WEEE collection through innovative strategies such as the use of smart bins and the implementation of a web-platform, which will be tested in three pilot areas.

# CICERONE Strategic Framework & Offer



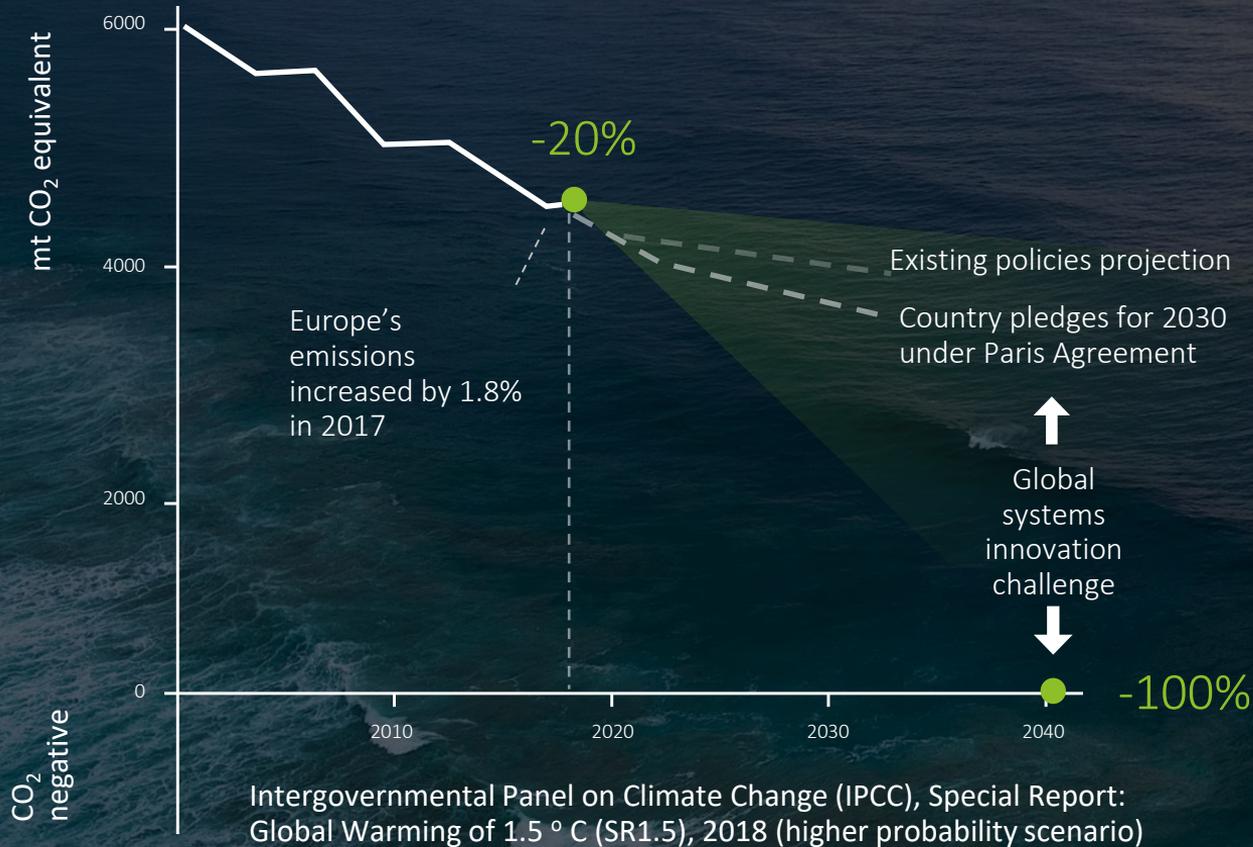
# SCALER strategic framework and offer



# Levers of change



# 11 years to shift global systems, but Europe is in reverse



## Net zero by 2040

is the IPCC's higher probability scenario for achieving 1.5°C.

This pathway gives us **11 years to shift global systems.**

Achieving net zero in time therefore requires us to decarbonise the global economy at least

**6x faster than the global average**

The background of the slide features four small green seedlings growing in a row on dark soil. The seedlings are positioned on the right side of the frame, with the tallest one on the far right and the shortest on the far left. The background is dark and slightly blurred, with a soft green glow behind the text.

Limiting global warming to 1.5°C would require rapid, far-reaching and unprecedented changes in all aspects of society.

*IPCC Special Report on 1.5 Degrees*

Innovation is essential.  
But not as we have  
been doing it.

We need a **new model  
of innovation** to  
catalyse **systemic  
change**.

Connected  
innovations...

...acting  
simultaneously

...across  
multiple levers  
of change

...triggering  
massive leaps in  
decarbonisation  
and resilience.

...to transform  
places, people,  
sectors and  
value chains...

10 years of experience has taught us that achieving the change we need requires a different approach to innovation

Incremental

System innovation

Transformational

Supply led

Demand led

Single projects and incremental change

Coordinated projects that build on each other

Isolated activities, often focused on technological improvements

Connected activities that access core areas of a system



# A Deep Demonstration of Circular, Regenerative Economies

## Challenge owners

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We are working with the government of Slovenia, who have the ambitious aim to become the world's first fully circular national economy, and starting talks with the Government of Bulgaria.

1

Government of  
**Slovenia**

2

Government of  
**Bulgaria**

# Vision and mission of our work in Slovenia

## Vision

We aim to pioneer new, innovative, holistic thinking in a way that simulates closed-loop systems design that maintains the value of resources, materials, products at all stages of a biological or technical life-cycle, whilst simultaneously reducing environmental impact and enhancing the regeneration of natural assets.



## Mission

We facilitate whole systems (economic, political, and societal) transformation, applying systems thinking and the concepts of circularity to redesign existing linear economies.

Targeting **key Slovenian** economic systems / value chains

Multi-stakeholder, cross-sectorial cooperation across siloes

# Deep Demonstration Approach

## Partners



Every child growing up in transforming regions can **dream and achieve** a fair, healthy future

Creativity and Entrepreneurship are **de risked**, innovators flourish in **resilient** local economies

Citizens are **empowered** to seize desirable employment opportunities that restores **dignity** in local identity

IMPACT

Activities

Transformative policy for societal accountability  
Policy innovators network  
Just Transition Sandboxes

Identity, Work & Pride:  
Lab to reinvent the Future of Work  
Regional Skills Hubs

Innovators & Investors  
Diversify local economies  
Diversification and Regeneration Observatory

Pioneers

Citizens Powering Change  
Transformative Social Movement  
Open Innovation learning platform



Just Transformation Portfolio

“ Deep demonstrations are intended as inspirational examples of what is possible when innovation is orchestrated, collaborative and mission-led. They represent the ‘growth edge’ of our strategy for tackling climate change through systems innovation. ”

*Kirsten Dunlop, CEO, EIT Climate-KIC*

A deep demonstration of...

## Just Transformation of Coal and Industrial Regions

Many regions and people across Europe still rely on economies that are incompatible with tackling climate change. These can be coal producing regions, or regions with polluting heavy industries. Inclusivity, and climate, social, economic and democratic justice are vital to the success of rapid structural change. This deep demonstration will build into a Just Transformation movement, with the aim of demonstrating that such just transformations are indeed possible.

4

## Sensemaking and feedback loops

We generate actionable intelligence to accelerate learning about how to achieve transformation at scale. Feedback loops inform policymaking and dynamic management of innovation options.

3

## Orchestrate a portfolio

For each challenge, we build and manage a portfolio of 30 – 100 connected innovation projects, designed to address leverage points identified in earlier stages.

1

## Understand and map the systems challenge

We engage demand-side challenge owners – city mayors, regional leaders, government ministers and CEOs of major companies – to understand ambition and needs, identify constraints and secure intent for transformational change.

2

## Define the intervention strategy

We identify where and how innovation can play a role in catalysing change dynamics, and start to design relevant innovation ‘positions’.

