Follower Event: From Concept to Prototype: AI-powered Platform advancing Circularity

27 February 2025 | 11:00-12:30 (CET)

In cooperation with: ACR+

Procurers

Supported by

Suppliers

This project has received funding from the European Union's Horizon Europe under Grant Agreement n° 101092208.

Welcome and introduction

Technicalities, introduction by CircularPSP, todays' objectives

>>Welcome and Introduction
ACR+: Collaborative work to unlock successful circular procurement
CircularPSP Project and Common Challenge
CE-solution approach by Suppliers
CircularPSP CE Taxonomy Working Group
CircularPSP Roadmap and Solution Testing
Q&A

Technical: Questions, slides etc.

All information will be shared

DURING EVENT

Video, microphone, recording

- Video and mics are open for participants
- Please unmute yourself and turn on video when speaking
- This meeting **is not recorded**, only presentation will be made public

Questions

- Ask anytime **using Q&A function** (Chat has another use, see below…)
  - We try to pick up on questions during presentation to degree possible
  - If we do not, there is a very good chance your question will be answered on slides

Connect

- **Present yourself** in Chat with name and organisation to network/exchange with other Followers and attendees

AFTER EVENT

Presentation

- Slides will be shared on website: https://circularpsp.eu/follower-network/
  - All registered are notified via email

Staying informed

- **Interested Cities, organisations and other Procurers** can participate in the CE Taxonomy Working Group

- **Interested Cities, organisations and other Procurers** who are not part of our Network can become Followers

- **All** are invited to the newsletter and LinkedIn

Presenters

Georg Vogt

Head of ICT
Innovation Energy

empirica

Núria Cases i Sampere

Project manager

ACR+

Objectives

Above all: marking the starting point for collaboration on a common CE-solution to transition city operation

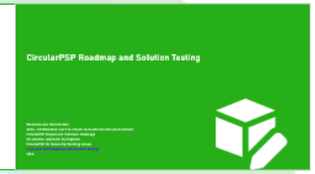
To understand how to unlock successful circular procurement – by ACR+

To understand the CircularPSP Common Challenge

To understand the CE-solution approach by Suppliers (VCG & CircularAI)

To provide insights and invite to the CE Taxonomy Working Group

To present the CircularPSP Roadmap and invite to test CE-solution



Project

Leading Circular Cities are tackling a common challenge together

CIRCULAR SPP

Istanbul, Turkey

Guimarães, Portugal

CircularBerlin, Germany

City Network Sweden

Helsinki, Finland

City Network Slovenia

Sandyford, Ireland

ReLondon, UK[1]

A wide-reaching Follower Network which will continue to grow

8 Procurers – 8 Countries
45 million citizens

Representing Europe‘s leading circular cities and regions

Common challenge: empower cites/staff to accelerate local transition towards a Circular Economy (CE)

€5.64 million investment in R&D

Budget spent in a 3-phase competition

[1] Associated Partner involved in all activities

CircularPSP Follower Network – Overview

We have attracted 88 Followers (as of 26 February 2025), each Follower events boosts the size of the Network

Collaborative work to unlock successful circular procurement

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ACR+

Meet ACR+

Cities and regions enacting a just, sufficient, and circular transition

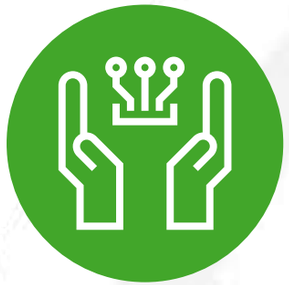
Nuria Cases i Sampere | ACR+
www.acrplus.org

ACR+ STORY

Our international network supports the transition to the circular economy in cities and regions already for 30 years

- About 100 members
- 22 countries in EU and Med area
- More than 1 100 municipalities represented
- Strong team of 16 experts
- Brussels-based
- Multistakeholder approach

Our mission it to provide our members with concrete tools and approaches to enact the transition towards waste-free circular systems in their territories and beyond



ACR+ is at the service of its members

ACR+ is a gateway to technical data

ACR+ is the voice of decentralised authorities

ACR+

WHAT DO WE DO?

We help decentralised authorities connecting the dots of circularity

+ Communities of practice
+ Knowledge sharing
+ Capacity building
+ Policy and advocacy
+ Research and benchmarking
+ Visibility

5 Thematic Areas

Built Environment

Sustainable Food Systems

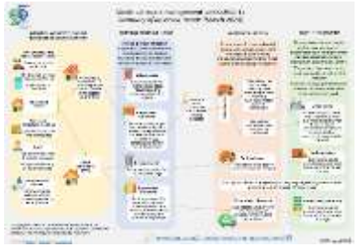
Policy and Governance

Waste and Material Flows

Circular Lifestyles

Some of our services:

+ Networking
+ Helpdesk
+ Conferences and trainings
+ Newsletters
+ Projects and partnerships
+ Technical studies, benchmarks and reports



DECISO
DEVELOPERS OF CIRCULAR SOLUTIONS

hoop

BRINC

BIO CIRCULAR CITIES
Exploring the circular bioeconomy potential in cities

FOODRUS

ferplay

PREP SOIL

EUROPEAN WEEK FOR WASTE REDUCTION

ACR+

CIRCULAR PROCUREMENT - ACTIVITIES

- Facilitate connections among ACR+ members to strengthen collaboration
- Prepare project proposals

- Elaborate guidelines and key recommendations
- Participate in public consultations

- Prepare training material, and tools
- Organise trainings, events, workshops, etc.

- Showcase members best practices at international events to enhance visibility

- Share insights from EU projects with ACR+ members to enhance knowledge transfer
- Regularly update the network on EU policy developments

ACR+

C-PRONE

THE "ONE-STOP-SHOP" FOR CIRCULAR PROCUREMENT

- Initiative coming from the ProCirc project coordinated by ACR+ and supported by Rijkswaterstaat.
- It connects the existing networks, initiatives, and relevant actors and offers direct access to key resources (tools, knowledge, events, and community) to unlock successful circular procurement.
- In the future C-PRONE is envisioned to be a self-contained entity, known as the first source for anybody who wants to get engaged in circular procurement.

C-PRONE- 3 OBJECTIVES

C-PRONE CIRCULAR PROCUREMENT NETWORK

Facilitate the exchange of information

- Network, trainings, connections, conferences

Create a body of knowledge

- Good practices, capacity building tools, sources

Provide policy insight

- Access, sharing, discussing

ACR+

WANT TO JOIN? LET US KNOW!

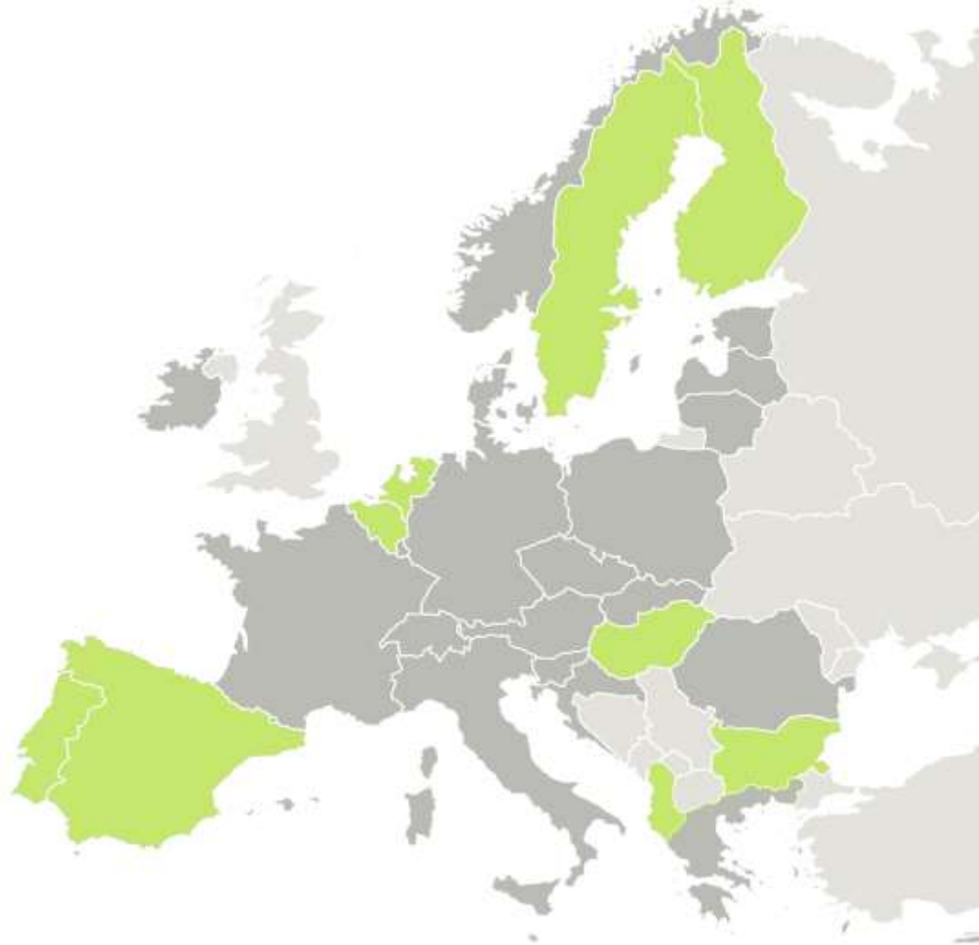
- Fill in the online form
- You will be added to the C-PRONE mailing list and receive the latest news on circular procurement and updates on all upcoming C-PRONE activities
- Visit the project website

  http://c-prone.eu

CIRCULAR MINDS

Circular Minds focus on:

- Scaling up circular procurement practices in organisations
- Capacity building tool to support the implementation of circular procurement within organisations
- European partnership consisting of **10 partners from 9 countries.**
- April 2024 – June 2028



CIRCULAR MINDS

Successful pilots ≠ upscaling

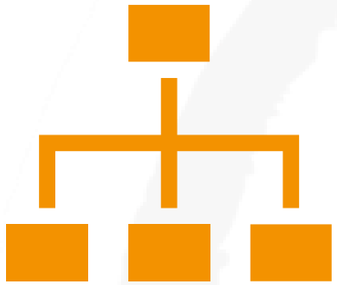
Why is it not possible to implement these pilots on a larger scale?

ACR+

CIRCULAR MINDS - BARRIERS

Mindset

Market is not ready



Internal organization is not ready

Difficult to monitor impact

Project Goal

Capacity building tool, which is embedded in policy

Phase

Phase 1: Situation analysis
Baseline assesment.

Phase 2: Good Practices
Collect GPs that match the needs of the project and the project partners

Phase 3: Policy change
Test the policy change tool

Result

Result:
List of behavioral challenges

Result:
Good Practices
Capacity building tool:
workshop/toolbox/training

Result:
Tool in policy/policy change

ACR+

CIRCULAR MINDS

Circular Minds website: https://www.interregeurope.eu/circular-minds

Project Newsletter: https://interregeurope.us17.list-manage.com/subscribe?u=71bde94bad26637e61d3e2e73&id=a5be53b155

ACR+

Thank you!

Núria Cases i Sampere

nca@acrplus.org www.acrplus.org @ACRplus

CircularPSP Project & Common Challenge

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Filling the gaps

Our approach is focusing on making real impact happen by offering the bit which is missing

HORIZONTAL – NOT VERTICAL

We aim to cover the whole Circular Economy

Our solution is agnostic

- Construction
- Food
- Textiles
- Waste
- …

SYSTEMIC – NOT SPECIFIC

We tackle to offer service to the entire organisation

- Our solution is to help all City workers
- Our solution is to connect with the local economy
- Our solution is to remove language barriers
- Our solution is to empower Cities of any size

The problems and needs to transition to CE

Cities face a complex problem across four interlinked areas, each with its own needs

Problem	**No access to CE knowledge**	**No routine in acting circular**	**No capacity for a CE transition**	**Linear mindset**
Area	**Information**	**Operation**	**Organisation**	**Change & Upskilling**
Needs	**Easy access to and understanding of CE knowledge**	**Making circular workable on city-level and day-to-day**	**One location for information, people and tracking**	**Customised capacity-building and training**

CE-solution A dedicated solution to enable cities, business and their staff to deploy circular economy action

Ralf, 45

Little experience with Circular Economy (municipal worker)

CHALLENGE 1: INFORMATION

I don't have time to search for possible solutions in dozens of languages!

CHALLENGE 1: INFORMATION

A specialised AI finds relevant solutions for me and summarises them in my language

CHALLENGE 2: OPERATION

I've never done this before... how am I supposed to implement it?

CHALLENGE 2: OPERATION

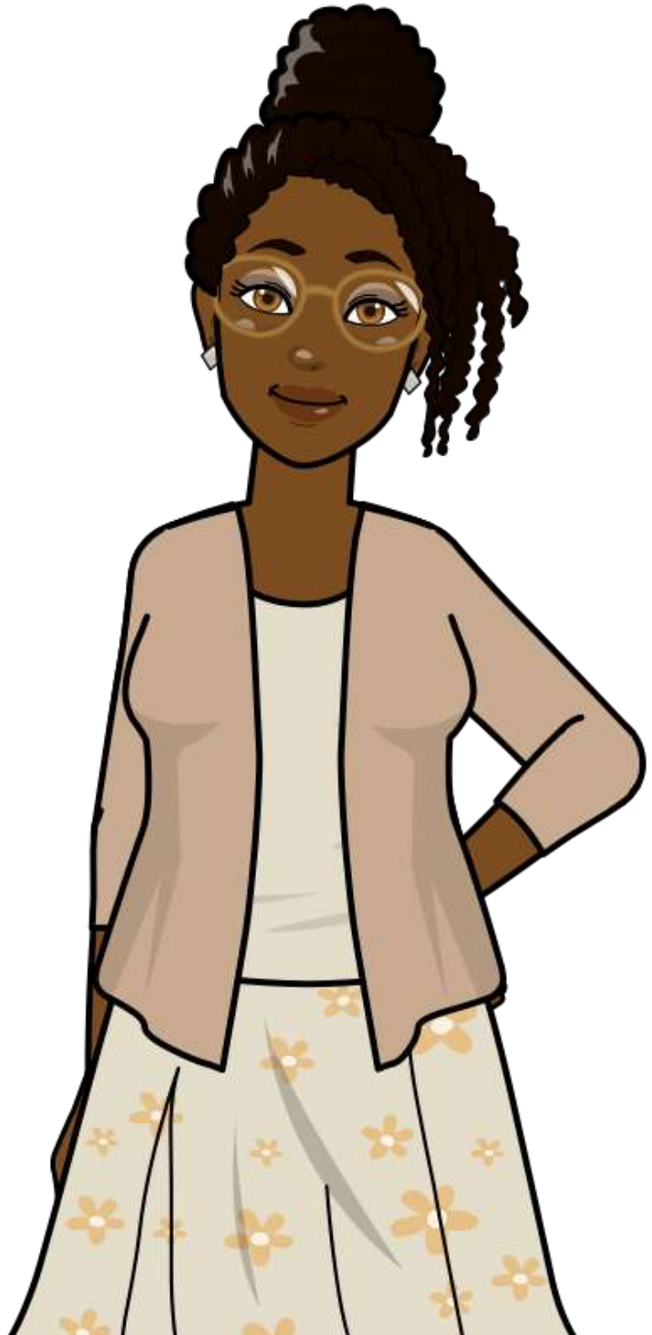
The platform provides a concrete step-by-step Workflow, including templates

CHALLENGE 3: TRAINING

I'm not familiar with this concept at all...

CHALLENGE 3: TRAINING

The Workflow includes targeted training materials based on my personal experience



Anna, 38,

A lot of experience with Circular Economy in Cities (Circular Economy expert)

CHALLENGE 4: ORGANISATION

I wrote the circular strategy, but I have no way to help my colleagues

CHALLENGE 4: ORGANISATION

Help requests, ongoing workflows, and indicators are centrally accessible

CircularPSP Envisaged CE-solution

A CE Mission is created during City Onboarding and afterwards implemented through e.g. Targets and Workflows

Supplier

City

“Agnostic” CE-solution

City Onboarding with selected staff

Day-to-day use of CE-solution by all municipal workers

CircularPSP + continuous

~1-4 months Mission creation

Mission Duration: 4-8 years (update as locally useful)

- **Circular case studies**
- **Circularity indicators/data**
- **Procurement criteria**
- **IP + anything useful…**

Pre-trained AI able to aid

- **Local data, policies/ strategies, current effort and other data**
- **City-Supplier Exchange, co-design, expert support, input**

CE Mission i.e. Targets, Milestones, Indicators

AI support and features:

Self-assessment

- **CE Workflows** for any municipal activity
- **Communication / Networking** (cities, business)
- **Change and Upskilling**

Influence local economy

Business: Features also available for local SMEs

Organisation: Public Service Platform (PSP)

A platform is to provide access to data, insights on CE missions and the workflows

TWO-TIER STRUCTURE OF INTERFACE (EXEMPLARY)

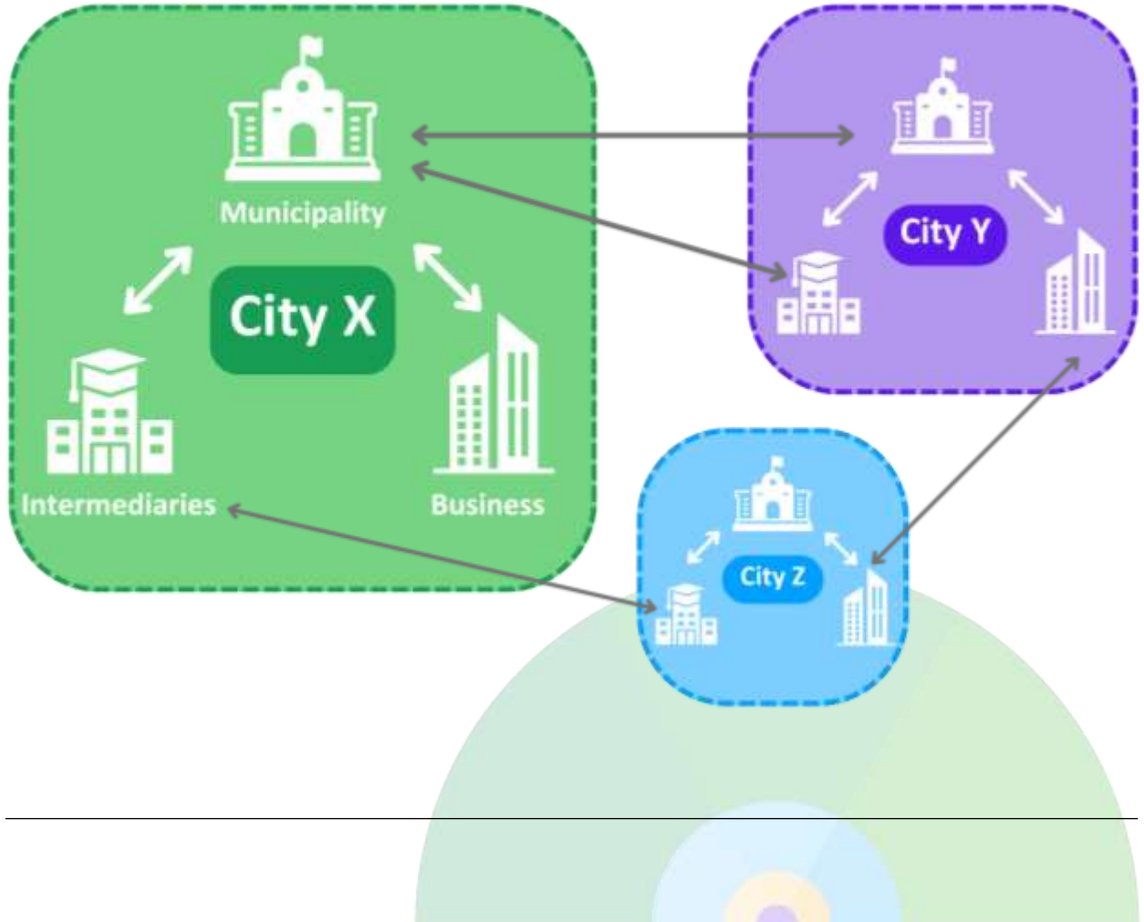
City	Business
CE Mission | Impacts	Targets | Impacts

Department: Milestones Overview and possible actions

Staff: Workflows + Capacity Building & Training, Skills

Networking, Visibility, Co-Creation + X

BARRIERLESS COMMUNICATION TO PEERS THAT MATTER



CE-solution approach by Suppliers

Suppliers present their approach and first prototype results

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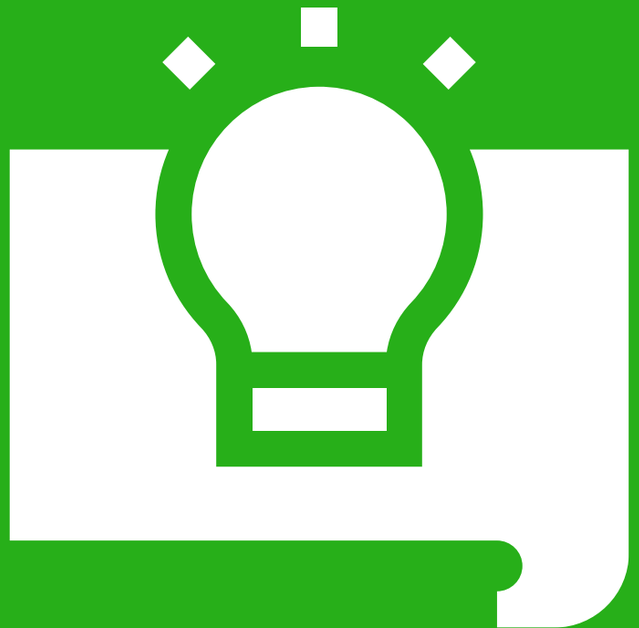

Suppliers overview

The following Suppliers present their CE-solution

CircularAI

SWAPPSI (lead)

TÜBİTAK BİLGEM

GTE

INNCISO innovation

Marta Morillo Rodríguez

VCG

VCG (lead)

Martin Vogrin

VCG.AI

For questions, please use Q&A function (no chat) – or just ask directly after the VCG presentation

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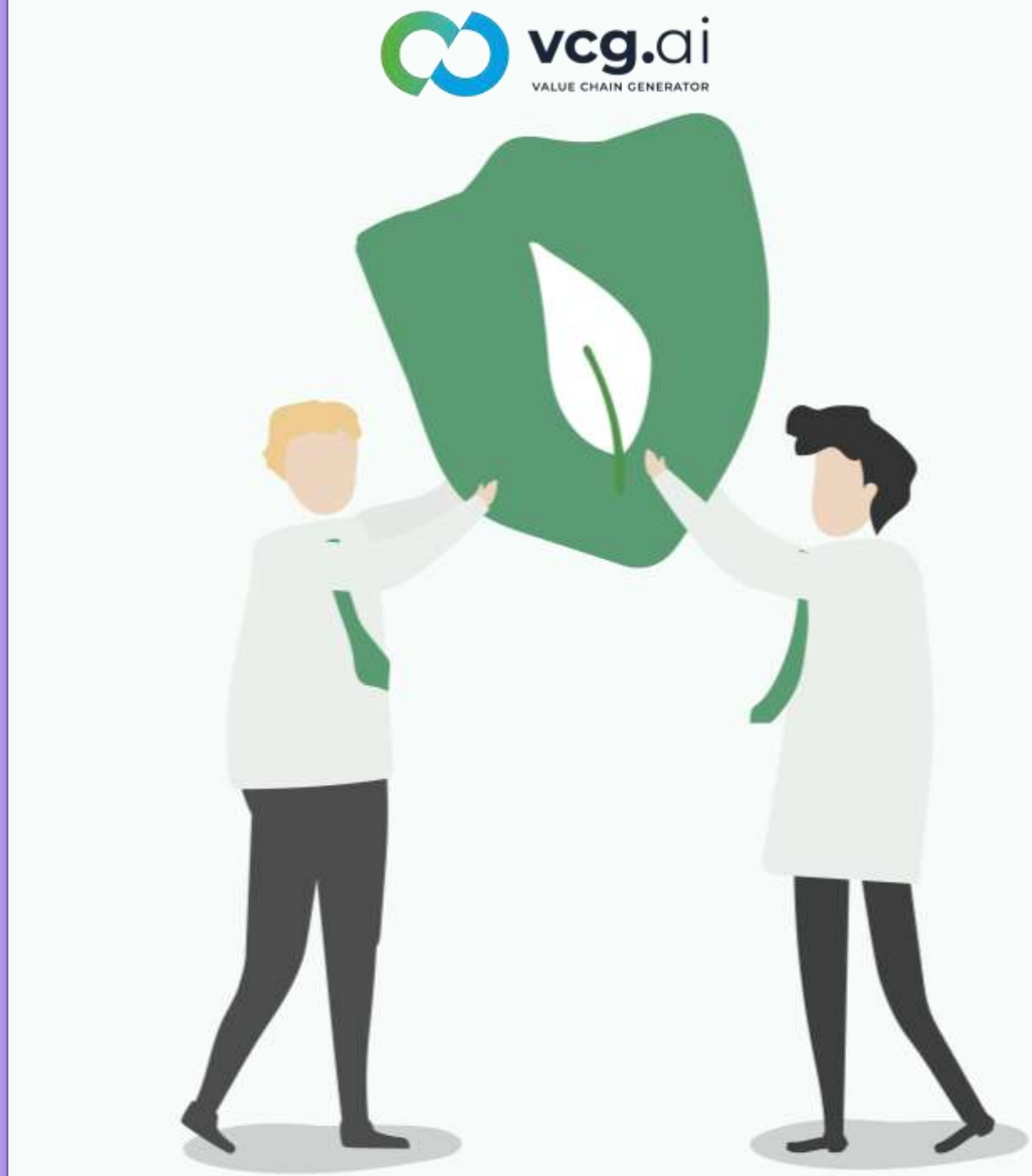

vcg.ai®

VALUE CHAIN GENERATOR

Value Chain Generator for Cities

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There is no circularity without cities

Cities are aggregators of materials and nutrients, accounting for **75%** of natural resource consumption, **50%** of global waste production, and **60-80%** of greenhouse gas emissions.

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There is no circularity without cities – but implementation is difficult!

Cities are aggregators of materials and nutrients, accounting for **75%** of natural resource consumption, **50%** of global waste production, and **60-80%** of greenhouse gas emissions.

A medium-sized city executes 500-2,000 core processes and 5,000 – 10,000 non-core processes regularly! Making these circular is a hugely complex challenge (volume and diversity)!

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There is no circularity without cities – but implementation is difficult!

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A medium-sized city executes 500-2,000 core processes and 5,000 – 10,000 non-core processes regularly! Making these circular is a hugely complex challenge (volume and diversity)!

Our CircularPSP goal: Structured approach to circular transition of cities (generality + specificity).

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CircularPSP: **Mission – Knowledge – Taxonomy - Operations**

City Mission
Goal: Build informed, high quality city missions with limited resources (AI + data sharing).

Knowledge
Easy access to knowledge – curated case studies repository, city missions, best practices
CE-adapted assistant (chatbot) + sharing of knowledge between cities

Common Language (CE Taxonomy)
- What are the possible CE activities?
- What are the relevant indicators?
- Which are the focus industries/product chains?

Implementation

vcg.ai

EIC Accelerator

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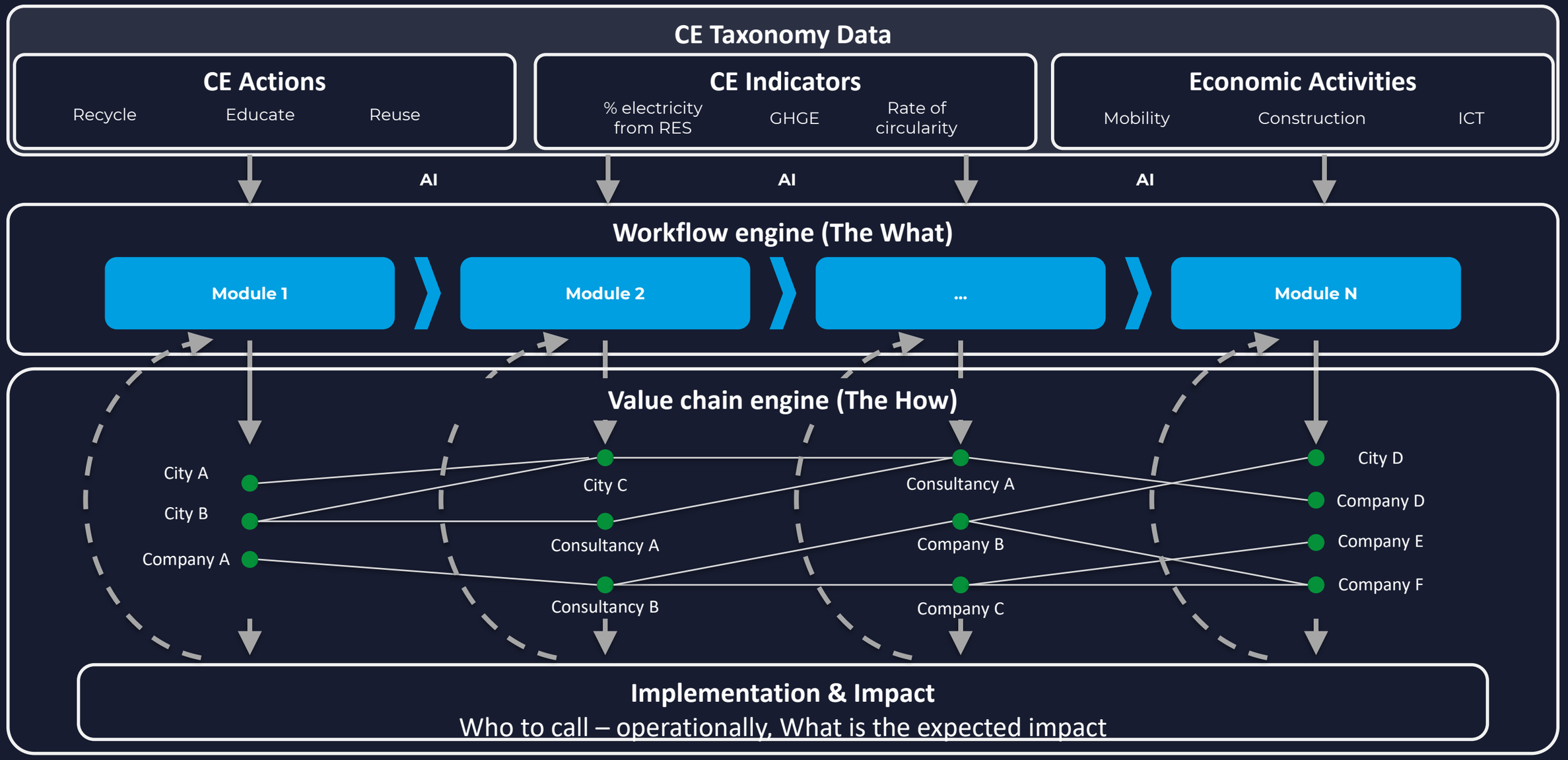
VCG.AI: **Building and Executing Circular Processes**



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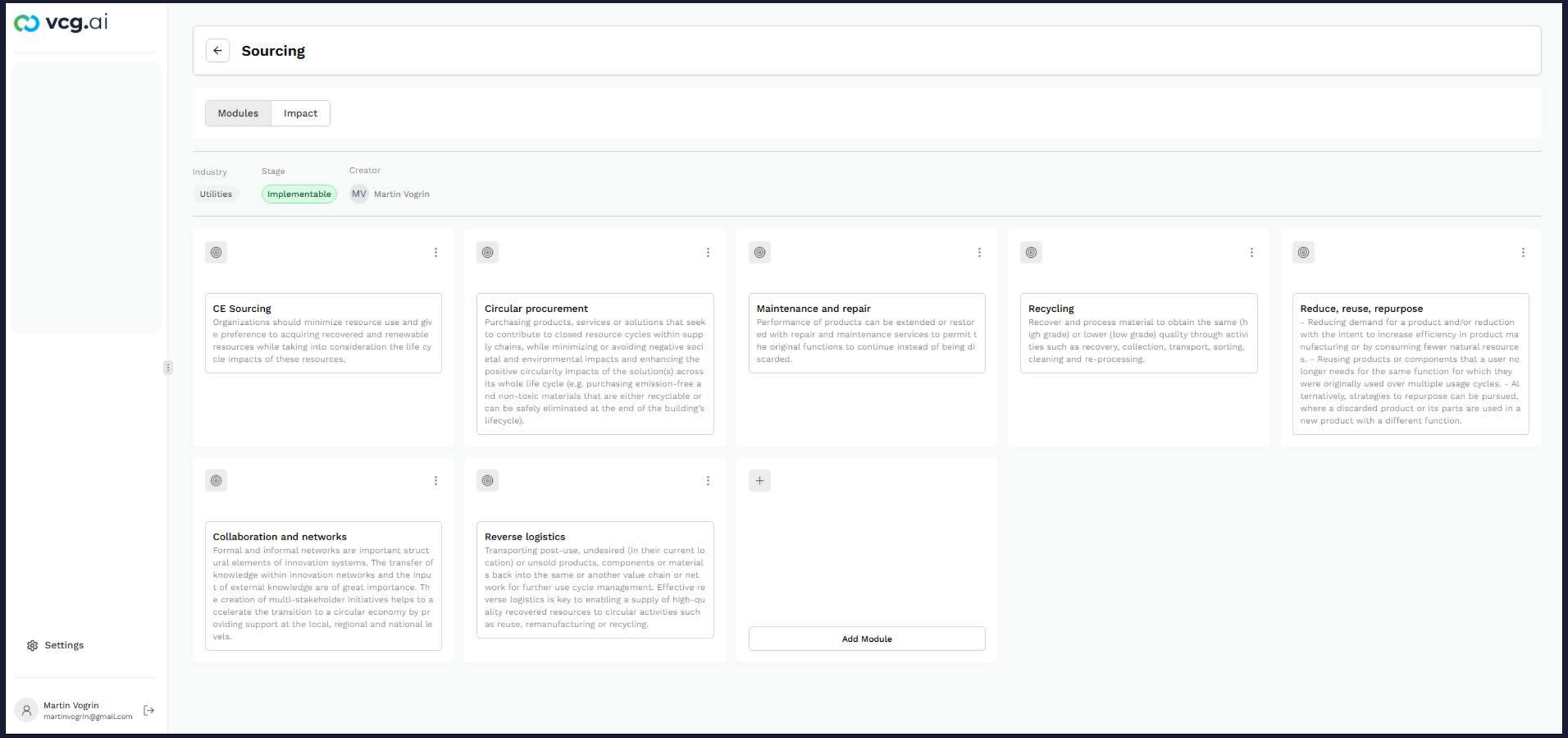
CircularPSP



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AI and big data for circularity at scale!

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CircularAI

For questions, please use Q&A function (no chat) - or just ask directly after the CircularAI presentation

VCG
>>CircularAI

CircularAI

Empowering cities for a sustainable future

From concept to Prototype

Follower’s Event - February 27, 2025

CHALLENGE

For cities, circular economy transitions can be complex, costly and difficult to implement.

CircularAI

VALUE

Harmonizing complexity in circularity.

PROPOSITION

CircularAI sees circular cities as self-sufficient, collaborative and resilient ecosystems

"CircularAI is an AI-driven tailored-to-user platform that simplifies circular economy transitions for cities by facilitating collaboration, democratising knowledge, and providing data driven actionable guidance."

CircularAI

HOW IT WORKS

Centralised, **One-Stop-shop** for all your **CE needs**.

Practical **implementation** of CE actions

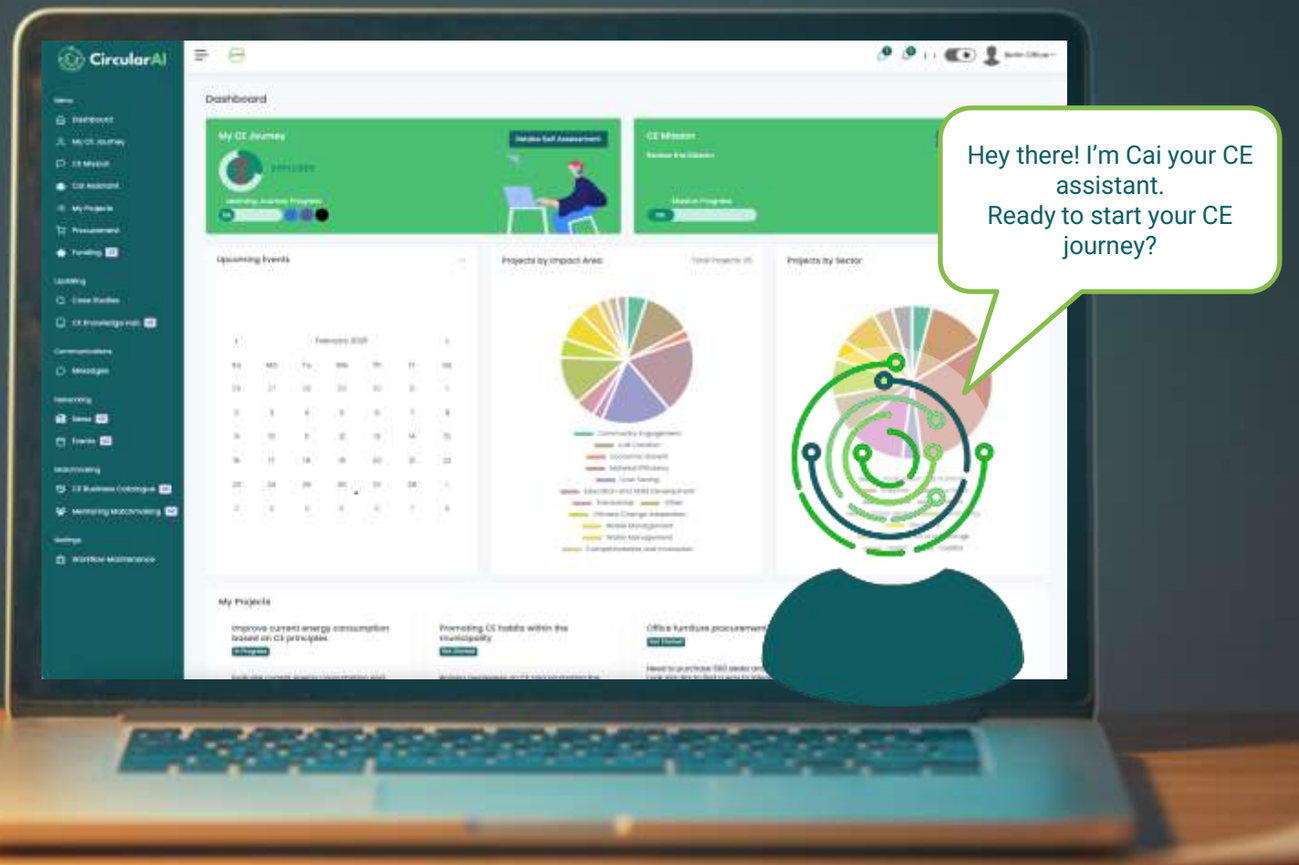
Inclusive **CE community**

Fully **customised** platform interactions

AI-driven and Peer-to-peer Guidance

User empowerment to boost **CE competencies**

Designed for **synergies**, matching needs and solution **co-creation**.



CircularAI

BENEFITS & IMPACT FOR CITIES

Different realities but common needs.

Destination

Guided and aligned mission

Clear & transparent roadmap

Actionable objectives

Optimisation

Centralised verified information

Customised to needs

Data driven & Predictive Insights

Continuous upskilling

Collaboration

Transversal community

Synergy across the value-chain

Accessible CE talent

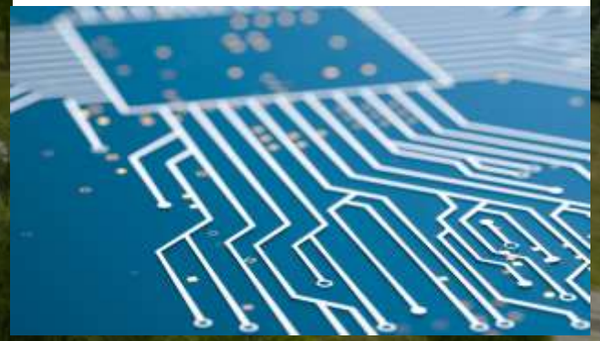
Innovation

AI integration

Long-term focus

SoA CE Solutions

Tailor-to-user interactions



CircularAI

THE TEAM

SWAPPSI - *Sandyford, Ireland.*

GTE - *Ankara, Turkey / London, UK.*

INNCISO - Madrid, Spain.

TUBITAK -
Istanbul, Turkey.

CircularAI

Platform development expertise	CE Innovation expertise	Sustainability expertise	AI research
Front-end development	Organisational Change	Municipality CE Strategy	AI development
Back-end development	Upskilling	Circular procurement	

CircularAI

Empowering cities for a sustainable future

Interested in testing CircularAI?

REACH OUT TO US AND JOIN THE CIRCULARAI COMMUNITY

info@circularai.io

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CircularPSP CE Taxonomy Working Group

Mission statement, process and contributions

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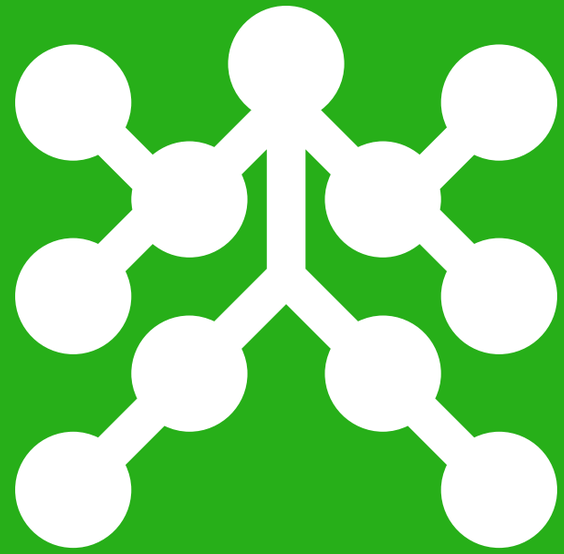
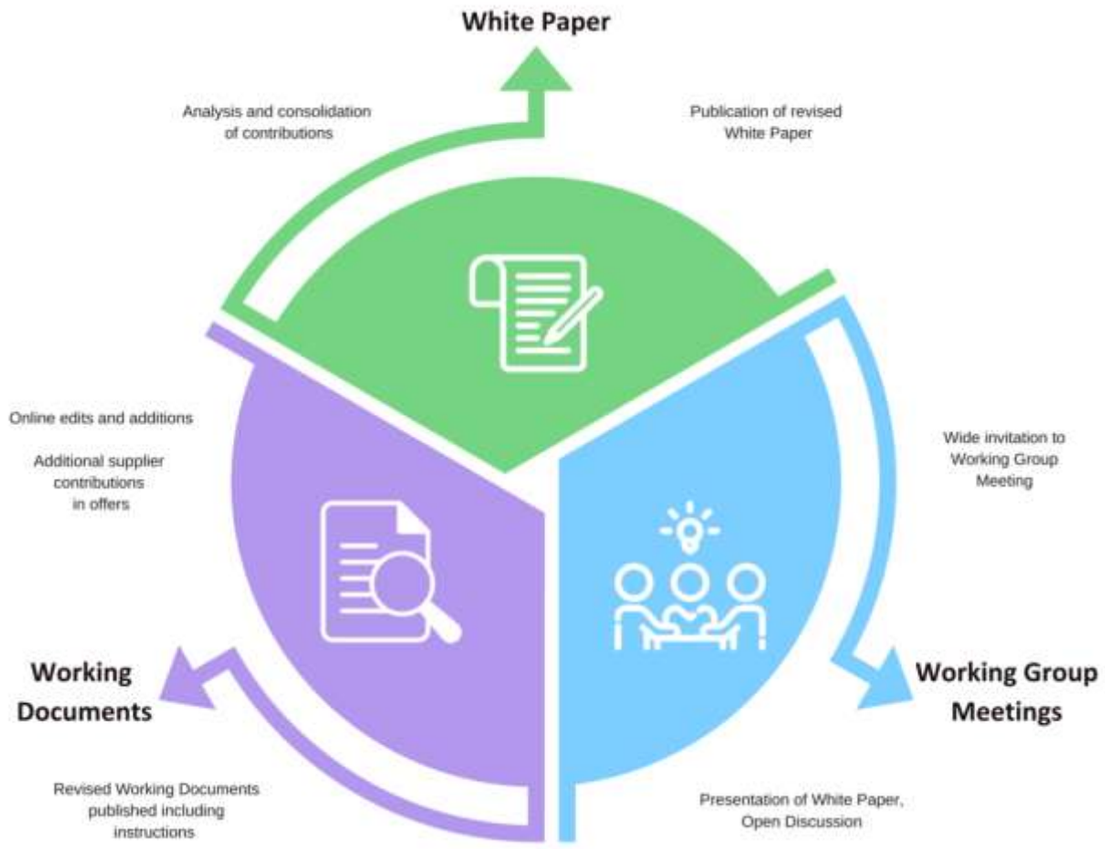


CE Taxonomy as shared effort

It would be impossible to compare solutions if anyone could use any terms + inefficient; hence, intel on what is public is shared

ELEMENTS AND PROCESS



PURPOSE

- **Core terminology** (i.e. Taxonomy) to ensure different artificial intelligences (AIs) do not increase confusion about circular economy but lead to more clarity.
  - identify the gaps in existing standards
  - make sense of it for regular municipal staff
- **Core data sources** for AIs to ensure that training uses as much relevant and already available data as possible
- **Optional: Core set of data standards and protocols** to ensure the intended scalable solutions are fit for purpose to operate in a field with diverse IT ecosystems.

We work in two living documents

emp.onl/ce-taxo

CE Taxonomy Updated

The CE Taxonomy was updated based on Supplier input in offers and additional research; public event in September

CE Taxonomy Terminology – open access link

Prioritisation of external sources

- Reference to standardised terminology (e.g. ISO 59000, ISO 24000, CSRD)
- Mandatory functional term / specific taxonomies (e.g. TED Data CPV, NUTS)
- Additional sources in local context (e.g. German Waste hierarchy)

Harmonised and expanded terminology (where no standard exists)

- User groups: Intermediaries, municipal staff, champions, business users
- CE strategy definitions refined and ranked for R-level, based on UNEP circularity platform and ISO 59004

CE Taxonomy Data Sources (377 sources*) – open access link

Local sources

Data/ standards	Procurement criteria-clauses	Case studies	Business	Upskilling	Demonstration sites
Taxonomies, legislation and core data sources (85)	Procurement indicators (95)	Case studies for inspiration/replication (95)	Collections for funding, business registers, etc. (30)	Materials like open courses, MOOCs, etc. (65)	Mostly local policy documents (46)

* As of 26 February 2025

CircularPSP Roadmap and Solution Testing

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Timeline of solution testing

Phase II
V1
3 Solutions

5 Feb 25
V1 Presentation
Presentation to test-users across all sites

5-25 Feb 25
V1 Testing
A few hours per user and a survey to test the solution and collect feedback

Development
Suppliers use input to improve solutions

Phase II
V2
3 Solutions

Start May 25
V2 Presentation
Presentation to test-users across all sites

May 25
V2 Testing
A few hours per user and a survey to test the solution and collect feedback

June 25
Offer
Suppliers compete for final phase – only two progress

Summer 25
Development
Suppliers use input to improve solutions

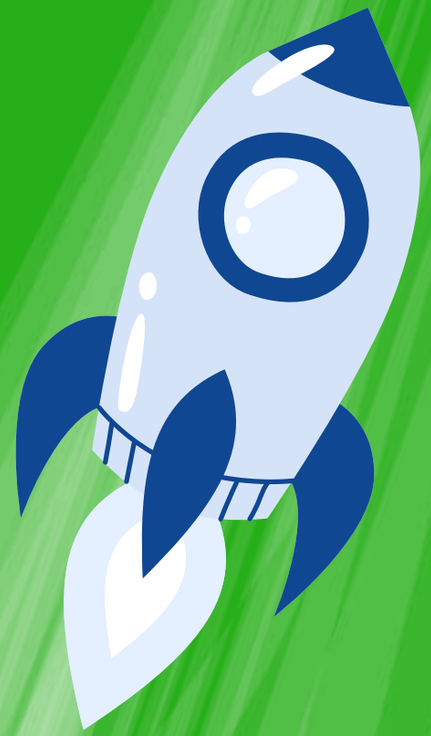
Phase III
2 Solutions

August 25
Onboarding
Key users are introduced to create missions

September 25
User recruitment
More "regular" users are onboarded to the platform to use in daily life

Sep 25 – May 26
Real-life Use
Users use the solutions

June 26
Evaluation
Results are collected to assess which is the best solution for your City



WE CURRENTLY HAVE 88 FOLLOWERS WHO RECEIVE UPDATES AND ACCESS

In autumn, we will start public tests for two competing solutions

BECOME A FOLLOWER!

- **EMAIL US:** follower@circularpsp.eu; OR
- **NO commitment. NO fees. Open to ANY organisation!**

Q&A

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