

#### Cities and the Circular Economy

Simon Clement, ICLEI – Local Governments for Sustainability

ICLEI Members Webinar 11 October 2023



#### THE CIRCULAR ECONOMY



# SYSTEMIC DESIGN FLAW

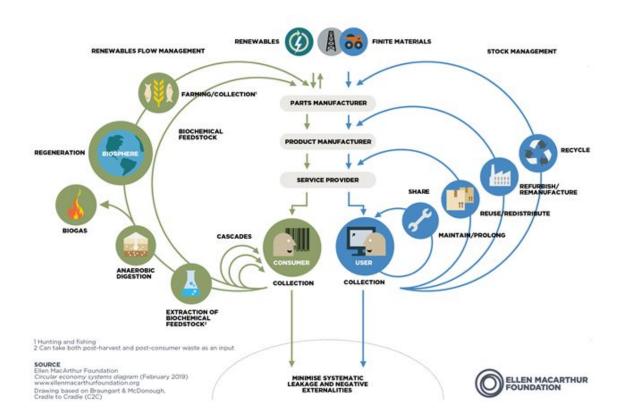
#### **Circularity Gap Report 2023:**

- 70% of global greenhouse emissions are released during the extraction, processing and manufacturing of goods.
- Over 90% of biodiversity loss caused by material extraction and use
- Only 7% of materials globally are reused
- Resource demand has more than tripled since 1970 and could double again by 2050 - demand imbalance already being felt
- > Limiting global warming to 1.5°C above pre-industrial levels can only be achieved through a circular economy.



Source: C2C Platform, http://www.c2cplatform.tw/en/c2c.php?Key=1.

#### THE CIRCULAR ECONOMY



#### **CIRCULAR CITY ACTIONS FRAMEWORK**

**Reduce** – Design infrastructure, processes and products to minimize material, water and energy use and waste generation from production to end of use

**Reuse** – Extend and intensify use of existing resources, products, spaces and infrastructure

**Recover** – Maximize the recovery of resources at the end of the use phase and reintroduce them into production processes

**Regenerate** – Embrace infrastructure, production systems that allow natural ecosystems to thrive

**Rethink** – Redesign the system to enable the transition



<u>Circular City Actions Framework</u> - ICLEI, Circle Economy, Metabolic, Ellen MacArthur Foundation

## CITIES AND THE CIRCULAR TRANSITION



## HOW DO CITIES BENEFIT?

**Minimise environmental footprint** – Reducing global GHG emissions and other air pollutants, minimising biodiversity loss, reducing waste generation and resource extraction

**Job creation and development** – Providing new local business opportunities and employment in the repair, reuse, repurposing, recycling and circular design

**Resilience** – Reduce dependence on global supply chains, and boost resilience to price and supply shocks

**Social justice** – Promoting a sharing, collaborative and inclusive regional economy

**Regulatory compliance** – Ensure compliance with current and future legislation

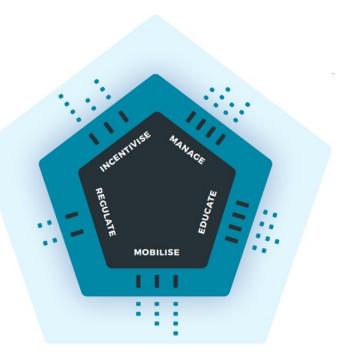
# WHAT CAN CITIES DO?

**Mobilise** – Establish roadmaps and targets, convene stakeholders

**Educate** – raise awareness, promote research, data collection and knowledge sharing

Manage – Optimise city planning and infrastructure, circular asset management, circular procurement

**Incentivise** – Provide funding, optimise taxes, charges and subsidies, incubators



Circle Economy – <u>Urban Policy Instruments Framework</u>

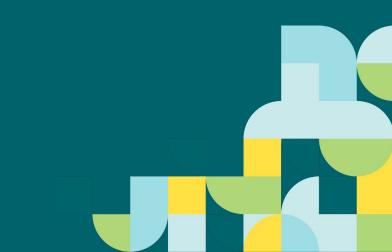
Regulate – Bylaws, bans

# **CITY CHALLENGES**

- 1. **Overcoming capacity and resource limitations** finance, land, infrastructure, staff/skills
- Securing political support and breaking down silos the need for integrated governance, cross-departmental collaboration, stakeholder engagement
- Measuring circularity prioritising actions, measuring impact, demonstrating the link to other policy goals
- 4. Shifting the paradigm: Thinking circular in a linear system taxation, regulations, certification, and "business as usual" thinking

Source: <u>Circular Cities Declaration Report 2022</u>

#### **ONGOING INITIATIVES**



#### **CIRCULAR CITIES DECLARATION**



The European Circular City Declaration (CCD) is a commitment document which local and regional governments across Europe can sign to help accelerate the transition from a linear to a circular economy in Europe.

Developed and managed by a broad group of **Support Partners** 

Download the Declaration

Download the CCD Report 2022

www.circularcitiesdeclaration.eu



## Signatories (78)



ALBANIA <u>Tirana</u>
BELGIUM Bruges Ghent Leuven Liège Mechelen Roeselare Temse
BULGARIA Burgas CZECHIA

Prague

Capital Region Denmark Copenhagen Høje-Taastrup Roskilde FINLAND Espoo Helsinki Lappeenranta Mikkeli Oulu Tampere Turku

DENMARK

<u>Est Ensemble Grand Paris</u> <u>Greater Paris Metropolis</u> <u>Grenoble</u> <u>Lille Métropole</u>

GERMANY
<u>Aachen</u>
<u>Berlin</u>
<u>Frankfurt am Main</u>
<u>Freiburg im Breisgau</u>
<u>Haar</u>
GREECE
Trikala
HUNGARY
<u>Budapest</u>
IRELAND
<u>Dún-Laoghaire-Rathdown</u>
Fingal County
ITALY
<u>Florence</u>
<u>Genoa</u>
<u>La Spezia</u>
<u>Prato</u>

LUXEMBOURG Esch-sur-Alzette Sanem Wiltz **NETHERLANDS** Arnhem-Nijmegen GMR **Haarlem** Rotterdam **NORWAY** Bergen Oslo PORTUGAL Águeda Albergaria-a-Velha Braga Évora Guimarães Loures Mangualde

**PORTUGAL** (cont.) Mat<u>osinhos</u> Mealhada Melgaco Porto **Torres Vedras** Valongo **SLOVFNIA** Liubliana Maribor **SPAIN** Alcoi Manresa Murcia Picanva **Rivas-Vaciamadrid** Seville Valladolid Vallès Occidental Vistabella del Maestrat

#### SWEDEN Eskilstuna Gothenburg Malmö Umeå

SWITZERLAND Zurich

TURKEY Izmit

UNITED KINGDOM Glasgow Wolverhampton

# CITYLOOPS

Demonstration of circular city solutions in small and medium sized cities:

- Construction & demolition waste (CDW), including soil in Apeldoorn (NL), Bodø (NO), Høje-Taastrup (DK), Mikkeli (FI), Roskilde (DK), Seville (ES)
- Bio-waste in Apeldoorn (NL), Mikkeli (FI), Porto (PT), Seville (ES)

Guidance for local governments on:

- Promoting a circular construction sector
- Promoting a circular bio-waste sector



www.cityloops.eu



Funded by the Horizon Europe programme of the European Union

# CIRCULARINVEST

Provides **project development assistance** (PDA) to promoters of local and regional circular projects to develop robust investment propositions

#### Support offered:

- 1. Circularity assessment and optimisation
- 2. Business plan development
- 3. Fundraising assistance

Next call for proposals to be launched on **13 October 2023** (this Friday)

# circular invest

#### www.circularinvest.eu



Funded by the Horizon Europe programme of the European Union

## FURTHER ICLEI CE PROJECTS

- **Definite-CCRI** Project development assistance (PDA) for circular projects
- <u>Circular Biocarbon</u> biorefinery innovation project
- <u>BUS GoCircular</u> boosting circular construction skills
- <u>SYMSITES</u> Demonstration: Valorisation of wastewater and waste
- **<u>BIOMODEL4REGIONS</u>** Innovative bioeconomy governance models
- <u>P2GreeN</u> Regional nitrogen and phosphorous reuse from human sanitary waste
- <u>Hubs4Circularity</u> European community of practice promoting I-US
- **<u>REDOL</u>** redesigning 5 value chains in Zaragoza (packaging, plastics, CDW, textiles, WEEE)
- <u>CHORIZO</u> Research on approaches for reducing food waste

Find out more: <u>https://iclei-europe.org/topics/circular-economy/</u>

# CITY CIRCULARITY IN PRACTICE

- <u>Circular Cities Declaration Report 2022</u> implementation reports from 40 CCD signatories
- A Catalogue of Circular City Actions and Solutions, EIB Circular City Centre
   examples from cities across Europe in eight key economic sectors
- <u>Circular Cities and Regions Initiative (CCRI) resource centre</u>
- European Circular Economy Stakeholder Platform
- <u>Ellen MacArthur Foundation Circular Economy in Cities Programme</u>
- <u>Circular Cities Knowledge Hub</u> a series of resources from across the globe
- OECD Circular Economy in Cities
- Metabolism of Cities case studies librbary



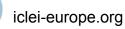
#### **ICLEI EUROPE**

The ICLEI European Secretariat is based in Freiburg (Germany) with offices in Brussels (Belgium) and Berlin (Germany).

Name Simon Clement **Position** Head of Circular Economy Email simon.clement@iclei.org









**ICLEI** Europe





# WHY WORK WITH CITIES?

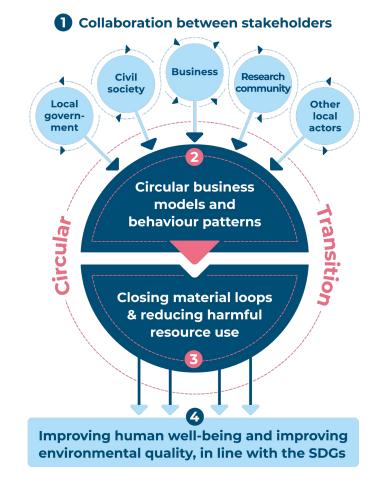
#### Cities....

- House 75% of the EU
  population
- Consume 75% of natural resources
- Produce 50% of global waste
- Produce 60-80% global GHG emissions

- Cities offer scale to allow for demonstration...
- ...yet are small and agile enough for **experimentation**
- Cities are cradles of innovation
- Local governments hold key legislative and management functions

#### THE CIRCULAR CITY

- A city of circular integration: where circular principles are applied across all city functions, and in collaboration with all local stakeholders.
- A city that generates and retains value: where innovative design and production methods, service-based business models and consumption behaviour prioritise maintaining the value and utility of assets.
- A city of closed loops: where products and materials are kept in use, and waste and harmful resource use is minimised.
- A liveable city: of low-emissions, regenerated natural systems and improved human health and wellbeing.



## **CITY EXAMPLES**

MARIBOR – Setting the direction Strategy for the transition to the circular economy established in 2018 – updated 2021 CONOMY IN THE MUNICIPALITY OF MARIBOR

Strategy for the Transition to Circular Economy in the Municipality of Maribor. Image: Wcycle Institute Maribor

**BUDAPEST – Community composting** Community composting points set up in 5 city districts, within the HungAIRy project



Source: <u>Circular Cities</u> <u>Declaration Report 2022</u> **HAARLEM – Circular procurement** Targets: 50% circular procurement by 2025, 100% by 2030v



## **CITY EXAMPLES**

**COPENHAGEN – Innovation platform** Circular Copenhagen Innovation Platform fosters collaboration between innovative companies and knowledge institutions



**GHENT – Repair cafés** Gent Repareert programme of repair cafes, established in partnership with the local waste company



Source: <u>Circular Cities</u> <u>Declaration Report 2022</u> WILTZ – Circular school campus Maximised use of circular materials, designed for flexibility, reuse of rainwater and renewable energy

