

# **CIRCuIT PROJECT**

## **CIRcular Cities Transition Needs**

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***Winter school - KIC RM***  
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# Background

By 2050 2/3 of the world population will be living in cities



80% of global greenhouse gases are emitted by cities



75% of natural resources are consumed in cities



50% of global waste is produced in cities



In cities are concentrated Innovation, Education, Finance, Culture ...



**Cities play a leading role in politics and economy and so they can design the way to develop circular economy.**

The circular economy can help cities to become more liveable and resilient, and to meet the sustainable development goals and climate targets.

# Key Questions

**How can circular economy principles be applied in our cities?**

**What are the needs and the gaps for a transition towards circular cities?**

**How to overcome the identified needs and gaps?**





# CIRCuiT Overview

## Call for KAVA 6 “Knowledge Creation and Dissemination”

### *Topic #1. Transition to Circular Cities*

The primary goal of this call is to generate and collate useful data and informations to boost innovation in the “Circular Societies Lighthouse” identified by EIT RawMaterials.

The main deliverable is a report that will identify main conditions, including barriers, to support innovation and to identify current gaps in EIT RM’s strategy, to further define specific topics in future calls.

### Consortium

**ENEA – Southern CLC- Project Coordinator**

**VITO – Western CLC**

**Tecnalia – Southern CLC**

Duration: 2019-07-01→2019-12-31

# CIRCuIT- Objectives

❖ Identification of GAPS and NEEDS of cities

Considered Factors:

- Technological
- Social
- Regulatory
- Educational
- Fiscal
- Institutional
- Governance
- City metabolism

❖ Establishing a set of priority issues to be tested and implemented at city level

# CIRCuiT – Methodology

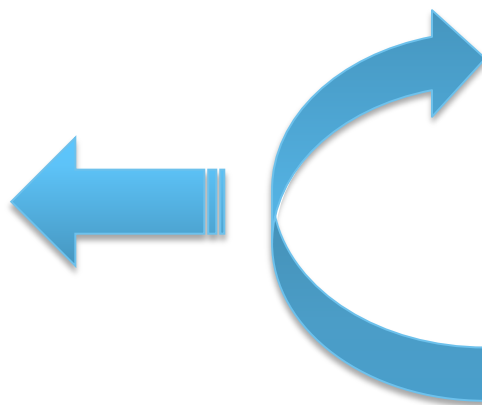
**Collection and Analysis**



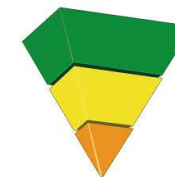
**First data set**



**Consultation**



**Ranking and final report**



...transition to  
circular cities

# CIRCulT – Methodology

## Collection and Analysis

- of the existing data, documents and project results, pointing out the relevant themes for transition towards circular cities.

## Consultation

- with stakeholders collaborating in other projects/initiatives with the project consortium.
- one dedicated workshop: Bruxelles, 10 10 2019 – Side event in the European week of regions and cities

## Ranking and final report

- the collected factors that enable (or hamper) the transition to circular cities.
- Elaboration of the Final Report for EIT RM

# CIRCuIT – Results

## MAIN EMERGED PRIORITIES

- New business models, in particular CBMs
- Community involvement
- Education and capacity building of public and private stakeholders
- Framework of indicators to measure cities' performance against CE and their transitions towards CE
- Digital technologies and blockchain
- Better Regulation



It is necessary a **systemic approach of the city governance**

Local strategy emerged as transversal priority

However:

Better regulation – selected as main barriers

Indicators – no possibility for EIT RM to develop new ones



# CIRCuiT – Results

## RANKING

### 1. METHODOLOGY

Ranking was elaborated considering the recommendation rate and do-ability of emerged priorities, considering the feedbacks received from stakeholders as well as existing documents (needed for assuring the coherence with priorities set up at European level) and the EIT RM portfolio, as follows:

#### RECOMMENDATION RATE:

- 1- Up to 15 recommendation
- 2- From 16 to 25 recommendation
- 3- Over 25 recommendation

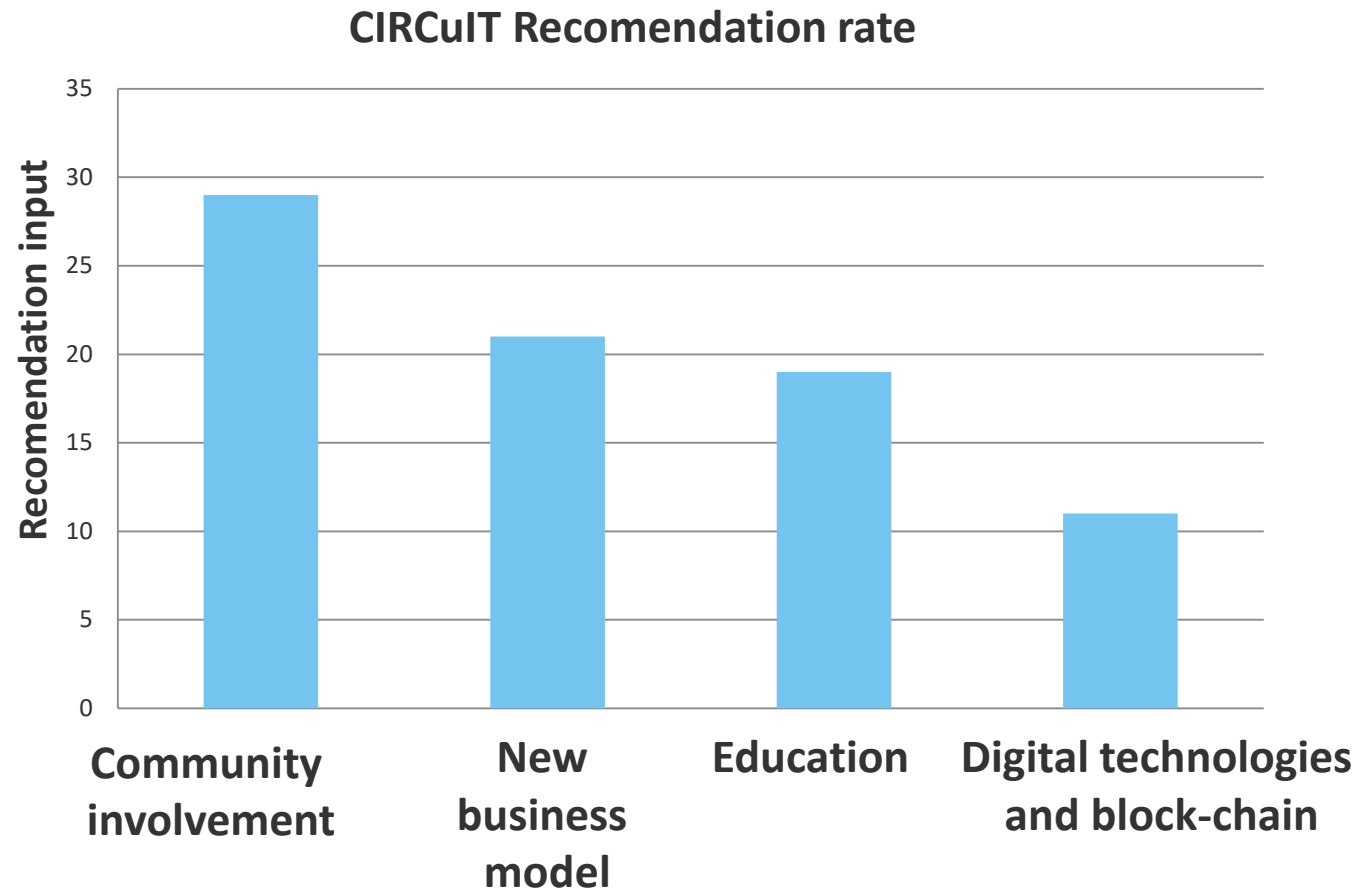
#### DO-ABILITY RATE:

- 1- Up to 5 EIT RM projects/activities
- 2- From 6 to 10 EIT RM projects/activities
- 3- Over 10 EIT RM projects/activities

# CIRCuiT – Results

## RANKING

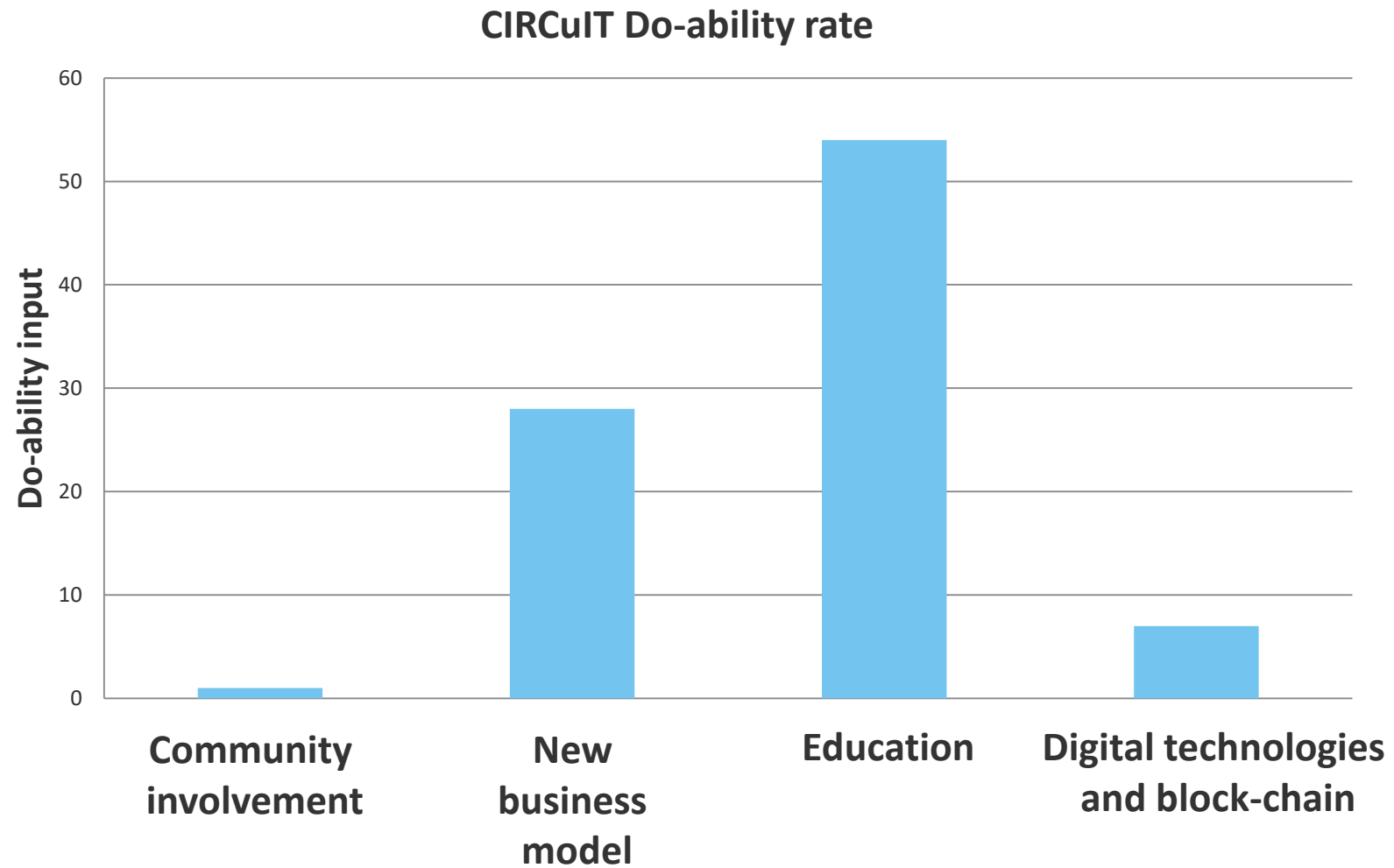
### 2. RESULTS



# CIRCuiT – Results

## RANKING

### 2. RESULTS



# CIRCuiT – Results

RANKING

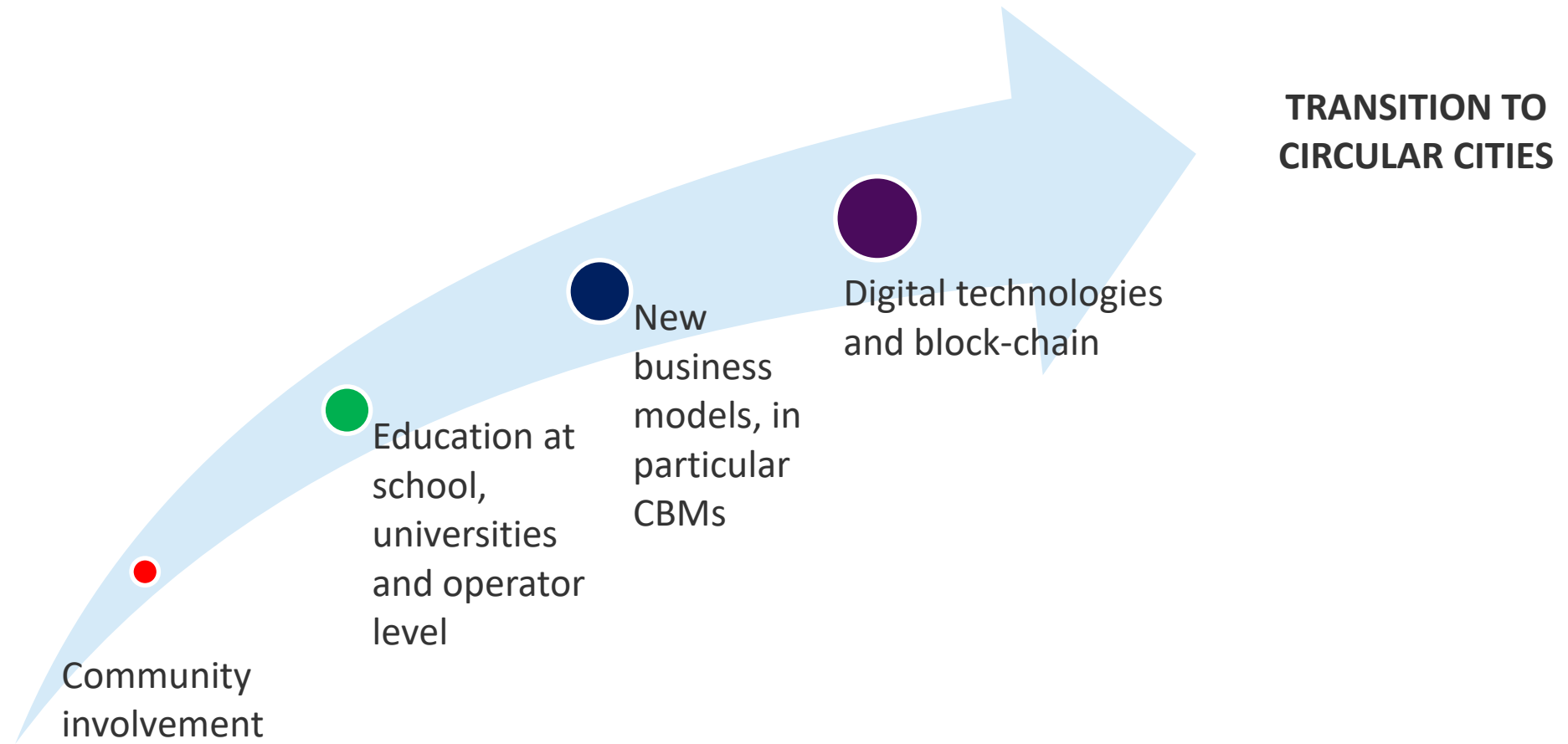
2. RESULTS

FINAL FIGURE

Recomendation	3	Community involvement		
	2			New BM, Education
	1		Digitalization technologies and block-chain	
		1	2	3
	Do-ability			

# CIRCuiT – Results

## TIMINGS



## DETAILED CONSIDERATIONS

**Technology development is not a priority** at the moment for the transition to circular cities except for the digital technologies which need more developments and investments.

In general, **digital technologies** are key enablers for circular economy.

**There is a need for education** at lifelong learning level (administrators in cities) and higher education level (students). These needs have been covered by EIT RM in a strong way. However education at primary and secondary school is also recommended. Furthermore, education material has been developed, but now needs further dissemination and continuous improvement.

**EIT RM is now less prepared to implement local strategy.** This issue appears as the main necessity for the transition to CE in urban areas.

Circular economy, both in cities and in general, will be based on the initiative taken by entrepreneurs to start new activities, using **new business models** and entering in the field of re-use, repair, remanufacturing.

**Better regulation** is indicated as main barrier for transition to circular cities. Local strategy should include local advice and education in this direction.

**Framework indicators** appears as a priority (actually for circular economy in general), and EIT RM has no possibility to develop this aspect. However, it is suggested to include indicators application/monitoring as local strategy as well.



## SWOT ANALYSIS

### Strenghts

Competences at EIT RM and partner level already developed  
Local presence also at city level

### Weakness

Strong possible competition also at European level<sup>1</sup>  
Communication  
Lack of existing infrastructures  
Knowledge triangle not including civil society

### Opportunities

Need to investment in infrastructures  
Need to reinforce partners trust

### Threats

"Resistance" of local authorities  
Regulation (es. EoW criteria)

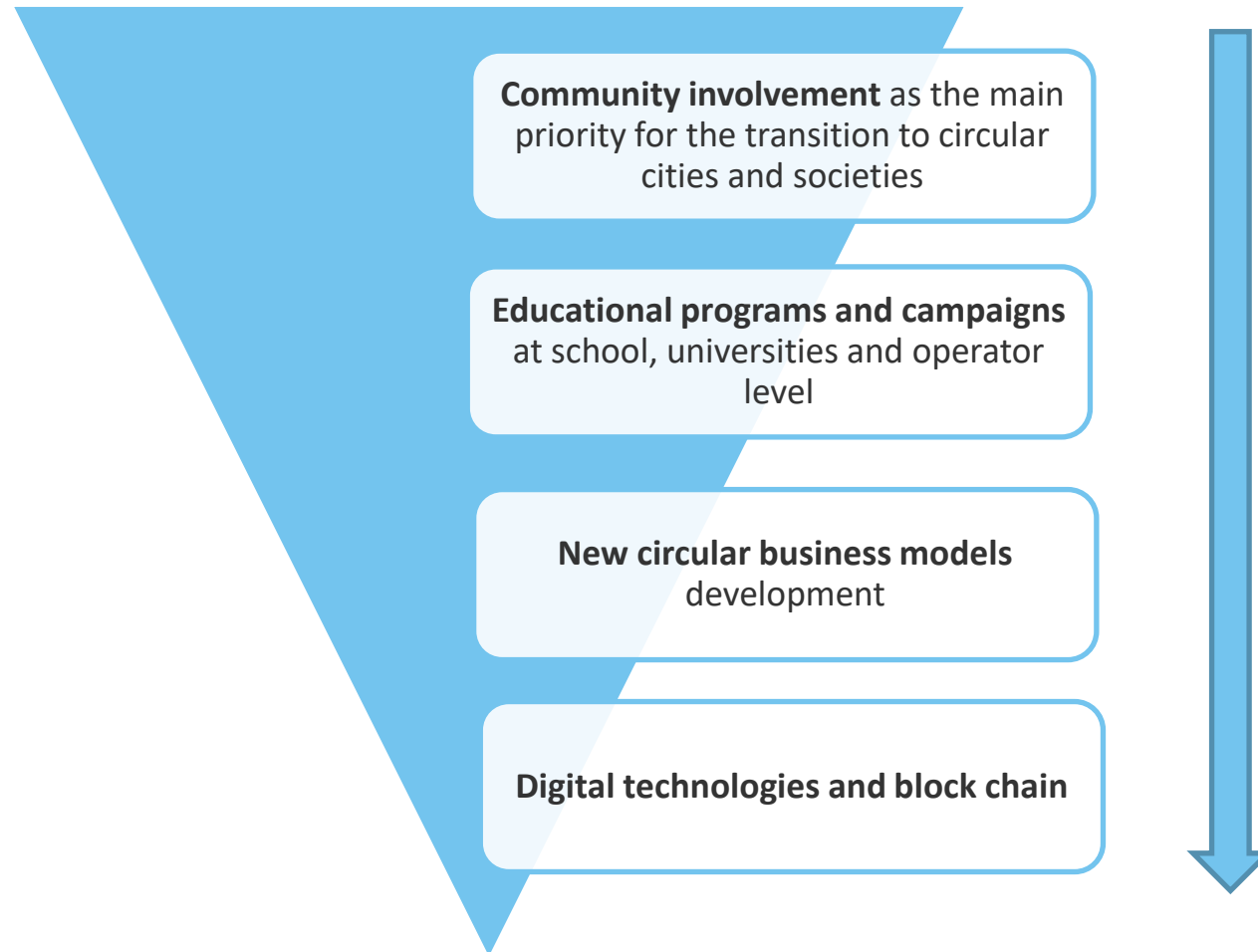
<sup>1</sup> JPI Urban Europe <https://jpi-urbaneurope.eu/>  
Transition town network <https://transitionnetwork.org/>  
Circular cities hub <http://circularcitieshub.com/>  
Active networks of cities for circularity (ACR+, ICLEI)

# CIRCuiT – Results

## RANKING

### 2. RESULTS

#### FINAL FIGURE



## CIRCuIT – Conclusions

- **Community involvement** is the first priority action to be developed for the transition to circular cities and circular societies, followed by educational programs and campaigns at school, universities and operator level, then the development of new circular business models and, at last, digital technologies and block chain development.
- Since at the moment EIT RM does not include civil society in its knowledge triangle, the most EIT RM future efforts are strongly recommended to be funneled towards this direction. This consideration is also perfectly aligned with the political guidelines and the European Agenda and the European Green Deal.

## CIRCuIT – Conclusions

**Educational programs** have been covered by EIT RM in a strong way. However education at primary and secondary school is also recommended. Furthermore, education material has been developed, but now needs further dissemination and continuous improvement.

**New business models** in the field of re-use, repair, remanufacturing should be developed because cities need waste prevention above all. This field could be well developed by EIT RM.

A specific strategy for **Digital technologies development** can be considered by EIT RM, also complementary with EIT Climate KIC.

**Thank you for your kind attention!**

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