

Interreg



CENTRAL EUROPE

European Union
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CITYCIRCLE

TAKING
COOPERATION
FORWARD



28 February 2020



The Role of Cities in Circular Economy

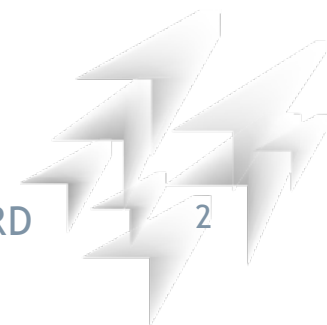


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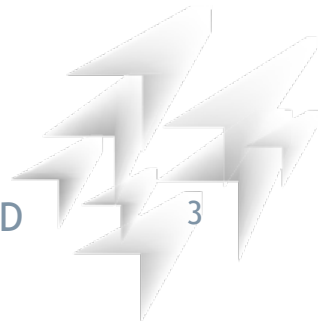
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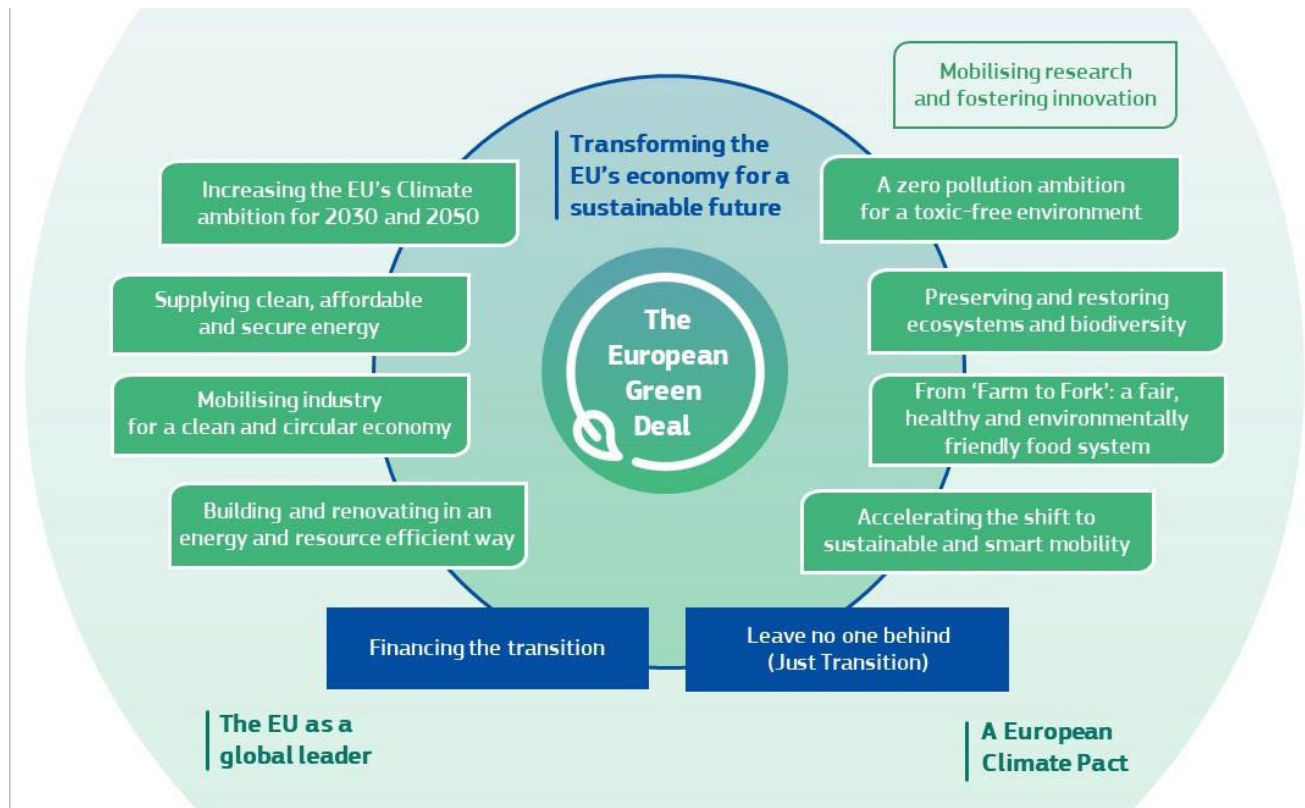
EU POLICY FRAMEWORK ON CIRCULAR ECONOMY: RECENT LEGISLATION



- EU GREEN DEAL
- Revised Waste Framework Directive (2018)
- Upcoming Circular Economy Action Plan (2020)-
plastics, food waste, critical raw materials,
construction and demolition, as well as biomass and
bio-based products
- European Strategy for Plastics in a Circular Economy
(2018)



THE EU GREEN DEAL



WASTE LEGISLATION: SHIFT TO WASTE AS A RESOURCE

- Revised Waste Framework Directive (2018)
 - Stimulate waste prevention;
 - Reduce use of resources and improve resource efficiency in this way supporting the transition to a circular economy.
 - Waste prevention measures can include: , smart design, SCP measures, encouragement of reuse, repairability, etc.

- Targets for preparing for reuse and recycling have been increased
 - by 2025- to a minimum of 55 % by weight;
 - by 2030 - minimum of 60 % by weight;
 - by 2035 - minimum of 65 % by weight.

- Cities can take steps with regards to:
 - Improving waste collection
 - Extended producer responsibility or transformation of waste into secondary raw materials
 - Separate collection of different types of waste.



NEW CIRCULAR ECONOMY ACTION PLAN

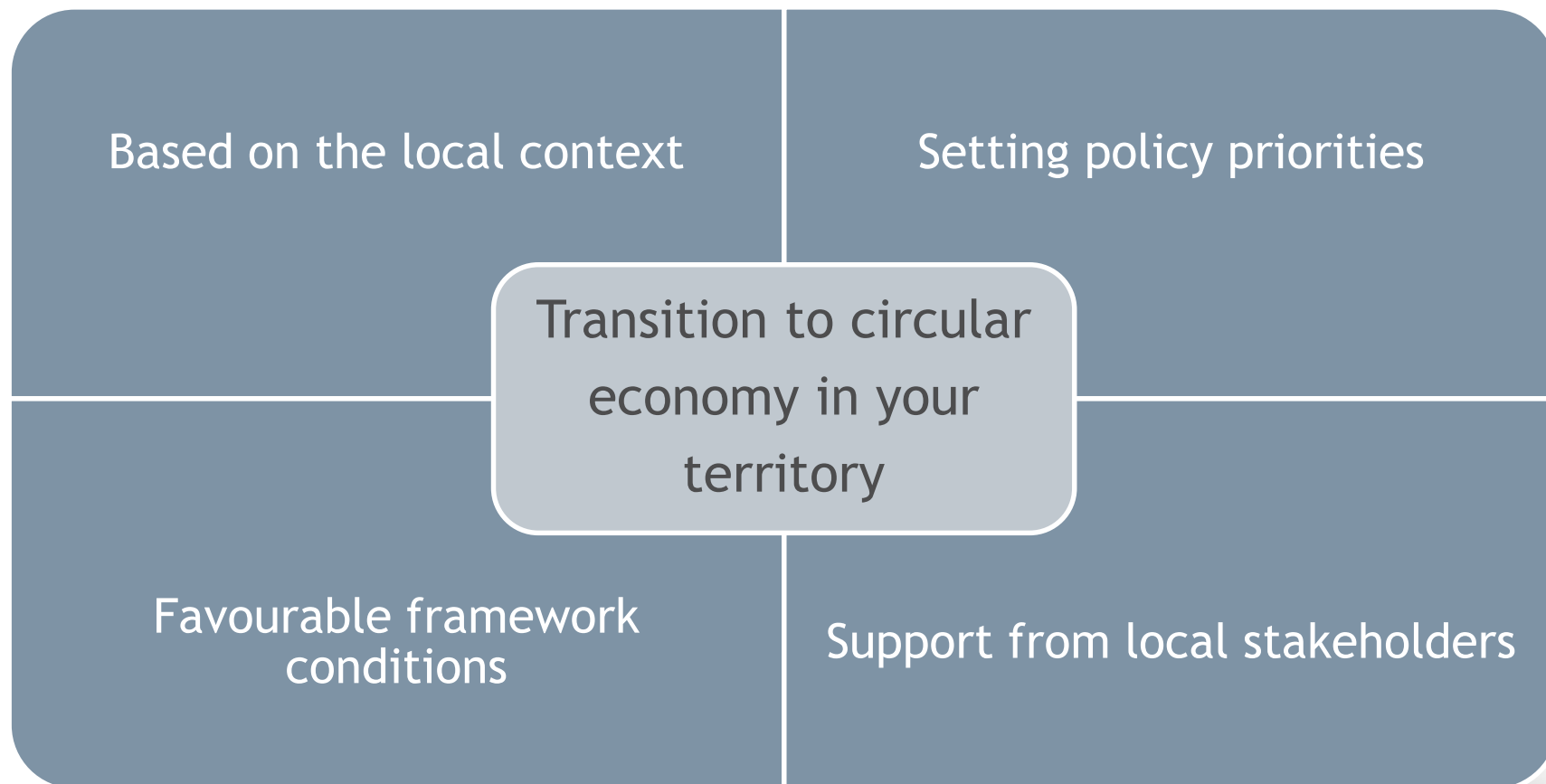
- Upcoming CEAP will build on the current one.
- Focus on Secondary Raw Materials and actions on products
- Will include a ‘sustainable products’ policy to support the circular design of all products
- Development of lead markets for climate neutral and circular products, in the EU and beyond.
- Main focus on resource-intensive sectors such as textiles, construction, electronics and plastics.



STARTING THE TRANSITION TO CIRCULAR ECONOMY

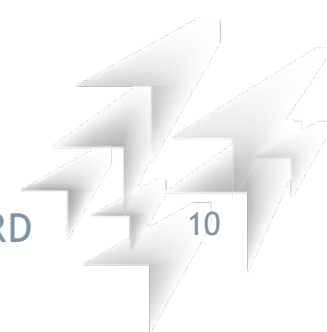


BUILDING BLOCS OF CIRCULAR ECONOMY



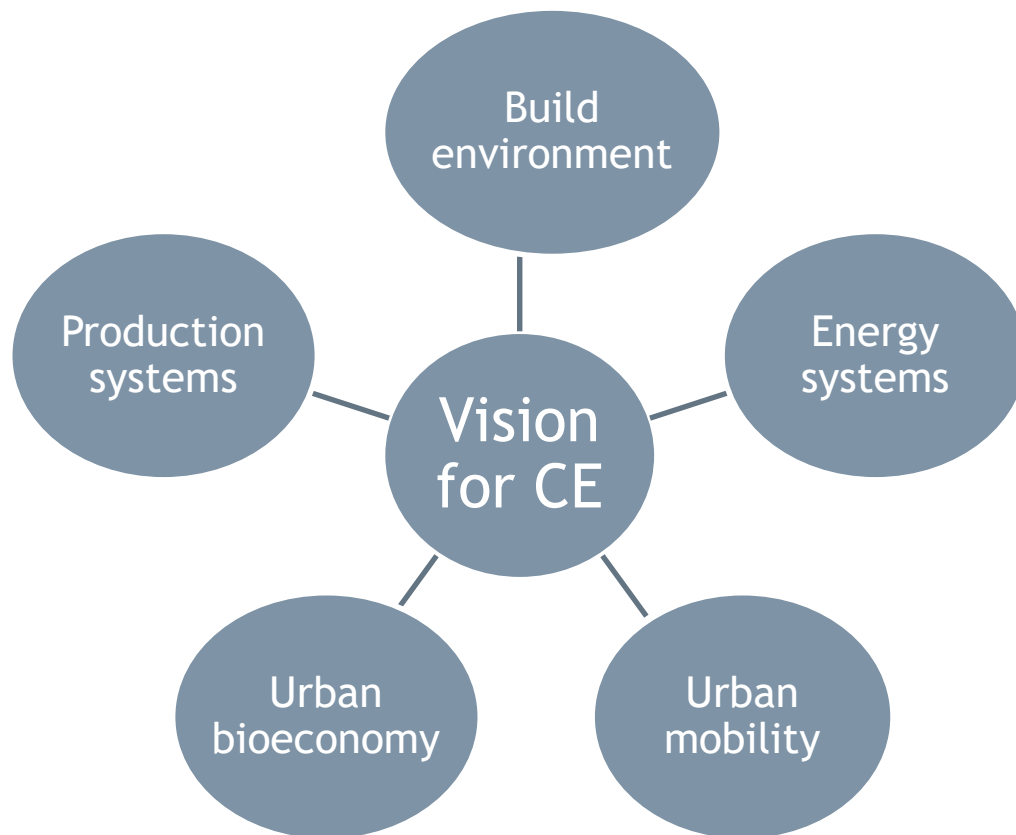
Assessment elements:

- Physical (land-base) endowment of the city
- City performance in terms of resource productivity and efficiency
- Business capabilities (e.g. EMAS certified companies, nr of companies with eco-innovations, etc.)
- Capabilities of knowledge organisations
- Industrial potential of different sectors for CE
- Accessibility
- ExplorTerritorial milieus
- Technological lock-ins
- Etc.



DEFINING VISION AND PRIORITIES

Example of a possible combination of sectors for the transition to circular economy

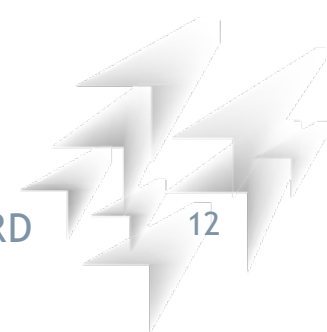


Source: Ellen MacArthur, *Cities in the Circular Economy: an Initial Exploration*



GOOD PRACTICE: AMSTERDAM ON THE WAY TO CIRCULAR ECONOMY (1)

- A leader in the application of circular economy concepts to city governance
- Seven principles in its transition towards a CE
 - Closed loop
 - Reduced emissions
 - Value generation
 - Modular design
 - Innovative business models
 - Region-oriented reverse logistics
 - Natural systems upgradation



GOOD PRACTICE: AMSTERDAM ON THE WAY TO CIRCULAR ECONOMY (2)

Amsterdam Smart City initiative: a partnership between different stakeholders; focus on creating a sustainable urban model

- A facilitator and an open platform which is able to connect citizens, businesses, government and knowledge institutes.
- A living lab to test solutions
- One of the themes of the initiative is circular city
- Aims to redesign twenty product- or material chains.
- The implementation of material reuse strategies: to create a value of €85 million per year within the construction sector and €150 million per year with more efficient organic residual streams.



GOOD PRACTICES FROM EUROPEAN CITIES

LINKED TO TWO PRIORITY AREAS OF THE SLOVENIAN ROADMAP TO CIRCULAR ECONOMY:

- Manufacturing industry
- Food systems

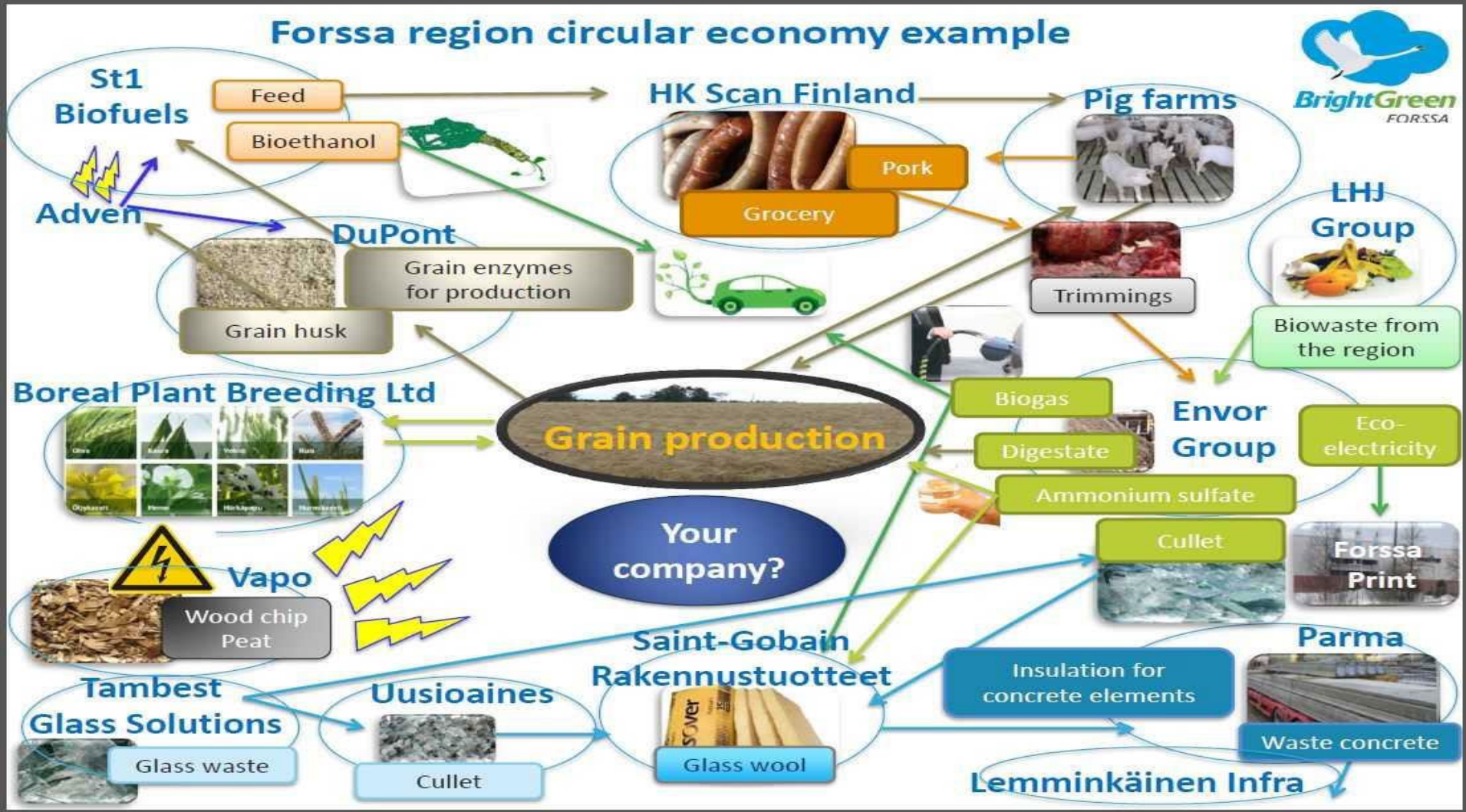


- **An approach that engages several organisations across different fields in a process of developing mutually beneficial transactions to reuse waste and by-products**
- Can be implemented in any type of regions or area, depending of the types of resources transacted
- Depends on governance and policy factors
- Originates in two ways:
 - 📁 As self-organised activity (e.g. Kalundborg, DK)
 - 📁 As managed process; 2 types:
 - Facilitated networks
 - Planned networks



GOOD EXAMPLE: INDUSTRIAL SYMBIOSIS IN FORSSA (FINLAND)

Forssa region circular economy example



WHAT CAN CITIES DO TO STIMULATE INDUSTRIAL SYMBIOSIS?

Cities more advanced in IS need to:

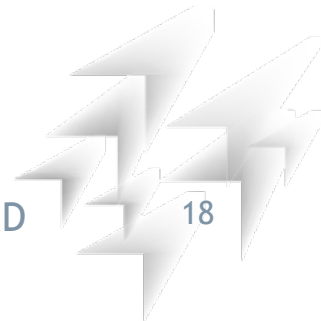
- Raise awareness of companies on the benefits of IS
- Further exchange on information on the experiences with closed database vs. open database

Cities at an early stage of IS need to:

- Organise campaigns
- Map the stakeholders and legislation
- Develop a simple waste exchange platform
- Start small with matchmaking and scale up gradually



- The food system is a major consumer of energy and water and a large emitter of GHG and air pollution.
- When food is lost or wasted, the resources (e.g. water, land, nutrients, labour and energy) used throughout its value chain are also lost
- Cities can set action plans for food waste prevention and reduction as part of their long-term visions and strategies for waste prevention and circular economy development



What can cities do?

1. An overview of the city, demographics, economy, and local food production.
2. Assess urban and peri-urban food production
3. Assess urban food consumption
4. Determine urban organic waste and food by-product streams: Including an overview of food waste, prevention, and redistribution options as well as organic waste flows and the potential to transform them into valuable inputs for agriculture and the wider bioeconomy.
5. Develop circular economy for food scenarios
6. Estimate the benefits of circular economy scenarios



URBAN AGRICULTURE

- Contributes to sustainability of the food chain “from farm to fork” (circular economy objectives)
- Offers possibilities for small-scale entrepreneurship
- Tackles (food) waste, reduction of energy consumption and the demand for more quality foods.

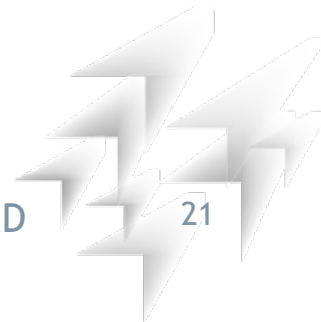
Urban agriculture in the city of Reggio Emilia (Italy)

- The Operational Group ‘Edible Park’ has set up an agroforestry-based farm that supplies fresh products to the citizens The farm spans about 1 ha of farmland, with 80 mulberry trees;
- Led by a social cooperative; inclusion of disadvantaged workers;
- Offers high quality products and explores new supply chain models.

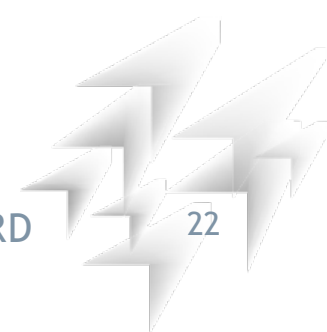


GOOD PRACTICE: LAST MINUTE MARKET INITIATIVE (ITALY)

- Reduce food wastage - spin-off from the University of Bologna, the activities of LMM expanded to other sectors.
- An entrepreneurial society on national level in Italy focused on developing local projects for recovery of unsold goods in favour of NGOs.
- LMM supports the creation of a solidarity network and facilitates the contact between NGOs and businesses.
- Services offered:
 - recovery of surpluses;
 - data analysis, loss and waste analysis,
 - estimating the environmental and social impacts;
 - training for schools, companies and institutions and communication,
 - marketing projects and content production.



- Cities have an important role in launching and accelerating the transition to circular economy
- Circular economy transition needs to be tailored to local context
- Circular economy may appear complex but even the longest journey starts with the first step



■ Sources of further information:

- ESPON, Interact, Interreg Europe and URBACT, Pathways to a circular economy in regions and cities, Policy brief, 2016
- EEA, Circular by design, Products in the circular economy, No 06/2017, 2017
- Policy Learning Platform, Policy brief on food waste
- Policy Learning Platform, Policy brief on industrial symbiosis
- Policy Learning Platform, Policy brief on circular economy business models
- EMF Food initiative
- The Milan Urban Food Policy Pact
- Eurocities WG Food



THANK YOU FOR YOUR ATTENTION!



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