



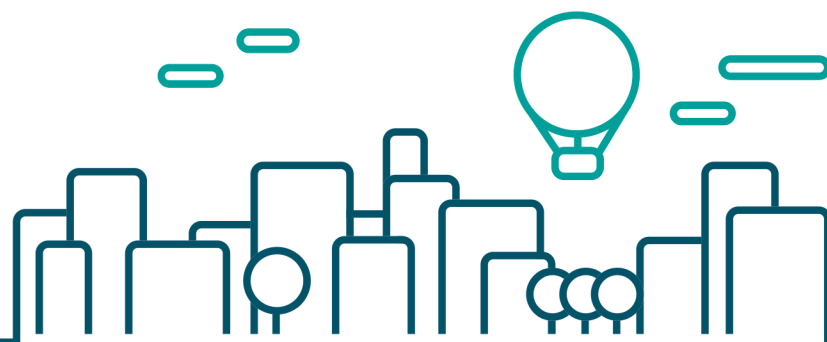
Urban metabolism and urban planning: UrbanWINS approach

Beyond REPAiR: making the transition of the circular economy happen – 13th October 2020

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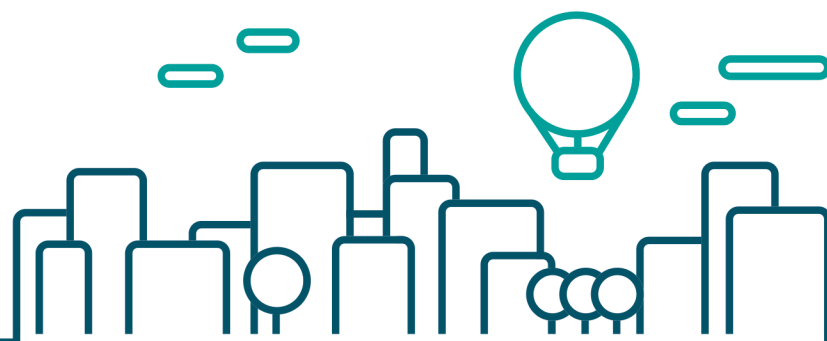


Waste | Resources | Innovation



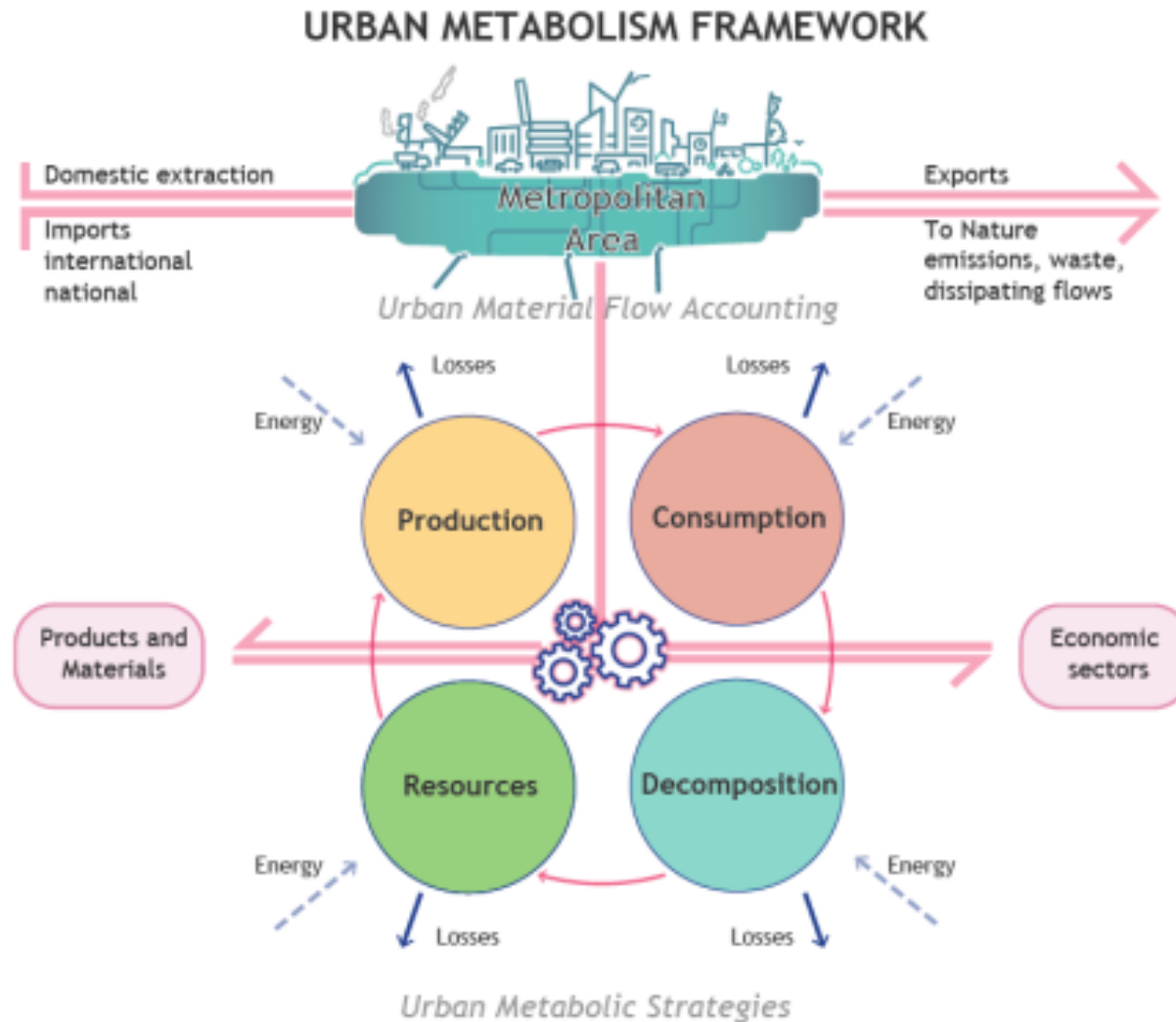
Urban metabolism and urban planning: UrbanWINS approach

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Waste Resources Innovation

Urban Metabolism Framework



Strategic plans for waste prevention and management in 8 pilot cities



triple step approach:

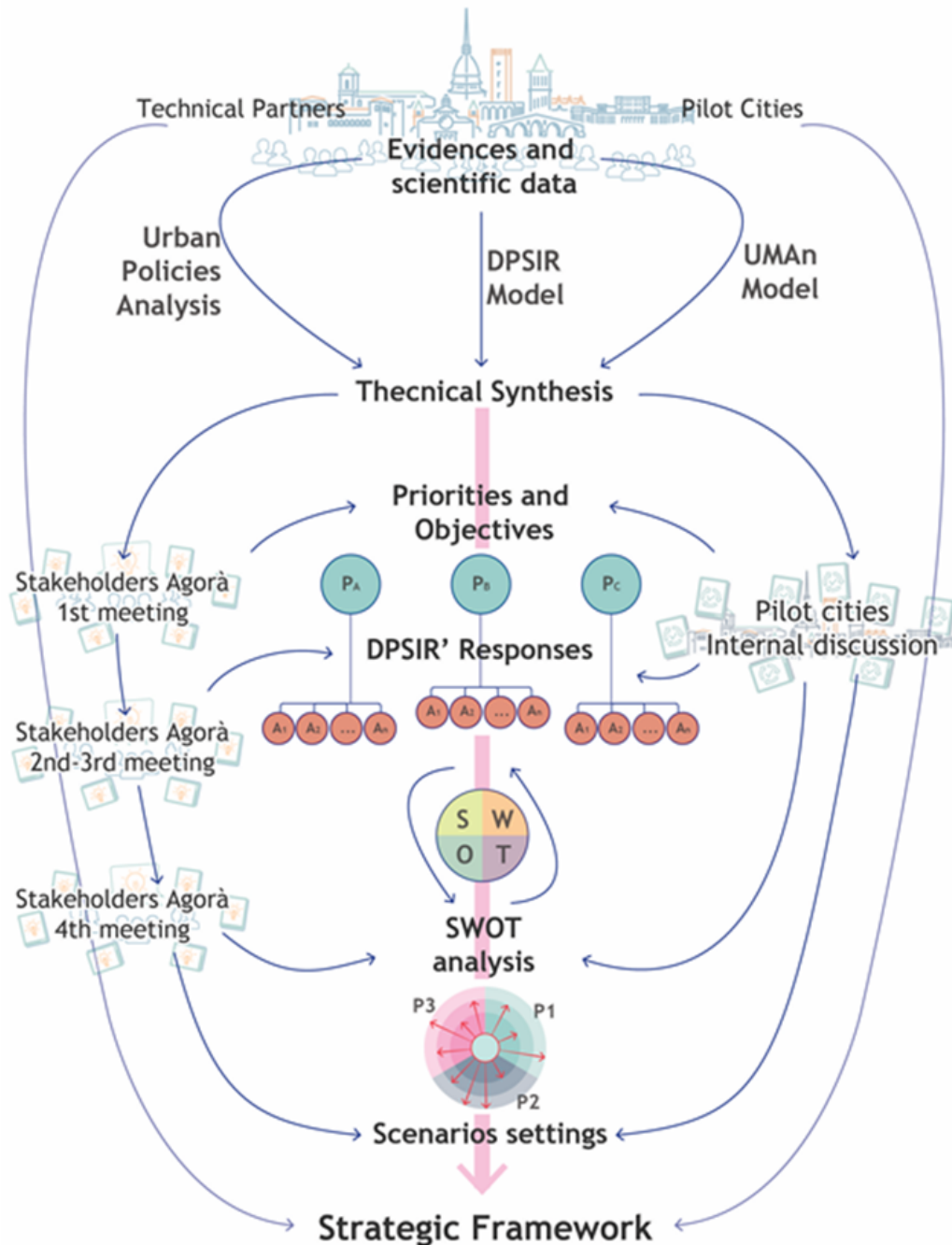
- 1. Strategic Planning Framework (SPF):** it is a flexible instrument for a long-term orientation of priorities and objectives of the city;
- 2. Local Strategic Action Plan (LSAP):** it details how city priorities are converted into concrete actions and describes how actions will be implemented;
- 3. City Roadmap:** it is a tool that provides strategic elements and indications for future city development, it is based on the analytic data.

Strategic Planning Framework (SPF)



Main features of the Strategic Planning Framework (SPF)

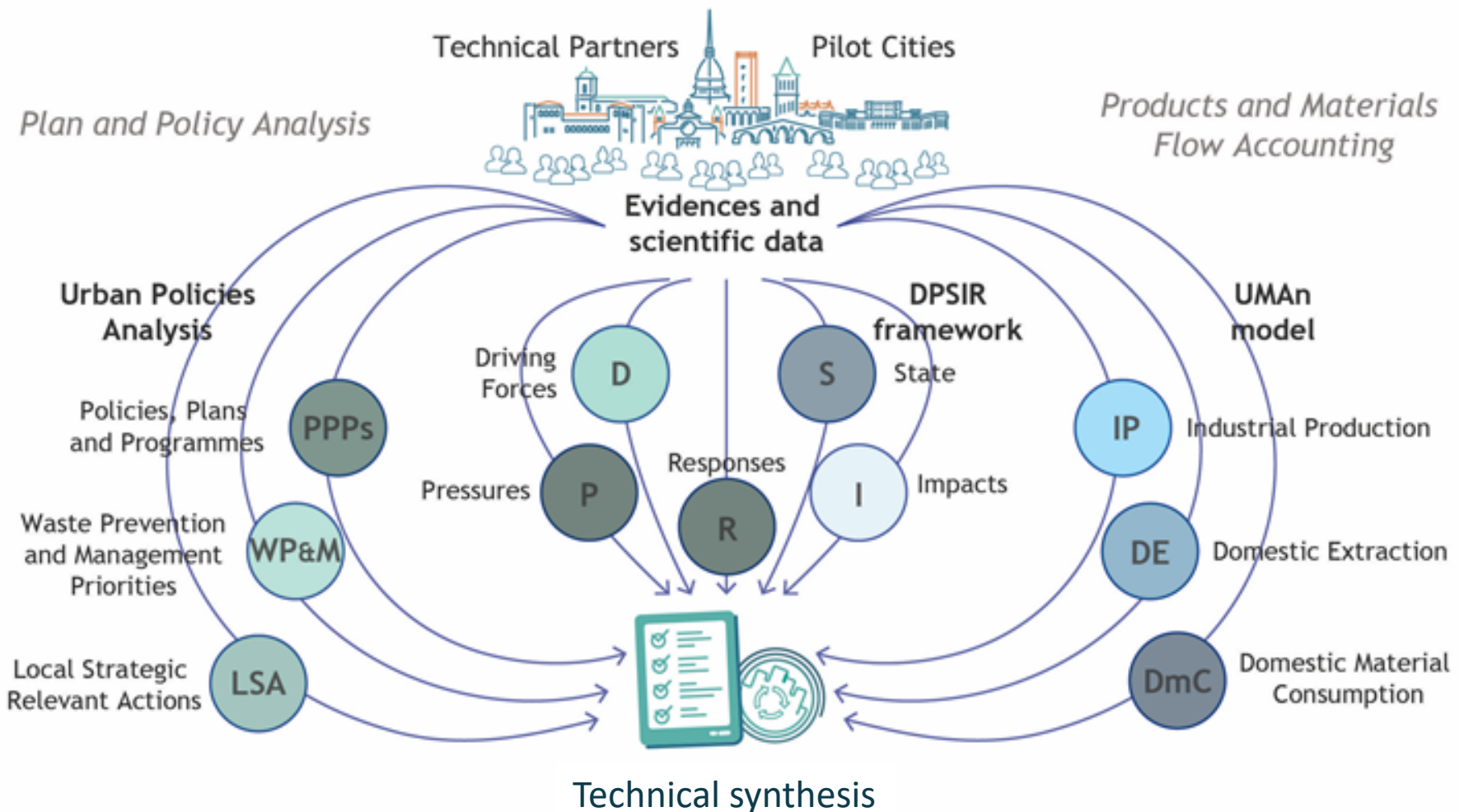
- building quantitative and qualitative knowledge of the urban system and its link with the waste management and prevention sector
- involving the local administrations and stakeholders in defining priorities and objectives, and in providing proposals to shift from priorities to actions
- assessing and integrating proposals with the support of “technical” analysis (e.g. SWOT and DPSIR analysis)
- providing strategic information and guidelines to develop and assess actions within a local strategic plan



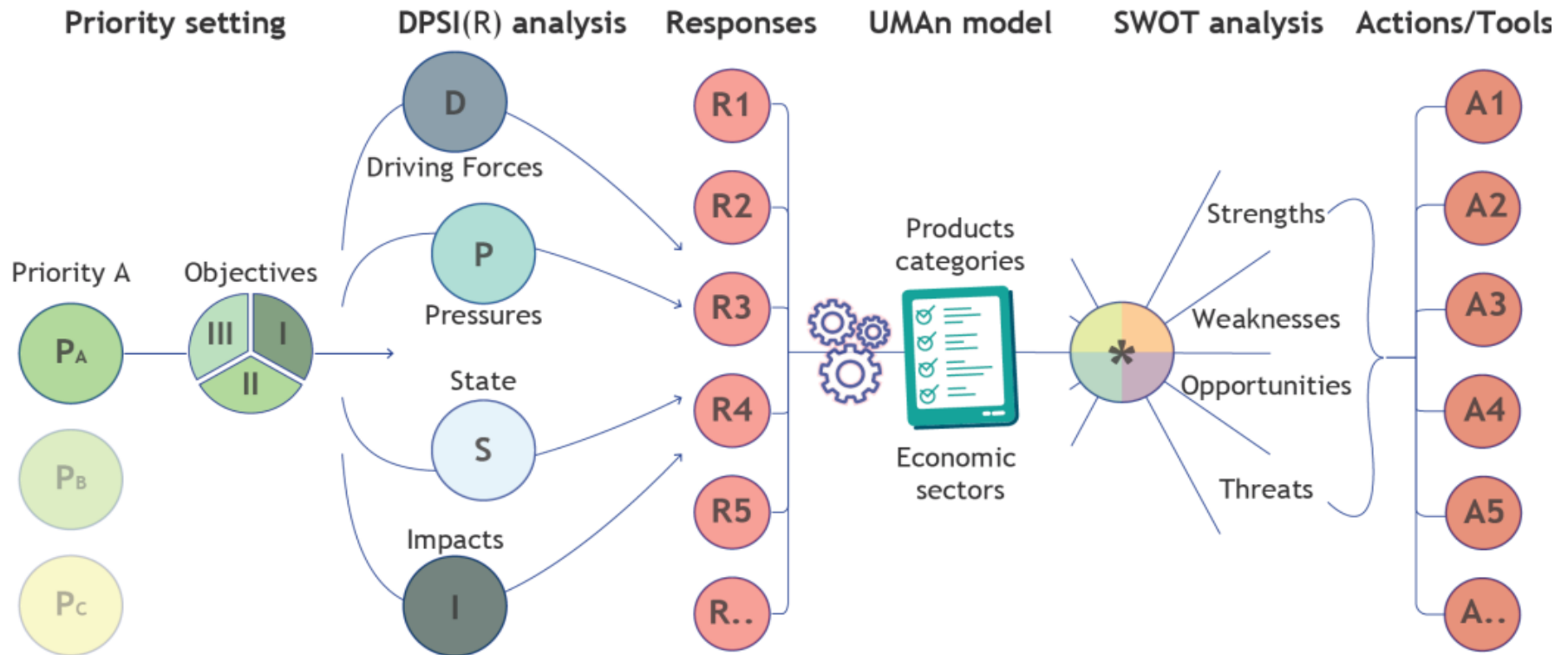
Strategic Planning Framework

The planning process
carried out in eight
Pilot Cities.

SPF_Technical cross check



SPF_The partecipatory Process



Local Strategic Action Plan (LSAP)



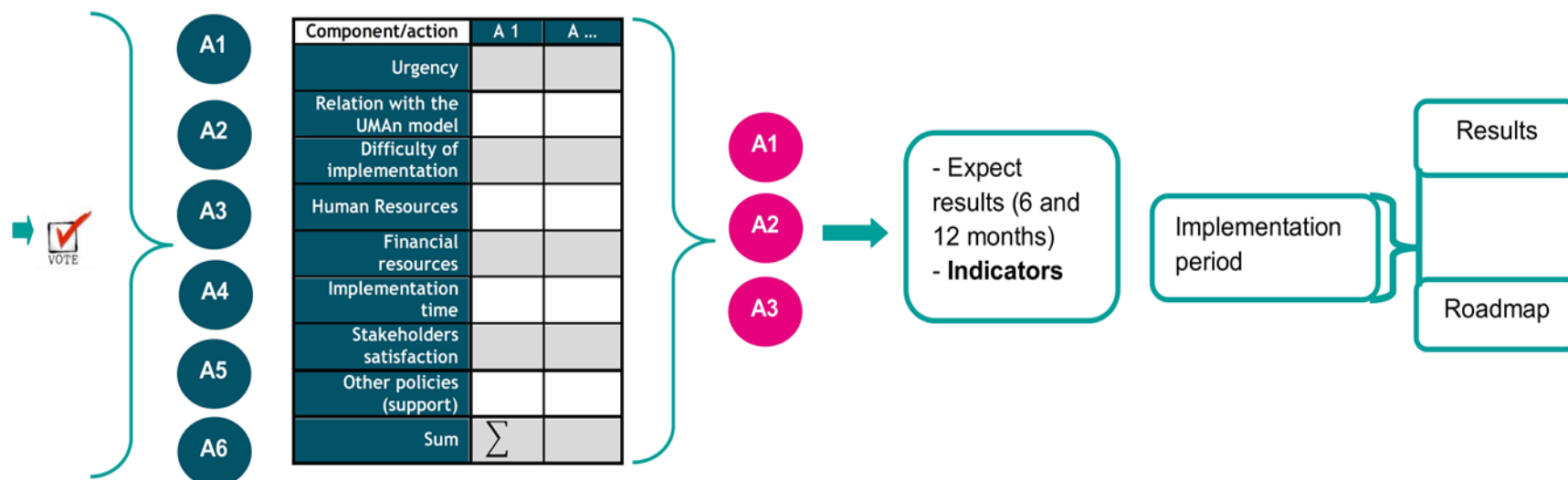
Hierarchy of the actions

Project Check methodology

Pilot Actions

Evaluation Plan

Evaluation of the implementation

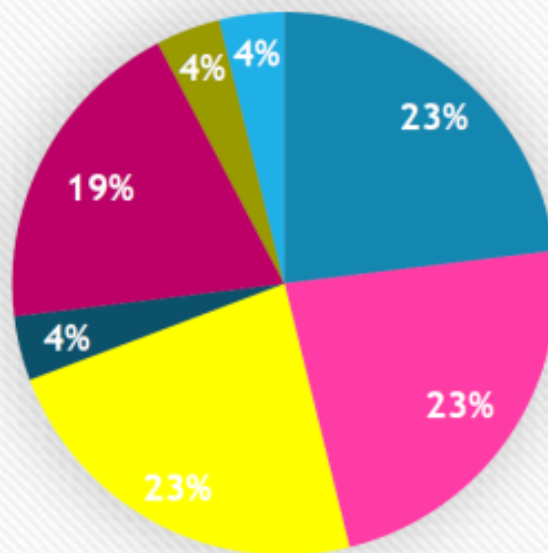


5 th Face to Face Agoras	6 th Face to Face Agoras	7 th Face to Face Agoras		8 th Face to Face Agoras
Feb 2018	Mar 2018	Apr-Jun 2018	Internal Work	2019
WP 4-5	WP 5			
Phase B-C	Phase C			Phase D

LSAP_Pilot actions



Type of action



■ Regulatory

■ Awareness raising

■ Regulatory/Awareness raising

■ Regulatory/Voluntary/Awareness raising

■ Vountary

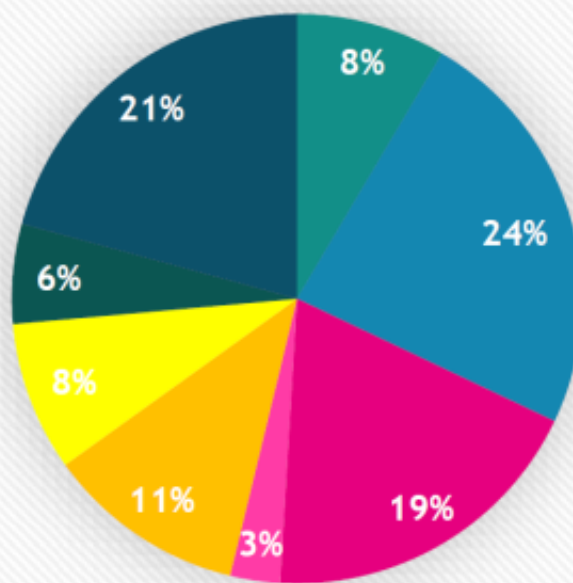
■ Regulatory/Voluntary

■ Voluntary/Awareness raising

LSAP_Pilot actions



Economic sectors affected by the Pilot Actions' implementation



Transport

Waste and Emissions

Wood and food

Minerals

Energy

Industrial production

Import Export

Population

LSAP_Pilot actions



Pilot City	Action
Albano Laziale	Sustainable tourism Communication campaign for businesses, citizens, students Reuse-Barter Area in the Sunday market
Bucharest	Separate collection of wastes generated during public events organized by Bucharest Municipality – Promotional tool "zero waste" separate collection system (recyclable and food waste) in Bucharest food industry units awareness raising campaigns on waste prevention

LSAP_Pilot actions



Pilot City	Action
Cremona	Last minute market: favour the recovery and donation of food surpluses and expiring products Initiatives for the improvement of lifestyles Accurate Fees
Leiria	Guide for food waste reduction Sustainable events regulation Training of restaurants and bars
Manresa	Local plan for waste prevention and management Environmental information and training for singular Producers Disseminate and analyse resource, flows in order to explore new business nodels

LSAP_Pilot actions

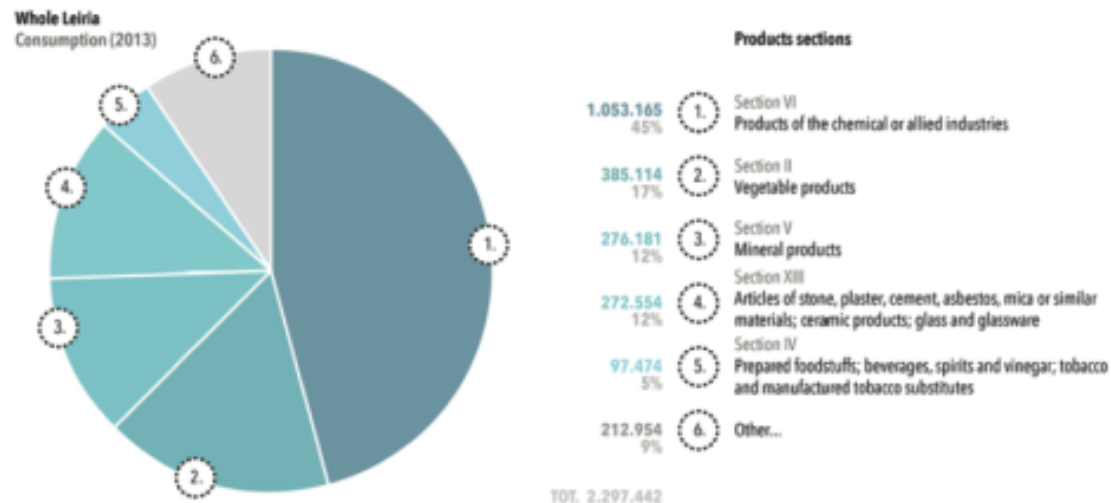


Pilot City	Action
Pomezia	Stimulating cooperation between companies to promote reuse of waste Processing Repair and Reuse Center Training of restaurants and bars
Sabadell	Reducing single use only products Space for eco-awareness related to waste and its reuse Programme of activities to raise awareness and prevention of food waste
Torino	Circular Economy HUB H2O Waste Guidelines for the planning and management of public events

City Roadmap



strategic recommendations for the enhancement and support of urban waste prevention and management planning



CR_data results



Section VI Products of the chemical or allied industries



TOT: 1.053.165

Chapters (CN2_Products)

1.015.521	97%	1.	38	Miscellaneous chemical products
25.861	2%	2.	31	Fertilisers
6.361	0,5%	3.	34	Soap, organic surface-active agents, washing preparations (...)
5.422	0,5%	4.		Other...

Sub-chapters (CN4_Products)

1.012.402	3824_Prepared binders (...)
1.433	3823_... monocarboxylic fatty acids (...)
849	3808_Insecticides, rodenticides (...)
17.234	3102_Mineral or chemical (...)
6.763	3101_Animal or vegetable fertilisers (...)
1.793	3105_Mineral or chemical fertilisers (...)
5.515	3402_Organic surface-active agents (...)
610	3401_Soap (...)
227	3405_Polishes and creams (...)

Section II Vegetable products



TOT: 385.114

Chapters (CN2_Products)

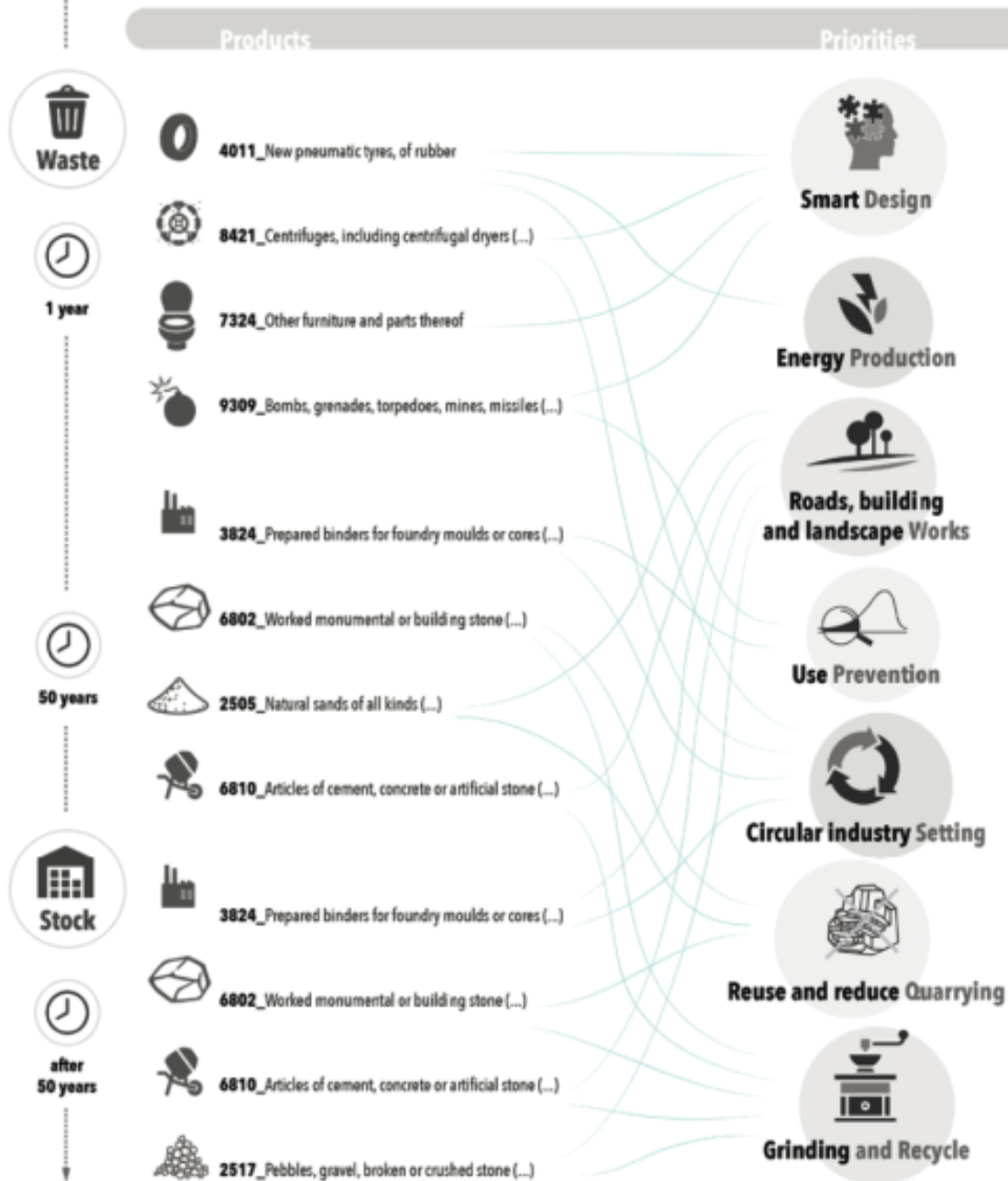
277.211	72%	1.	10	Cereals
37.303	10%	2.	08	Edible fruit and nuts; peel of citrus fruit or melons
35.450	9%	3.	12	Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial or medicinal plants; straw and fodder
35.150	9%	4.		Other...

Sub-chapters (CN4_Products)

274.204	1005_Maize or corn
1.958	1006_Rice
836	1008_... Other cereals
11.881	806_Grapes, fresh or dried
9.009	808_Apples, pears and quinces, fresh
6.472	805_Citrus fruit, fresh or dried
34.606	1213_Cereal straw and husks (...)
600	1214_Swedes, mangolds (...)
125	1212_Locust beans (...)



CR_ recommendations





CR_ SPF and LSAP

The SPF and LSAP objectives and actions (which match the roadmap priorities) are highlighted with this color

SPF

Priorities

Objectives

Actions

1. City with less waste

- Municipal solid waste prevention
- Reduction of municipal waste going to landfill
- Reduction of food waste generated
- Reduction of packaging waste generated

- PAYT implementation
- Green trade
- Guide for food waste reduction

2. City of Reuse and Recycling

- Promotion of waste separation at source
- Promotion of reuse of second-hand goods
- Promote the composting of biodegradable waste
- Promotion of sustainable events

- Community composting
- Regulation for sustainable events

3. Circular city

- Implement business models in waste and by-products
- Implement the contact between the stakeholders
- Promote the use of residues and by-products

- Recycling rewards for construction and demolition waste
- Collaborative laboratory
- Green public procurement

4. Reduce carbon footprint

- Use waste to reduce carbon dioxide emissions
- Use waste to retain the carbon dioxide
- Optimize the collection to consume less energy

- Optimize the collection of waste to consume less energy

5. Environmental Education and Awareness

- Increase stakeholder awareness on waste prevention
- Increase knowledge about reuse and recycling
- Increase knowledge about the circular economy
- Promote carbon-free technological and methodology

- Awareness campaign
- Awareness campaign for schools
- Supervision of CDW management
- Training of restaurants for waste prevention and management

Pilot actions

Type of actions

LSAP

1. Guide for food waste reduction

Awareness raising/Regulatory

2. Sustainable events regulation

Regulatory

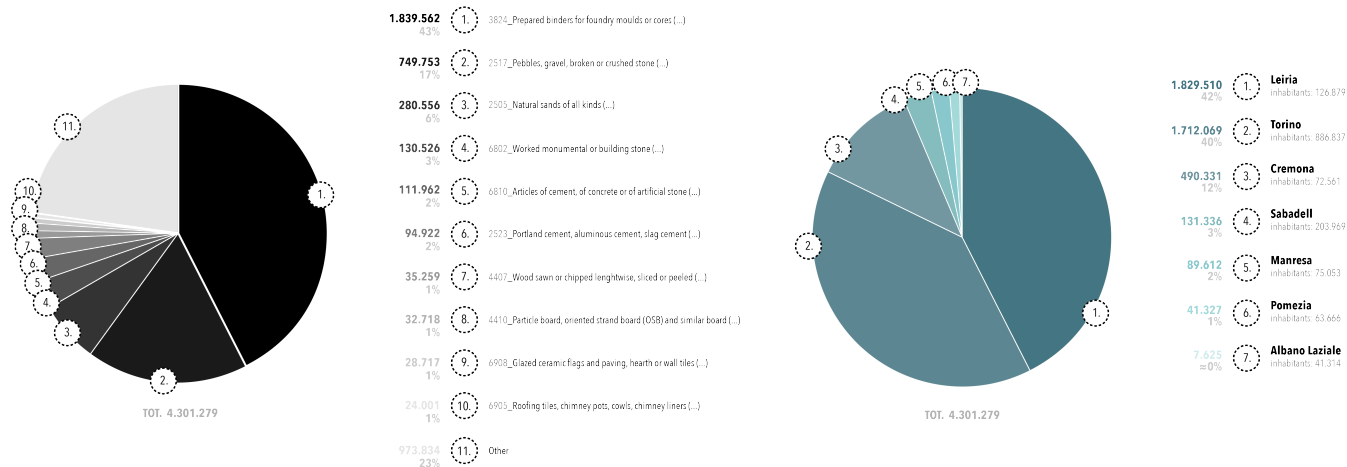
3. Training of restaurants and bars

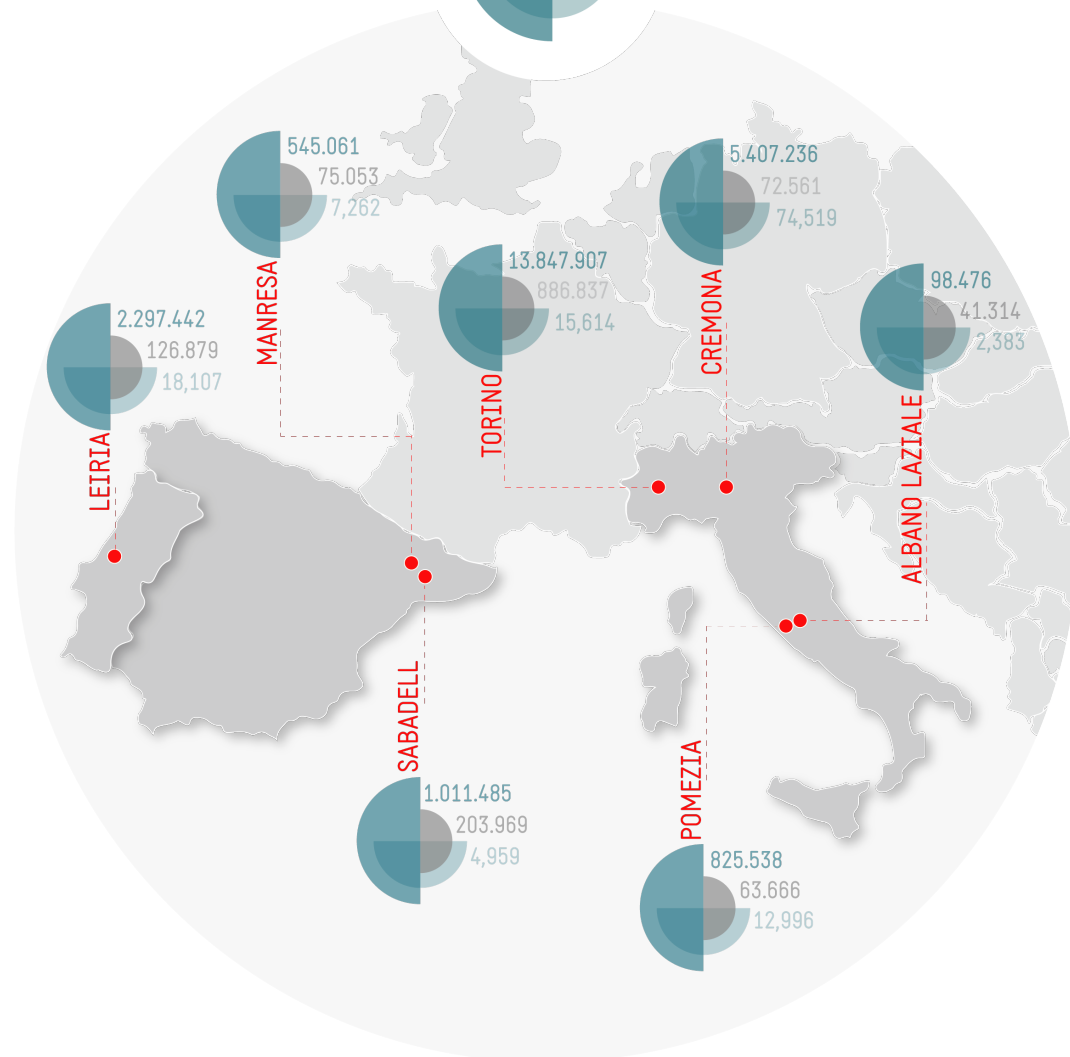
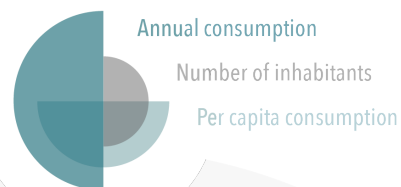
Awareness raising

EU Roadmap



strategic recommendations for the enhancement and support of urban waste prevention and management planning





EUR_

Consumption

Waste

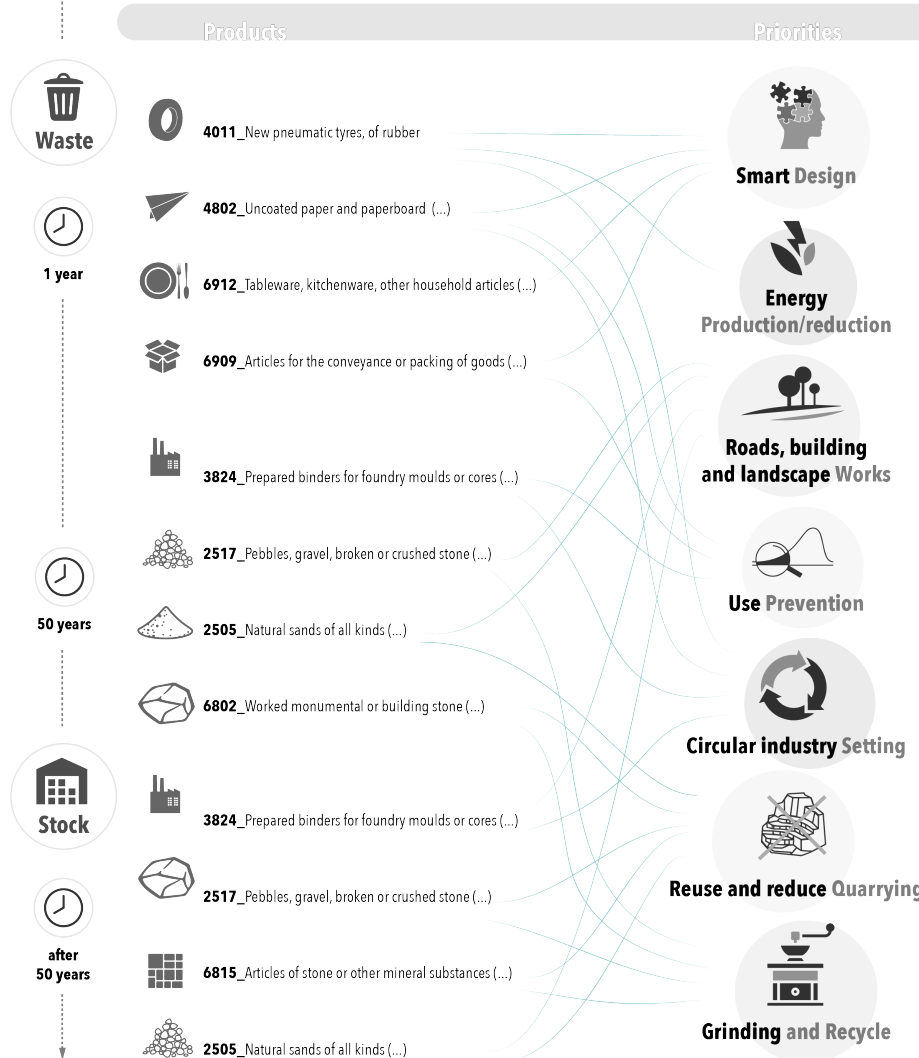
Stock

DATA

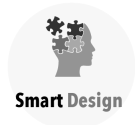
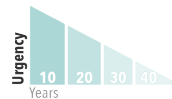


EU
Products
Consumptions

European Pilot cities



EUR_ recommen dations



Smart Design



Energy
Production/reduction



Roads, building
and landscape Works



Use Prevention



Circular industry
Setting



Reuse and reduce
Quarrying



Grinding and Recycle



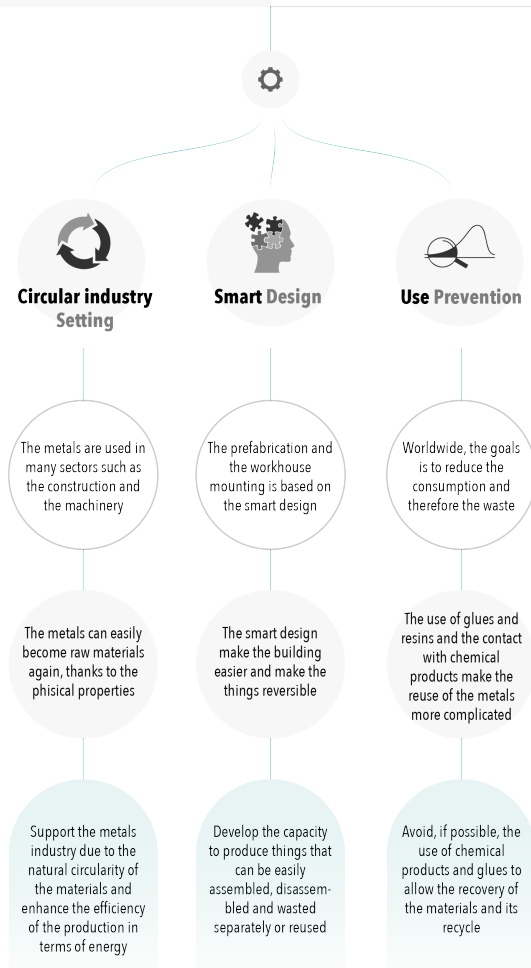
EUR_ Priorities analysis



Section XV

Base metals and articles of base metals

- Iron and steel
- Articles of iron or steel
- Copper and articles thereof
- Tools, implements, cutlery, spoons and forks, of base metal; parts
- Aluminium and articles thereof
- Lead and articles thereof
- Zinc and articles thereof
- Nickel and articles thereof
- Tin and articles thereof
- Miscellaneous articles of base metal
- Other base metals; cermets; articles thereof thereof of base metal



EUR_

Priorities focused on economical sectors



Outcomes and results

- Awareness raising on limit of resources, better understanding of the links between urban environmental resilience and quality of urban life;
- Lowering barriers for a circular economy;
- Strategic plans for urban waste prevention and management;
- More sustainable production and consumption patterns;
- Clear path for future actions and policies.

UrbanWINS

innovative planning



- Multi-disciplinary approach with innovative topics (i.e. Urban Metabolism, Circular Economy);
- Comparison of different case studies (with different policies and problems) in different EU countries;
- Participatory instruments for stakeholders active engagement and increasing of awareness of stakeholders thanks to their involvement;
- Use of a model based on MFA data to support waste prevention and management policies;
- Development of waste management planning instruments through double step approach: strategic plan + operational plan;
- Sharing a practical method between EU countries.



Thank you for your attention!

Website: www.urbanwins.eu

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