

Citizen behaviour and awareness-raising

● A simple and easily understandable collection scheme increases the amount collected

Copenhagen started to collect all plastics from households (rigid and flexible, packaging and non-packaging) and the collection rate increased by 30 %. If awareness raising campaigns include fun and hands-on activities and start with children, they could act as multiplier.

● Development of a domestic and community composting network

Lisbon Municipality has supported and trained citizens in composting their waste. 67% of participants in the composting network live in blocks of flats. Low cost communication channels have been the most effective means: social media (27%), own media (21%) and word of mouth (28%).

● High demand for second-hand electric and electronic equipment

The demand especially for small appliances like tools and lamps is high.

Business models, technology & innovation

● Flexible plastics can be recycled into valuable products, but not in a closed loop

Flexible plastics can be sorted, washed, and reprocessed into good-quality raw material suitable for production of a range of new products. Printing colours have a detrimental effect on recycling.

● Potential to increase reuse of wood in new products

Wood recycling is high (in Italy) and economic value is concentrated in the panel board sector. New promising market applications are green building materials, niche markets and symbiosis platforms to support demand and supply of wood scraps.

● Potential to process waste and produce molecule building blocks for use in economic sectors

Single cell protein, lactic acid, succinic acid has been produced from biowaste (lab scale) and has a potential to be used in food, pharmaceutical and industrial sectors. Carbohydrates have been produced from different kinds of wood waste and represent building blocks for green chemicals (biodiesel, solvents, bioplastics).

Networking and value chain cooperation

● Knowing the needs in the value chain improves reuse and recycling

The wood value chain in Genoa has identified needs in a participative approach: it developed tailored co-designed solutions, rose awareness, spread the know-how and generated virtuous synergies.

● Rethinking the existing platform for surplus food has increased the number of donors

76 donors signed up in the Lisboa Zero WebAPP. In total, the estimated benefits are 1.6 million recovered meals, 800 tonnes of food waste avoided and 3,400 tonnes of CO₂ emissions avoided.

Policy and governance

● Legislation needs to foster circularity

Difficult for some start-up companies to access secondary raw materials. Local legislation not always prepared to small scale reuse or recycling activities (craft). End-of-waste procedures may be needed.

E-products need to be designed to be repaired – more screws, less glue. Access to spare parts important. Large household appliances (e.g. washing machines) has potential for repair and resale.

● Enable socio-economic initiatives

To take on resource intensive processing of waste materials. In Germany, cities are not allowed to pass on WEEE or spare parts to unauthorised entities such as repair shops or repair cafés since it is declared as dangerous waste and must be treated accordingly.