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-Enzo FAVOINO

Image Source: Wikimedia Commons. October 13, 2018. Flea market, Naschmarkt in Wien. Photo Credit: Gugerell. https://commons.wikimedia.org/wiki/File:Wien_06_Flohmarkt_b.jpg

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Sustainable resource management in Europe and Italy

Magdolna MOLNÁR (MM): You have helped government institutions and local authorities across the EU with the implementation of sustainable waste and resource management schemes. What are the main benefits for local communities to shift to more circular practices?

Enzo FAVOINO (EF): The EU agenda on circular economy, which is now being adopted worldwide, is about retaining resources/materials in the loop, at their highest value, for as long as possible. Adopting a "Zero Waste (ZW)" approach provides the perfect toolkit to turn that vision into operational reality. The rationale of the EU's circular economy strategy is much larger than environmental sustainability. Circular economy and ZW aim at reducing leakages of resources, and thereby increasing resource efficiency at both the production and consumption stages. This decreases the need for disposal infrastructure (and its related environmental impacts) and primary raw materials (with related pressure on the planet's limited resources). Also, increased efficiency offers economic benefits, estimated for the EU system at about 2 billion Euros. Further, since activities related to circular management of resources, such as separate collection, recycling, composting, repair and reuse, are much more labor intensive than disposal at landfills or incinerators, this yields occupational benefits, estimated to be about 500,000 direct jobs in Europe; similar calculations were found in the US context, with a population of 300 million, seeing 1.2 million new direct and indirect jobs created.

One more specific angle must be noted. Typically, most activities related to ZW and circular economy are connected to local activities, such as new business models based on "product as a service", local composting activities, and repair and reuse centers. This keeps the resources as well as the value added from related activities within or near the communities.

MM: Milan is one of the biggest success stories in Italy – and Europe – for the collection of organic waste, with 62% separated at source. What can other cities learn from Milan?

EF: Yes, Milan, with a population of 1.4 million, 800,000 daily commuting workers producing food scraps at least for lunch, and 11 million annual visitors, implemented separation at source for food waste deriving from households in late 2012; the system was implemented for large producers in 1995. Milan currently captures about 103 kg of food scraps per person annually, along with garden waste collected through a different scheme, which equates to 87% of all organic waste generated by the city.

Key learnings from Milan are: (1) Intensive kerb-side (door-to-door) collection of organic waste may be implemented in densely populated areas with high-rise buildings (90% of Milan's population lives in such buildings). (2) Of course, in a big city this cannot be done overnight, but it does not take ages either. Milan implemented separation at source in 4 steps by splitting the city into 4 areas, to show that this could be done with different housing types, whether in the city center or the outskirts, or with narrow streets or larger roads. The implementation started in November 2012 and every 6 months the next step was implemented, eventually covering the entire city by June 2014. So, it took 18 months to implement, not a century. (3) The system must be made user-friendly. Separate collection of organic waste must be made easier than that of residual waste. This may be achieved by reducing the collection rounds for residuals and using tools such as paper-based or EN 13432 certified compostable plastics to increase capture and prevent people from using ordinary plastic bags – although conventional plastic shopping bags are now fully banned in Italy. (4) In a large city, one must proactively involve all ethnic communities. Milan is host to about 50,000 Filipinos, 30,000 Egyptians and 25,000 Chinese, besides Peruvians, Indians, Ukrainians, etc. Through a targeted campaign and with instruction booklets translated into 10 languages all communities were made to feel like a part of the city's effort. One may say "it is the organizational context that triggers the proper behavior". Once the system is well designed and running, people behave as desired, regardless of their cultural legacy.

MM: According to the latest Circularity Gap Report, only 8.6% of the materials we use are put back into circulation. Which main challenges do we need to overcome in the next few years to drastically narrow this gap?

EF: First and foremost, one must improve the recycling system and reduce its leakages. We say, recycling is plan B for sustainability, with Plan A being reduction/reuse. However, recycling is the low-hanging fruit in circular economy – it is the ready-to-implement strategy that delivers maximum results in the short run (i.e. diversion from disposal, environmental benefits, economic savings and occupational benefits). Hence, while we pave the way to more reuse and waste reduction, we must keep recycling and minimizing its critical issues. In particular, while recycling of glass, paper, metals and organics are reasonably operationally solid, quite a few problems must be addressed for plastics. The presence of numerous polymers, of which only a few are technically or

economically viable to recycle, is hampering real recycling rates even after separate collection, which must be done to follow the principle of Extended Producer Responsibility crafted in EU Directives and returns the responsibility of the packaging management to producers. One must note that the EU Plastic Strategy, the Packaging Waste Directive and the Single-Use Plastics Directive have started moving in the right direction, for example, by banning materials that are hard to recycle, promoting design for recycling, and using "Minimum Recycled Content" as a measure to increase the market potential for recycled polymers, among other initiatives.

The long-term roadmap to maximize circularity will be to reuse, as it minimizes leakages of materials and maximizes the added value per unit weight of the used resource. In this respect, it will be important to promote new business models based on "product as a service", and adopt enabling policies and practices, making dedicated deposit-return schemes (DRS) ubiquitous, and adopting economic/fiscal incentives.

MM: To what extent do European regulations and funds support or hinder its path to a circular economy?

EF: The EU has long adopted policies that aim at maximizing circularity. The most important ones so far are: (a) The EU recycling targets stipulated by the Waste Framework Directive. (b) Mandatory separate collections,such as for biowaste and textiles. (c) Obligations stipulated in the Landfill Directive, such as the obligation on pretreatment which makes landfilling more expensive and less impactful. (d) EPR schemes mandated by the Packaging Waste Directive, and related specific recycling targets.

Lately, there has been a huge move to fully align the EU (and EIB) funding policy with such policies, and with the overarching principles of circular economy. Hence, now major EU grants/funds , as a norm, explicitly exclude landfilling, incineration and any type of residual waste management. Also, the EU taxonomy of sustainable finance has adopted the "DNSH" principle, which states that incineration and landfilling may not be considered sustainable finance since they may harm the circular economy. The DNSH principle has since been adopted to make incineration ineligible for such funds, like the Recovery Funds. This is important since most EU funds in the past were directed into heavy infrastructure such as landfills and incinerators, making them cheaper than composting and recycling. This hampered efforts to promote true circular management of resources. However, we still have to refine some funding policies as well as correct some flaws and loopholes in the system. For instance, many are calling on EU institutions to include incineration in the Emission Trading Scheme (ETS) to make it pay for carbon emissions. The carbon footprint of the energy produced through incineration is already markedly higher than that of the average EU energy mix. In the age of decarbonization, we cannot afford this especially given the EU's commitment to become carbon neutral by 2050.