Circular cities and regions

OVERVIEW

The focus of the workshop was "going beyond waste management indicators for circular economy in cities and regions".

1. Why is monitoring the circular economy in cities and regions key?
   - Verifying if local authorities are complying with or achieving their policy objectives and quantitative targets set at a higher level.
   - Monitoring authorities' activities in order:
     a. to understand whether the various instruments/strategies yield the expected results.
     b. to identify challenges/good practices.
   - There are several definitions of the circular economy

2. There are different types of indicators to monitor the circular economy. Example: the case of waste management:
   a. Indicators on waste strategies and instruments
   b. Indicators on waste management performance
   c. Indicators on external factors/context and impact

The workshop developed into two parallel sessions.

PARALLEL SUB-SESSION 1: CE MONITORING AND POLICY FRAMEWORK IN CITIES AND REGIONS, PHILIPPE MICHEAUX NAUDET, ACR+

PRESENTATION ON URBAN AGENDA PARTNERSHIP ON CE-BASED FRAMEWORK OF INDICATORS FOR POLICY MAKERS BY PHILIPPE MICHEAUX NAUDET, ACR+

The main questions are:

3. What do we want to measure?
   - Indicators meaningful for local/regional policy
   - Limits (e.g. case of recycling)
4. How to measure it?

- Local/regional authorities should be able to do it (or be helped). Public authorities need to understand indicators and be able to manage them.
- Tools to support monitoring/calculating

Two projects were presented:

CIRCTER PROJECT – identify regional factors influencing CE

- Regional factors influencing CE
- Regional indicators on material consumption and waste generation
- Data on employment and economic impact. E.g. waste generation per capita, waste intensity; material resource use and evolution. On employment on Circular Business Models (CBM)

URBAN AGENDA PARTNERSHIP ON CIRCULAR ECONOMY (specific action on a framework of CE indicators)

- Purposes: create a list of CE indicators adapted to the local and regional level.
- Pros: known and "accessible" to LRAs; mix process/result/context; consistent with EU framework (reporting)
- Cons: limited ecosystem perspective; consumption/end of life; external support or limited data.

PRESENTATION ON **THE IMPLEMENTATION OF LCA APPROACHES IN REGIONAL POLICIES**, BY FRITZ BALKAU, LCA4REGIONS

- Introduction to the concept of Life Cycle Assessment (LCA) approaches
- **LCA4Regions project**
  - Explores the use of LCA methods to improve resource efficiency and circular economy at regional level (this does not focus solely on CE but can be useful).
  - Made up of seven regions that exchange and share experiences –good practice on resource efficiency and regional-level LCA

- Focus on **two main questions**:
  1. How does LCA improve the effectiveness of resource efficiency?
  2. How to use LCA as an indicator of circular economy effectiveness?

- **LCA indicators for CE**:
  - What is the scope along the life chain? Upstream/downstream. Spill-over effects
  - Incorporation of all relevant SDGs, not just one
  - All relevant mid-point indicators included
  - All relevant end-points included
  - Use of local datasets
  - Standard models
  - Interpretation

- Key messages:
  - Life cycle methods ensure a systematic improvement in resource efficiency
  - Use of Life cycle methods should be one of the indicators for effective CE
  - The LCA4Regions project is a good example of how to share experiences of regions on the use of LCA

PARALLEL SUB-SESSION 2 - MONITORING TOOLS AND APPROACHES APPLICABLE AT LOCAL AND REGIONAL LEVEL, FABIO EBOLI, ENEA

PRESENTATION ON THE RESULTS OF THE FIRST PHASE OF THE MORE CIRCULARITY, LESS CARBON CAMPAIGN, BY JEAN-BENOÎT BEL, ACR+

- Carbon neutrality cannot be achieved without the circular economy. However, the scope must be broadened to address climate change: many circular economy approaches are centred on waste. We need to focus on extraction, production and consumption.
- The "More Circularity, Less Carbon" campaign aims to reduce carbon emissions linked to local resource management.
- Zero Waste Scotland has developed a carbon metric tool, in order to assess the carbon impact of waste produced on its territory. The idea is to adapt this tool and use it for cities and regions. The tool is based on waste data, and also assesses the upstream impact (resource extraction).

PRESENTATION ON WHAT (SYSTEMATIC) **APPROACHES TO HOW TO COLLECT INDICATORS AND MEASURE CE IN CITIES AND REGIONS** (TECHNOLOGICAL OR NON-TECHNOLOGICAL), BY CAROLINA INNELLA, ENEA

- ENEA is a public research and technology organisation working on the transition to a low-carbon economy. It has research centres and offices all over Italy. It is a member of the ECESP. ENEA set up ICESP which works in seven working groups.
- ICESP working group 5: "Circular cities and territories". Objective: to define circular economy policies through an inductive methodological approach, mainly via the collection and analysis of good practices.
- Fragmentation of good practices between different urban sectors and fragmentation of circular economy indicators. (The OECD inventory of Circular Economy indicators collected more than 400 circular economy-related indicators between 2018 and 2020).
- Several countries have designed circular economy strategies at national level, but indicator frameworks for most national strategies have yet to be developed or are being developed. There are few initiatives at regional level, where the waste sector is more relevant.

MAIN MESSAGES

- Public authorities need to work with indicators on the circular economy. Their role is crucial; what do we want to measure and how can we measure it?
- The need to use Life Cycle Assessment (LCA) in order to focus on the systemic approach. It integrates secondary effects (spillover effects) and multiple Sustainable Development Goals (SDGs).
- The lack of a harmonised system of monitoring the circular economy does not currently allow for the development of benchmarking on the degree of circularity of regions and cities around the world. At EU level, this could be a task for the European Environment Agency.
- Monitoring the circular economy at urban level: there is a lack of harmonisation of indicators and of integration between the macro-meso-micro levels. Fragmentation of practices and indicators, no integrated policies at urban level. -->**need to standardise indicators**.
- Need for **more coordination across levels of government and between stakeholders and members of the public to collect data more effectively**.
- Highlight the local benefits of the circular economy: need for communication campaigns to show and share the impact of the circular economy and how individuals and different actors can contribute to it and share the success stories.
- The circular economy does not only entail recycling and waste management: more emphasis is needed on prevention and re-use rather than on recycling.
- Need for core indicators for sustainability of residential and office buildings at EU level. Provide a set of indicators and common metrics to measure performance of buildings throughout their life cycle --> General language of sustainability for buildings.

SUCCESS STORIES

- Zero Waste Scotland has developed a carbon metric tool, in order to assess the carbon footprint of waste produced on its territory. The idea is to adapt this tool and use it for cities and regions. The tool is based on waste data, and also assesses the upstream impact (resource extraction). The Pays de la Loire region (France) has started to use this tool and the first results are already available.
- An Italian study (CESISP @University of Milan "Bicocca") developed a tool to support the analysis and the impact assessment of CE policies at urban level, providing a ranking of the biggest Italian cities based upon 28 indicators clustered in five dimensions.
- The objective is to develop the Urban Circularity Index (UCI) in order to facilitate an impact analysis and provide a tool to support and evaluate circular economy policies.
- The Urban Agenda Partnership on Circular Economy identified 140 indicators for circular economy transition in cities.

NEW CHALLENGES

- Fragmentation of good practices between different urban sectors
- Fragmentation/lack of systematic collection of circular economy indicators
- Several countries have designed circular economy strategies at national level, but indicator frameworks for most national strategies have yet to be developed or are being developed. There are few initiatives at regional level, where the waste sector is more relevant
- Lack of harmonisation of indicators and of integration between macro-meso-micro levels
- Fragmentation of practices and indicators
- No integrated policies at urban level