



## D2.3

# Report on the baseline studies for the lighthouse cities and regions

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# 1. Executive summary

The development of urban circular bioeconomy projects in the lighthouse cities and regions in the framework of HOOP project has expected impacts. However, it is necessary to set what is their starting point in order to assess the actual impact of the project in the performance of urban bioeconomy in the cities and regions. This requires the use of standardized criteria which allow not only the evaluation of the city along time, but also the comparison with other cities or regions.

The baseline analysis run in this document is divided in two levels. The first level are the baseline studies, which provide a comprehensive assessment of the eight lighthouse cities and regions from the point of view of six different dimensions: waste, water, energy, society, economy and policy.

The second level is the definition of the HOOP Urban Bioeconomy Indicators, which based on parameters both quantitative and qualitative define the performance of the city and region on the mentioned six dimensions. The data analysis gave a set of 20 indicators, being seven of them enabling factors, which are in general good practices making easier the transition of the city or region to the circular economy. The indicators are as follows:

- *Municipal biowaste production per capita*
- *Percentage of biowaste separately collected*
- *Implementation rate of biowaste separate collection system*
- *Quality of biowaste selectively collected*
- *Percentage of biowaste used for material recovery*
- *Rate of urban wastewater sludge reuse*
- *Number of bioproducts produced from waste*
- *Biowaste management self-sufficiency*
- *Wastewater production per capita*
- *Water reuse rate*
- *Biogas production per capita*
- *Costs associated with OFMSW and/or UWWWS management*
- *Number of R&D projects related to biowaste management and treatment*
- *Financial mechanisms to reduce biowaste*
- *Promotion of circular economy entrepreneurial initiatives*
- *Awareness rising campaigns about biowaste*
- *Coordination entity to engage stakeholders involved in CE*
- *Compost applicability in local agriculture/gardens*
- *Circular economy strategies in the lighthouse*
- *Innovation public procurement*

The baseline studies for the different cities provide a picture of the cities or regions and show which are their weaknesses and strengths. In general, all the lighthouse cities and regions have some indicators on which they have a very good performance and others where they need to improve. This balance between the eight gives the opportunity to learn from each other and to increase their circularity at the end of HOOP project.