### Output factsheet: Trainings

**Project index number and acronym**

| CE1125 CIRCE2020 |

**Lead partner**

| ARPAV - Regional Agency for Environmental Protection and Prevention of Veneto |

**Output number and title**

| O.T1.1 Transnational joint training to introduce one common Material Flow Analysis investigation methodology |

**Responsible partner (PP name and number)**

| ETRA spa - 2 |

**Project website**


**Delivery date**

| 12.2017 |

### Summary description of the implemented training measure(s), explaining the specific goal(s) and target groups

ETRA with its external expert elaborated the technical sheet for data collections & Guidelines for the Material Flow Analysis and provided them to the partners: due to the lack and heterogeneity of available data from different pilot areas, the Wuppertal method, based on a top-down quantitative approach, has been adapted to a bottom-up approach, based on the direct knowledge of the territory and on the information (also qualitative) provided by the stakeholder, to identify the most promising waste flows. The training involved two steps: in the first one, by an half a day teleconference, ETRA’s expert has introduced the MFA tool to the entire partnership. Then PP has had time to familiarize with the tool before the second step. During the project meeting held in Budapest ETRA performed a training session to explain the PPs how to apply the local-based energy & material flows analysis based on an adaptation of the existing method MFA, which aims to identify the interesting streams and to evaluate the expected consequences in terms of circularity. The MFA guidelines explained during the training session also provides the instructions about the choice of the indicators to measure the level of circularity reachable, after the application of a managerial or technological solution to a specific process. After the meeting ETRA supported the other PPs for the application of the method to their specific cases, organizing on-to-one teleconferences and answering to specific questions through e-mails.

### NUTS region(s) where training(s) have been conducted (relevant NUTS level)

| HU10, Közép-Magyarország. ITH3, Veneto. |
### Expected impact and benefits of the trainings for the concerned territories and target groups

The training gave the PPs the instruments for the application of a common method for the Material Flow Analysis. Each PP is now able to apply the method to a variety of cases that may occur in the territories concerned with CIRCE2020.

### Sustainability of the training(s) and developed training material(s) and their transferability to other territories and stakeholders

As the identified flows were recognized by Regional public authority with its S3 manager, the elaborated method provides scientifically-sounding indications of relevant by products suitable to encourage new productive models based on a circular economy business model, contributing to a coherent application of EU Action Plan 614/2015.

### Lessons learned from the development and implementation of training measures and added value of transnational cooperation

Even if it is very hard to find a standardized method suitable for all the different regions involved in the project, mainly due to the heterogeneity of available data and information to be processed, the comparisons of the conditions among different areas and the constant exchange of information and experiences during the training sessions among the PPs, gave the possibility to set up analytic processes to overcome the lack of sufficient information to reconceive closed loop systems & interpret primary/secondary raw material flows generated during industrial processes. Transnational cooperation experienced with the training measures furthermore allows to put in evidence the difficulty to identify common standardized indicators for different areas as well as for the different flows within the same area.

### References to relevant deliverables and web-links

If applicable, pictures or images to be provided as annex
D.T1.3.1 Transnational joint training to introduce 1 CIRCE2020 MFA investigation methodology.
D.T1.3.4 M-scale analysis of the physical flows at local industrial system level
D.T1.3.5 Tutorial for future application of Material Flow Analysis for replication purposes (on line guide)