



## Research Summary Sheet

### *Summary of Deliverable 2.1*

#### *Attributes and boundaries of NoAW agro-wastes systems*

### Context and Challenges

*The H2020 project NoAW has as its goal to contribute to a 'near zero-waste society' by promoting a circular economy in which agricultural waste, by- and co-products are turned into eco-efficient bio-based products with direct benefits for the environment, economy and society. The WP2 overall objective is to develop innovative and robust approaches and tools adapted to the assessment and determination of optimal agro-wastes management strategies. The objective of WP2 is also to aid decision support regarding agro-waste upgrading strategies. The decision support shall inform about environmental sustainability and guide decisions on three levels: product, farm and region.*

*The objective was to create a framework for how several evaluation methods can be applied on one case study. This will show how results from different methods can complement each other, to reach new in-sights that could not be gained by application of one individual method. The aim is also to create a framework for how methods can be combined into hybrid tools. By combining methods, stakeholders will be provided with high quality decision support, and will also yield important knowledge for future studies.*

*The following steps have been done:*

- *Development of a step-wise procedure to apply several evaluation methods on one case study*
- *Description of framework for combination of methods*

### Results and Applications

*The application of different assessment methods will give results that cannot be generated by applying only one method. Results from the different methods will be compared and combined. This will help to avoid sub-optimisation and undesirable trade-offs that could occur otherwise. It is shown that using several methods requires careful planning and close communication between the different research groups. It is important that a common ground of terminology is decided upon and that there is an*





*agreement on the basic principles of case study set-up. It is also important to acknowledge that the research questions and the approach to the case study will somewhat differ between the methods. Furthermore, a plan for joint data collection and management is needed, as well as a plan for the communication of results.*

## **Breakthroughs, benefits and added value**

*Several different opportunities for combining methods into hybrid tools were identified:*

- 1. Combining Territorial Metabolism and Life Cycle Assessment (TM-LCA) allows for process-based environmental impact modelling at a regional scale.*
- 2. Several add-on elements are possible for the TM-LCA method e.g. approaches to dynamic systems and multiple-criteria decision analysis.*
- 3. A combination of Computational social choice and Argumentation permits to support decision based on validated preferences.*

**Further information on NoAW project:** <http://noaw2020.eu>

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