1. THE ECOWASTE4FOOD PROJECT

The ECOWASTE4FOOD project brings together seven local and regional authorities from seven countries throughout Europe. Its ambition is to address the crucial issue of food waste, not only to stop an unacceptable situation which causes the loss up to 30% of the European agricultural production that keeps not consumed or is consumed in a wrong way regarding health concerns, but also to demonstrate that food waste could be at source of a resource efficient and environmentally friendly economy for the territories.

The general objective is to identify, boost local and regional eco-innovations to increase demonstrating effects on reducing food waste.

The ECOWASTE4FOOD project is built around 4 complementary pillars, which together form a progression from year 1 to year 4:

1. **Identifying** eco-innovations that allow to tackle food waste challenges in each partner' territory;

2. **Capitalizing** on these eco-innovations in order to produce transferable knowledge and references that can also be useful for each Project Partner and for other actors than the projects holders in other territories;

3. **Setting up** of strategies and action plans for supporting the upscale and the outscale in order to ensure that the successful eco-innovations will no longer remain on the fringes of the economical space but will.

4. **Triggering** ERDF on each investment priority chosen by Project Partner to support eco-innovations to address food waste at City/Regional level.

2. FOOD WASTE HIERARCHY

Dimensions of eco-innovations considered in the ECOWASTE4FOOD project include the usual cascade steps: reduction, reuse, redistribution, recycle and recovery of food waste. All those dimensions are well
illustrated under the famous reversed pyramid of food waste, from the most preferable option at the top to the less one at the bottom:

However according to the Interreg Europe/ETC funding rules, ECOWASTE4FOOD project will not focus only on eco-innovations at farming level, but only from the processing stage till the consumer one.

3. What are Eco-Innovations to investigate to reduce food waste?

In a nutshell, an eco-innovation is « any innovation that reduces the use of natural resources and decreases the release of harmful substances across the whole life-cycle” (EIO 2011)\(^1\).

There are many social and technological innovations already tested and implemented that can significantly contribute to the food waste reduction. Here the challenge is to provide new driving forces that will encourage the diffusion and uptake of eco-innovations on a broad scale, maximising its economic, social and environmental benefits in the field of food waste reduction.

Eco-innovation is a progressive concept. It can take different forms, such as process or technological innovation, product innovation and system or organisational and social innovation, new introduction into a market or incremental innovation.

Expected eco-innovations will refer to following four axis:

- **limitation of waste production at source** in the food processing industry (i.e. saving primary resources in the process chain...);
- **conception and design of products** (i.e. innovative packaging...) that help reducing the food waste by the end users;
- **use of products** today considered as unusable or unserviceable products;

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\(^{1}\) Policies and Practices for Eco-Innovation Up-take and Circular Economy Transition, European Innovation Observatory, 2016
- **services provided** (i.e. mobile apps..) that can help reducing food waste.

Eco-innovations include a wide range of products and services as follows (few examples):

- cleaner and innovative products, processes and services in the production phase, aiming at waste prevention or reduction, water efficiency and improved water quality and greenhouse gas emissions, or/and increasing recycling and recovery.

- cleaner and innovative products, including packaging methods and materials, processes and services aiming at higher resource efficiency.

- use and re-use of food in the food industry, which increases resource efficiency and productivity, reduces bio-degradable waste and enable to market new innovative processed products

- innovative and cleaner products, processes and services aiming at reducing the environmental impact of consumption of food and drinks, such as logistical services, distribution, catering, restaurants and purchasing decisions.

### 4. Template for collecting eco-innovations vs food waste

Note: Following questions are suggested to inform the eco-innovative approaches and practices. In addition project partners are invited to fill in the Excel sheet Table where they can easily list each eco-innovation by category. All suggestions that help to improve this collection are welcome, so please do it in track change or in suggestion into the Google Drive file.

1. **Name of the eco-innovation:**

2. **Geolocalisation**: (GPS data if possible)

3. **Level in the food chain (processing, packaging, logistics, retail, consumers...):**

4. **Actors involved in the eco-innovation:**
5. Are those actors involved into an innovation platform/cluster or innovation-driven partnership at City or regional level?

6. Description of the eco-innovation:

7. Type of innovation (technological, organisational, marketing, social):

8. Business model and profitability of the eco-innovation (give some figures):

9. Domain of eco-innovation\(^2\):

\(^2\) Four domains of eco-innovations are i) limitation of waste production at source in the food processing industry; ii) conception and design of products (i.e. innovative packaging...) that help reducing the food waste by the end users; iii) use of products today considered as unusable or unserviceable products; iv) services provided (i.e. Mobile Apps..) that can help reducing food waste. However, those 4 domains may overlap in practice.
10. What was the original problem the eco-innovation has contributed to address?

11. Which are the issue(s) addressed by the eco-innovation?:
   - ...
   - ...
   - ...

12. Did the eco-innovation contribute to address this problem:

13. Objectives, results and activities:

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<tr>
<th>Objectives</th>
<th>Expected results</th>
<th>Activities (summarized)</th>
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14. **Beneficiaries:**

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<th>Number and type of direct beneficiaries</th>
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<th>Number and type of indirect beneficiaries</th>
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* where applicable, give qualitative and/or quantitative outcomes (number of SMEs, consumers, food saved, food waste avoided...).

15. **What is the economic impact of the eco-innovation?:**

16. **What is the environmental impact of the eco-innovation?:**
17. What are the social benefits of the eco-innovations?

18. Did the eco-innovation benefit from a favourable context (i.e. local/regional/national regulations, incentives, funding opportunities, if so which ones?)

19. Scaling up/scaling out: will the results of the eco-innovation(s) be lasting? Under what conditions? What are the chances of those conditions being fulfilled?
5. SOME CRITERIA TO ASSESS AND ANALYSE ECO-INNOVATIONS VS FOOD WASTE

1. Relevance of the eco-innovation

- Importance of the action in relation to the policy instrument (ERDF, CSP, priorities, targets and legislation...)
- The extent to which the proposed solutions are innovative and/or technical advancement of the proposed solution, clearly beyond the prototype stage.
- Clear and substantial environmental benefits including resource efficiency and the appropriateness of targets and performance indicators (ambition and credibility), presented in a life-cycle approach.
- Considering and clearly involving and supporting the main target group (from SMEs to consumers);

2. Quality of the proposed actions

- Structure, clarity, consistency and suitability of the proposed approach to achieve the expected results.
- Quality of the outputs and deliverables.
- Leadership, composition, balance of skills, awareness and responsibilities of the team and its members.

3. Impact on target audience, scaling up/scaling out and impact on the market

- Key outcome on target groups (economic, social, environmental...)
- Replication factor of the eco-innovation (to be applied or reproduced by proposer or by other companies or in other countries), to be realised during the project and its potential for short- and medium-term replication.
- Appropriateness of the market assessment and of the approach to remove the identified market barriers to the eco-innovative solutions.
- Quality of the planned exploitation and business approach.

4. European added value

- European dimension of obstacles to eco-innovations (i.e. EU regulations...)
- European dimension of environmental challenges and how these will be tackled.
- Added value of ERDF provision in supporting the local/regional eco-innovation (as complementary to national/regional/local supports)