

REINWASTE project funded by INTERREG MED 2014-2020 Program (Id. n. 3300)

Abstract

Summary

“Prevent waste disposal is more sustainable and less expensive”. In MED regions, innovation support services to agro-food chain is inadequate in the scope (confined to territorial domain)&transnational cooperation is poor. This traditional “local-based” approach to tech-transfer is currently a limit. REINWASTE aggregates, on MED scale, 3 influencing food “Clusters”(IT,FR,ES) (PPP made up of R&D, food Associations, Reg. representatives, IPA) in waste prevention field in agro-food, to enhance transnational network of competence, select&test best available solutions & quickly transfer this knowledge.

REINWASTE aims to bring a concrete contribution to the reduction of inorganic waste, favouring the adoption of greener innovative concepts by agriculture & food industry, with focus on SMEs. According to a initial analysis combining advanced tech-solutions (from EU R&D projects, R&I centres)with real companies’ requirements, it tests them within 3value chains (IT_dairy; ES_horticulture; FR_Meat).

Clusters assess feasibility to launch a new service to systematize offer-demand of innovative solutions for waste prevention. 3 ActionPlans to galvanize the targets set by S3 for SMES of primary & industry sector in MED regions. 3 Protocols of waste minimisation in entire food chains. Transferability plans to other agro-food chains& other relevant sectors. A tailored mix of knowledge transfer services, based on a common open innovation approach, allow the mutual contamination &use of innovation.

Problems and challenges

The food industry is in fact a pillar of the EU economy, being the biggest employer in manufacturing in more than half of the MS (2/3 by SMEs) and the 1° sector by turnover in Germany, France, Italy, the UK and Spain, driving forces in the whole agro-food chain: from agriculture to distribution (FoodDrink Europe,2016). The growing demand for food worldwide (+60% by 2050) will rise natural resources consumption (upon which agro-food sector relies) and led to the production of vast quantities of co-products and wastes, a proportion of which is valorized (the organic part, into bio-based secondary products or bio-energy), while the inorganic material (mainly plastics: films, nylon, greenhouse coverings; agrochemical packaging; food and ready-to-eat meals packaging) are disposed of by landfill and other environmentally sensitive routes (uncontrolled abandoned or incinerated).

Because of the increasing consumers’ awareness, environmental regulations, and market competition, agro-food enterprises face the challenge to improve the food processing for environmental impacts reduction and resource efficiency focusing on the most efficient and sustainable tenet of the waste hierarchy - waste prevention – particularly on inorganic wastes, through the application of zero-waste best advanced solutions provided by R&I centres and other relevant sectors (green chemistry and mechanics).

Project Objectives

MED regions are characterized by insufficient innovation capacities with a need to strengthen innovation clusters, economic sectors, value chains and networks throughout MED regions.

REINWASTE starts from the joint cooperation among the main 3 Food Clusters as nodes of excellence and those where the Smart specialization Strategies are aligned as far as the agro-industry is concerned.

REINWASTE aims to bring a concrete contribution in the reduction of waste at the source, favoring the adoption of greener innovative concepts by agriculture and food industry, with a focus on SMEs. REINWASTE will contribute in overcoming the persistent lack of knowledge on the available BATs and the diversity and fragmentation of waste prevention procedures, through a tailored mix of knowledge transfer services, based on a common open innovation model that will be tested by a Mediterranean network including regional bodies, R&I operators and clusters, agro-food business associations and end-users.

Results attended

First Result- Fosters the technology transfer and open innovation among agrofood clusters, R&D centres and companies:

In MED regions, innovation support services to agriculture and food industry are limited in the scope as they are mainly focused on doing brokerage & tech-transfer within a given territorial domain & transnational cooperation is poor. This traditional “local-based” approach to tech-transfer is currently a limit: it doesn't help rapid transfer of new KET concepts into agro-food chain (where small and medium enterprises are the largest share) while R&D performers from different regions are poorly connected with each other. So innovation support services commissioned by agro-food businesses are inefficient, often duplicate efforts & are not always responding to the time-to-market requirements. In short, the traditional innovation-management service is obsolete. REINWASTE increases & federates these services through a genetic modification of the interactive dimension which represents the territorial challenge to accelerate the transposition of KET of R&D results in new end-users components & applications for MED advanced agro-food chain.

Second Result - Paving the ground to an Innovative Advanced service, granted by the Clusters to their associates, linking demand & offer of innovation:

REINWASTE will contribute in overcoming the persistent lack of knowledge on the available solutions and the diversity and fragmentation of waste prevention procedures, through a tailored mix of knowledge transfer services, based on a common open innovation model that will be tested by a Mediterranean network including regional bodies, R&I centres and clusters, agro-food business associations and end-users.

REINWASTE tests and evaluates the feasibility to launch the Excellence Innovation Service offered by the Associations able to systematize the offer-demand of innovative solutions for the waste prevention.

Third Result - Contribution to the and EU Waste framework (Directive 2008/98/EC on waste and Circular Economy Action Plan pursuing a zero waste economy by 2030):

REINWASTE moves from the consideration that there is a huge bulk of innovative systems and products deriving from EU research projects and also innovative solutions developed by R&D players that are not known and/or not exploited yet.

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REINWASTE also concentrates itself on the fact that, within the Circular Economy, much has been done in terms of EU projects concerning the end of the life cycle of products and processes to reuse or recycle; Less, or very poor attention has been paid to the waste prevention.

In the perspective of the policymaking process in Brussels, towards the goal of sustainable development pursued by limiting unnecessary consumption and by designing and consuming products that generate less waste are forms of strict avoidance of waste in line with Directive 2008/98/EC, waste prevention is the first tenet of the hierarchy for waste reduction and represents the most efficient and sustainable use of resources.