Policy Brief #3

PREVENTING/REDUCING FOOD LOSSES

Efficient use of raw material and optimised processes between primary production and processing

WHY PREVENTING/REDUCING FOOD LOSSES?

Ten billion people will be the world population in 2050; 60 % more compared to current population. One point three billion tonnes of food are lost and wasted each year, 32 % of global food supply by weight. In the meantime, 702 million people life in extreme poverty conditions. Food waste hence represents a missed opportunity to feed the growing world population. Global food loss and waste generate annually 4.4 GtCO2 eq, or about 8 % of total anthropogenic GHG emissions. This means that the contribution of food wastage emissions to global warming is almost equivalent (87 %) to global road transport emissions. On average, Europe produces 680 kgCO2 eq of food wastage footprint per capita. According to FAO the higher amounts of food loses and wastage along the value chain are in the food production step (24 %), during transportation (24 %) and losses at home (35 %). Reducing food loss and waste is seen as a way to lower production costs, improve food security and nutrition, and contribute towards environmental sustainability, notably by easing the pressure on natural resources and decreasing greenhouse gas (GHG) emissions.

Shealthy

SHEALTHY is a H2020 project (2019-2023) which aims to assess and develop an optimal combination of non-thermal sanitization, preservation and stabilization methods to improve the safety, while preserving the nutritional quality and prolonging the shelf-life of minimally F&V products. This project also focuses on the business conditions enabling Small and Medium Enterprises to successfully adopt and exploit new technologies.

WHAT CAN YOU DO?

- ENSURE FOOD AUTHENTICITY AND TRACEABILITY
- IMPROVE LOGISTICS
- RAISE CONSUMERS' AWARENESS

BUT HOW?

In SHEALTHY the process and control parameters will be optimised to extend the product shelf life while preserving the "healthy" food attributes. Sustainable and flexible processing methods will be transferred and adapted to the need of local F&V micro and SMEs, interconnecting primary producers through novel cooperative business models and new logistics systems, in order to enhance the traceability and authenticity of raw materials along the F&V value chain. Moreover, sustainable extraction of bioactive compounds from F&V by-products & co-products will be performed. -All these activities will have the objectives of avoiding at least 40% of food loss; Increasing minimally processed F&V shelf life by at least 50%.; Increasing F&V based juices and smoothies shelf life by at least 30%.

The following recommendations emerged from SHEALTHY's work. They should not be considered a comprehensive guide on integrated governance, but provide indications of what can be done.

The SHEALTHY project has received funding from the *European Union's Horizon 2020 research and innovation programme* under Grant Agreement No 817936

SHEALTHY project will optimise the value chain based on the definition of collaborative models and will improve monitoring and traceability, achieving a better product/process management contributing.

LCA & LCC

The total environmental impacts and hot spots associated to the novel production pathways by life cycle assessment (LCA), the total economic costs and hot spots associated to the novel production pathways by life cycle costing (LCC) assessment will be performed in SHEALTHY.

REVALORIZATION OF FOOD BY-PRODUCTS

Enhancing the quality of the final products and therefore minimising the food losses by 40%. Besides, the last part of the co-products will be turn into secondary raw materials into resources that are at least of equivalent quality of resources resulting from primary production (animal feed and/or fertilizers).

LOGISTICS & AUTHENTICITY

New systems will be shaped and implemented with novel digital monitoring and authenticity technologies to identify elements that may affect the quality of raw materials. Simple for use, low-cost (1-2.5 EUR) authenticity sensors for minimally processed F&V and F&V based smoothies SMEs will be developed to be used by the costumers. presence of common additives will be indicated. Likewise, after identifying needs for improvement, some initiatives will be proposed to increase the agri-food value chain efficiency and sustainability.

CONSUMERS AWARENESS

An analysis of consumer behaviour in terms of sustainability will be performed afterwards, will be used to contact via the consumer network generated in order to train the consumer on what to do. More than 100 consumers in each of the participating countries have been recruited, balanced by age and gender. to understand the consumers' practices for sustainability from purchasing to consumption.

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