



5-STEP MODEL FOR CROSS- SECTORIAL INNOVATION

Based on the lessons learned from previous projects and cross-sectorial collaborations, a 5-step model was developed guiding introduction of Industry 4.0 relevant technologies in the agri-food industry: creating awareness, building a trust zone, evaluation and validation, implementation and leverage creation (Figure 1). The technologies and digital solutions we consider are available at higher TRLs and ready for validation in an industrial environment.

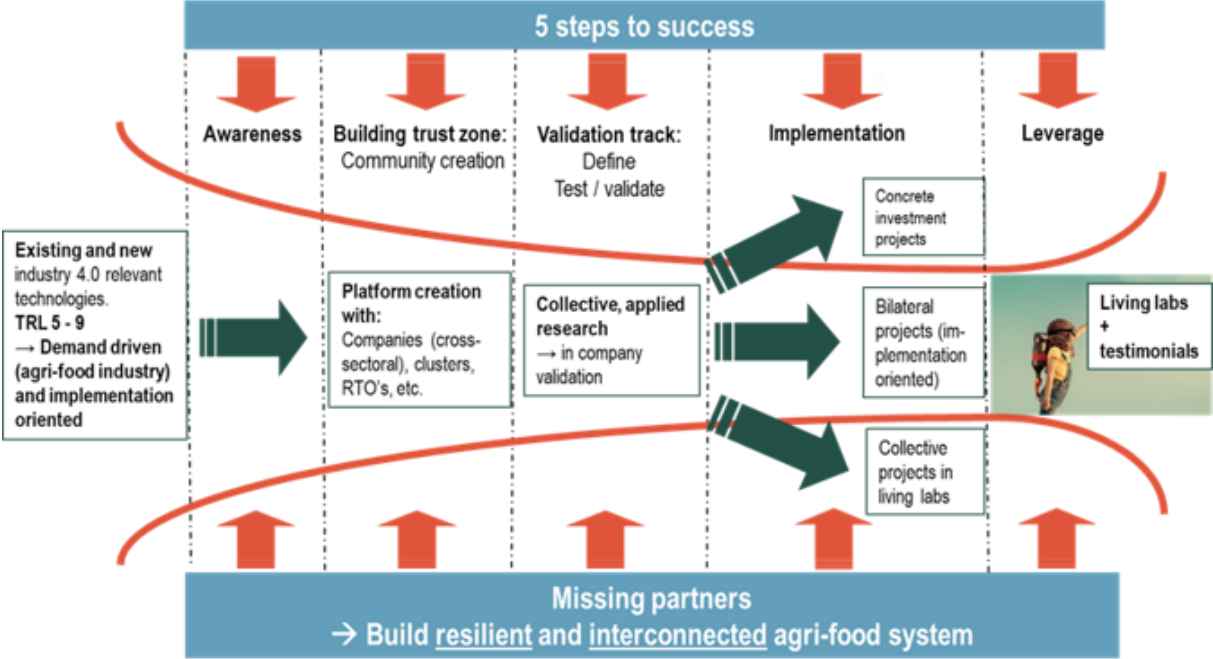


Figure 1 Funnel towards sector – oriented validation and implementation of technology (Copyright imec and FF)

A detailed description of the focus of each step and the activities that fit in each step is given in the following paragraphs.

Step 1: Creating awareness:

Creating awareness is a continuous process during the whole technology validation and implementation process. Via the SS4AF Partnership and the projects CONSENSYS and S3FOOD, this first step, for the larger part, has been completed. HIGHFIVE will build upon the connections that have been made with specialized clusters and innovation facilitators to further disseminate this funnel methodological concept and the identified demands and technology offers.

Step 2: Building the trust zone between the involved sectors – community creation:

The objective of this community and trust zone building is to bring companies together in a forum with focus on digitalisation for the agri-food industry. Such closer interregional, cross-sectoral collaboration, among regional clusters, technology centres, etc. can open up new opportunities for SMEs across regions. The aim is to improve and increase the awareness and explore the application of existing and new digital solutions for the needs of the agri-food industry (see challenges in section 1.2). Activities so far have resulted in the initiation of the network of living labs and the launch of the technology interactive map (available on www.S3FOOD.eu) that can be used by agri-food companies to find a technology provider connected to a specific challenge.

Step 3: Evaluation and validation of new technologies and digital solutions

The process to get from awareness to validation is a collaborative work in which common goals between all partners should be reached: demonstrate/test/feasibility checks of new technologies and digital solutions towards concrete investment projects. The process of validation gives insight in the specifications needed for industrial applications.

In the validation track the different players within the ecosystem are actively involved: the food processing companies as well as the technology and digital solution providers, machine producers and integrators for whom the agri-food industry is an important customer. During validation, which can be partly organized in the living labs or on site in the agri-food companies, RTOs can bring technology to a level that technology providers and integrators can take further to implementation towards end users.

Step 4: Implementation of new technologies and digital solutions

Close collaboration between the food processing companies and the technology and digital solution providers will result in concrete investment projects in the agri-food companies and collective large-scale SME group projects linked to the living labs. When needed, additional partners such as integrators and machine developers will be involved to make the jump from a stand-alone, validated device (demonstrator) to full integration in the production plant.

These projects will be identified, evaluated and implemented and additionally, the technology and digital solution providers can also invest in the living labs, where they can demonstrate their technology and give trainings.

Step 5 Leverage

Integration, investments and realizations in the agri-food industry create visibility for all stakeholders and will help to attract new partners for newly defined validation and implementation tracks and new technologies, which is a supporting evolution to reinforce the funnel.

Therefore demonstrations, training programs and study visits in the living labs, RTOs and frontrunner food processing companies are organized in collaboration with technology and digital providers. Furthermore, the activities, news, events, testimonials, success stories and concrete results are distributed and disseminated via newsletters, presentations, etc. This enables the cross-fertilization and speeds up the learning process.

Creating leverage also includes engaging and feeding input to policy makers and managing authorities of regional and European funds, in order to ensure the relevance and the likely translation of our Strategy in practice. As described in the Partnership Agreement the Regular Members and Associated Organizations closely interact with their respective regional authorities to guarantee the long-term sustainability of our partnership and ensure further financial support from the involved regions.