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More than a Village

JOINT SOLUTIONS FOR SMART VILLAGE TRANSITION IN CENTRAL EUROPE

An analytical framework to assist smart village initiatives to support development of rural areas in Central Europe

JOINT SOLUTIONS

Agri-food smart village tool

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Document information

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Contents

1. Introduction

The Agri-food Smart Village tool was developed under the project "*More than a Village: Smart Village Transition, a Model for More Competitive and Attractive Villages in Central Europe*." The European Regional Development Fund co-financed the project under the Interreg Central Europe 2021-2027 program.

The "More than a Village - MTaV" project aims to revitalize rural areas in Central Europe by developing and testing smart village models. It addresses entrepreneurship, digitalization gaps, youth outmigration, and aging populations. Key outputs include a joint strategy for smart village transition, action plans for selected areas, tools and solutions for implementing smart village models, and pilot projects testing different models. The project seeks to create jobs, stabilize rural populations, and boost economic resilience, benefiting small businesses, local communities, and authorities.

In this project, three smart tools are developed based on challenges faced, lessons learned, and conclusions from implementing the pilot actions. It aims to compile insights and best practices from pilot actions in Poland, Hungary, Italy, Slovenia, and Croatia, providing practical solutions to strengthen rural economies, improve digitalization, and increase rural areas' attractiveness. The first solution is a ***Smart village business support tool*** that contains all the information on the business support in rural areas acquired during the implementation of the pilots by the Local Action Group Association "South Warmia" (LAG SW) from Poland and Hajdú - Bihar County Government (HBCG) from Hungary. The second is a ***Smart tourism village tool*** that compiles information from the enactment of pilot action by the ANCI LIGURIA (ANCIL) from Italy. It concerns support for local rural entrepreneurs in the tourism sector. The third is an ***Agri-food smart village tool*** that provides a comprehensive agri-food smart village tool for developing and supporting local agri-food businesses and brings together lessons learned during pilot implementation of ITC – Innovation Technology Cluster Murska Sobota (ITC) from Slovenia and the City of Buzet (Buzet) from Croatia.

Rural areas often have higher levels of poverty, higher percentages of older adults, and slower-growing or declining populations. Also, the lack of entrepreneurship and digitalization leads to economic stagnation and youth out migration. To overcome these problems, the ***Smart Village concept*** was introduced. It is a territorial tool for strengthening the socio-economic development of rural areas. It describes communities in rural areas that use digital technologies and innovative solutions to boost the local economy and make rural areas more attractive and sustainable. The overall goal is to enhance the resilience and standard of living in rural communities. To achieve this, understanding, cooperation, and support from the public authorities are needed.

The Agri-food smart village tool aims to provide decision-makers with knowledge and recommendations on applying the smart village approach to the agri-food sector in rural communities. The focus is on empowering decision-makers to encourage and support the development of smart agri-food businesses (of local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas), through the application of smart village principles, and to foster community engagement. As such, the Tool will support local governments in applying the smart village concept for agri-food development.

The Agri-food smart village tool provides a guideline for improving the digital competitiveness of the agri-food and food sector in rural areas by creating a support system by public authorities. The document includes guidelines, methods, good practices, and practical templates to support the development of agri-food businesses of local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas. Additionally, experiences and outputs gathered during the pilot implementation in Slovenia and Croatia (the introduction of an innovation system to reduce food loss and waste, along with the design of an agri-food web platform) were utilized in the development of this document.

The methodology used to create this ***Agri-food smart village tool*** is based on the joint work of all project partners. ITC – Innovation Technology Cluster from Slovenia (ITC) and City of Buzet from Croatia (Buzet) shared insights from

implementing their action plans. ***The Agri-food smart village tool*** was refined through partners' and stakeholders' feedback and a workshop featuring three key exercises. The participatory process enabled Pilots to combine experiences, challenges faced, practical solutions, lessons learned, and to draw conclusions from implementing the Smart Village pilots. This participatory approach ensured that the ***Agri-food smart village tool*** reflects a wide range of experiences, practical advice, and tested methods, making it a valuable resource for supporting and enhancing the development of local agri-food businesses.

The ***Agri-food smart village tool*** is guiding users through all key stages of planning and implementing smart village strategies focused on the agri-food sector. It begins with an introductory section that provides an overview of the smart village concept, explaining its relevance and application in supporting the development of the agri-food sector in rural areas. The pre-planning phase outlines initial steps such as data collection, local context analysis, and stakeholder engagement—crucial elements for building ownership and setting a solid foundation for the planning process. The planning phase presents a structured approach to developing the strategic framework. It includes tools for conducting detailed situational analysis, defining a common vision, setting strategic objectives, and identifying concrete activities tailored to local agri-food development priorities. The implementation phase focuses on the operationalisation of the action plan. It highlights the importance of executing planned activities in a timely and coordinated manner, ensuring effective allocation and management of human, financial, and material resources. The monitoring section provides guidance on how to track the implementation phase. Progress is reviewed in accordance with the timeframes specified in the action plan, ensuring alignment with strategic objectives and timely adjustments where necessary. The evaluation section emphasizes the importance of assessing the plan’s relevance, effectiveness, and sustainability. It outlines methodological approaches and techniques for conducting evaluations at different stages: ex-ante (before implementation), mid-term (during implementation), and ex-post (after completion).

The final part of the tool includes practical recommendations and a step-by-step guide designed to assist local actors in supporting the growth and resilience of agri-food businesses. These recommendations aim to facilitate inclusive rural development while aligning with the broader goals of smart, green, and digital transformation. A dedicated Annex section provides templates and examples intended for use by local authorities. These support the design and implementation of local strategies, making it easier to introduce and integrate the smart village concept in ways that directly enhance the competitiveness and sustainability of the local agri-food sector.

2. The smartness dimensions in the context of the agri-food sector

2.1 Pilots in the MTaV project

The agri-food smart village tool is based on challenges, lessons learned, and practical tips gathered during the implementation of pilots Innovation Technology Cluster from Slovenia and City of Buzet from Croatia.

ITC
INOVACIJSKO TEHNOLOŠKI GROZD
INNOVATION TECHNOLOGY CLUSTER

In the Pomurje region, Slovenia, ITC has implemented an innovative system to reduce food loss and waste in the agri-food value chain. The initiative focused on reusing surplus fruits and vegetables for further processing, creating a food waste supply and demand marketplace, and establishing a system for collecting surplus food throughout the entire supply chain. Special attention was given on exploring food donation models, ensuring that surplus food could be redistributed to those in need, and fostering social inclusion. This comprehensive approach minimizes waste, strengthens local food networks, boosts circular economy practices, and promotes sustainable agri-food. The project is a model for enhancing resource efficiency and building resilient food systems in rural communities.

BUZET

In Buzet, Northern Istria, Croatia, a virtual agri-food web platform has been developed to support local agri-food producers and small

family farms. This platform enables producers to sell and advertise their products, access valuable agri-food insights, and track meteorological conditions through sensors installed in the Buzet area. Additionally, it serves as a networking hub where farmers, small and medium-sized enterprises (SMEs), and entrepreneurs can communicate and collaborate. The platform enhances market access, fosters innovation, and strengthens the local agri-food and food community, creating a more connected and resilient sector.

2.2 The smartness dimensions in theory and practice

Smart Villages can be analysed through **six smartness dimensions (or categories)**[1]. ***These dimensions work together to create vibrant, resilient rural communities***. The smartness dimensions relate to:

1. ***Smart Economy***

   It measures creative and innovative enterprises, employment and unemployment rates, and ICT penetration. Examples of indicators are the number of enterprises, the density of enterprises, the rate of young people employed, and the number of women leading enterprises.

2. ***Smart Mobility***

   This dimension is related to sustainable forms of mobility. Examples of indicators are the number of non-traditional cars, the presence of restricted traffic zones, and the level of sustainability of public transport.

3. ***Smart Environment***

   It aims to measure the quality of water, air, soil, and all other environmental parameters, including using renewable energy.

[1] MTaV - D.1.1.2 Knowledge management handbook describing working methodology and knowledge management tools.

Examples of indicators are the percentage of recycled waste and air quality levels.

4. *Smart People*

Indicates the level of inhabitants' participation in decision-making processes and assesses the level of citizens' education (including digital). Examples of indicators are the number of associations in the area and equal opportunity policies.

5. *Smart Living*

Measures the quality and quantity of services, mainly services of general interest offered to the population and their degree of satisfaction. Examples of indicators are the level of services to citizens (banks, post offices, medical facilities).

6. *Smart Governance*

It indicates the digital level of public administration, the forms and functioning of e-government, and the use or non-use of green public procurement. Examples of indicators are the effectiveness of policies on waste, energy, etc.

In the early stages of developing a Smart Village, it's unclear how well different smart aspects will fit the local context. It is essential to examine all smart aspects by asking practical questions regarding their influence on improving life in local rural areas. Rural areas differ in needs, resources, and readiness. That's why it is essential to reflect on each smart dimension individually to see whether it is appropriate, practical, and realistic in the related village context. For example, while smart agri-food business for young entrepreneurs may be highly relevant in one area, it may not be applicable in another due to low internet access. These reflections ensure the Smart Village model is adopted to meet local needs.

The experts from Poliedra - Politecnico di Milano from Italy assessed that the following dimensions are relevant to applying the smart village concept in rural agri-food development. As seen from a practical example, the Mobility dimension was not considered because it does not interest any of the pilots in the MTaV project. Also, each dimension has associated criteria with a definition that serve as an indicator of smartness and an anchor for measuring implementation success.

When planning the implementation of the smart agri-food support concept, it is essential to identify which dimensions of the smart village framework are relevant to the specific region.

Practical example on assessing the relevant dimension of smartness and associated indicators/criteria in rural agri-food business development (provided by experts in the MTaV project, Poliedra from Italy).

Dimension of smartness	Indicator/Associated criteria	Definition
Smart Governance	Existence of strategies, rules, and regulations to promote ICT literacy	Assess the presence of formal agri-food policies, strategies, and regulations to enhance citizens' ICT literacy, enabling digital inclusion and smart governance practices within the agri-food sector.
	Level of information, data availability, and accessibility	Measures the extent to which community members have access to accurate, relevant, and up-to-date agri-food information and data for decision-making and participation in governance

Dimension of smartness	Indicator/Associated criteria	Definition
	Level of investment in smart transition initiatives	Tracks governments' financial resources to projects and programs that drive the smart development of the agri-food sector in rural communities.
Smart Economy	Accessibility of cultural and recreational initiatives	Measures the ease with which residents and visitors in rural communities can access cultural and recreational activities, including events, facilities, and programs.
	Economic investment in ICT sectors	Indicates the level of financial commitment to ICT industries, driving innovation and employment in rural areas related to the agri-food sector.
	Adoption of circular energy solutions	Evaluate practices like energy recycling and renewable energy usage to reduce waste.
	Economic investment in the agriculture sector	Indicates the level of financial commitment to agri-food industries, driving innovation and employment in rural areas.
	Level of technical ICT	Evaluates the prevalence of ICT skills within the workforce and local supporting digital initiatives.
Smart Environment	Degree of digitalization in monitoring systems	Enhances agri-food data collection, analysis, and management, and evaluates the integration of digital technologies in monitoring environmental systems, such as ecosystems, water, air quality, noise, waste, and wastewater.
	Status of smart waste and recycling management	Assesses the deployment of smart technologies to optimize waste collection, sorting, and recycling, promoting resource efficiency and

Dimension of smartness	Indicator/Associated criteria	Definition
		reducing environmental impact in the agri-food sector.
	Percentage of equipped natural spaces (e.g., presence of Wi-Fi and 4 G or 5 G coverage) in the area concerned	Percentage of natural spaces with Wi-Fi and 4G or 5G coverage, where citizens can spend their free time or work in agri-food areas.
Smart Living	Level of safety in the area	Assess the safety of the agri-food area where an intervention is carried out to enhance the livability of citizens and beyond.
	The level of general interest services, such as banks, post offices, and health and social care services for young and older people.	Assesses the availability of primary services essential to the daily lives of citizens.
Smart People	Level of digitalization in rural schools	Evaluates the integration and usage of digital technologies in rural educational institutions to enhance learning outcomes and accessibility.
	Number of associations for young and senior citizens	Evaluates the presence of associations in the area that involve people of all ages in activities related to agri-food themes.
	Level of policies for promoting equal opportunities	Evaluates the level of agri-food policies promoted by municipalities or institutions to improve equal opportunities.

Source: MTaV project. In the MTaV project, indicators/associated criteria are defined for each dimension. Thus, the indicators serve a) to check that the implemented pilot can be defined as a smart solution and b) as anchors for measuring implementation success.

Applying all detected dimensions and related indicators/associated criteria is unnecessary. and other institutions involved in the smart transition should consider what may be most important or what they can support. Therewith, a practical example from the City of Buzet from Croatia is provided.

Practical example of defining detected dimensions and related indicators/associated criteria.

Dimension of smartness	*Indicator/Associated criteria*	*Comments*
Smart Governance	Level of Information and Data Availability and Accessibility	By building a web platform for the Buzet area, local producers and the general public will have access to the most relevant information and agri-food novelties. They will be able to communicate with policymakers on the local level.
Smart Environment	Degree of Digitalization in Monitoring Systems	By providing the real-time data from the agrometeorological stations on four locations, local producers and the general public will have quality, precise, and accurate data from the stations such as humidity, temperature, soil temperature etc.

Source: MTaV project, List of the dimensions with associated criteria for developing smart village agri-food sector support in the MTaV project - City of Buzet from Croatia (Buzet).

3. Supporting the agri-food sector: lessons learnt from MTaV pilots

The strategic planning approach may easily be followed in the smart village approach to develop agri-food smart village support. It is performed in four phases: the Pre-planning phase, the Planning phase, the Implementation phase, and the Monitoring and evaluation phase. All the phases, alongside their accompanying activities, are described below.

3.1 Pre-planning phase

Once it is decided that smart village agri-food businesses support should be offered to interested local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas, it is highly recommended that a Stakeholder group be established. Such a group should support local governments and other institutions involved in the smart transition throughout all the mentioned phases of implementing the smart rural agri-food model.

Stakeholders are individuals, groups, or entities that have an interest in a business's and/or project's outcomes. They are divided into primary stakeholders (those who experience a project or initiative's direct impact) and secondary stakeholders (those with indirect involvement, e.g., through business relationships). They can be internal (from the same organisation and involved in the business and its outcomes), and external (interact from outside and are interested in performance, but not on a daily basis). The following table shows how stakeholders can be analysed in terms of their influence, interest, and levels of participation in the project (external – internal stakeholders, direct – indirect involvement)[2].

[2] GOOD/Participatory Governance IN Cultural Heritage - How to involve public,, Interreg Central Europe project "For Heritage (4H): Excellence for integrated heritage management in central Europe", https://programme2014-20.interreg-central.eu/Content.Node/ForHeritage.html

Stakeholder type		*Who are they?*	Stakeholders' level of interest *How interested in the project and its outcome are they?*	Stakeholders' level of influence *How powerful (in terms of influencing the project) are they?*
Internal	Partners	Working team, team leader, consultant companies, contractors, suppliers, legal, regulatory administrations	Highly interested in completing the project within the timeframe and the identified budget	High influence They actively contribute to a project and have the power to help make it successful (or to derail it)
External	Beneficiaries	Professionals, entrepreneurs, investors, financial institutions, politicians, and leaders of society	Primarily interested in completing the project with reasonable costs, repayment of the investment in a reasonable period, increasing prestige and experience, etc.	High influence They have the power to influence it greatly if they become interested
	Final beneficiaries	The public and marginalised groups	Interested in the outcome of a project because they are directly affected by the outcome	Low influence They can voice their support in the community, positively influence the project, and change its scope, but they have little actual power to

				influence the effort in any way
	Indirect stakeholders and beneficiaries	Opportunists, activists, media, other members of the community, or area	Highly interested	There is a possibility to influence the project

Partners are people or institutions participating in building or delivering a project.

The project beneficiaries are those who will benefit from the project.

Final beneficiaries are those who benefit in the long term.

Indirect stakeholders/beneficiaries are those who will be impacted by or impact the project, though they don't directly participate in working on it.

Practical example of how the City of Buzet from Croatia analysed Interests, Contributions, and Constraints of their stakeholders[3].

	Public authorities	**Association of craftsmen Buzet/SMEs and farms**	**Civil society, Local Action Group and Institute**
Interest	Better quality of life for residents and farmers New economic opportunities in tourism services related to the agri-food products Improved digitalisation level	New business opportunities Better circumstances for farmers and entrepreneurs More essential data for everyday business	Wider involvement of citizens Bringing different actors together Stronger link with municipalities in tourism opportunities
Contribution	Invest in local the agri-food and tourism Mobilize citizens Inform citizens Help in making better conditions for farmers and entrepreneurs	Integrate tourism with the agri-food Develop new types of marketing Better understanding of needs and problems in business	Bringing wider knowledge on the topic Inform and disseminate
Constraint	Potential difficulties in the collaboration of local and regional authorities with the national authority Potential lack of trust of citizens towards policy actors	Potential lack of currently available funding sources	Potential lack of capacity

[3] MTaV - D.1.1.3 Stakeholder Mapping.

What is the role of the Stakeholder group?

By engaging stakeholders, diverse perspectives are incorporated, and projects are more likely to address real-world problems and develop practical solutions. This improves project quality, efficiency, and long-term success. Stakeholders' exchange of good practices and lessons learned across regions while promoting policy innovation makes learning available at various levels. When learning from them, **they co-own the solution tailored to their needs**. Through co-decision and validation, external stakeholders influence the solutions developed within the project, ensuring a participatory approach. Furthermore, stakeholders facilitate the broad dissemination of smart village agri-food sector solutions through their own networks via extensive outreach activities. In short, they bring input for the analysis of the current state; inform, consult, collaborate, and validate results of the common efforts; they bring ideas and opinions; and validate final solutions.

What is the recommended number of stakeholders?

The exact number of stakeholders is not determined. The number of stakeholders involved is critically linked to the area's dimensions and demographics. Still, it also depends on the societal, demographic, and economic structure, as well as the type of agri-food smart village solution. It is, however, important to have a broad and diverse group of stakeholders who will bring different views, experiences, and expectations. For example, they can come from:

1) Public administrations/Public entities/Policy makers,
2) Academia/Research institutions/Innovation parks/ Digital innovation hubs,
3) Agri-food businesses/Agri-food business associations/Agri-food SMEs/Agri-food Start-ups/Cooperatives/Enterprises/Economic actors,

4) Civil society/Citizen organizations/NGOs

A thorough understanding of stakeholders' behaviours, motivations, relationships, interests, and their actual or potential influence and resources, regardless of how many stakeholders are involved, is crucial. Based on data collected through instruments such as surveys, workshops, open forums, interviews, and focus groups, effective stakeholder management strategies can be designed. These strategies should address optimal engagement methods and communication approaches tailored to different stakeholder.

How can the stakeholder group be engaged?

After appointing stakeholders as members of the SG, it is time to engage them in the implementation process of the agri-food smart village concept. They often want to be involved in the decision-making process. In that case, they are more likely to trust the project because they understand how and why decisions are made. Also, involvement offers a chance to protect and promote the interests of those somehow affected by the outcomes of decisions. However, as mentioned before, the process of their involvement starts much earlier than the Implementation phase.

Thus, SG can be involved from the very beginning by getting input for the analysis of the current state; by bringing ideas and opinions; or at the end of the implementation, namely in the Monitoring and evaluation phase by validating final documents to be prepared within the project, etc.

Practical example of how the City of Buzet from Croatia engaged stakeholders in the creation of the web platform.

During the stakeholders meeting, the focus was on plans to develop a **web platform** that will make it easier for local farmers to market and sell their products. The platform is intended to be more than just a digital marketplace – it will also help promote locally grown goods, share important news from the agri-food and business sectors, provide updates on available grants, and display real-time data from agrometeorological stations installed across various locations in our region. Additionally, the presentation included information on how data from agrometeorological stations will be regularly updated on the platform.

Stakeholder involvement was a crucial aspect of the meeting. Representatives from local farming communities, municipal authorities, and agri-food experts actively participated in the discussion. Their input helped identify the most pressing issues farmers face and the types of support and information they would like to see on the platform. This collaborative approach will continue throughout the project to ensure the platform is handy and grounded in the needs of the people it's designed to serve.

How to communicate with the Stakeholder group?

Successful and effective stakeholder engagement often relies on stakeholder experience gained through communication.

The number of meetings depends on several factors. For example, if the project is complex, more frequent or detailed, meetings will be necessary to ensure alignment with the planned activities and manage risks. Often, the planning phase requires more meetings, while later stages need fewer, more focused updates. If stakeholders are highly involved or affected by the project, more meetings may be necessary to keep them informed and engaged. Apart from in-person meetings, e-mail or online meetings may be used for some activities. It may also depend on the stakeholders' preferences, for example, one stakeholder prefers to be regularly updated, while others are satisfied with periodic updates.

Regardless of the method chosen for communication with a Stakeholder group, it is necessary to provide them with information about progress and changes, and to regularly provide answers to their questions. Meetings with stakeholders can also serve to seek their support, obtain resources from them, and coordinate their future work, especially if a milestone is approaching.

To achieve all this, it is essential to encourage stakeholders to be involved and to communicate effectively. This is described in more detail in chapter 3.2.1.

3.2 Planning phase

This phase relates to the following steps:

a) State-of-the-art analysis
b) Determining the vision
c) Determining the objectives
d) Determining the measures and activities to be performed

3.2.1 State-of-the-art analysis

State-of-the-art analysis entails analysing the selected topic. It is usually done using the method of desk research analysis, which involves studying the available documentation, such as statistical data, strategic and planning documents, and professional and scientific papers.

To gain a deeper understanding of the topic, further analysis should be done via the Stakeholder group: meetings can be organized with them in ***focus groups***. Focus group is a qualitative technique which uses in depth group interviews with participants that are chosen based on their knowledge on the specific topic that is being studied (Rabiee, 2004). Focus groups are beneficial when gathering information on residents' or entrepreneurs' needs, preferences, and problems. They are easy to execute, and that is their greatest strength. The moderator actively encourages stakeholders to express their opinions and respond to other participants' and moderators' questions. Responses in a focus group are *spoken*, *open-ended*, *relatively broad*, and *qualitative*. Nonverbal communications and group interactions can also be observed. Focus groups can get closer to people's thoughts and feelings, even though their responses may be more complex.

Additionally, ***interviews*** with knowledgeable individuals may be organized to gain even more nuanced information on the topic. *Interview* is a method appropriate in situations regarding the collection of in-depth information on participants' thoughts, opinions, experiences, and feelings, and is useful for complex questioning (Easwaramoorthy, 2006). This approach allows for a deeper understanding of personal experiences, opinions, and context relevant to the research focus. Stakeholder groups may be an essential source of information on the possible interviewees. The number of interviews conducted depends on how many stakeholders can meaningfully contribute to the topic.

Good practice examples may also be helpful in state-of-the-art analysis. Good (best) practice is "a method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark within a particular discipline or field" (van Heck and Vervest, 2009). While

they are not always available, research to collect good practices is valuable. Researching good practices provides a good start built on real-world experience and supports evidence-based decision-making. Before the collection of good practices, it is necessary to determine what is considered as a good practice and what is applicable to the related territory. Only after that good practice collection may be performed since only those cases meeting the determined criteria will be sought for.

Examples of data that can be collected about good practices

General data about good practice

Description of good practice

Description of the good practice – **main aspects** (its scope, implementation, and main features).

In which **smartness dimension(s)** does this good practice work?

Does this good practice have any possible **links with your action**?

Main lessons learnt and main recommendations:

Main challenges encountered while implementing the good practice

Main lessons learnt from the good practice and its implementation

What is the **main message** you derive from this good practice?

What is the **main success** story that led you to select it?

What are the **main recommendations** from these good practices that you wish to communicate to the other rural areas?

Examining what worked well and what didn't in different communities can help avoid repeating mistakes. Proven solutions can be identified and adapted to local needs, thus accelerating implementation and reducing the need to start from scratch. Transferring a good practice from one rural region to another is not straightforward. Care should be given to the good practice results rather than the implementation process. Transferability depends on the specificities of each rural area and requires significant support from local authorities. The stakeholder group might again be a valuable source in such an activity, but other partners, such as universities and/or research institutes, may also be engaged. Good practice examples are available on the Interreg Europe Policy Learning Platform, EU Food Loss and Waste Prevention Hub - EC Europa and in the Further Reading chapter. Here are some documents with good practice examples.

Where to find good practice examples?

Smart solutions The Smart Solutions Database provides access to a wide range of innovative practices adaptable to various local contexts from Smart Rural 21.

Good practices Good practices catalogue from Smart Alps platform.

Smart Communities Examples of smart rural communities / smart villages elaborated in detail, including a short description of the community/village, key aspects of its 'smartness', journey of becoming smart (smart solutions), thematic area in focus, and aspects of community engagement.

Pilot project - Publications Office of the EU Project funded by the European Commission to define Smart Villages and identify best practices and case studies.

EU Food Loss and Waste Prevention Hub - PROJECTS EU Food Loss and Waste Prevention Hub

Where to find good practice examples?

Green Point Living Lab - Zelena Točka (Green Point) short food supply chain (SFSC) in Slovenia's Pomurje region exemplifies successful implementation of digital solutions in short food supply chains, serving as a distribution center that connects local farmers with end-consumers while offering fresh, healthy, and locally sourced products. Established in 2019, Zelena Točka has evolved from a simple marketplace to a comprehensive ecosystem that covers the entire North-Eastern Slovenia region, successfully integrating public institutions such as kindergartens, schools, and hospitals into their supply network. What distinguishes Zelena Točka from conventional marketplaces is its commitment to transparency and traceability - SFSC has successfully implemented blockchain-based tracking solutions, enabling complete farm-to-store origin verification and addressing critical issues of food fraud prevention. Zelena Točka demonstrates how digital innovation can strengthen traditional short supply chains by combining multiple sales channels (physical stores, web platforms, and institutional sales) while maintaining direct relationships between producers and consumers. Additionally, Zelena Točka contributes to circular economy principles by incorporating a cloud-based marketplace for surplus food, enabling private citizens, farmers, and businesses to prevent food waste while generating revenue. This comprehensive approach showcases how smart village principles can be successfully applied to create economically viable, environmentally responsible, and socially inclusive food distribution systems that serve both rural producers and urban consumers while preserving local food traditions and supporting regional economic development.

Once the recommended methods have been applied, the knowledge gained should be presented and grouped along the most critical subtopics, highlighting the ***challenges***, ***needs***, *and* ***development potentials***. Such a holistic analysis should reveal the most pressing challenges in applying the smart village concept to agri-food business development. It also discovers

which opportunities may mitigate weaknesses and which strengths can be used to avoid threats. In Annex 1, a template for analysing challenges, needs, and development potentials can be found.

An example of the challenges and development potentials encountered while implementing innovative technology for reducing food loss and waste, as well as a virtual agri-food web platform.

Challenge: Stakeholders' acceptance of new tools in the agri-food value chain.

⇒ Development potential: Organize targeted workshops and one-on-one training to demonstrate the practical benefits of the tools, including time savings, cost efficiency, and improved decision-making. Showcase real-world success stories to build trust and competence.

Challenge: Limited participation of key actors is necessary to drive change in the region.

⇒ Development potentials: Launch strategic workshops and informational campaigns tailored to the interests and influence of key regional actors.

Challenge: Difficulty in finding suitable locations for installing Agrometeorological stations.

⇒ Development potentials: Conduct face-to-face meetings with local landowners, municipalities, and agri-food stakeholders to explain the benefits and requirements of station placement.

Challenge: Development of an agri-food web platform with limited initial input on content and low producer participation.

⇒ To ensure the platform meets real needs, start by collecting input through a questionnaire for producers and stakeholders, focusing on content and design. Follow up with interviews or small group discussions to refine ideas and build early engagement. This collaborative approach will make the platform more useful and encourage active participation.

Challenge: Lack of visibility and awareness before project implementation.

⇒ Appoint a strong project leader to represent and communicate the initiative. Launch promotional activities (e.g., social media outreach, local events, and press releases) from the beginning of the implementation process

SWOT analysis is another method useful for the state-of-the art analysis. It stands for Strengths, Weaknesses, Opportunities, and Threats, and offers a simple way of organizing gathered information. A fuller awareness of the situation helps with strategic planning and decision-making. SWOT analysis can help explore possibilities or solutions to challenges, identify opportunities for success in the context of threats, and determine whether a change is possible. For example, a strong tradition of farming, combined with local producers' willingness to adopt innovative solutions that reduce food loss and waste, could be a significant strength. A weakness could be low digital literacy among older farmers or insufficient infrastructure to support advanced agri-tech tools. Opportunities may include access to EU or national funding for sustainable agri-food, as well as the emergence of digital marketplaces for local food. Potential threats could involve youth migration to urban areas, resistance to adopting new technologies or digital platforms, or difficulties in maintaining long-term engagement from local stakeholders.

SWOT analysis will be more effective if advantage of many stakeholders is taken. For example, each stakeholder offers a different perspective on the

strengths and weaknesses and has various experiences. The best results come when the process is collaborative and inclusive. This type of analysis is particularly relevant for future steps in the implementation of the smart village agri-food concept, that is determining the vision, and goals.

The following elements are particularly relevant for identification through the SWOT analysis:

- ***Demographic trends***. Key factors to analyse include the population size, age distribution, income levels, and education levels within the local community.
- ***Infrastructure***. Rural areas often face challenges such as unreliable transportation networks, limited access to high-speed internet, inadequate energy supply, or a shortage of commercial and co-working spaces. These constraints can hinder logistics, digital service delivery, communication, and talent attraction.
- ***Local resources and assets***. Rural communities often possess unique strengths, such as natural landscapes, agri-food products, traditional skills, cultural heritage, or tourism appeal, that can be leveraged to create value.
- ***Organization***. Refer to how the rural community is run, its systems, decision-making processes, leadership roles, and resources.

In Annex 2, a template for SWOT analysis can be found.

3.2.2 Determining the vision

Once the analysis has been done, the future vision of the smart village agri-food business model needs to be determined. *Vision is the overall goal you want to achieve, or the "place" you want to be in the future*. It describes the smart village's desired long-term results, meaning, and purpose.

The vision is best defined using a participatory approach while working with the Stakeholder group. The previous analysis of the state-of-the-art serves as a basis for determining the vision. The participatory approach allows access to the participants' "collective intelligence" (understanding and learning from multiple perspectives), which is why it is highly recommended. Thus different

opinions are heard and the process of sensitization occurs until a final joint vision is brainstormed.

3.2.3 Determining the objectives

Alongside the vision, the same workshop organized with the Stakeholder group should be used to determine the **objectives** of implementing the planned agri-food smart village model. Alongside objectives, it is beneficial to identify and establish relevant **Key Performance Indicators (KPIs)** that will measure progress toward each objective and milestone. Objectives are usually divided in strategic goals and specific objectives. The **strategic goal** is a planned intention (end result) of work preceded by achieving one or more specific objectives, also planned. **Specific objectives** are smaller parts of strategic goals. While strategic goals are long-term, specific objectives are usually set by a shorter deadline. In a practical example, the ITC/Slovenia has set a strategic goal within the MTaV project.

Practical example of the strategic goal set by ITC/Slovenia within the MTaV project

The strategic goal is to develop and enhance an approach to reduce food loss and waste in the agri-food value chain by establishing an innovation system.

All objectives must be specific, measurable, achievable, relevant, and time-bound (**SMART**), which allows for better progress tracking. Stakeholders should be engaged in the goal-setting process. This participatory approach fosters buy-in and commitment. When brainstorming, focus must be on high-impact objectives that align with the vision. Setting too many objectives can lead to scattered focus and weaker results. Although there may be several strategic objectives, the recommendation is to keep up to three of them. For

example, the City of Buzet from Croatia has set two objectives, which helped them keep focus but still align with the vision. To better measure the progress, five KPIs are set[4].

The Check-list may be a handy tool in this process (see Annex 3 for template).

Practical example of how the City of Buzet from Croatia set its objectives and KPIs.

Objective	KPI's	Description	Target value
OBJECTIVE 1 Creation of the web platform	KPI01	Local agri-food producers who will use the web platform to advertise their products and track weather conditions on the platform	min. 15 users
	KPI02	SMEs and entrepreneurs who will advertise and sell the products via the platform	min. 15 users
	KPI03	Local public who will buy products thanks to the platform and track meteorological data for small family gardens	min. 200 users
OBJECTIVE 2	KPI04	Installation of four new Agrometeorological stations by the end of February 2025	Installation of four fully operational Agrometeorological stations

[4] MTaV D2.1.1 - Joint approach and methodology for pilot planning, implementation and evaluation

Installation of Agrometeorological stations	KPI05	Creation of a new web platform by the end of April 2025	Fully functional web platform with all agrometeorological information by the end of April 2025

When planning support for the development of the agri-food smart village model, local governments can set the following goals, in line with their authority:

- ✓ ***Development and support of local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas***. Advisory services, including mentoring, education, and support from local development agencies and business support centres, ensure access to financing, subsidies, microloans, and EU funds.
- ✓ ***Use of Technology in Business***. Digital infrastructure: internet, IoT, smart sensors; digital tools for agri-food, tourism, and crafts; e-commerce and digital marketing; platforms for collaboration and knowledge/experience exchange – e.g., e-learning, online consulting.
- ✓ ***Local Partnerships and Citizen Participation***. Networking with other smart villages and social entrepreneurship.

3.2.4 Determining the measures and activities to be performed

A separate workshop with the stakeholders should be organized to determine the measures and concrete activities for each previously set specific objective. The **measures** relate to the sets of activities undertaken to achieve a desired outcome; they can be e.g. preventive, protective, control, restrictive, etc. measures. For example, a protective measure in the Smart agri-food village could be making sure strong data privacy and security systems are in place to protect farmers' information. On the other hand, a more restrictive measure might be allowing only verified local producers to join the virtual agri-food platform, thereby ensuring product quality and building trust

with consumers. Further on, **activities** are concrete actions implemented under a certain measure to achieve the goal. They must be clear, have the designated coordinators (possibly also partners in the implementation) and the time-frame of their implementation, and include costs and funding sources alongside measurable success indicators.

The previously set strategic goals, specific objectives, measures and activities are usually presented in the tabular form of the Action plan.

The following practical example illustrates the organization of activities for developing an innovative system to reduce food loss and waste in the agri-food value chain. The Action plan template is given in Annex 4.

A practical example of the Action plan for developing an innovative system to reduce food loss and waste in the agri-food value chain.

Goal 1: To reduce food loss and waste						
SO1. To strengthen circular food system						
Measure 1.1. Ensuring adequate digital solutions that enable reduction of food loss and stimulate circular food system						
Activity	**Coordinator**	**Key partners**	**Indicators (KPIs)**	**Timeline**	**Monitoring frequency**	**Funding sources**
To upgrade the digital platform Marketplace of surplus food	Innovation Technology Cluster (ITC)	Food producers, Food processors	Functional digital platform	2025	One-time, by the end of envisioned period	Supply chain operators, EU sources
Training activities on the use of the platform Marketplace	Innovation Technology Cluster (ITC)	All stakeholders interested in training	The number of organized trainings	2025	Every 6 months	Facilitator of the platform, EU sources

of surplus food			The number of trained participants		Every 6 months	
Measure 1.2. Increasing public awareness and engagement						
Activity	**Coordinator**	**Key partners**	**Indicators (KPIs)**	**Timeline**	**Monitoring frequency**	**Funding sources**
Regional workshops for the engagement of local actors in actions supporting food waste prevention and circular food systems	Innovation Technology Cluster (ITC)	Researchers and professionals	No. of workshops No. of trained persons	2025 2025	One-time, by the end of envisioned period One-time, by the end of envisioned period	Own funding by the facilitator of the circular food system, Municipality budget, Regional budget, National budget, EU sources
Promotional campaign through accessible information, events, and digital content	Innovation Technology Cluster (ITC)	Media, Local „heroes“ (promotor of initiative) – such as Green Point	No. of promotional activities launched No. of people reached	2025 2025	One-time, by the end of envisioned period One-time, by the end of envisioned period	Municipality budget, EU sources, sponsors
Measure 1.3. Improvement of regional cooperation and data generation for food policy						
Activity	**Coordinator**	**Key partners**	**Indicators (KPIs)**	**Timeline**	**Monitoring frequency**	**Funding sources**
Collaboration with the existing smart agri-food initiatives	Innovation Technology Cluster (ITC)	Existing smart agri-food initiatives	The number of collaborations established The number of smart solutions applied as a result of	2026 2027	Annually One-time, by the end of	National budget, EU sources

			collaborations		envisioned period	
Research-study on food loss statistics, legal rules and best practice examples	Innovation Technology Cluster (ITC)	University, Statistical office, other EU funded projects	Research study	2025	One-time, by the end of envisioned period	National budget, EU sources

Tip!

When developing a time plan, it is crucial to recognize that unforeseen obstacles may arise during implementation, potentially causing delays.

One common challenge is the ***public procurement process***, which can be time-consuming and administratively complex, especially in projects involving equipment purchases, construction work, or external services.

Together with the development of the Action Plan, it is essential to consider potential risks that may arise during the implementation phase. Risk is defined as the potential occurrence of unforeseen or undesired events that could hinder the achievement of the objectives outlined in the Agri-food Smart Village Action Plan. In the context of planning and implementing smart village approaches in the agri-food sector, risks can be operational, financial, or strategic in nature. Operational risks may include weak coordination among stakeholders, insufficient technical capacity, and minor delays in the delivery of key infrastructure. Financial risks might stem from limited access to funding, unstable investment support, or inadequate financial management systems. Strategic risks may include lack of long-term political commitment, weak integration of the smart agri-food strategy into broader local development policies, misalignment with market trends and consumer demand, or limited digital competencies within the local community which

may hinder the adoption and effective use of digital solutions introduced through the Agri-food Smart Village initiative, potentially reducing the impact of innovation-driven measures.

Practical example of how the ITC – Innovation Technology Cluster from Slovenia identified risks and the mitigation measures to address them[5].

Risk ID	Description	Likelihood	Level of severity	Mitigation measures
1	Lack of awareness and engagement	Low	Medium	Implement a comprehensive education and awareness campaign. Use social media, workshops, and community events to inform and engage the public about the importance of reducing food waste and the steps they can take.
2	Resistance to change	Medium	Medium	Highlight success stories and benefits, such as cost savings and environmental impact, to encourage participation.

[5] MTaV D2.5.3 – Mid-term evaluation report

3	Logistical challenges in food redistribution	Low	Low	Fully operational SFSC is in the background.
4	Inconsistent data collection and monitoring	Medium	Medium	Regular contact with food chain actors and providing training on how to use the data and the marketplace.
5	Consumer behaviour and preferences	Medium	Medium	Conduct consumer education campaigns to encourage behaviour change, such as proper portion control, meal planning, and understanding food labels. Promote the consumption of "ugly" or imperfect products to reduce waste at the retail level.

3.3 Implementation phase

This is the most "active" phase regarding the performance of the planned activities. It simply entails that the planned activities are performed by the designated stakeholders and possible partners in a determined time frame, with designated funding and measurable indicators. Thus, it regards the actual implementation of the activities set in the Action plan table.

3.4 Monitoring the Implementation

Monitoring is a structured and continuous process that begins once the Agri-food Smart Village Action Plan is formally adopted and continues throughout the entire implementation period. Its main objective is to track whether the planned activities are being implemented according to the defined schedule, with the appropriate allocation of resources and in alignment with the objectives and priorities set out in the plan. Monitoring is typically carried out by local authorities or designated implementation bodies that are responsible for overseeing progress, coordinating involved stakeholders, and ensuring that the key performance indicators (KPIs) are being met. These indicators may relate to areas such as the adoption of innovative agri-food practices, improvement in infrastructure, participation of local producers, digital transformation in food supply chains, or support to local value-added initiatives.

A well-structured monitoring process enables the early detection of delays, bottlenecks, or capacity gaps, and allows for timely corrective actions. This contributes to more efficient use of resources, improves responsiveness, and strengthens the overall resilience of the implementation process. Monitoring is not only a tool for tracking progress but also a key mechanism for steering implementation and enhancing accountability at the local level. To support effective monitoring, it is recommended to establish a practical tracking matrix that offers a clear and comprehensive overview of the implementation status. This matrix should include information on planned activities, responsible actors, deadlines, relevant indicators, progress achieved, and any remarks or alerts that may require action. An example of such a monitoring sheet is provided in Annex 5, which local authorities and implementing teams can adapt to their specific needs when operationalising the Agri-food Smart Village approach.

3.5 Evaluation

Evaluation is a structured and evidence-based process aimed at assessing the relevance, effectiveness, efficiency, impact, and sustainability of activities

planned and implemented within the agri-food smart village development framework in rural areas. It complements ongoing monitoring by providing a deeper understanding of whether the strategic actions undertaken are delivering the intended outcomes and remain aligned with the needs and development priorities of the local agri-food sector. Evaluation also supports informed decision-making by verifying whether the action plan is properly grounded in the local context and strategically positioned within broader rural development agendas. It strengthens strategic alignment and ensures that interventions are delivering value in terms of social, economic, environmental, and innovation-related outcomes. Evaluation should be conducted in three key phases: ex-ante, mid-term, and ex-post. Ex-ante evaluation takes place prior to implementation and assesses the internal coherence, feasibility, and relevance of the planned measures. Mid-term evaluation is carried out during the implementation process, focusing on progress made, resource efficiency, and the need for any course corrections. Ex-post evaluation is conducted after the completion of implementation, with the aim of analysing long-term results, sustainability of interventions, and overall impact on the local agri-food system. To ensure objectivity, impartiality, and methodological rigour, evaluations should be led by independent external experts with relevant expertise in the fields of agri-food systems, rural development, and strategic planning. Their impartial perspective increases the credibility of evaluation findings and supports the development of robust, actionable recommendations. The evaluation process should follow a structured methodology consisting of key steps: defining the purpose and scope of the evaluation, selecting appropriate evaluation criteria and indicators, collecting and analysing both qualitative and quantitative data, consulting relevant stakeholders, drawing conclusions based on evidence, and formulating clear, context-sensitive recommendations. Through this process, evaluation becomes more than a reporting obligation—it serves as a practical tool for learning, adaptation, and improvement throughout the implementation lifecycle. Evaluation enables all stakeholders to reflect critically on progress achieved, identify obstacles encountered during implementation, and extract lessons that can guide future planning

cycles. It facilitates the identification of successful approaches and good practices that are transferable to other local contexts, thereby enhancing the scalability and replicability of the agri-food smart village approach.

The evaluation process includes the following components:

- ***Document Review***

A systematic review of planning and implementation documents, including the Action Plan, financial and progress reports, monitoring data, and supporting materials, is conducted to establish a factual baseline and gather quantitative performance indicators.

- ***Interviews and focus groups***

Structured interviews and targeted focus group discussions with key stakeholders, including local authorities, farmers, cooperatives, businesses, and community representatives, are carried out to obtain qualitative insights, perceptions, and feedback on implementation progress and barriers.

- ***Progress Tracking***

Evaluation compares findings from documentation and stakeholder consultations to determine whether implementation is proceeding as planned and whether defined goals and KPIs are being achieved.

- ***Risk and Challenge Assessment***

Operational, financial, and strategic challenges encountered during implementation are identified and reviewed, along with the mitigation strategies employed. This provides insight into the system's flexibility and the resilience of the implementation approach. Successful practices that can be replicated or adapted elsewhere are highlighted, along with key lessons that can inform future programming. These findings contribute to institutional learning, ongoing capacity-building, and the overall improvement of agri-food smart village planning.

➢ *Good Practices and Lessons Learned*

A set of guiding interview questions to support the evaluation process of the Agri Food Smart Village Action Plan is available in Annex 6 and can be adapted to suit specific local contexts and stakeholder profiles.

4. Recommendations on how to plan support for the agri-food sector - a step-by-step approach

The step-by-step approach is based on the joint work of all project partners on the "More than a Village—MTaV" project. Although this approach provides a reasonable basis for every agri-food businesses of local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas, it is not universal and cannot be applied to every theme.

STEP 1. Pre-planning phase

Gathering data, and prioritizing stakeholder collaboration to address local challenges and leverage rural advantages.

STEP 2. Planning phase

State-of-the-art analysis: analyzing the selected topic through desk research and stakeholder focus groups to better understand challenges, needs, and development potentials.

Determining the vision: defining the overall long-term goal and desired future state for the smart village agri-food model through collaborative workshops with the stakeholder group.

Determining the objectives: definition of specific, measurable goals and Key Performance Indicators (KPIs) in collaboration with the Stakeholder group to track progress toward the vision.

Determining the activities to be performed: organisation of a workshop with stakeholders to define concrete actions for each objective, including designated coordinators, costs, funding, and success indicators.

STEP 3. Implementation phase

Performing planned activities by designated stakeholders within a determined timeframe, utilizing allocated funding and measurable indicators.

STEP 4. Monitoring activities

Focuses on assessing the success of implemented activities against set KPIs to ensure the smart village model's effectiveness. Regular monitoring allows necessary adjustments to improve outcomes and ensure the smart village grows strongly and sustainably.

STEP 5. Evaluation process

It supports decision-makers by verifying whether the strategic document aligns with the needs of local communities and is embedded within the broader development context. This is carried out through three key phases each providing critical insights at different stages of the planning and implementation cycle.

Recommendations for planning agri-food smart village support are based on the challenges, lessons learned, and opportunities from the pilot implementation in the "More than a Village—MTaV" project. Understanding them is essential for agri-food businesses of local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas, policymakers, and support organizations seeking to foster rural revitalization through local enterprise.

Here are the examples of possible challenges and potential solutions on how public authorities and other institutions involved in the smart transition can help and support.

What if…

…digital literacy among community members participating in Smart Village initiatives is low, and can reduce the effectiveness of digital tools?

Public *authorities* can:

- ✓ provide support by offering subsidies or tax incentives to those who invest in digital upskilling.

- ✓ develop partnerships with technology providers to provide local entrepreneurs with affordable digital tools and services.
- ✓ share digital co-working spaces with internet access and training support.

What if…

…proper promotion, valuable results, lessons, and success stories aren't shared widely?

Public *authorities* can:

- ✓ fund storytelling campaigns, creating platforms (like websites, newsletters, or social media channels), and organizing public events or exhibitions that showcase achievements.
- ✓ connect local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas with regional and national media or invite them to speak at relevant conferences and fairs.

What if…

…there is unsatisfying communication with stakeholders?

Public *authorities* can:

- ✓ establish communication protocols with response timelines, regular check-ins, etc.
- ✓ ensure transparency and access to updates by forming, e.g., shared platforms.
- ✓ escalate non-responsiveness through formal channels and emphasize accountability.

What if…

…there is negative feedback from stakeholders?

Public authorities can:

- ✓ organise collaborative feedback meetings with stakeholders to address concerns constructively.
- ✓ reframe negative feedback so stakeholders can provide a possible solution. For example, ask "How do you propose we address this?"
- ✓ show stakeholders they are heard, and through discussion, joint solutions can be found.

What if…

…there is a lack of stakeholders' understanding ***of the urgency?***

Public authorities can:

- ✓ organise a meeting to communicate project timelines and dependencies, showing how delays impact broader goals.
- ✓ highlight benefits of timely participation and the possible risks, especially when public interest or funding is involved.
- ✓ offer a flexible timeline for input to reduce barriers to involvement.

What if…

…infrastructure is inadequate (e.g., poor internet connectivity, unreliable transportation, and limited access to energy)?

Public authorities can:

- ✓ invest in high-speed broadband to support digital services, remote work, e-commerce, and smart solutions.
- ✓ upgrade transport infrastructure, such as rural roads and public transport links, to ensure easier access to markets and supplies.
- ✓ provide subsidies or grants for local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas to access alternative technologies (e.g., solar panels, delivery vehicles).

- ✓ prioritize rural areas in national infrastructure plans.

What if…

…there is limited access to finance and business support?

Public *authorities* can:

- ✓ refer local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas to available funding opportunities (e.g., Grants and Government Funding Programs, Public-Private Partnerships, Cooperative and Member-Based Financing, Crowdfunding) and provide training programs.
- ✓ establish or promote rural-friendly grant and loan programs tailored to the needs of local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas.
- ✓ set up local business support centers offering free advice, mentorship, and administrative assistance.

What if…

…there are public procurement issues?

Public *authorities* can:

- ✓ provide local producers, small agri-food businesses, and SMEs related to agri-food products and services in rural areas with support in the form of workshops on how public procurement works (e.g., how to gather all necessary documentation, where to apply for it, how to fulfill public procurement documents, etc.).
- ✓ provide experts who will provide training in digital literacy regarding the public procurement process, especially for the elderly and youth.

What if…

…there is resistance to change because of traditional mindsets?

Public authorities can:

- ✓ engage community leaders, older, and trusted local figures – local heroes.
- ✓ support intergenerational programs where young people introduce digital tools while learning from the older residents.
- ✓ provide training that respects local knowledge and combines tradition with innovation (e.g., smart farming techniques that enhance traditional methods).
- ✓ organise workshops where good practice can be shared (where innovative solutions have improved life), showing the development potential, thus helping people relate to positive change.

5. Conclusions

Local governments willing to support development of the smart village agri-food business should follow the usual strategic planning approach but previously decide on the smartness dimensions which they are willing and capable to apply. It is not necessary to follow the textbook smartness dimensions, but to select those that apply to a certain territory depending on the context. However, it is essential to have a common understanding of the smartness concept – it does not include activities related only to application of digital solutions; rather it includes a much wider concept for planning inclusive, viable, environmentally friendly, community-oriented well-being solutions.

In the development of the smart village agri-food business , it is highly recommended to follow all the four phases (Pre-Planning; Planning; Implementation; and Monitoring and Evaluation) and the related sub-phases explained in this tool as they greatly ensure that the usual errors are avoided.

Participatory approach used for working with the established Stakeholder group (SG) is essential for targeting the most pressing issues, for the quality of the reached solutions, and ensuring durability and sustainability of outputs, since the SG co-owns them. This is why the SG should be involved throughout the whole process of the development of the smart village agri-food business.

A good state-of-the-art analysis ensures that the development of the smart village agri-food business has been well grounded on the met challenges and needs, while using the detected development potentials. This is why it should be thoroughly performed using the various methods (e.g. desk research, interviews, focus groups, good practice analysis, etc.). SWOT analysis proves to be especially handy since it serves well in generating the vision to be achieved.

The vision can be defined in the short-term, mid-term or long-term time-frame. Short-term (e.g. 1 year) is usually not enough for setting the smart village agri-food business, and long-term (e.g. 10 or more years) is not

probable since most local governments strategically plan within their political mandate time-frames. It is usual to set the vision for a mid-term time-frame (3-5 years), making it optimal for the smart village agri-food business. However, it does not mean that complex projects cannot be planned even for longer terms, depending on their implementation complexity, political stability and challenges in the economic and social environment. Based on this, strategic goals as well as specific objectives are derived, alongside measures and activities gathered in a clearly defined Action plan followed by its implementation.

Once the implementation of the model has been set, the work does not stop there: it is necessary to monitor the very implementation process and to perform its evaluation, which serves for possible adjustments if something goes wrong. Finally, once the work has been done, it is handy to ensure that it is visible for others who want to implement a similar concept, since sharing of experiences is a way to ensure inspiration and transferability.

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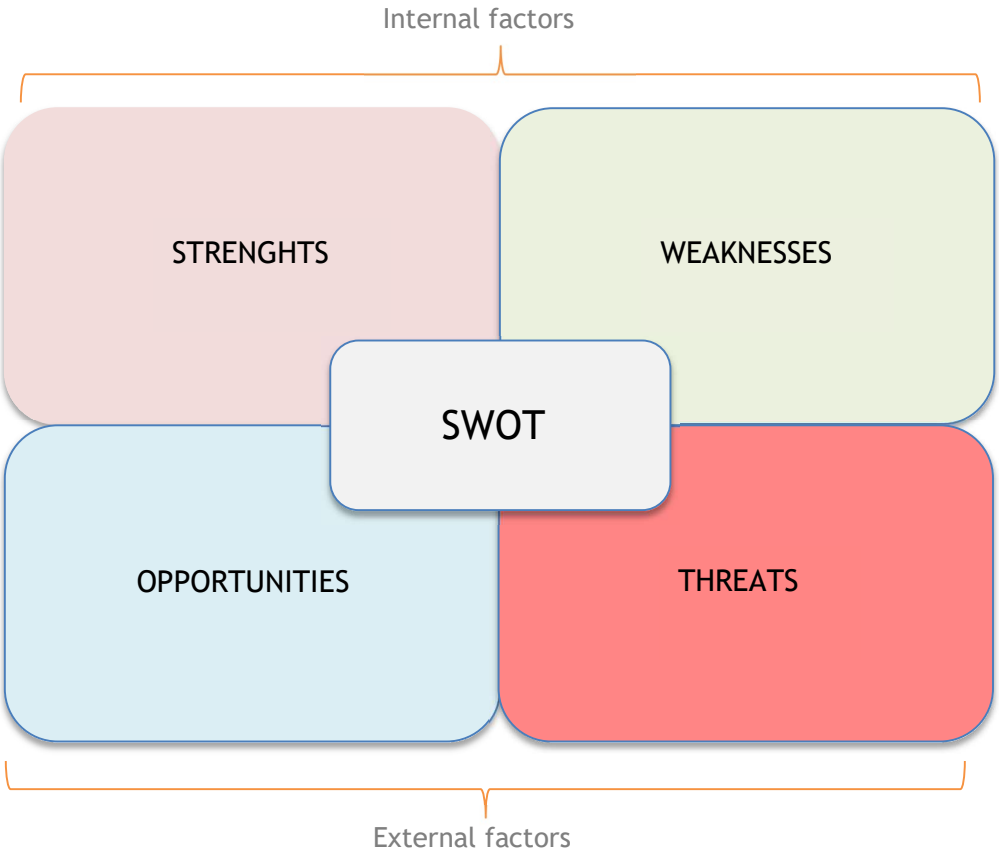
7. Annexes - useful templates

Annex 1. Form for analysing challenges, needs and development potentials

Challenges	Needs	Development potentials

Annex 2. Template for SWOT analysis



Annex 3. Checklist

Element to be checked	YES	NO	Comment
1. Are all resources secured for a smooth planning process?			
Are participants available and willing to participate in the planning process?	☐	☐	
Are the participants aware of their roles and responsibilities in the planning process?	☐	☐	
Do the participants in the planning process have the appropriate competencies?	☐	☐	
Has the necessary budget been allocated for the planning process?	☐	☐	
Is the necessary infrastructure in place to ensure a smooth planning process (e.g., IT support, premises, tools)	☐	☐	
2. Have procedures been established to monitor progress in the planning process?			
Have clear indicators and methods been established to measure success?	☐	☐	
Have clear monitoring procedures been established for tracking progress?	☐	☐	
Have evaluation standards and procedures been defined to assess the results?	☐	☐	
3. Are the goals of the planning process clearly defined? Are they defined as			
Specific	☐	☐	

Measurable	☐	☐	
Achievable	☐	☐	
Relevant	☐	☐	
Time-bound	☐	☐	

Annex 4. Action Plan Template

Goal 1:						
SO1.						
Measure 1.1.						
Activity	**Coordinator**	**Key partners**	**Indicators (KPIs)**	**Timeline**	**Monitoring frequency**	**Funding sources**
Measure 1.2.						
Activity	**Coordinator**	**Key partners**	**Indicators (KPIs)**	**Timeline**	**Monitoring frequency**	**Funding sources**
Measure 1.3.						
Activity	**Coordinator**	**Key partners**	**Indicators (KPIs)**	**Timeline**	**Monitoring frequency**	**Funding sources**

Annex 5. Monitoring template

Goal	Specific objective	Measure	Specific task/action	Coordinator	Deadline	KPIs	Implementation status	Notes

Annex 6. Suggested interview questions for evaluating the Agri-food Smart Village action plan

Questions can be adapted depending on the stakeholder group (e.g. local authorities, business owners, cooperatives, food producers, NGOs, citizens):

1. Relevance

- How well do you think the Action Plan reflects the actual needs and priorities of your community?
- Were you or your organization involved in the planning process? If yes, how would you describe the level of inclusiveness and transparency?

Do you feel the objectives and measures defined in the plan were realistic and achievable?

2. Implementation

- How effectively have the planned activities been implemented so far?
- What challenges have you observed or experienced during implementation?
- Are you aware of any monitoring activities? Have findings been used to adjust actions?

3. Impact and Outcomes

- Have you observed any concrete changes or improvements since the implementation of the Agri Food Smart Village Action Plan began?
- Which activities or initiatives do you consider the most successful?
- Are there areas where the plan has had little or no impact?

4. Sustainability

- Do you think the changes introduced are sustainable beyond the plan's timeframe?
- How do you assess the level of stakeholder engagement over time—has it increased, decreased, or remained the same?
- What would you improve in future planning cycles?

5. Lessons Learned and Future Steps

- What are the key lessons learned from the Smart Village planning and implementation process?
- Are there practices or approaches in smart Agri Food planning and implementation you believe should be scaled or replicated in other communities?
- What support (technical, financial, institutional) would you need to improve future outcomes?