

Guidebook on How to Become a Smart Village

Smart Rural 21
(First Preparatory Action on Smart
Rural Areas in the 21st Century)



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Smart Rural 21: First Preparatory Action on Smart Rural Areas in the 21st Century

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FOREWORD

If you are a rural community that aspires to become ‘smarter’, or if you are supporting rural communities to become ‘smarter’, this guidebook is for you. This guidebook is also for you if you just want to understand a bit more about what the **Smart Villages concept** is: what is meant by ‘smart’ and what is meant by ‘village’. The guidebook is the result of two years of intensive work with rural communities across Europe in the framework of the First Preparatory Action for Smart Rural Areas in the 21st Century project, known as Smart Rural 21.¹ The project provided support for rural communities across Europe to develop and implement their smart village strategies in an experimental way, and draw conclusions and recommendations from the process. **Twenty-one rural communities** – with diverse characteristics – were selected to receive support for their strategy development and implementation through the Smart Rural 21 project. Due to rural communities’ strong interest in taking part, the project also engaged more than 100 other rural communities (called Come Along! villages) through various village-to-village exchanges and capacity-building actions.

The project and this guidebook share the same guiding principle: **they are for rural communities.** **Smart Rural 21** worked with communities from the start, focusing on their needs, from strategy development to the implementation of smart solutions. This publication builds on the experience of working with those communities, showcasing their feedback, challenges and achievements along the way. This guidebook is a way for us to share the experience accumulated through the project and make it accessible - and beneficial - to a wide, interested audience.

This guide does not aim to provide a fully comprehensive toolkit for embarking on the journey of becoming a ‘smart village’. It rather aims to provide a framework, highlight the main lessons, and pinpoint the right sources and resources for interested communities. If you would like to start your own Smart Villages Journey, you will need to dig deeper into the available resources and adapt the Smart Villages toolkit to your own needs. We hope this guide provides the first stepping stones on your journey!

Edina Ocsko (Project Coordinator) on behalf of the Smart Rural 21 Team

¹ A 2.5-year project funded by the European Commission (DG AGRI) and led by E4O Group

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1. WHAT IS A SMART VILLAGE?

While many smart villages have been emerging during the past decades, the Smart Villages concept itself is relatively new. It was first officially formulated through the EU Action for Smart Villages in 2017 by the European Commission, at the initiative of the European Parliament. In the same year, the European Network for Rural Development (ENRD) Contact Point launched its [Thematic Working Group on Smart Villages](#) to facilitate exchange among stakeholders



The Smart Villages definition (as adopted by the Pilot Project on Smart Eco-Social Villages) states that: Smart Villages are communities in rural areas that develop smart solutions to deal with challenges in their local context. They build on existing local strengths and opportunities to engage in a process of sustainable development of their territories. They rely on a participatory approach to develop and implement their strategies to improve

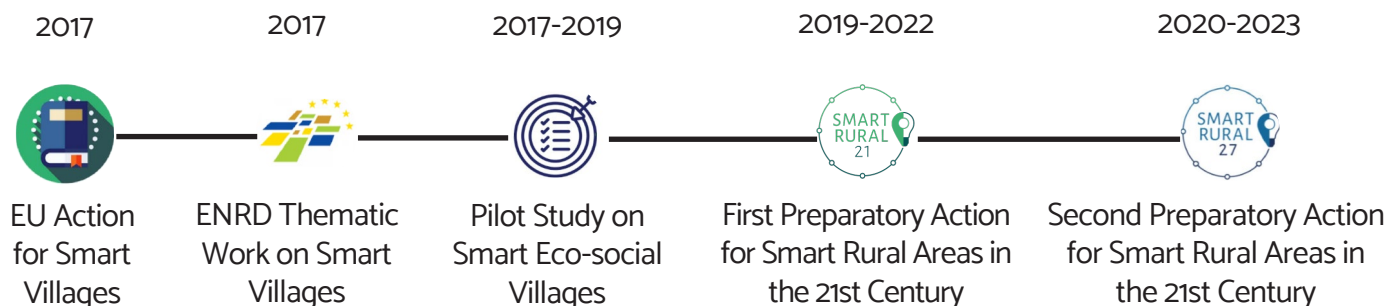
about the new concept. Between 2018 and 2019, the Pilot Project on Smart Eco-Social Villages was launched by the European Commission with the aim of providing a comprehensive definition for Smart Villages, as well as identifying relevant good practices and case studies. It is important to note that each Member State can have its own definition of Smart Villages, adapted to the national context.²

their economic, social and environmental conditions, in particular by promoting innovation and mobilising solutions offered by digital technologies. Smart Villages benefit from cooperation and alliances with other communities and actors in rural and urban areas. The initiation and the implementation of Smart Village strategies may build on existing initiatives and can be funded by a variety of public and private sources.

The First Preparatory Action on Smart Rural Areas in the 21st Century – [Smart Rural 21 project](#) (December 2019 – November 2022) aimed to translate the definition into a real-life context by supporting villages across Europe in developing and implementing smart village strategies. The Second Preparatory Action on Smart Rural Areas in the 21st Century – [Smart Rural](#)

[27 project](#) was launched in 2020 and runs until the end of 2023. The project aims to assist effective Smart Villages support frameworks across Europe, through analytical work and sharing of information (both about smart rural communities and Smart Villages support), as well as setting up a Pilot Smart Villages Observatory.

HISTORY OF THE EU'S SMART VILLAGES CONCEPT



Smart Villages is an attractive concept, but challenging when it comes to the precise interpretation and implementation of the definition. Two basic questions

that often come up in relation to Smart Villages are ‘what is smart?’ and ‘what is a village?’. Let’s start with the latter.

² See also the [Member State factsheets](#) for national definitions.

First Preparatory Action on Smart Rural Areas in the 21st Century

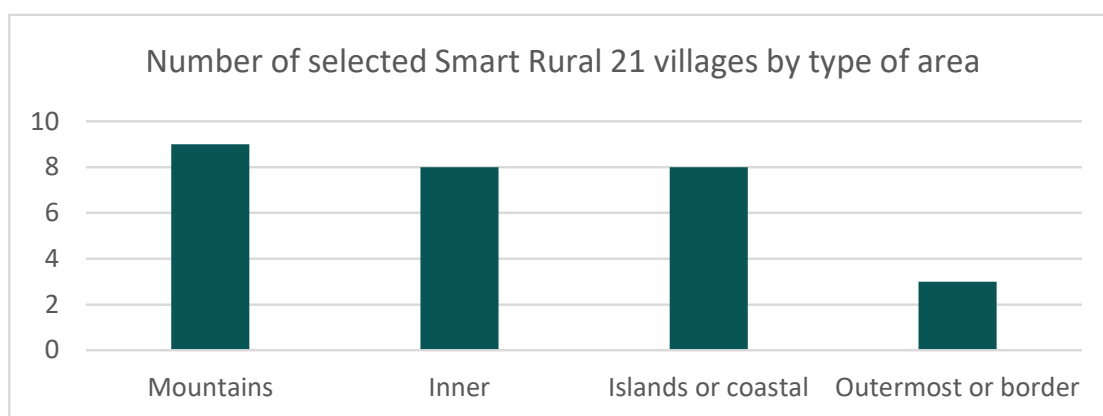
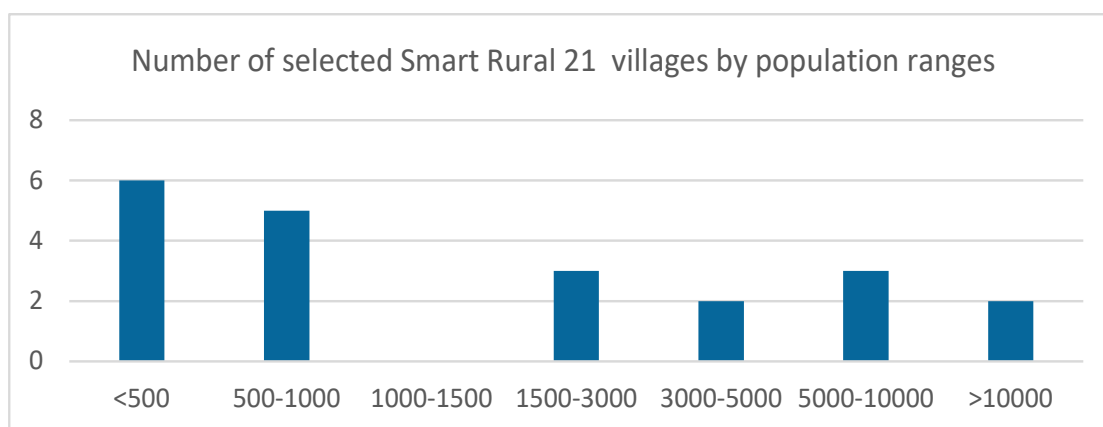


1.1 WHAT IS A VILLAGE?

The definition refers to **communities in rural areas**. This is a more neutral term than 'village', which might be limiting in some cases and/or unsuitable to describe rural communities in a given national context. In this guidebook, the term 'rural communities' is used rather than 'villages'. However, Smart Villages (capitalised) is used to refer to the concept itself.

One question often asked is how big or small a community under the Smart Villages concept can be, and whether the type of area in which it is

located matters (e.g. is it remote or close to urban centres?). Generally, there are no specific limitations or restrictions, with selected Smart Rural 21 villages³ showing great diversity (see graphs below). The largest rural community among the selected Smart Rural 21 villages is [Mouans-Sartoux](#) (FR) with some 10 000 inhabitants; the smallest is [Ostana](#) (IT), located in an alpine mountainous area, with about 50 permanent inhabitants.



The Smart Villages definition used in the Smart Eco-Social Villages Pilot Report suggests considering the OECD or EUROSTAT rural typology of areas when defining rural communities. The typology categorises municipalities into 'rural', 'town/suburb' or

'city'. In the Smart Villages context, it is meaningful to consider municipalities (or rural communities within the municipality area) that are classified as 'rural areas', and in some cases 'towns and suburbs'.

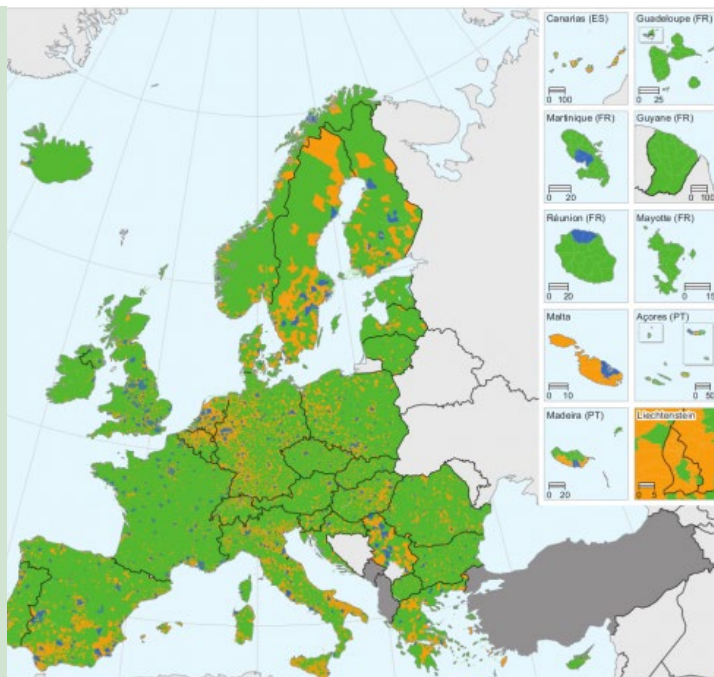
³ Within the Smart Rural 21 project, 21 villages have been selected to receive support through the project for smart village strategy development and implementation of smart solutions.



Local Administrative Units (LAUs) are used to divide up the territory of the EU to provide statistics at a local level. Not all countries classify their locally governed areas in the same way and LAUs may refer to a range of different administrative units, including municipalities, communes, parishes or wards.

Smart villages operate at different administrative levels, for instance most of the Smart Rural 21 villages are classified as LAU2 or a lower administrative level, and some are LAU2 with several smaller settlements or several interconnected LAU2s. LAU2 areas are classified according to their Degree of Urbanisation (DEGURBA) – cities, towns or suburbs and rural areas – most communities being ‘rural’ (see map).

Check the typology and statistics of [your own LAU2 area](#).



Administrative boundaries: ©EuroGeographics ©UN-FAO ©Turks

Cartography : Eurostat - GISCO, 05/2018

Cities (Densely populated areas: at least 50% of the population lives in urban centres)

Towns and suburbs (Intermediate density areas: less than 50% of the population lives in rural grid cells and less than 50% of the population lives in urban centres)

Rural areas (Thinly populated areas: more than 50% of the population lives in rural grid cells)

Data not available

1.2 WHAT IS SMART?

Innovation is one of the most important features of Smart Villages. Generally, innovation is triggered by the need and drive to **change** something, to address a specific **challenge**.

Although various ‘innovation’ definitions exist in the rural development context,⁴ innovation does not have a clear definition in the context of Smart Villages. This is not surprising as innovation is really hard to define in a territorial context. The challenge lies in the fact that whether a solution is innovative very much depends on the specific context in which it is implemented. In other words, something that has been common practice in one local community, might be completely new in another. Therefore, innovation always needs to be seen in its own, local context. How villages can

“If you don’t feel that you have a challenge, I’m sorry to say, you will innovate nothing.”

Professor Henrique Leitão, Agri Innovation Summit (Lisbon), 2017



identify relevant innovations is discussed further in section 3.2.

Saying that ‘smart = digital’, might seem to provide an easy reference point (‘criterion’) to decide whether or not an action is ‘smart’. Everybody agrees

that digitalisation is something that can no longer be ignored and to survive in the 21st century, it is important to at least try to keep up with the pace of **digital innovation**, and use the wide array of opportunities it offers.

However, the question is not this simple.

Why? Because you might start using digital technology without it having a real impact on the **local community**, and Smart Villages – at the end of the day – is all about the local people. Smart in this sense means using innovative solutions, including digital technology that **involve** and **benefit** the local community.



The Smart Rural logo ‘half bulb – half location’ sign has meant to symbolise that innovation in Smart Villages always needs to be considered in the local context.

There was a long debate on whether to limit ‘smart’ to ‘digital’ in the context of Smart Villages – similarly to the approach followed by Smart Cities. Finally, the consensus was that innovation should not simply be limited to ‘digital’ issues. Firstly, for the many rural areas suffering from the ‘digital divide’ (insufficient access to fast broadband), focusing on digital solutions alone could further widen the gap between more advanced and lagging areas. Secondly, it has been stressed that – based on past experience – digital technology is a key, but not necessarily the only way to become smart. The Pilot Project on Smart Eco-Social Villages argued that **“Digitalisation is a tool but not an end in itself.** The usage of digital technologies is not what defines a Smart Village, nor is digital technology the only way to achieve development objectives. It is clear that solutions also use a wide range of non-digital tools.” The ENRD’s Smart Villages Thematic Group came to similar conclusions.

The EU’s Smart Villages definition states that Smart Villages “use innovative solutions [...], **in particular by mobilising solutions offered by digital technologies**”. “In particular” means that digital technologies provide important, but not exclusive, ways to become smart. It is also worth noting, however, that some Member States might have

‘Social innovation’ has been just as an important feature of Smart Villages as digital/technological innovation. The **participatory approach** and the impact of smart solutions on rural society is a key requirement for Smart Villages. When innovative solutions impact on the local society and/or when new participatory processes (social practices) are generated in a community, we talk about ‘social innovations’.

For instance, the Horizon 2020 [SIMRA](#) (Social Innovation in Marginalised Rural Areas) project defines social innovation as “the reconfiguring of social practices, in response to societal challenges, which seeks to enhance outcomes on societal well-being and necessarily includes the engagement of civil society actors”. The Horizon Europe programme (the EU’s Research & Innovation programme) suggests that “social innovation is recommended when the solution is at the interface between social

come up with different Smart Villages definitions with a more digital focus.



So before you embark on developing something ‘digital’ and trendy, always consider why and for whom you are doing it, and ask what (societal) change it is likely to bring to the local community.

Good examples of social innovation actions can be found in the Smart Village of [Raudanmaa](#) (Finland). The commitment of the village cooperative, and engagement of local community members, in projects such as the fibre-optic community broadband network, the multifunctional village hub, and local village services (including using digital technology) can serve as inspiration for others. Meanwhile, [Stanz im Mürztal](#) in Austria enables new opportunities for social innovation through involvement in energy transition and digitalisation, using blockchain technology combined with a local token system.

“We want to make our village hall the heart of Raudanmaa, like the school was before.”

Heini Niklas-Salminen, Raudanmaa, 2021



and technical solutions and requires social change, new social practices, social ownership or market uptake”.



Some Smart Rural 21 villages aspired to develop smart digital solutions. However, in some communities the initial idea had to be carefully re-thought. This is particularly the case for e-health and e-care solutions, especially for elderly people. Developing smart e-health applications is not necessarily the right and only innovative way of solving the challenges for caring of elderly people. Careful prior planning and **capacity building** are necessary before decisions can be made on whether e-health tools are worth investing in. The Smart Rural 21 project has developed such a planning process with three of the project villages – [Dingle](#) (IE), [Sollstedt](#) (DE) and [Penela](#) (PT) – the outcomes of which you can explore on the relevant [village pages](#).



TIPS & TRICKS: HOW TO START INNOVATION?

- ✓ Innovation always needs to **start from a need – an urge to address a specific challenge** in the local community/rural area. Think about the specific problems and challenges that your community needs to address.
- ✓ Finding the right innovation needs a lot of exploration, talking to specialists, researchers and other villagers.
- ✓ Innovation most often emerges through interaction among local people, i.e. the solutions can not always be found elsewhere.
- ✓ Innovation needs a lot of experimentation and might – by definition – involve failure in some cases.

1.3 HOW THE SMART VILLAGES CONCEPT IS DIFFERENT FROM LEADER/CLLD

Smart Villages is most often compared to LEADER/Community-Led Local Development (CLLD). Undoubtedly, LEADER has many similarities to Smart Villages, especially as far as the key principles of the two instruments are concerned. LEADER/CLLD will also be a key instrument and funding source for future smart village strategies and solutions (also see section 2.4 on how to finance smart solutions), and LEADER Local Action Groups (LAGs) can often play the role of **‘innovation brokers’** and supporters of villages. For instance, the [Dingle](#) (IE) smart village strategy process has been led by the local LAG (North East West Kerry Development Programme), while [Raudanmaa](#) (FI), [Torup](#) (DK), [Kythera](#) (EL) and other selected Smart Rural 21 villages received both financial and technical support for their Smart Villages processes from their LAGs.

However, there are also some key points that distinguish the Smart Villages concept from other schemes:

- **Smart Villages are about engaging local communities** – i.e. small, local-scale actions – and helping them to find their way to address challenges and seize opportunities in the 21st century. LEADER/CLLD operates at a higher geographical and administrative level. LEADER LAG territories include a number of villages, and Local Development Strategies are formulated at a larger territorial level so therefore, cannot always take account of the specificities of local communities.
- LEADER/CLLD has a dedicated institutional structure and allocated funding, while Smart Villages do not yet have an institutional or dedicated policy structure. This is also an advantage in the sense that there is **more scope for experimentation and piloting**, in particular as far as using various funding sources are concerned. Smart Villages should not be limited to access LEADER funding, but a wide array

“- Were there any innovations where you failed?

- Many times! For instance, to find a producer for oya,* there were three failures. Getting oya ready took a year of struggle, but we knew what we were going for so we finally found it...

Hemp production. From our point of view, it was a failure. We had a great experience, we learned a lot, but from an economical point of view, we didn’t realise half of the price that we said. You will be mad with failures, many times! I hear ‘no’ many times and ‘no’ doesn’t sound special to me. But once you are doing you’re true to it, you open your heart a little bit, and build the trust, then the people will change their attitude.”

Piotr Ostaszewski, Tomaszyn (PL), Smart Café

*See more about ‘oya’ in the box below.



of funding sources should be made available, such as Cohesion Policy funds, including the European Regional Development Fund (ERDF) and the European Social Fund (ESF); as well as the Recovery and Resilience Facility (RRF), or the European Maritime, Fisheries and Aquaculture Fund (EMFAF).

- **Smart Villages reinforces local innovation and experimentation**, through smart solutions coming directly from the local communities, with particular focus on the new challenges and opportunities of the 21st century, such as climate adaptation and digitalisation. In this context, LEADER LAGs play or can play the role of key enablers of innovation, by supporting the emergence of smart villages in their territories.



A traditional and easy way to save water and improve plant growth (innovation from Tomaszyn, Poland)



Ost-Oya (olla, oya) is a neo-antique vessel, made of porous, self-permeable clay, which is buried in the ground to naturally irrigate the garden while significantly reducing water loss and watering work. Just fill your Ost-Oya with water every few days and the rest will do itself. How?

It's simple, the roots of plants instinctively grow towards the porous clay, which allows them to take in exactly as much water as they need and when they need it. No more, no less. As a result, water consumption decreases, you care for the environment and your garden looks even more impressive.

Source: <https://ost-oya.pl/en/ost-oya-2/>



WHERE TO FIND MORE INFORMATION: THE SMART VILLAGES CONCEPT

[Smart Villages: Concept, issues and prospects for EU Rural Areas](#), European Parliament's Think Tank, 2021: a comprehensive briefing about Smart Villages, key features, and evolution.

[Pilot project, Smart eco-social villages: final report](#), Ecorys et al., 2019: Project funded by the European Commission to define Smart Villages and identify best practices and case studies

[Smart Villages: Revitalising rural areas](#), ENRD, 2018: Short video explaining the concept of Smart Villages

[EU supports Smart Villages](#), EU Digital, 2017: short video explaining Smart Villages and its evolution

2. HOW TO DEVELOP A SMART VILLAGE STRATEGY

A smart village strategy is an innovative local development strategy, concept or plan. It is conceived at the local level through a participatory approach. Smart village strategies offer a holistic long-term vision for the rural community concerned, to be realised

through innovative solutions. The first five steps of the [Smart Rural 21 Roadmap Tool](#) cover the key actions to set up a strategy: (1) [getting started](#); (2) [mapping context and stakeholders](#); (3) [engaging stakeholders](#); (4) [designing a strategy](#); (5) [smart village strategy](#).

2.1 WHY IS A SMART VILLAGE STRATEGY NEEDED AT ALL?

A smart village strategy is at the core of the Smart Villages concept. According to the definition, Smart Villages “rely on a participatory approach **to develop and implement their strategies** to improve their economic, social and environmental conditions”.

in a more holistic way (rather than just focusing on single initiatives). Developing a smart village strategy might be a particularly useful next step in becoming a smart village for ‘villages-in-transition’, i.e. villages that already have some smart solutions but do not yet have a comprehensive integrated smart village strategy or longer-term vision.

But is a smart village strategy really needed for a village to become smart?

A smart village strategy can also be an effective tool for **communicating about the vision of a village**, both internally, with community members, and externally, with different governance levels, such as LEADER LAGs, and regional or national bodies. A comprehensive strategy – that is also linked to priorities set at higher administrative levels – can also contribute to identifying funding sources for strategy implementation.



A strategy is relevant for structured and longer-term thinking. But it is only useful as long as it helps a community to **shape and share a common vision**, think about where the village would like to be in the medium to long term (i.e. in 5-10 years), and bring together existing initiatives and ideas. Strategies are important to link different initiatives and help the community to think



It is important that smart village strategies **are not just developed as formalities**. A community should try to develop a strategy that is owned by the community, and that can evolve and provide a good reference point for future-oriented discussions and actions. It is not

“The main added value of developing a strategy for us has been ‘to connect the dots’ between existing projects and new ideas and gather them into a consistent strategy, helping us set priorities and apply for external funding.”

Smart Rural 21 village representative, survey respondent



recommended that a strategy is developed only with the purpose of accessing financing (although this is certainly one of the potential benefits). Think about whether you

need a strategy and if so, how would you use it for the development of your rural community and area.

Smart village strategy development and implementation cannot be treated as a one-person and/or consultancy project. Even if formally and content-wise, a seemingly attractive strategy might



Developing a smart village strategy was a requirement for the Smart Rural 21 selected villages. Overall, most villages (10 out of 12 villages that responded to the survey) found that **the strategy development process was useful or very useful**.

However, **many also found the process challenging or very challenging**. Some disappointment also comes from the fact that often there is no direct funding attached to the smart village strategies (i.e. it might feel that such a process is not rewarding).

“Although the village has several leading figures, there is no one that is able to unite the representatives of the local community.”

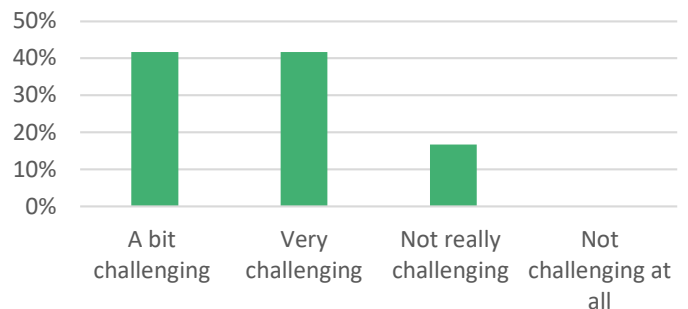
Smart Rural 21 monitoring finding



emerge from such actions, experience shows that often “the wind is soon taken out of the strategy’s sail”, with no commitment or engagement to complete the strategy implementation. Such strategies (or project proposals) might attract funding in the short to medium term, but without real commitment and knowledge these approaches are destined to fail in the context of helping a rural community survive. **So don’t start the Smart Villages process just for the funding: do it out of conviction, and with local engagement.**

Although the format of smart village strategies might vary, certain key elements are recommended to be included in every successful strategy (see below). Indeed, many Member States will require a simplified concept or plan to avoid disproportionately overburdening villages.

How challenging did you find the Smart Village Strategy development process? (12 respondents)





TIPS & TRICKS: WHY DEVELOP SMART VILLAGE STRATEGIES?

- ✓ Developing a strategy is **generally a useful way** to help a community to consolidate its vision, plans and future actions.
- ✓ Developing a smart village strategy **can also be resource intensive**, and might require some technical/specialist knowledge (e.g. in the context of building a logic, identifying solutions, engaging stakeholders, etc.).
- ✓ Since **smart village strategies are often not directly associated with funding support**, rural communities need to carefully consider if they would like to develop a strategy, in what format and for what use. Efforts should be proportionate to the potential benefits, not only financial, but also human – such as working towards a joint vision of the community.
- ✓ Other considerations, such as how the strategy will be updated, and who will be responsible for managing and monitoring progress, also need to be considered (otherwise the strategy risks quickly becoming outdated).
- ✓ Since policy interventions to support **Smart Villages are still evolving**, rural communities need to explore if and how specific policies, programmes, and calls are designed to support smart village strategies and actions in respective Member States and regions.

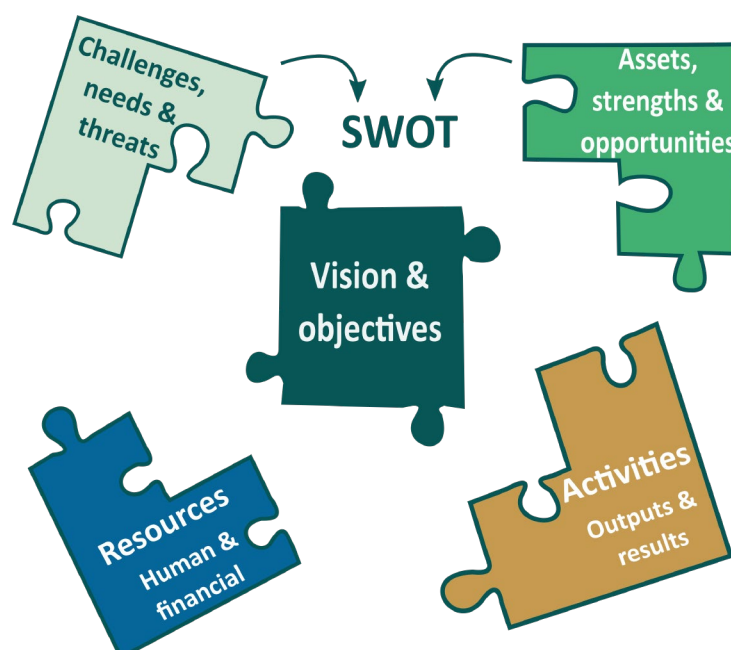
2.2 WHAT SHOULD BE THE KEY COMPONENTS OF A SMART VILLAGE STRATEGY?

Smart village strategies are expected to have the elements of a ‘classical’ Local Development Strategy, **including future-looking innovative activities**. As described, innovation is most often triggered by a specific challenge and need. To address such challenges, rural communities need to build on their specific assets and opportunities. Understanding these aspects can lead to defining the vision (and then the objectives) of the village strategy. Putting it simply, the community needs to think where it wants to be in 5-10 years. Once the **vision and objectives** (based on

the challenges and opportunities) are defined, the strategy needs to set out what kind of **actions** can be taken to get there, and what resources – financial and human – would be required to implement the planned actions.

“We avoid saying strategy, because this word very often has a negative connotation, that it has to be something really huge and complex. That’s why we decided to use a different term: concept.”

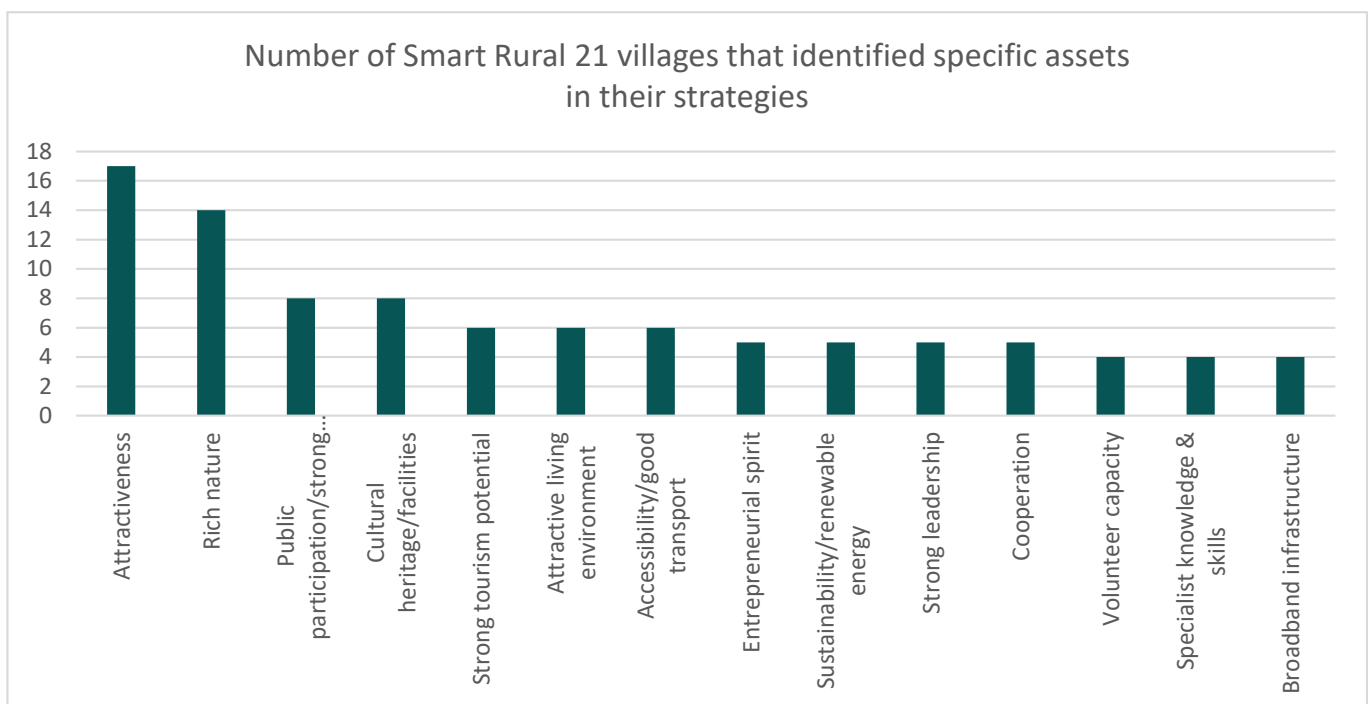
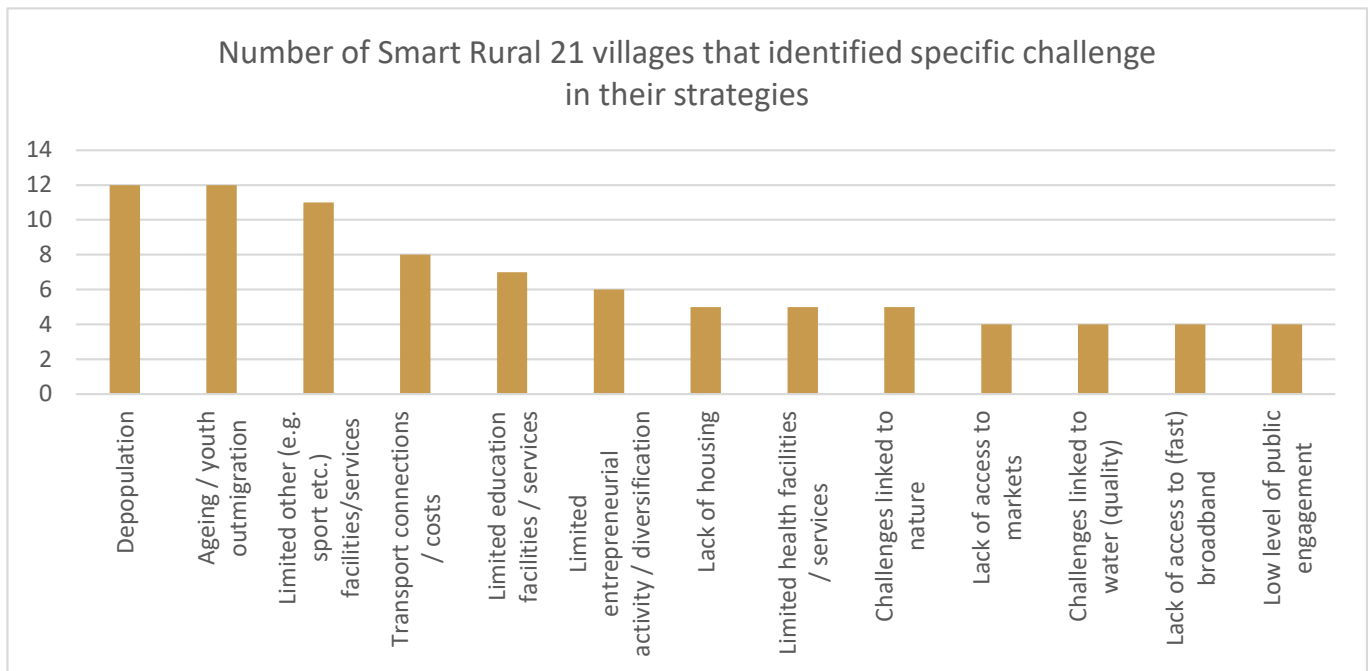
Joanna Gierulska, Polish Ministry of Agriculture, 1st Regional Workshop



Needs/challenges/weaknesses and opportunities/strengths were identified in each of the smart village strategies developed by the 21 selected villages of the Smart Rural 21 project and classified according to keywords. The chart below shows the challenges that were identified by more than four selected villages. The most common challenges in the selected villages relate to:

- Depopulation, youth outmigration;
- Lack of services: facilities, transport, education, housing and health.

Similarly, selected villages also identified **key assets** in their smart village strategies. These have also been classified according to keywords, and the chart below shows the categories of assets indicated by more than four villages. Attractiveness and rich nature are considered the most important assets, followed by strong community, cultural heritage and tourism.



2.3 HOW CAN A SMART VILLAGE STRATEGY BE FUNDED?

This is the “million-dollar - or rather, million-euro - question” that most rural communities are asking.

One of the main challenges is that often there is no guarantee that developing a smart village strategy improves a community’s chances of accessing funding. The exact details – i.e. what kind of calls for projects and other mechanisms will support these processes – are still to be seen.



The Common Agricultural Policy Regulation refers to Smart Villages as a key tool to ‘strengthen the socio-economic fabric of rural areas’ and to ‘modernise agriculture and rural areas by fostering and sharing of knowledge, innovation and digitalisation’. The CAP also encourages – and is expected to support – cooperation of smart villages. **(Recitals 32, 78 and 82 and Article 77 of the CAP Regulation)**

Based on initial analysis, in many countries, the LEADER mechanism will be used to support the development of smart village strategies, and contribute to the implementation of planned smart actions. However, other CAP interventions might also provide support for Smart Villages, as well as other policies and programmes. The latter include Interreg and other programmes funded under the ERDF⁵ (e.g. for local territorial development, and infrastructural investments), ESF⁶ (for social inclusion) and EMFAF⁷ supporting fisheries LAGs).



The Smart Rural 21 project has collected information on what is happening in each Member State with regard to Smart Villages policy-support frameworks. You can check out what’s happening in your country on the [Smart Rural 21 country pages](#) which show the relevant funding sources and organisations working with the concept of Smart Villages (as far as these are known). The Smart Rural 21 project also presents successful [policy examples](#) to encourage policymakers to take action. The country pages also provide information for communities on the available funding sources in their countries.



The EU is committed to making Smart Villages happen and is continuously expressing this view, as well as pushing and asking Member States to take action. There is indeed, a growing traction around Smart Villages. It is an exciting phase of experimentation and piloting and there is hope that those who have been proactive in making Smart Villages happen, might also be the first ones to be able to ‘queue for well-deserved funding’.

Several Member States are indeed not waiting for things to happen but are taking the lead and starting to experiment with meaningful support frameworks in their national contexts.

At the same time, the EU has largely delegated responsibility for programme design and spending of funding to Member States, giving them greater flexibility. There have been no strong requirements from the European Union towards the Member States on the design of the Smart Villages policy framework. However, the European Commission, in cooperation with the European Parliament, is funding several technical assistance projects to support exchange and the planning process, most importantly the Pilot Project on Smart Eco-Social Villages, and the [First \(Smart Rural 21\)](#) and [Second \(Smart Rural 27\)](#) Preparatory Actions on Smart Rural areas in the 21st Century.

The Smart Rural 27 project will continue updating Smart Villages information in each Member State. Information is being shared about Smart Villages policy support through the [Member State factsheets of the Smart Rural 27 project](#), and taskforces are being organised in selected countries to ensure better policy and programme planning through bringing together relevant stakeholders.

5 European Regional Development Fund
6 European Social Fund
7 European Maritime, Fisheries and Aquaculture Fund



MORE INFORMATION: SMART VILLAGE STRATEGY DEVELOPMENT & SUPPORT

[Smart Village Strategy Template](#), Smart Rural 21 (E40): a strategy template, description on how to use the template & tutorial video that have been used by the Smart Rural 21 villages to develop their strategies

[Smart Village Strategies](#), Smart Rural 21: collection of the strategies developed by the Smart Rural 21 project villages

[‘What’s happening in my country’ – Smart Rural 21 pages](#): description of how various policies (the Common Agricultural Policy and others) and organisations are currently supporting Smart Villages and similar initiatives in each EU Member State

[Smart Rural 21 Roadmap](#): practical tools for strategy development

[Smart Villages policies](#): information on various policy frameworks and tools at European and national/regional levels

[Financing Smart Villages through crowdfunding](#): presentation at the [2nd Smart Village Academy](#) of the Smart Rural 21 project

3. HOW TO IMPLEMENT THE STRATEGY & DEVELOP SMART SOLUTIONS

This section provides guidance on how to implement the strategy through planning and realising smart solutions. The relevant Smart Rural 21 roadmap

steps also provide further guidance for this process, including: (1) [planning actions](#); (2) [finding solutions](#); (3) [generating actions](#); (4) [financing](#); (5) [monitoring](#).

3.1 WHAT IS A SMART SOLUTION?

Smart solutions are **innovative and inspiring activities (projects/ initiatives) through which the smart village strategy objectives can be achieved**. The meaning of ‘smartness’ and ‘innovation’ has already been presented above (see section 1.2).

Planned and actual actions of smart village strategies are expected to respond in a creative – often out-of-the-box – way to the challenges and opportunities of the 21st century. Two important challenges-opportunities receive particular attention in the strategic objectives of the European Commission, and consequently also in the solutions of Smart Villages:

- **Connectivity & use of digital technologies** (linked to the ‘European fit for a digital age’ priority of the EU);
- **Climate adaptation** (linked to the ‘European Green Deal’ priority of the EU).

These key areas are also at the heart of the [EU’s Long-Term Rural Vision](#) (connected and resilient rural areas) together with ‘stronger’ and ‘more prosperous’ rural areas.

As presented above, innovation and smartness are context-specific and very much depend on the level of development of the local community. However, the Smart Rural 21 project aimed to provide inspiration for all rural communities through its [smart solutions database](#) that covers many thematic domains, and highlights the most innovative aspects of initiatives

The European Commission launched the [Long-Term Rural Vision](#) of the EU in 2021 that defines four key thematic areas of intervention called stronger, connected, resilient, prosperous. These areas capture the key priority domains in which Smart Villages can also act.

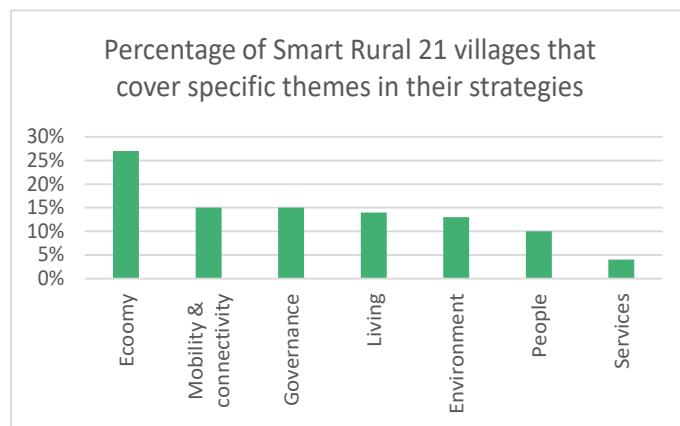


implemented at the local community level. These solutions can also be transferred to other rural communities. Furthermore, the outcomes of the smart solutions supported in each of the [selected Smart Rural 21 villages](#) are also available online for anyone wanting to discover smart rural solutions, as well as the steps and processes used to implement them.

3.2 HOW TO FIND THE RIGHT SMART SOLUTIONS?

Smart Villages cover a wide range of themes and topics. The right solutions have to be adapted to the specific context of each rural community and can cover a huge array of topics and themes. As an illustration, this graph presents the key thematic areas indicated by the selected Smart Rural 21 villages.

While villages are implementing a diverse set of smart solutions, some commonalities and 'hot topics' have also been identified regarding the smart actions of the Smart Rural 21 selected villages.



Can you identify any smart village strategy themes that are relevant for your village? Why not check the web pages of the Smart Rural 21 participant villages (including videos and presentations) and get in touch with them directly to find out more?



Photo by Dominik Lange

Retirement village & (e)care: Is digital the solution?

Caring for the elderly is a common challenge, particularly when it comes to using smart solutions offered by digital technologies, (e-)care. The questions are whether it is worthwhile to invest in digital technologies, and what investments and human capacities need to be developed to make services effective and sustainable. Key topic in [Dingle \(IE\)](#), [Penela-Cumeeira \(PT\)](#), [Sollstedt \(DE\)](#)



Photo by Arno Senoner

Young people: How to engage?

Engaging youth in local activities, especially teenagers has been a challenge in many rural communities, including finding the right types of socialising activities, and improving skills and competences. Key topic in [Mukarov \(CZ\)](#), [Alsunga \(LV\)](#), [Ansó \(ES\)](#)

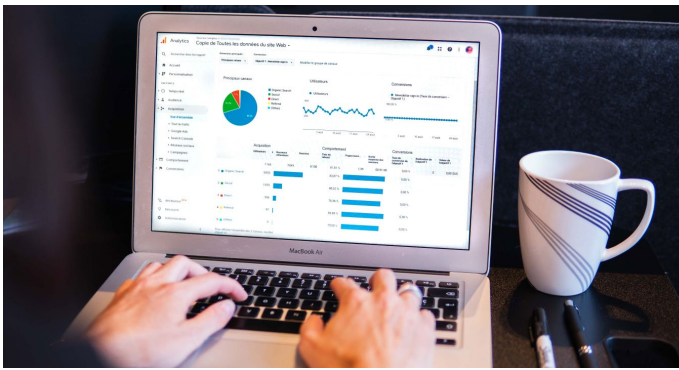


Photo by Myriam Jessier

Digital technology: How to use it for improving local services?

Various Smart Villages are developing data and information management tools, platforms and apps with the purpose of better serving people in rural community, as well as visitors, improving services (including tourism) and connecting local people (social innovation). Key topic in [Torup \(DK\)](#), [Profondeville \(BE-Wallonia\)](#), [Penela-Ferraria De São João \(PT\)](#), [Kythera \(EL\)](#), [Alsunga \(LV\)](#)



Photo by Vidar Nordli-Mathisen

Reconstruction of old buildings: For what use and how to make them sustainable?

Old school building to local farm & businesses
 Old mill to local business & community hub
 Old cellars to tourist accommodation
 Eco-building to become a local agricultural hub and community space



Photo by Canva

Landscape planning and reconstruction of old buildings: How to preserve architectural, cultural and environmental heritage?

(Re)construction of (old) buildings & landscape planning are a key theme in several Smart Rural 21 selected villages. The main objectives are to: (1) make use of old buildings or available plots for the benefit of the local community; (2) find sustainable (eco-friendly) solutions adapted to local environmental conditions; and (3) develop financially sustainable business activities. Key topic in [Ansó \(ES\)](#), [Sentviska Gora Plateau \(SI\)](#), [Tomaszyn \(PL\)](#), [Uppony \(HU\)](#), [Raudanmaa \(FI\)](#), [Virtsu \(EE\)](#)



Photo by Canva

Sustainable/regenerative agriculture: How to preserve the environment through new agricultural methods & technologies?

New technologies (including smart agriculture) and methods for a more resilient community and environment (including regenerative agriculture) constitute one of the main themes of Smart Villages, in line with the EU's Green Deal objectives. Key topic in: [Tomaszyn \(PL\)](#), [Kythera \(EL\)](#), [Babina Greda \(HR\)](#)



Photo by Canva

Renewable energy & local energy communities: How to achieve energy independence?

Renewable energy, with particular focus on local energy communities. In the context of Stanz (AT), this method is also combined with a local digital currency to support the local economy, with a token system and blockchain technology. Key topic in: [Stanz im Mürztal \(AT\)](#)



Photo by Canva

Smart mobility solutions: How to ensure transportation in remote rural areas?

Smart mobility solutions in remote and mountainous rural areas, including e-cars and car-sharing, can be designed to support particularly isolated and/or remote communities. Key topic in: [Ostana \(IT\)](#)

These themes are fully aligned with the four suggested areas of action of the European Commission's Long-Term Rural Vision:

- (1) **Stronger rural areas:** caring for the elderly, engagement of young people, and using data and data platforms to improve local services (most [Smart Rural 21 villages](#));
- (2) **Resilient rural areas:** sustainable landscape planning and (re)constructions, regenerative agriculture, renewable energy community ([Stanz](#), AT; [Tomaszyn](#), PL; [Penela](#), PT; [Kythera](#), EL);
- (3) **Connected rural areas:** smart mobility and digital solutions (e.g. [Profondeville](#), BE-Wallonia and broadband connectivity in [Raudanmaa](#), FI).
- (4) **Prosperous rural areas:** a cross-cutting theme including agricultural businesses ([Tomaszyn](#), PL; [Kythera](#), EL; [Babina Greda](#), HR), tourism (e.g. in [Kythera](#), EL) and other rural businesses (e.g. in [Torup](#), DK and [Raudanmaa](#), FI).

Finding the right innovative solution to address a specific challenge or realise a new opportunity might take a lot of exploration and experimentation. There are several paths to identifying solutions:

- **Specialist expertise** is almost certainly needed. While the local community is often the main



Smart Rural 21 villages find expertise they need through specialist village advisors, local specialist organisations (e.g. local universities, NGOs, etc.), local boards or specialist bodies, specialist members of the rural community and external experts.

source of innovation, the relevant expertise cannot always be found locally. The Smart Rural 21 experience showed that villages often needed to bring specialist external expertise to turn their ideas into action. External expertise can also provide **'eye-openers'** and encourage rural communities to consider solutions that they might not have thought of before. In this context, setting up a **public-private-research-civic society partnership** might be beneficial (this is often referred to as 'quadruple helix' model – and has already been successfully used in some rural areas⁸). For instance, [Babina Greda](#) (HR) and [Kythera](#) (EL) are closely working with universities to provide local farmers with know-how on modern and sustainable production technologies, including precision agriculture. [Profondeville](#) (BE-Wallonia) aims to provide local public authority staff with the right skills to identify and use local (big) data by involving specialists.

8 See for instance [SECAD \(Ireland\)](#)



Avoid path-dependency, i.e. try to identify out-of-the-box solutions, be open-minded and search for new ideas.

- **A smart solutions database** can be useful to find inspiration and ideas from other villages. There are many different databases such as the projects database of the European Network for Rural Development (including examples

collected through the [ENRD's thematic work on Smart Villages](#)), or the EIP (European Innovation Partnership) – AGRI [database of operational group projects](#). The Smart Rural 21 project has developed its own [database](#) providing detailed and practical information about inspiring solutions that have been implemented in rural communities. The database can be searched according to thematic keywords.

Smart solutions list :

Countries: Please select (dropdown) | Free text search: [input field]

Which thematic area?

- People**
 - Education (schools, children, youth) (4)
 - Engaging youth (2)
 - Improving eSkills (2)
 - Improving other skills (2)
 - Social inclusion of disadvantaged groups (5)
 - Supporting elderly people (4)
 - Volunteering (1)
 - Work-life balance (1)
- Environment**
 - Bioeconomy (3)
 - Circular economy / waste management (5)
 - Habitats and biodiversity (2)
 - Land management (2)
 - Low carbon economy (6)
 - Renewable energy & energy efficiency (5)
 - Resource efficiency (1)
 - Soil (2)
 - Water (2)
- Economy**
 - Entrepreneurship/ business support (3)
 - Farming and agri-food business (7)
 - Inward investment & FDI (1)
 - Research, innovation & knowledge development (1)
 - Social enterprise (2)
 - Supporting job seekers (1)
 - Tourism/ recreation (4)
- Connectivity & mobility**
 - Broadband connection & infrastructure (2)
 - Cycling / walking routes (1)
 - Improving transport connectivity (2)
 - Use of digitisation & new technologies (4)
- Living**
 - (e)health/ healthcare services (1)
 - Arts & music (2)
 - Community space (3)
 - Culture & heritage (1)
 - Housing (3)
 - Liveable & Tidy Towns (2)
 - Sports, hobbies & interests (1)
 - Support to newcomers (2)
- Governance**
 - Community capacity-building (3)
 - Cooperation (including with other villages) (8)
 - Improving urban-rural linkages (5)
 - Public engagement in decision-making (4)
 - Public-private partnership (5)

Order by: Last modified Date Initial investment Post date | Descending (dropdown)

Reset search | Submit | Results found : 50

Citizen Bus Scheme
A non-commercial on-demand shuttle service for rural communities.
Implemented in : Amt Röbel-Müritz
Country : Germany
Initial investment : 82,000 €

The above is a printscreen of the [Smart Rural 21 smart solutions database](#).

- **Peer-to-peer exchange** among villages, online and face-to-face, brings a lot of benefits to rural communities. There are many ways to identify and contact other relevant villages. The Smart Rural 21 project has largely promoted exchange among villages through [smart rural morning café sessions](#) where one of the villages presented their innovative approaches and others could informally ask questions and discuss specific initiatives, over a coffee. Additionally, **cross-visits** enabled villages to learn from each other,

with project support, organised back-to-back with the [Smart Rural regional workshops](#) or as stand-alone events. The [Smart Village Academy](#) had a focus on villages' thematic needs - check out the material available online and explore inspiring village solutions. Relevant community networks can also help to create links with other villages (including village-focused networks such as the [Smart Village Network](#)).



Unfortunately, language is still an issue for communities planning to engage with other communities at an international level. It is very important that someone in your community speaks English if you would like to engage with other communities in Europe and beyond.



Some rural communities started to improve their language skills, motivated by their participation in the Smart Rural 21 project. “With our colleagues we started to learn English as we feel it’s one of our important weaknesses. Hearing others speaking good English inspires us.”

3.3 HOW TO ENGAGE LOCAL PEOPLE IN THE PLANNING & IMPLEMENTATION OF SOLUTIONS



Engaging members of the community in strategy planning and implementation

is important, not just because the “participatory approach” is a key component of the Smart Villages approach, but mostly because without engagement and **ownership** by the local people, the strategy will almost certainly not be implemented later on.

Stakeholder engagement is often a challenging process, particularly in larger communities and in areas characterised by extreme depopulation and/or where the where the number of people in the community is very small.

There is not a single recipe for successfully engaging stakeholders in a local community, as this depends greatly on the profile and level of activity of community members, local leadership and other factors.

Experienced village leaders have suggested that it is important that, in order to motivate community members, **ideas coming from community members are listened to, taken up and encouraged**. Members of the community are tasked with tangible work - especially if it is voluntary work (i.e. the strating & end points and outcomes should be visible), and **(small) rewards and recognition** are given to those who invest in community work.

Specific tools on how to engage community members are available in the [Smart Rural 21 Roadmap Tool](#).

“Often people come to our village and say, we would like to realise a project and of course we host everybody with enthusiasm. But then it’s the people who actually have to do it. Sometimes you get 50 people saying they want to do something in Ostana, but only 1 is coming back. And then we start to see if there is a space or possibility for them. And this way we build a lot of activities.”

Enrica Alberti,
Ostana Village, Smart Café



Most Smart Rural 21 villages found the stakeholder engagement process during strategy development “a bit challenging” (data based on 12 survey respondents).



The really successful communities are those that have vision, leadership and devotion

from at least a few committed people in the village. Starting the Smart Villages process doesn’t necessarily take a large number of people. Even one or two local people (in some cases called ‘yeast people’) can start to make a change if they are not doing it simply for the money, but for a ‘belief’ and vision. They need to have the right interest, skills, commitment and capacity. Without **leadership, ownership and a vision**, it is not possible to start a Smart Villages journey.

It is not necessary to be a formal governance structure – e.g. mayor and their team – to initiate or lead a smart village strategy process. Indeed, diverse governance structures are represented in the context of the Smart Rural 21 villages.



The fact that there is strong commitment from the European level and some Member States to support Smart Villages through multiple funding sources, gives hope for rural communities. Funding of innovative solutions in the local rural development context through a territorial perspective, is so far – almost exclusively – happening through LEADER/CLLD. LEADER/CLLD will certainly



Youth engagement needs particular attention, and creativity and the right animators are needed. Youth engagement is a key topic in a number of the selected Smart Rural 21 villages. In [Mukarov \(CZ\)](#), the main concern has been how to engage the younger generation in joint activities: a youth club (Hangout4Teens) was set up and has been animated

by a university student living in the village. In [Alsunga \(LV\)](#), engaging youth and improving their digital and programming skills (virtual reality) has been the main focus. [Ansó \(ES\)](#) offers a good practice of how children were engaged in consulting elderly people about the future of the village.



TIPS & TRICKS: YOU NEED TO START SOMEWHERE

Even in the Smart Rural 21 project, there have been various levels of success in gaining community support for the Smart Village process. The project aimed **to understand the real dynamics in a rural community in order to be able to decide what works and what does not work**. In this context, failure is also allowed. Don't let yourselves be misled ("all that glitters is not gold") and look for the real value.

At the same time, you always need to take into account the specific capacities of a community. The project has worked with inspiring communities led

by one or very few, committed people in particularly disadvantaged areas, with very few local people to engage. If you have the ideas and vision, don't be scared, **you need to start somewhere**.

It is not a 'failure' when only one or very few people initiate the process; failure is the lack of real commitment and vision from the person(s) that lead the process, where personal interest prevails over idea-sharing and common vision for the rural community and area.

remain the key source of funding for Smart Villages. However, LEADER/CLLD has a relatively small share of the EU rural development funds, and more funds and policymakers are needed to support innovation in rural communities. **Smart Villages can open up new doors, you just need to keep knocking.**



Certainly, it is hard to navigate through the jungle of EU funding, programmes, interventions and calls for proposals, especially for a rural community with limited resources. Many rural communities become disillusioned if they are unsuccessful with applications that normally require a lot of energy and resources, particularly in a strict administrative environment. Consequently many just give up, thinking that they have more important 'real work' to do. Getting involved in EU-funded projects is not always easy, and rural communities often need specialist support and advice to identify the right calls, apply for funding and comply with administrative and other requirements. It is hard to say whether the investment will be worth it, but it is worth trying as there are many relevant



The Smart Rural 21 project has provided specialist support to certain rural communities to identify and apply for funding (such as [Ansó](#) in Spain, [Ostana](#) in Italy and [Stanz im Mürztal](#) in Austria). You can learn more about the experience of these villages thanks to the Smart Rural 21 [village roadmap](#).

funding opportunities out there. Preparing the right application is a skill that can be learned with some support – especially if you have the right ideas in mind and the right motivation.

Besides public funding, rural communities often need to "take their future in their own hands" and consider alternative financing. Among others, private funding – sustainable business models – NGO/ foundations, crowdfunding, as well as the EU financial instruments could be explored.



Day two of the [2nd Smart Village Academy](#) particularly focused on accessing various sources – especially planning of crowdfunding schemes – for rural communities.



The Smart Rural 21 project identified six governance models by analysing the Smart Village process in participating rural communities. Each model has its 'pros & cons'. The six models are as follows:

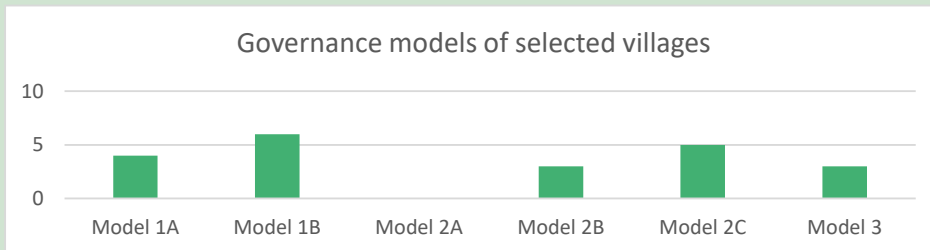
- Model 1A: Relatively dominant position of elected mayor/deputy mayor and their team
- Model 1B: Elected mayors/ deputy mayors & strong community engagement
- Model 2A: Strong non-elected local leader(s)/ leading figure(s) with dominant position
- Model 2B: Strong non-elected local leader(s)/

leading figures & strong collaboration with local community

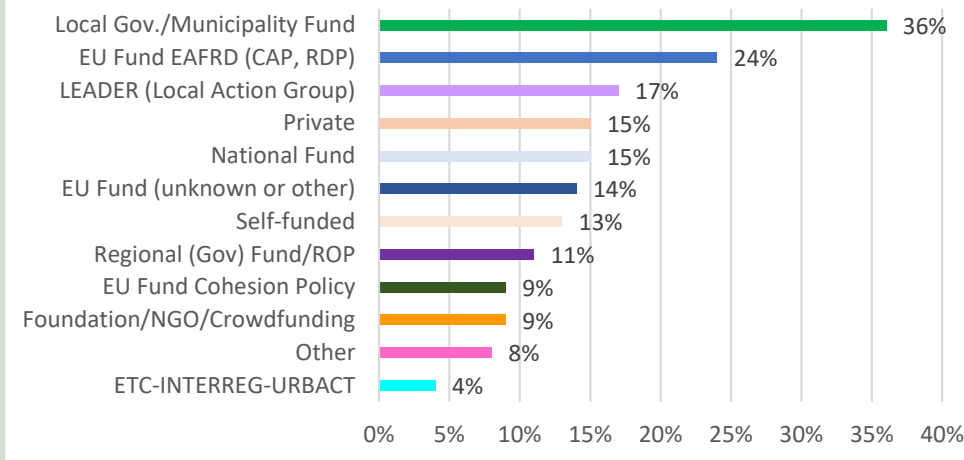
- Model 2C: Local professional/ individual or specialist organisation driving the process
- Model 3: Self-organised local governance bodies of local people

The Smart Rural 21 villages are classified under the different models as presented below.

Which model does your rural community fall under?



Funding sources for local rural community projects



The Smart Rural 27 project carried out an analysis in September 2021 covering a large sample of rural community initiatives, to understand how far EU, and other, funding is accessible to rural communities.

The analysis showed that most solutions are implemented from local/ government, private or national funds. Among the EU funds, local

communities have almost exclusively had access to the Rural Development Programmes and within that, LEADER/CLLD. This highlights potential challenges in accessing various EU funds at the level of local rural communities.

Source: Presentation of Edina Ocsko, Coordinator of the Smart Rural 27 project



TIPS & TRICKS: FINANCING SMART SOLUTIONS

- ✓ Finding a way through the jungle of various public calls for funding, understanding the conditions and applying is a real challenge. Policy information on the Smart Rural 21 website gives a good starting point for identifying potential funding. You need to consider whether you would like to embark on that road and if yes, **you might need specialist advice to do so.**
- ✓ Going for public funding and calls is not necessarily the only way to obtain funding; **other alternatives can be considered**, in particular sustainable business models and crowdfunding.
- ✓ **The most successful, ‘smartest’ rural communities are not necessarily those that are the most successful in applying for funding.** Some communities develop the skills to be successful in accessing funding, but there is a danger of becoming too funding opportunity-driven, rather than smartly strategic.
- ✓ Rural communities can proactively act to identify the most relevant resources for their own purposes, rather than focusing simply on what is available. **A good starting point is to think about synergies between local goals and higher level objectives** (e.g. those set by LEADER Local Development Strategies or regional programmes and policies).
- ✓ In addition to national funding programmes, there are also cross-border/transnational project opportunities, including LEADER transnational cooperation, Interreg, Europe for Citizens, Erasmus+ and Horizon Europe calls.
- ✓ Beside Smart Rural 21, other European initiatives are also working to support villages and help develop smart village strategies, and other initiatives. Among others, stakeholders might be interested to follow the developments of the [Smart Rural 27 project](#).



MORE INFORMATION: SMART SOLUTIONS & FINANCING

[Smart Rural 21 Roadmap](#): practical tools for strategy implementation

[Smart Rural 21 Smart Solutions database](#): smart solutions with implementation details

[Smart Rural 21 village profiles & solutions](#): detailed information about the smart actions carried out by villages

4. CONCLUDING WORDS

In this short guidebook, we have tried to share with you the essence of the experience accumulated by the Smart Rural 21 project by working with rural communities across Europe in 2020 and 2021. The messages and resources are just starting points for a journey that each rural community has to take on its own. The hard work is for you, the members of rural communities that are facing so many challenges, but hopefully also a multitude new opportunities.

The Smart Villages concept aims to provide valuable resources for this journey. It is not yet a full-fledged concept. Just like the smart and innovative solutions it supports in rural communities, the Smart Villages concept itself is an experimentation. Whether it becomes successful also depends on all of us. You are not alone on this journey. Several EU Member States are actively supporting

Smart Villages in the 2021-2027 programming period, and the European Commission also continues to provide its support, not least with the Second Preparatory Action on Smart Rural Areas of the 21st Century ([Smart Rural 27 project](#)). Come on board and connect with other rural communities to share your Smart Village experiences!

“The only way to transfer information is emotion, and that’s very important. A relative to emotion is passion.”

Fritz Pichler,
Mayor of Stanz



