European Commission

Preparatory Action - Smart Rural Areas in the 21st Century – Final Report

Smart Rural 21 Project – Final Report

Written by E40
March 2023

E40

EUROPEAN COMMISSION

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Smart Rural 21 Project – Final Report

Directorate-General for Agriculture and Rural Development

2023

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Acknowledgements

The project was coordinated by:

In partnership with:
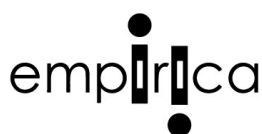
ABSTRACT

Smart Villages is a relatively new concept that was first formulated by the European Commission - with support from the European Parliament - through the EU Action for Smart Villages in 2017. The 1st Preparatory Action on Smart Rural Areas in the 21st Century (called Smart Rural 21 project) aimed to promote the uptake of the Smart Villages concept across the EU at both local (rural community) and policymaking levels. The Smart Rural 21 project supported 21 villages across Europe to meet 21st century challenges and seize opportunities through developing and implementing smart village strategies. Furthermore, the Smart Rural 21 project has engaged a larger number of (so called "Come Along!") villages that have had an interest in the Smart Villages approach and had the intention to follow the Smart Rural process by their own efforts. The Smart Rural 21 project has supported a wide range of smart actions through technical expert support in participant villages. Furthermore, the project aimed to map and draw conclusions concerning Smart Villages support frameworks and policies among others, it developed a policy overview paper and a series of Smart Villages policy case studies and showcased the approaches of some of the more advanced countries.

RÉSUMÉ

Les "Villages Intelligents" (Smart Villages) recouvre un concept relativement nouveau, formulé pour la première fois par la Commission Européenne - avec le soutien du Parlement européen - dans le cadre de l'action de l'UE pour les « Smart Villages » en 2017. La 1ère Action Préparatoire concernant les zones « Smart Rural » au 21e Siècle (appelé projet Smart Rural 21) visait à promotionner le concept de Villages Intelligents dans toute l'UE, tant au niveau local (communauté rurale) qu'au niveau politique. Le projet « Smart Rural 21 » a aidé 21 villages à travers l'Europe à relever les défis du XXIe siècle et à saisir les opportunités offertes pour développer et en mettre en œuvre des Stratégies de Smart Villages. En outre, le projet Smart Rural 21 a engagé un plus grand nombre de villages (appelés villages "Come Along !") qui ont été intéressés par l'approche des Villages Intelligents et ont eu l'intention de suivre le processus Smart Rural par leurs propres efforts. Le projet Smart Rural 21 a soutenu un large éventail d'actions intelligentes grâce au soutien d'experts techniques dans les villages participants. En outre, le projet visait à avoir un aperçu et à tirer des conclusions concernant les cadres politiques soutenant les « Smart Villages » : parmi d'autres il a élaboré un bref document d'orientation politique et une série d'études de cas sur la politique dédiée aux villages intelligents («smart villages») et il a mis en exergue les approches de certains pays les plus avancés en présentant leurs pratiques.

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I. INTRODUCTION TO THE SMART RURAL 21 PROJECT

This Final Report aims to bring together the main achievements and lessons learnt through the 1st Preparatory Action for Smart Rural Areas in the 21st Century – so called Smart Rural 21 project - for the benefit of policymakers, local rural communities and all stakeholders interested in the implementation of Smart Villages.

The Smart Rural 21 project was funded by the European Commission and ran between December 2019 and November 2022[1] to support the implementation of Smart Villages across Europe.

Smart Villages is a relatively new concept that was launched by the European Commission – supported by the European Parliament - through the EU Action for Smart Villages in 2017. In the same year, the European Network for Rural Development (ENRD) Contact Point has launched its Thematic Working Group on Smart Villages to facilitate exchange among stakeholders about the new concept. Between 2018 and 2019, the Pilot Project on Smart Eco-social Villages – coordinated by DG AGRI - was launched with the aim of providing a comprehensive definition for Smart Villages (see below) and identifying relevant good practices and case studies.

> **Smart Villages Definition provided by the Smart Eco-social Villages Study**
>
> Smart villages are communities in rural areas that use innovative solutions to improve their resilience, building on local strengths and opportunities. They rely on a participatory approach to develop and implement their strategy to improve their economic, social and/or environmental conditions, in particular by 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.
>
> Source: Pilot project: Smart Eco-Social Villages, Ecorys Final Report, European Commission, 2019.

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[1] The Contract was initially planned until June 2022 but was extended to maximise impact for stakeholders overcoming Covid and CAP programming challenges encountered in this period.

The 1st and 2nd Preparatory Actions on Smart Rural Areas in the 21st Century (called Smart Rural 21 and Smart Rural 27 projects respectively), supported by the European Commission (DG AGRI) have aimed to operationalise the Smart Villages definition and promote the uptake of the Smart Villages concept across the EU at both local (rural community) and policymaking levels.

Figure 1: Steps in the EU's Smart Villages concept support

HISTORY OF THE EU'S SMART VILLAGES CONCEPT

2017	2017	2017-2019	2019-2022	2020-2023
EU ACTION FOR SMART VILLAGES	ENRD THEMATIC WORK ON SMART VILLAGES	PILOT STUDY ON SMART ECO-SOCIAL VILLAGES	1ST PREPARATORY ACTION FOR SMART RURAL AREAS IN THE 21ST CENTURY	2ND PREPARATORY ACTION FOR SMART RURAL AREAS IN THE 21ST CENTURY
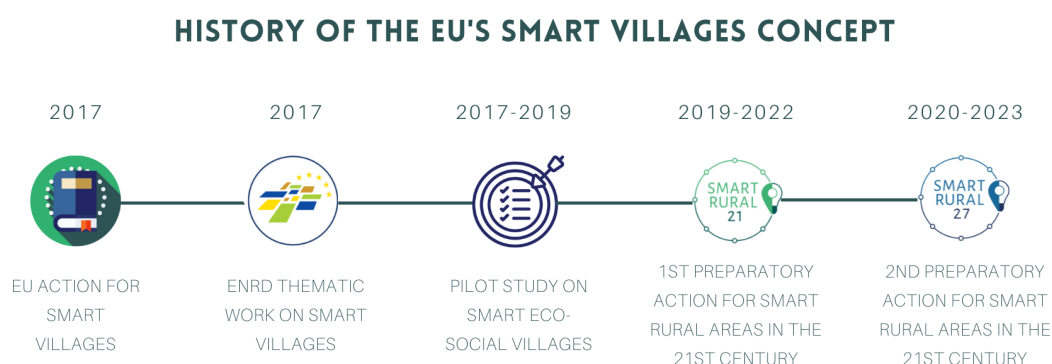
Source: E40, Smart Rural 21 project, [Guidebook on How to become a Smart Village](#)

The **overall goal** of the Smart Rural 21 project was *to use local-level experience of implementing the Smart Villages concept to both inspire policymakers to consider the support of the concept of Smart Villages, as well as rural communities to develop and implement Smart Villages approaches and strategies*. The project also defined a set of general and specific objectives to be realised through Work Packages as presented in Table 1 below.

Table 1: Project objectives

General Objectives	Specific Objectives	Work Packages
GO1. Provide targeted technical assistance by putting in place facilities needed to promote the implementation of smart villages & testing the approach	1.1 **Identify, inspire and select villages** that are suitable for demonstrating the smart village development path	WP3: Selection of villages
	1.2 **Build capacity and test suitable governance** mechanisms by developing guidance and providing assistance at the local level to the selected villages	WP4: Guidance and technical support WP2: online platform
	1.3 Develop the **building blocks of smart village strategies and test** their implementation in at least two demonstration pilot sites	WP4: Guidance and technical support WP2: online platform

General Objectives	Specific Objectives	Work Packages
	1.4 **Monitor the development** of the transformation into smart villages and implementing smart village strategies	WP5: Monitoring & analysis
GO2. Analyse the approach towards establishing and implementing smart village strategies & draw lessons learnt	2.1 **Analyse the development** of the transformation into smart villages and implementation of the smart village strategies	WP4: Guidance and technical support WP5: Monitoring & analysis
	2.2 **Draw conclusions** concerning lessons learnt and the applicability and adaptability of the general concept under different circumstances	WP6: Conclusions & Recommendations
	2.3 **Develop guidance** to encourage the update of the smart village concept	WP6: Conclusions & Recommendations
GO3. Ensure cooperation and exchange of knowledge and experience among villages and raise awareness of the smart village concept	3.1 Undertake actions to inspire the development and implementation of **smart villages in other parts of Europe**	WP1: Communication and awareness raising WP2: Online Platform WP4: Guidance and technical support WP6: Conclusions & Recommendations
	3.2 Undertake actions to facilitate the **sharing of experience** about the outcomes of the process	
	3.3 Undertake actions to **disseminate information and raise awareness** of the smart village concept based on real-life local experiences and increase its visibility in EU Member States	
GO4. Contribute to the targeting of Common Agricultural Policy (CAP) and Cohesion Policy interventions that promote smart villages and sustainable rural areas	4.1 **Review existing practices of promoting smart villages** in several EU Member States and assess options for future actions	WP1: Communication and awareness raising WP2: Online Platform
	4.2 **Develop recommendations** for preparing the ground for covering smart villages in the future CAP and Cohesion Policy	WP6: Conclusions & Recommendations

Source: E40 Technical Proposal (refined)

The specific Work Packages defined were as follows:

1. Communication & awareness raising;
2. Online platform;
3. Selection of villages;
4. Guidance, technical support & capacity building to participating villages;
5. Monitoring the development of the process;

6. Conclusions & recommendations;
7. Project coordination.

Overall, the Smart Rural 21 project was carried out through the work of an expert group, directly supported by the input of participant villages as follows:

1. **The Core Team (E40 – Hungary**, Project Coordinator) was responsible for the overall coordination of the work with the national experts, specialist experts, partners, and the participant villages. The Core Team also took responsibility for the development of most of the main outputs (including website contents, analytical and progress reports).

2. **Partners of the consortium** (empirica - Germany, IfLS – Germany, eConcept - Ireland, ISP – Belgium and the Agricultural University of Athens, AUA - Greece) have actively contributed to the implementation of specific tasks, supporting the E40 team, including national expert tasks (IfLS in Germany, eConcept in Ireland and AUA in Greece), policy analysis (IfLS), village support (in digital services by empirica, entrepreneurship by ISP, smart agriculture by AUA) and development of smart solutions and roadmap tools (all partners).

3. **National experts** (coordinated and contracted by E40) were responsible for carrying out a series of tasks, including Smart Villages country-analysis and development of the contents of the 'What's happening in my country' pages of the Smart Rural 21 website, selection of the villages in their countries, technical support to selected villages for developing their smart village strategies, support (in selected countries) for the implementation of strategic smart actions, monitoring of the strategy development and strategy implementation in selected villages, development of smart solutions and roadmap tools, communication about the Smart Rural 21 project and outcomes (management of social media accounts where applicable), proofreading of the language versions of the Guidebook, contribution to Smart Rural 21 events (including presentations and workshop support).

4. **Specialist / technical experts** were engaged to realise targeted support in the villages and contribute to the development of smart solutions and roadmap tools. Village contexts have been unique and therefore, the support needed to be tailor-made to the specific needs of the villages. This necessitated the involvement of experts with the right technical knowledge. The work of the experts has been coordinated by E40.

5. **Participant villages** have largely contributed to the implementation of specific tasks (from strategy development to the realisation and promotion of smart strategic actions). **Without their active contribution the project**

could not have been a success. The Smart Rural 21 project realised its support not only *for* but most importantly *with* the participant villages.

In Chapter II the detailed methodology, the work done and achievements of the project are summarised by Work Packages. Chapter III provides the overall analysis of the work, lessons learned and recommendations emerging from the project.

II. IMPLEMENTATION & METHODOLOGY OF THE PROJECT

This chapter starts (in Section 2.1) with the description of the selection process of villages (Work Package, WP3), followed by (in Section 2.2) the elaboration on how selected villages have been supported in strategy development and implementation (WP4) – including the real-world testing of 3 village strategies and supporting exchange among the villages. In Section 2.3, the outcomes of the monitoring of the strategy development & implementation process (WP5) are presented. The chapter concludes (in sections 2.4 & 2.5) with describing how information has been shared through communication actions (WP1) and the online platform (WP2).

2.1 SELECTION OF THE PARTICIPANT VILLAGES

The purpose of the selection of villages was to contribute the best to the objectives of the project by selecting those villages that have strong motivation and potential to become functioning smart villages. More specifically, the selection process aimed to:

- Ensure the selection of a balanced set of villages across Europe;
- Identify villages, where technical support and guidance can add particular value to local development;
- Allow drawing lessons across Europe that other villages as well as policymakers can benefit from;
- Engage villages in the project and consequently raise awareness about the Smart Villages approach across Europe.

Criteria included main and secondary ones as follows:

- **Main criteria[2]**:
  - o Level of readiness / coherence: quality of strategic approach & intervention logic (challenges – assets – existing projects);
  - o Level of motivation;
  - o Level of human capacity;
  - o Expected added value for the village.
- **Secondary criteria[3]**:
  - o Level of technical & physical development;

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[2] Assessed by national experts for all villages that applied.

[3] Provided only for those villages that rated top 5 based on the main criteria in a given country.

- o Innovation potential;
- o Intention to cooperate & readiness to exchange experience in a transnational environment;
- o Level of transferability of smart solutions.

Furthermore, the Technical Specifications required that "*The selection process must […] take into account the geographical balance as well as the need for covering a wide range of development topics".* This consideration has not only been important for ensuring diversity and fairness, but the balanced coverage also contributed to a comprehensive analysis of diverse village contexts and has allowed cross-cutting analysis and comparison of different Smart Villages models.

During the proposal phase (i.e. prior to the project start), **five villages were pre-selected** to kick off the project with. The pre-selection of these villages was a requirement by the initial Technical Specifications and had to be provided already in the Proposal. A pre-selection process – mostly supported through the Smart Village Network during the preparation of the Proposal, as well as through collaboration with consortium partners - was initiated to identify suitable villages. A small-scale application process was commissioned (given the limited time), requesting interested villages to complete a similar form to that of the application form used later for the other selected villages. The five villages were pre-selected based on the strongest "applications", also considering country, village characteristics and thematic balance. Based on the pre-selection process, the rural communities identified were:

- ✓ [Raudanmaa (Finland)](#)
- ✓ [Dingle (Ireland)](#)
- ✓ [Mukařov (Czechia)](#)
- ✓ [Mouans-Sartoux (France)](#)
- ✓ [Kythera (Greece)](#)

The process of selection of additional villages was completed by early June 2020 as planned. **The selection process was implemented through an open call for applications across Europe**. A call document (see below) was published to explain the expectations towards applicants and the benefits of applying. The call document was uploaded onto the Smart Rural 21 online platform, as well as used for promotion at national and European levels, together with other information materials (such as the leaflet and infographics of the project). The call was also promoted through social media channels (Twitter and Facebook), and at the EU-level through the various multiplier/stakeholder organisations (such as the ENRD, Euromontana, ELARD, and ECOLISE).

Figure 2: Call to become a participant village in Smart Rural 21

Call to become a participant village supported by

the Preparatory Action on Smart Rural Areas of the 21st Century ('Smart Rural' project)

What is the project about?

The 'Smart Rural' project is a two and a half-year project supported by the European Commission (DG AGRI) with the overall aim to promote and inspire villages to develop and implement smart village approaches and strategies across Europe, and to draw conclusions and support future CAP interventions on smart villages.

17 villages receive guidance and technical support through the project. 5 villages have already been selected in Ireland, Finland, France, the Czech Republic and Greece, and further 12 villages will be selected until 30 April 2020.

Is our village an ideal candidate?

Your village is an ideal candidate if it:

- ✓ Needs support, ideas and inspiration to become a smart village
- ✓ Has enthusiastic leaders who are committed to develop and implement a smart village strategy
- ✓ Has the relevant human capacity to mobilise for the smart village process
- ✓ Would benefit from specific expert guidance to progress with village development plans
- ✓ Ideally has some basic technical capacity, including sufficient broadband connectivity or relevant infrastructure (e.g. community spaces) – although this is not a pre-condition.
- ✓ Ideally has some initial ideas, flagship projects or planning activities done that the smart village process can build on – although this is not a pre-condition.
- ✓ Is open to knowledge exchange and cooperation with other villages and stakeholders

If you think your village is ready to undertake an exciting smart village journey, then apply until 30 April 2020 to become one of the participant villages in the Smart Rural Project!

What do I need to do to apply?

You need to complete a simple application form describing:

- ✓ The key characteristics, challenges, assets and opportunities of your village
- ✓ The motivation to become a smart village
- ✓ The added value that you expect from becoming a participant village and the support that your village needs

Application form is available at https://form.jotformeu.com/E40/smart-rural-application !

What will I get?

If your village is selected your village will:

- ✓ Get specialist expert support for strategy development & implementation
- ✓ Can visit and get inspiration from other villages
- ✓ Can take part in exchange and capacity building with other participant villages through the Smart Village Academy events
- ✓ Gain visibility in European-level discussions and exchanges

Even if your village is not selected it will:

- ✓ Have an advantage if it applies to visit participant villages
- ✓ Can gain visibility through its practices being promoted
- ✓ Get regular updates about the project outcomes

The preferred working language is English, but applications can also be submitted in your own language!
For further information do not hesitate to contact: smart-rural@e40.eu

Source: Village Call document of Smart Rural 21 (Spring 2020)

A Jotform (https://eu.jotform.com/E40/smart-rural-application) has been created for the application[4] to collect information in relation to the key criteria:

- Basic information about the village and applicant/representing organisation;
- Motivation and needs of the village to become a smart village;
- Information on existing strategies;
- Information on the governance and local community;
- Challenges (including keywords);
- Main strengths and assets of the village (including keywords);
- Existing projects and ideas (including keywords);
- Information on how the village cooperates with other villages and stakeholders.

The original deadline of the application process was 30/04/2020 that was later extended until 11/05/2020 (to allow more time for villages to submit their applications, especially due to the high interest and difficulties caused by Covid-19).

Until the deadline, **736 applications were received across Europe**. The high number of applications demonstrated an effective call promotion and engagement in Member States, but most of all, a **very high interest in the Smart Villages approach across Europe** and the need for support for rural communities to become 'smart(er)'.

However, it also has to be noted that **there has been a large variation in terms of the response-rate in various countries** – see map further down. Some of the Southern European countries (especially Spain, Italy and Portugal) received a very large number of applications, while no applications were received from villages in Malta and Luxembourg, and only a single application was received from the United Kingdom. The difference in interest might have been due to a number of factors, including the size of the population of the country, local specificities (e.g. traditionally, Southern countries have been more active in applying for EU-funded projects), the intensity of the promotion carried out by the national experts

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[4] The basic structure of information collected built on the structure developed earlier by E40 Group in relation to the village database of the Smart Village Network (SVN). The European Smart Village Network is an independent network of rural communities, groups of rural communities (including LEADER LAGs) and village associations across Europe, with an interest to engage in Smart Villages, animated by E40 (on a pro-bono basis). At the time of developing the proposal, the Smart Village Network was one of the key platforms that gathered villages with a strong interest in the Smart Villages concept. A Village Database planning has started within the SVN, and in this context a set of keywords were elaborated. This knowledge, experience & network have been mobilised at the initial phases of the Smart Rural 21 project.

and other multipliers. Generally, the largest interest was expressed by some of the Southern-European countries, followed by countries in Central and Eastern Europe and Northern Europe/ Baltic countries (and Ireland), with somehow lower interest from some Central & Western European Countries.

Figure 3: Geographical distribution of applications received for the Smart Rural 21 Call
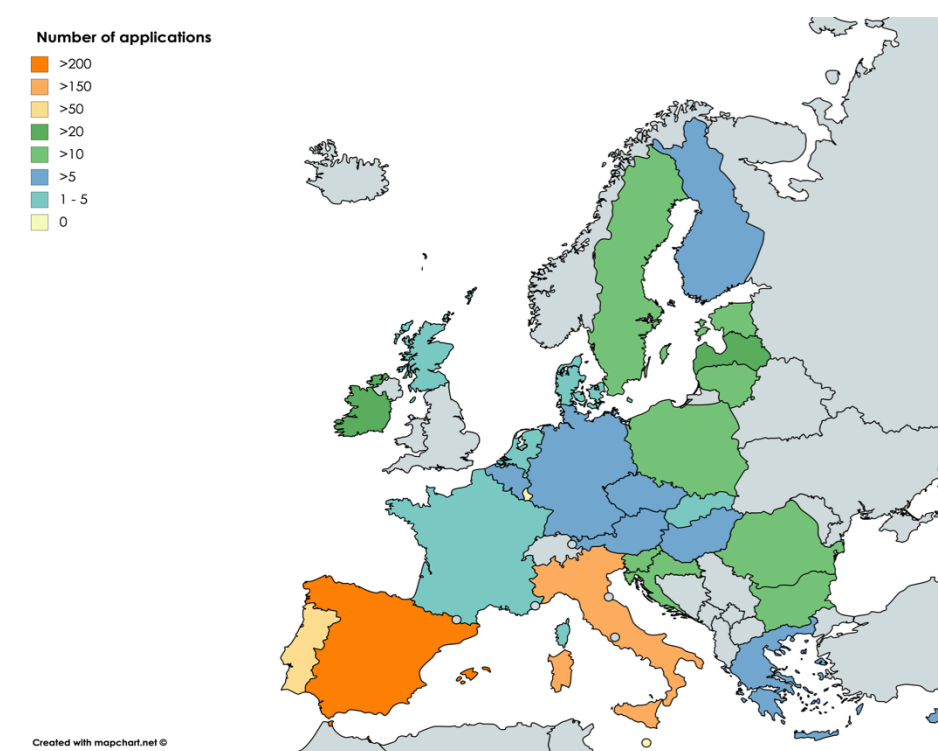
Source: E40, Smart Rural 21 project Deliverable Report on Selecting Villages (June 2020)

The assessment process was carried out through the following steps:

1. **Assessment by national experts** of up to 25 applications[5] until 22/05/2020 according to specific guidance provided by the core team.
2. **Assessment of the top-rated 2 to 5** applications from each country **by a core assessment panel**[6] and creating an overall ranking (through the combined scores of national experts and the core panel).

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[5] In countries where more than 25 applications were received, the applications were systematically narrowed down to some 25 according to specific criteria (e.g. lack of motivation or lack of list of stakeholders specified, etc.).

[6] Each application was evaluated by one of four SR21 core team experts. Applications for which there was a large difference between the assessment of the core and national expert team members, was assessed by a second core team expert.

3. Based on the **combined national and core team assessment**, a long list of villages was created, and the core team carried out an initial review of all highest ranking applications, applying cross-cutting criteria (such as geographical and thematic coverage).
4. The Contractor provided the Steering Group (SG) of the European Commission with an **extended list of 30 candidates**.
5. During the online SG meeting, the applications were reviewed and discussed, and the **final selection was made** through the recommendations of the SG.
6. In order to meet the high interest, **16 (instead of the initially planned 12) additional villages** were selected to be supported by the project, resulting in a total of 21 supported villages (including the 5 pre-selected ones).
7. All applicants were contacted at the end of the selection process. A survey was carried out among all applicant villages (and beyond) to analyse communication aspects and encourage villages to get engaged with the project (see "Come Along!" process).
8. **Names and profiles (with photos) of all selected villages were published on the website**. The results of the selection were also promoted through social media. Work started with the 16 additional villages (while work with the 5 pre-selected villages continued). The support provided was the same in both the pre-selected villages and those selected later on, but it started earlier in the pre-selected villages also to draw lessons on the process for the others.

Figure 4: List and location of selected Smart Rural 21 villages

Newly selected villages
- Alsunga (Latvia)
- Ansó (Spain)
- Babina Greda (Croatia)
- Brestovo (Bulgaria)
- Ostana (Italy)
- Penela (Portugal)
- Profondeville (Belgium)
- Remetea (Romania)
- Šentviška Gora (Slovenia)
- Sollstedt (Germany)
- Stanz im Mürztal (Austria)
- Tomaszyn (Poland)
- Torup (Denmark)
- Uppony (Hungary)
- Virtsu (Estonia)
- Vuollerim (Sweden)

Pre-selected villages
- Mukařov (Czechia)
- Dingle (Ireland)
- Mouans-Sartoux (France)
- Kythera (Greece)
- Raudanmaa (Finland)

Source: E40 presentation of selected villages (2020)

Based on the large interest in becoming one of the selected villages, **an additional activity - the engagement of interested villages through the so-called "Come Along!" process - was launched**. A survey was launched[7] among all applicant villages to explore if they were interested in further cooperation and exchange. 158 initial expressions of interest were received in response to the survey. The list of "Come Along! Villages" had been continuously extended based on interests received from rural communities in the course of the project (193 "Come Along! Villages" have been included in the mailing list by the end of the project). This approach created the opportunity to many villages to plan a similar smart development path as participant villages. While "Come Along! Villages" did not receive the same tailor-made support as participant villages, the Smart Rural 21 project provided targeted support to villages that "came along" in the form of tools, examples and opportunities for peer-to-peer exchange – especially smart café sessions, project capacity-building events and cross-visits.

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[7] https://e40.typeform.com/to/DvzPcWNY.

Many "Come Along! Villages" were actively engaged throughout the project process (submitting smart village strategies, participating at smart café and project events and cross-visits with their travel costs being covered).

2.2 TECHNICAL ASSISTANCE FOR THE SELECTED VILLAGES

The main goal of the tasks carried out in the context of "*providing guidance and technical support for villages"* was to provide hands-on support for the participant villages for effectively developing and implementing their strategies. Key to the project concept was a **tailor-made approach to the technical support and guidance** according to the villages' needs. At the same time, the guiding principle of the Smart Rural 21 project was to assists villages along their 'smart' journey but not to do the tasks "instead of them", i.e. rather than top-down/linear assistance the project team aimed at co-working, capacity-building, technical support and guidance that ensures engagement and ownership of villages of the process and the outcomes.

In order to reach the set goals, the following main steps were carried out to support the selected villages (each of these steps are further detailed below):

- **Direct personal contacts** (regular discussions) were set up with all selected villages (including both by the national expert and members of the Core Team). This meant that the national experts together with core team members held regular discussions (mostly online, with occasional personal visits of some of the experts) with the village representatives to discuss and support each step of the process (as described below in details).

- **Support for strategy development:** National expert support and specialist expert support (whenever requested) were provided for the strategy development (some villages have developed the strategies by themselves and requested the days at the strategy implementation stage). The ongoing monitoring of strategy development was ensured, as well as ex-post monitoring following the completion of the strategies (see below more details on monitoring).

- **Support for implementing specific selected action(s) from the strategy identified by the village:** Preparation of action fiches that specified the needs for support of the village, used as internal working documents to match the village's needs with the right expertise (within the partnership and beyond). Support was provided for villages to realise a practical (set of) action(s) with tangible outcomes and benefits for the village, according to the needs of the village. The ongoing monitoring of strategy implementation was ensured, as

well as ex-post monitoring following the completion of the supported action (see below more details on monitoring).

- **Several opportunities were provided for exchange and peer-to-peer learning** including Smart Village Academy, online Smart Café events, cross-visits and other meetings.

2.2.1 Strategy development support

At the strategy development stage, a guidance and indicative template of the smart village strategy was prepared to assist villages, as well as minimum 10 (national expert) +10 (specialist local/ expert) days have been offered to the villages. National experts had been regularly in touch and supported villages in developing their strategies. Whenever, the specialist strategy support days provided by the project were not used these could be regrouped by the village to the strategy implementation phase (in which case minimum 10 additional days were allocated to strategy implementation). Specific guidance was developed for national experts (including internal FAQs, national expert meetings, etc.), as well as for villages, including an **indicative smart village strategy template** and one-to-one meetings. The Smart Village Strategy Template and guidance was also made available through the Roadmap Tool[8] (see Smart Village Strategy Template tool).

In the context of the **five pre-selected villages**, the strategy development support went smoothly. A series of working meetings took place with villages, and national experts provided technical support locally (including direct meetings and consultations with supported villages). As a result, all five villages completed their strategies as well as started action planning by mid-July 2020. Based on the experience of this process, the strategy development process had been refined and selected villages were supported in a similar way to pre-selected villages[9]. All additional 16 villages completed their strategies on time – all except one village used the proposed strategy template[10], although this has not been a formal obligation. Village strategies were mostly developed in English; however, it was also encouraged to develop strategies in the national language (and some villages followed this approach). A **summary highlight** was prepared in English, for most

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[8] https://www.smartrural21.eu/roadmap-toolbox/smart-village-strategy-template/.

[9] Strategy implementation support did not continue in Brestovo due to lack of local stakeholder commitment.

[10] Note that the Smart Village Strategy Template developed by E40 in the context of the project is also part of the Roadmap Toolkit.

strategies[11] to make the strategies more accessible to interested users. The strategies and strategy highlights were uploaded on the www.smartvillage21.eu online platform (under the village pages).

In addition to the 21 selected villages, 19 "Come Along! Villages" also submitted their smart village strategies. The list of these villages has been published on the "Come Along!" page[12].

2.2.2 Strategy implementation support

The project has directly and closely worked with each of the supported villages. Each village received as a basis minimum 5 national expert days, and 15 specialist expert days (the precise number depended on the type of expertise needed/ country) for the realisation of a specific action.[13] The specific action(s) were identified from those indicated in the smart village strategy and highlighted by the village on the action fiche. The support aimed to be focused and practical to achieve tangible results.

The fact that support had been tailor-made to the villages' needs and conditions generally required much more coordination with individual experts and villages. Therefore, guidance and technical assistance had taken longer than initially foreseen, due to the time needed for planning actions (including identifying the right expertise in collaboration with the villages), and often the lack of capacity of villages to take up the support, hampered by the Covid-19 situation throughout the project implementation. In order to ensure the maximum uptake and use of available resources by villages within the project, flexibility was allowed and the timeframe for implementing actions was extended to the maximum - without compromising other key outputs and deliverables of the project.

The identified expertise always responded to the needs of the village. First, the villages set out in the action fiches which specific action they wanted support

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[11] Highlights were not prepared for some of the pre-selected village strategies (namely Mouans-Sartoux and Dingle) due to lack of capacity on behalf of the village to collaborate with the national experts on this. Preparing a strategy highlight was an additional task and submitted as a deliverable for the second set of (selected) villages.

[12] Since the project did not have the capacity to check the quality of the "Come Along!" strategies, these were not formally published on the SR21 website. However, "Come Along! Villages" were later encouraged to share their strategies through the Smart Rural 27 project's geomapping tool.

[13] This was budgeted for the 12 villages to be selected, for the additional 4 villages it was agreed to provide support with a relatively more limited scope. Some villages received more than 20 days of expert support – if the budget allowed. Budget was also allocated to travel and other types of costs to support actions in some cases (e.g. field trip for Czech youth from Mukarov to Ireland, or university students' travel and accommodation in Uppony, Hungary).

for and what support they needed. Second, specialist consortium partners were asked to provide 'support offers' according to their specialist expertise in response to the specific needs of the villages (if relevant). If a support offer was received from partners and it was matching the villages' needs, the partner organisations provided the technical support (AUA in Kythera – Greece, empirica in Sollstedt – Germany, in Dingle – Ireland and in Cumeeira/Penela – Portugal, ISP in Raudanmaa – Finland). If the village's needs could not be matched with the partners' expertise, the project identified the relevant (external) expertise/ expert in collaboration with the village. **Due to the large diversity of needs**, **specific areas for practical support and language issues**, the relevant expertise was often not available 'in-house' within the project consortium/ partners, so additional expertise and know-how[14] were mobilised. While this process had been much more resource-intensive in terms of coordination, it had responded to the needs of the villages the most efficiently, and generally also largely increased the engagement of villages (as expertise was not "forced" on the villages, rather the project adapted to their needs).

It also has to be noted that some villages after several rounds of consultations - did not have the capacity to "take up" the specialist days (e.g. Dingle – Ireland, Vuollerim – Sweden and Sollstedt – Germany only used part of the support, while Mouans-Sartoux – France and Profondeville – Belgium did not request the specialist days offered[15]). Even in these villages, several rounds of discussions and consultations on planning the smart solutions took place with the participation of the Core Team experts and the relevant national experts. In such cases, the project aimed to reallocate the support to villages that had the capacity and interest in working on further smart actions. Considerable lessons have been learnt – e.g. about the key characteristics, the capacities and stakeholder engagement in villages - through working with the villages directly and closely (lessons accumulated through the initial phase were presented in the analytical report on 'Working with people' and 'Enabling factors and bottlenecks').

A number of common areas of interests & themes were identified through working with supported villages. These have also been presented in the 'Guidebook on How to Become a Smart Village' and grouped.

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[14] Contracted as E40 experts.

[15] In Remetea – Romania no support has been provided due to a local (private) airport being recently built that questioned the comparability of the situation of the village/ transferability of solutions to other similar villages.

Figure 5: Common themes of interest identified among participant villages

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

Caring about the elderly has been a common challenge, with particular focus on using smart solutions offered by digital technology (e-)care. The question is 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 (Ireland) Penela – Cumeeira (Portugal) Sollstedt (Germany)

Young people: How to engage?
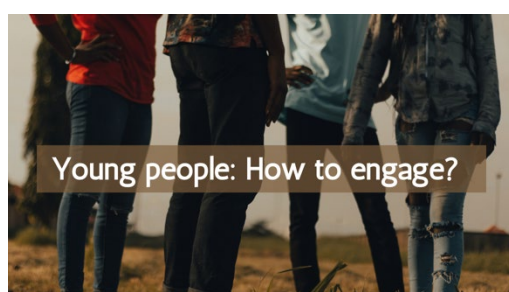
Engaging youth in local activities, especially teenagers has been a challenge in many rural communities, including finding the right types of socialising activities and improving skills and competences.

Key topic in Mukarov (Czechia), Alsunga (Latvia), Ansó (Spain)

Data management platforms & digital platforms for better interactions

How to use digital technology for improving services?

Data and information management tools, platforms and apps are mostly developed with the purpose of better serving people in the rural society as well as visitors, improving services (including tourism) and connecting local people with each other (social innovation).

Key topic in Torup (Denmark) and Profondeville (Belgium-Wallonia), Penela - Ferraria De São João (Portugal), Kythera (Greece), Alsunga (Latvia)

Reconstruction of old buildings
How to make it sustainable? - For what use?

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

(Re)construction of (old) buildings & landscape planning have been a key theme in several Smart Rural 21 selected villages. The main objectives are to:

- make use of old buildings or available plots of land for the benefit of the local community;
- find sustainable (eco-friendly) solutions adapted to local environmental conditions, and;
- develop financially sustainable business

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activities.

Key topic in [Ansó (Spain)](#), [Sentviska Gora Plateau (Slovenia)](#), [Tomaszyn (Poland)](#), [Uppony (Hungary)](#), [Raudanmaa (Finland)](#), [Virtsu (Estonia)](#)

New technologies (including smart agriculture) and methods for a more resilient community and environment (including regenerative agriculture) is one of the main themes of Smart Villages, in line with the Green Deal objectives.

Key topic in: [Tomaszyn (Poland)](#), [Kythera (Greece)](#), [Babina Greda (Croatia)](#)

Renewable energy, with particular focus on local energy communities. In the context of Stanz (Austria), this method is also combined with local economy/ local currency and token system, and blockchain technology.

Key topic in: [Stanz im Mürztal (Austria)](#)

Smart mobility solutions, in particular in remote and mountainous rural areas, including e-cars and car-sharing can particularly support isolated and/or remote communities in solving their mobility problems and contribute to minimising negative externalities (pollution, emissions, accidents etc).

Key topic in: [Ostana (Italy)](#)

Source: Guidebook on How to become a Smart Village (E40, 2022). Illustrations are from @ Canva

The selected villages were supported in a diverse range of thematic actions. The table below summarises the key actions supported through specialist days in

16 villages[16]. More detailed roadmaps are available on the individual village's pages on the www.smartrural21.eu online platform.

Table 2: Smart actions supported through specialist days in the selected villages[17]

Name of village	Summary of action supported by the Smart Rural 21 project
Alsunga (Latvia)	**Young people have participated in training on smart community solutions and programming**. The participants have not only familiarised themselves with the various smart solutions and learnt the fundamentals of programming, but also became aware of the village's problems, sought solutions and developed and implement a smart solution. Through the capacity-building action, the youngsters were building a sensor station in the village with the aim to detect real-time air temperature, atmospheric pressure, air humidity and light intensity. Further info: https://www.smartrural21.eu/villages/alsunga_lv/.
Ansó (Spain)	Ansó's smart project has had two objectives: the **rehabilitation of the old sawmill for community use and its related architectural planning**; and the engagement of the community in the rehabilitation process. The support related to the sawmill rehabilitation included advice on the construction elements linked to sustainable building criteria, energy efficiency and bioclimatic architecture. Interviews with local stakeholders were conducted to assess the needs of the community (including potential users of the building). Furthermore, support and advice were provided for identifying financing and communicating the ideas. Further info: https://www.smartrural21.eu/villages/anso_es/.
Babina Greda (Croatia)	The support included implementation of **smart approaches to agriculture** including support and training for local farmers on **organic production**, modern practices of farm management and production technologies. The capacity building was based on lectures, workshops, field visits and showing good practices. Further info: https://www.smartrural21.eu/villages/babina_greda_hr/.
Dingle / Daingean Uí Chúis	The smart action aimed to contribute towards **establishing a community-led and smart retirement villages** in Dingle / Corca Dhuibhne in which older people can live independently and can access a range of social, medical and ancillary services. The Smart Rural 21 project helped providing the framework for planning health-care services locally, with the potential use and usefulness of digital tools (ambition focusing).

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[16] As presented above strategy implementation support actions finally did not take place in Mouans-Sartoux (France), Profondeville (Belgium), Remetea (Romania), Vuollerim (Sweden) and Brestovo (Bulgaria).

[17] The final set of deliverables of each action are uploaded within the villages' pages under the Smart Village Journey section of the page.

Name of village	Summary of action supported by the Smart Rural 21 project
	In this context, for local stakeholder engagement, a session with local carers was organised. Further info: https://www.smartrural21.eu/villages/dingle_ie/.
Kythera (Greece)	The **use of smart farming solutions** is expected to support agricultural and environmental sustainability on the island, **enhancing the production of local products**, mainly olive-oil production, honey, as well as aromatic and medicinal plants, while promoting and preserving Kythera's landscapes, ecosystems and biodiversity. The aim was to provide complementary expertise to the "Terra Kytheria - Sustainable Agriculture in Kythera" programme, which is promoting the Kytherian olive oil, supporting producers and in general the economic and social revitalisation of the primary sector of Kythera. Further info: https://www.smartrural21.eu/villages/kythera_el/.
Mukařov (Czechia)	The Smart Rural 21 project has supported **youth actions through the implementation of the 'Hangout4Teens' initiatives**. The support aimed to create a space dedicated to teenage children and young people, to motivate them to break through their comfort zones and seek new friends, activities, and knowledge. Support activities included identifying needs, setting up youth club and activities, ensuring sustainability of the club's operation; as well as a visit to Ireland (Southeast Cork) for learning from other youth initiatives. Further info: https://www.smartrural21.eu/villages/mukarov_cz/.
Ostana (Italy)	The objective of the SR21 support in Ostana has been twofold: On the one hand, **expert support was sought to prepare a smart mobility plan**, including e-mobility solutions (e-bikes, e-cars) to overcome the mobility challenges due to the narrow streets, especially during peak tourist seasons, minimising pollution and other transport externalities. On the other hand, Ostana has been supported to identify possible funding sources to finance the key actions, including planning applications for national calls for temporary residency, calls under the Alpine Space Interreg programme, ERDF policy support including regional programmes and the National Recovery Plan. Further info: https://www.smartrural21.eu/villages/ostana_it/.
Penela (Portugal)	The support provided in Penela was twofold: On the one hand, a **retirement village using e-health solutions** was planned for one of the small target villages (Cumeeria). On the other hand, a new and **improved version of the FarmReal** digital platform was tested with potential users, leading to the development of an (technological, environmental and social) impact assessment for another small target village, Ferraria de São João in Penela.

Name of village	Summary of action supported by the Smart Rural 21 project
	Further info: https://www.smartrural21.eu/villages/penela_pt/.
Raudanmaa (Finland)	The SR21 project supported the **development of the old school building into a community centre** (and small demonstration farm), starting from support for the development of the architectural plans for the building, as well as expert support for identifying similar demonstration farm business models. Further info: https://www.smartrural21.eu/villages/raudanmaa_fi/.
Šentviška Gora Plateau (Slovenia)	The community (intergenerational) centre of Šentviška Gora Plateau was renovated some time ago, however, some further actions were needed **to plan the architecture and the 'smart' community-driven use** of the interior. These actions were supported by the SR21 project in the form of a conceptual design/ architectural plan; as well as legal advice to obtain the necessary documentation, plans and permits. Further info: https://www.smartrural21.eu/villages/sentviska_gora_si/.
Sollstedt (Germany)	The smart action has aimed at **contributing to the establishment of a local telemedicine network.** Generally, the preconditions for establishing telemedicine are favourable in Germany since a number of regulatory decisions have been taken by the government and the health insurers to facilitate the setting up of telemedicine schemes, also in response to declining numbers of general practitioner practices in rural areas. The support included expert advice from *empirica,* including a briefing on the current conditions and joint planning of an operational plan, local stakeholder mapping, joint ambition planning and validation with stakeholders, leading to the development of a 'maturity assessment'. Further info: https://www.smartrural21.eu/villages/sollstedt_de/.
Stanz im Mürztal (Austria)	Currently, infrastructures and the **organisational framework for the implementation of a Renewable Energy Community (REC)** are being created. The energy community is **combined with a token system** (a local/regional currency) in Stanz. Support included baseline analysis of the situation, identification of relevant examples, community planning workshop and energy roadmap planning. This enabled new opportunities for social innovation in interaction with energy transition and digitalisation. Further info: https://www.smartrural21.eu/villages/stanz_at/.
Tomaszyn (Poland)	Supporting Tomaszyn strategy implementation on possible build of Earthships. Visit and training by specialist expert with the objective to fulfil the ambition of Tomaszyn concerning 'Wasteless, self-sufficient habitat for rural households most efficient and environment-friendly technology'. Capacity-building concerned topics such as location, building material &

Name of village	Summary of action supported by the Smart Rural 21 project
	construction, foundations, insulation, heating, water, moisture, human factor. Further info: https://www.smartrural21.eu/villages/tomaszyn_pl/.
Torup (Denmark)	**'Torup's Tools and Talents' App online community platform** aims strengthen social relations in the community and support involvement of the inhabitants by facilitating the sharing of human resources/services in various areas. The project provided support to the development of the platform as well as a White Paper to draw lessons from the process for other villages. Further info: https://www.smartrural21.eu/villages/torup_dk/.
Uppony (Hungary)	Support for the **Uppony cellar hill rehabilitation project, through the engagement of young university students**, combining skills of landscape design, architecture, rural development, cultural heritage, etc. The students and professors were involved in mapping the situation and generating ideas about the rehabilitation. Further info: https://www.smartrural21.eu/villages/uppony_hu/.
Virtsu (Estonia)	The area of the old fishery plant in Virtsu has been abandoned for nearly 20 years. The goal is to turn this area into modern business, leisure, and community space, including access to the sea, promenade area, workshops and the practice areas of the possible **Renewable Energy Applications and Training Centre**. In the decision of the future functions of the territory Virtsu wanted to engage the local community and involve them in designing, proposing, and implementing plans on how to turn this area into Virtsu's future success story. Further info: https://www.smartrural21.eu/villages/virtsu_ee/.

Source: E40

2.2.3 Peer-to-peer exchanges

The **1st Smart Village Academy event** (held online) focused on supporting smart village strategy development[18]. The **event was held on 27 October 2020 with 134 participants** (out of which 104 village participants) with the aim to support the strategy development process and inspire participants through selected village practices and cases and share experience on the strategy development to date.

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[18] https://www.smartrural21.eu/smart-rural-21-project/events/smart-village-academy/.

Among others Smart Rural 21 partners introduced themselves and their profiles (also for villages to consider receiving support from specialist partners), two series of thematic sessions with inspiring smart approaches from local communities, and a technical session on the smart village strategy template and process were held (including pre-selected villages sharing their strategy development experience). The event was rated positively, 88% of participants rating it good or excellent.

The [2nd Smart Village Academy event](#) was held (online) **on 23-24 February 2021 with 100 participants** (out of which 71 village participants) with the aim of sharing experience and building the capacity of villages in specific smart thematic areas of interest. The 1st day's working groups covered areas such as website & community platform development, promoting the village as a resident and tourist location, local energy communities, local data management. The 2nd day provided an update on Smart Villages policy developments and discussed alternative financing opportunities for smart villages and smart solutions (including the 'plugging the leak' method, the cooperative model, crowdfunding and alternative financing model). Overall, the events were rated positively, 79% participants rating them good or excellent.

Face-to-face cross-visits among villages could not be organised until the second half of the project due to Covid-19. In the meantime, other village exchange activities were organised, such as Smart Village Academy online events (with much extended scope/ number of village participants) and additional events (such as smart cafés). Towards the end of the project (with the improvement of the Covid-19 situation), **cross visits were organised (with the participation of interested selected and "Come Along! Villages"** to allow villages getting inspiration and knowledge from other villages and rural areas. Beside the cross-visits organised back-to-back with the regional workshops in Torup (Denmark), Stanz (Austria) and Tomaszyn (Poland), visits were organised to Mukarov (Czechia), Anso (Spain), Ostana (Italy), Virtsu (Estonia), Remetea (Romania).

Figure 6: Screenshot of Smart Rural Café session videos

1st Smart Communities Café, Torup (Denmark), 19 November 2020

During the 1st Café, hosted by **Torup (Denmark)**, Peter Plant was telling about their local democracy, voluntary work, community fund, how they engage community members through 'Torup Ting' and about their smart plans for the future.

2nd Smart Communities Café, Mouans-Sartoux (France), 8 January 2021

During the 2nd Smart Rural Communities' Café, hosted by **Mouans-Sartoux (France)**, Thibaud Lalanne was telling about about the way they built up 100% organic school canteens and municipal farms, as well as how the village has managed to design a resilient and ecosystemic food project based on a diversity of policies.

3rd Smart Communities Café, Raudanmaa (Finland), 3 February 2021

During the 3rd Smart Rural Communities' Café, hosted by **Raudanmaa (Finland)**, Heini Niklas-Salminen was talking about their village cooperative (including the optical fibre network), their smart village hall (multi-service centre) plans, as well as related community farm concept and village services (including innovative digital solutions).

4th Smart Communities Café, Penela (Portugal), 30 March 2021

During the 4th Smart Rural Communities' Café, hosted by **Penela (Portugal)**, Luis Matias was talking about how IoT technologies in goat-farming has contributed to leveraging territorial marketing and development as well as about their plans on how to develop the right methods and facilities for a healthy aging of elderly people in one of their small villages.

5th Smart Rural Café, Profondeville (Wallonia – Belgium), 21 June 2021

During the 5th Smart Rural Communities Café, Bernard Dubuisson from **Profondeville** tells about their plans to provide open data to help solve mobility problems and explain how they would like to bring new practices into public service provision around the management of data. He also explains how they provided broadband internet to a remote village at a very low cost and unveil how garbage trucks can help improve mobile coverage.

6th Smart Rural Café, Tomaszyn (Poland), 7 July 2021

During the 6th Smart Rural Communities Café, Piotr Ostaszewski from **Tomaszyn** talks about how regenerative agriculture and smart ecological production methods implemented in Ostoja Natury – their cooperative formed and settled in Tomaszyn – to become the driving force of change of their village. He explains how their BIO HUB – from farm to fork short chain distribution strategy – was carried out in Olsztynek, Warmia and Mazury Region.

7th Smart Rural Café, Ostana (Italy), 14 December 2021

Enrica Alberti, Laura Cantarella and Silvia Rovere talks about the regeneration process of Ostana from structural, social, cultural and sustainable points of view. A particular focus is put on contemporary approaches for future development such as cultural events, residence programme and sustainable mobility.

8th Smart Rural Café, Mukarov (Czechia), 3 February 2022

Katerina Cadilova and Veronika Zemenova talk about the challenges and assets of being a suburban area of Prague, the village's tailor-made website and communication system, the incentive waste management and the "MY WASTE" application, their community centre as the meeting point of all generations, what is smart in the age of "distant life" and more...

9th Smart Rural Café, Kythera (Greece), 8 April 2022

Katerina Kasimati (AUA) and Rigas Zafeiriou (Kythera) talk about how Kythera Island has been transforming into a full-fledged adventure destination by employing an integrated approach, including Terra Kythera brand and Kytherian Olive oil as PDO, the island's sustainable tourism development, the INCREAte approach and innovations (culture and nature) and more...

Source:
https://www.smartrural21.eu/smart-rural-21-project/events/smart-cafe/

In order to engage selected and "Come Along! Villages", **ten smart café discussions**[19] were organised with the participation of villages as an additional activity. Smart cafés have been morning sessions where one of the 21 villages presented their smart approach, followed by an informal exchange (Q&A and discussion) among villages. The videos of the presentations have been widely shared through the Smart Rural 21 platform.

The project team helped identifying opportunities for exchange for the benefit of participant villages and provided guidance and support for the organisation. The project also covered the travel, accommodation costs of representatives as well as organisational costs of the host villages.

2.2.4 Real world testing of strategies in three selected villages

The project was **to support two of the selected Smart Rural 21 villages in realising their strategies in real world** - as far as it was possible for the planned actions during the Smart Rural 21 project implementation period. Instead of 2 villages, 3 villages were selected for the 'real-world implementation'. The main purpose of this task was to support villages in the full implementation / completion of their planned smart village strategies and showcase these as inspiring examples of Smart Villages.

The selected Smart Rural 21 villages were **informed early on about the possibility to become one of the two selected villages** that receive support towards the full implementation of their strategies. Specific questions from villages on the process were answered on the way. A more detailed / formal application process was launched in May 2021 (together with a guidance, criteria and application form), and an information session to explain the process and criteria to villages was organised to answer any specific questions related to the process. Villages could submit their applications until 9 June 2021. Until the deadline, 10 applications have been received (and an additional one, few days after the deadline).

An internal team (composed of experts of E40 and eConcept) **assessed all applications** using 5 key criteria (1. Scope of planned actions, 2. Clarity/ focus of actions, 3. Level of advancement of smart actions to date, 4. Level of engagement of local community members in existing and planned actions, 5. Expected added value of the Smart Rural 21 support) and an assessment grid, where each criterion

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[19] The final (10ᵗʰ) café focused on the implementation of smart actions in Stanz (Austria) one of the three villages selected for larger support.

was rated on a scale of 1 to 10, with short written justification. Three internal meetings were organised to discuss the proposals.

According to the ranking of applications the five villages that were rated the highest were Penela (Portugal), Stanz (Austria), Tomaszyn (Poland), Torup (Denmark) and Raudanmaa (Finland). Before taking a final decision on the villages to be supported, a consultation meeting was organised with the European Commission Steering Group to inform members about the process and outcomes, as well as take the decision jointly considering the Steering Group's recommendations. Following the meeting, it was decided that Stanz (Austria) and Penela (Portugal) will be the two primarily selected villages, and Tomaszyn - as a third supported village – would also receive support for the implementation of its strategy.

Detailed planning started, including the discussions about the action plans and the set of specific activities supported in all three villages. The plans have been consolidated in consultation with the village representatives, and meetings were held regularly with the Core Team and specialist experts for both villages to discuss the details of the actions.

While good progress was already made between July 2021 and June 2022, the process had been sometimes challenging, especially due to Covid-19 situation (that made personal exchanges and meetings more challenging). Therefore, **the extension of the Smart Rural 21 project duration had largely contributed to the effective completion of many of the activities.** In particular, there has been more time to carry out support activities (e.g. complex analytical work on the token system, blockchains, local currency and legal aspects in Stanz coupled with stakeholder engagement workshops, interviews, and larger stakeholder engagement events; a series of activities in Penela – including working with local cheesemakers and volunteers) **as well as planning of additional support activities** in Tomaszyn where activities started later (identifying specialists arranging local meetings and trainings). Allowing more time for these activities – and especially for stakeholder engagement –increased the overall impact of the Smart Rural 21 project.

A detailed timeline and outputs of the villages' work is presented on the Smart Rural 21 website, including the specific deliverables shared (such as analytical report on energy community, architectural plans, information on training & capacity-building actions). On the next pages, there is a brief description of the villages, as well as the real-world implementation support for the strategies provided by the Smart Rural 21 project, and the list of the specific steps and outputs.

Stanz im Mürztal (Austria)

Stanz im Mürztal is located in a rural area in the province of Styria in Austria. It has a total population of 1 844 inhabitants and a surface area of 70 km². The region is industrial and has been affected by economic structural change in recent decades.

The village decided to search for new ways to deal with these challenges. It started a 'Local Agenda 21' process in 2016 to enable an integrated development of the village with the knowledge and support of the inhabitants. Since then, about 80 active residents deliver 'hands on' on the development of a local strategy and implementation of measures in different areas with great commitment. Over the past few years, the issues of enhancing the village centre, the creation of new mobility options and measures to improve the quality of life have been addressed. In the future, the village wants to focus more on the issues of self-sufficient energy production at local level and support to energy-producing communities.

The municipality in Stanz has been working successfully for years on a sustainably effective path of local development. In addition to technical and physical measures, the participation of the people and co-creation are of central importance.

As far as the real-world testing of the strategy is concerned, the Smart Rural 21 project contributed towards the infrastructures and the organisational framework for the implementation of a Renewable Energy Community (REC). On top of this structure, a local/regional currency is planned to be created based on local energy production:

- The village wanted to interlink the technical solutions (blockchain technology & token system), the local currency system and the necessary **social innovation** (engaging a wide range of community members including farmers, households, local businesses, youth, volunteers in the Renewable Energy Community). The Smart Rural 21 support enabled new opportunities for social innovation at the interface to the energy transition and digitisation. The project **contributed to community engagement actions** to enable broad participation in the energy transition in Stanz im Mürztal - regardless of whether residents produce renewable energy themselves.

- The project also contributed towards developing a specialist analytical work and study on **blockchain technology and local token system** that will be

used to create an innovative local currency that can also be handled by inhabitants, strengthening the local economy, creating an incentive and reward system for climate-friendly actions, opening up opportunities for the remuneration of volunteer work and facilitating direct democratic participation in municipal decision-making processes.

Main outputs: Analytical report on the future Renewable Energy Community & Token-system in Stanz and recommendations as a result of community-engagement on planned technological and development.

Tomaszyn (Poland)

Tomaszyn is a small village located in Warmia and Mazury. It consists of ten households and a cooperative. The region is classified as the Green Lungs of Poland and has the lowest population density in the country.

Tomaszyn has been a farming and prosperous village for many centuries, first written information dating to 1410. However, most of the village buildings were destroyed during World War 2. The population shrunk to four farms and several vacationers reaching the lowest point in 2017.

A year later, the Cooperative Ostoja Natury was formed and settled in Tomaszyn. Ostoja Natury constitutes the reference farm model of the smart village. This organic farm is a closed circuit in which waste is fuel, it produces energy, enables year-round food production, and works more efficiently, ensuring higher yields.

As far as the real-world implementation of the strategy is concerned, Tomaszyn experimented with various sustainable and smart agricultural production methods, as well as has been exploring an eco-building construction. Within a complex ecosystem, Tomaszyn is developing Regenerative Plans for the village including landscape plan, animal regenerative grazing plan, localisation of agro-forest, crop and field regenerative production plan and educational path.

National and international specialist in regenerative grazing, agroforestry and passive greenhouse construction visited the cooperation to provide consultancy and share their knowledge in the relevant fields of expertise in the frame of **regenerative agriculture** and (2) **passive greenhouse planning and**

community building workshops. The workshops were organised in Ostoja Natury for the members of the cooperation and residents of Tomaszyn between 29/04/2022 – 06/05/2022.

- Planning works started with the visit of an **agro forest specialist** in April 2022. The specialist conducted land assessment in the territory of Ostoja Natury in order to plan the location of fruit orchard plantings at the "Ostoja Natury" Farm. As a result of his consultation work the optimal location of the fruit orchard was chosen, the next step will be planting, row spacing and inter-row spacing planning.
- Experts in [regenerative farming held workshops](#) and provided consultancy on **regenerative gazing** to the members of Ostoja Natury and current farmers of cattle herds in Tomaszyn. During the sessions the surrounding areas were visited to check the current pasture situation and to verify the state of biodiversity, available sources of water, shades and trees for animals. Ground elevation, possible paths for transporting cattle and food took place. During the process area for field cattle grazing, winter bale gazing was selected. Plans for future orchard with egg-mobile and hens' operation and chicken tractors operation were made and a chicken tractor was built.
- **Community building workshops** and [passive greenhouse planning](#) took place in Tomaszyn with the cooperation of an architect / engineer, wood and building specialist and geothermal end heat exchange specialist to build the most effective model of passive greenhouse in Tomaszyn. The aim of the workshop was to present the methods of designing and constructing a wooden structure, the basis for a passive cultivation tunnel. Passive greenhouse planning was realised through the work of the specialist expert who prepared **technical and architectural masterplan for the building project**, putting together heat exchange and passive heat exchange solutions for the building.

Main outputs: Workshop report, planning of orchard plants for the area, animal husbandry & regenerative gazing plans, passive greenhouse planning.

Penela (Portugal)

The Municipality of Penela is a small territory of approximately 135 km^2 and 5 983 inhabitants, located in the Centro region of Portugal. Since 2007, Penela has recognised the importance of defining a sustainable local strategy focused on innovation, competitiveness and entrepreneurship, able to create competitive advantages from the differentiating factors of the municipality and establish strategic partnerships that could exploit real opportunities. Depopulation is the

most difficult challenge that the rural community will face but the most important objective is to attract new residents and tourists to these villages.

Penela has prepared two smart village strategies for two communities Cumeeira and Ferraria de São João.

The real-world testing concerned the latter: A series of actions were supported to ensure innovative goat and forest management practices to prevent forest fires also including the use digital technology through improving a new version of the digital platform: FarmReal, improve community action in ecological design and quality tourism activities. In this context, the following activities were supported by the Smart Rural 21 project:

Photo: Pedro Homem

- **Ensure the best management practices related to the community dairy goat production preventing forest fires**: In order to prevent situations such as the 2017 forest fire, the experts of the local ARFSJ association started a process of recovery, applying effective management system based on goats breeding for the sustainability of the forest areas and of the areas with significant biodiversity, at the same time contributing to a high quality artisanal goat's cheese.

- **Capacity building and on-going technical support to the community members who are willing to engage with visitors:** Tourism – based on local products – is a key economic activity in the region. However, it was for long clear that here is a lack of the required skills, namely, in terms of social, relational, intercultural and communication abilities to address and engage with visitors to the village. In order to ensure quality tourism activities (especially of the artisanal – e.g. cheese production workshops – run by the locals) training and capacity-building actions were organised for local people, through the organisation of a bootcamp.

- **Digital platform FarmReal - Early stage technology impact assessment and release of Version 2:** FarmReal is a digital platform based on a disruptive concept. This platform shows the activity of the goat herd, and its users may adopt one or more goats and become "virtual shepherds". Ferraria de São João has been the pilot site for this project. The Version 1.0 of the website was realised, which has been tested by 30 users. The Smart Rural 21 project contributed to developing version 2.0 of the platform, obtaining feedback

coming from the testing of new functionalities and of usability and performance.

Main outputs: Practical factsheets on how to best manage the goat herd, report on digital platform feasibility (FarmReal 2.0), architectural plan of local store, report on voluntary pilot regenerative/ fire-prevention actions, outcomes related to the training of local small cheese producers in the promotion of local products.

2.3 MONITORING

The purpose of 'monitoring and analysis' was to follow the process of development and implementation of smart village strategies (Roadmap to Become Smart Villages) of the selected villages, draw lessons from these experiences across the villages and analyse these and share results for the benefit of other villages, policymakers and stakeholders.

The monitoring task **has contributed to drawing lessons learnt from the Smart Villages process** (as well as formulating conclusions and recommendations). During the monitoring process, bottlenecks and ways to overcome these, enabling factors and lessons concerning working with people have been systematically analysed and benchmarked across all villages. These have been summarised in two (internal) reports on 'Bottlenecks and enabling factors' and 'Working with people' that later contributed to the findings presented at various events (such as the Final Conference) as well as in the Village Models Report (summarised in this final deliverable) and the Guidebook on 'How to become a Smart Village' (see further down).

The monitoring process was carried out in two phases:

- **During the first phase the *strategy development* process** was monitored in the participant villages, covering the first 5 steps of the roadmap until the step of reaching a Smart Village Strategy, i.e.:

  o Getting started;
  o Mapping context & stakeholders;
  o Engaging stakeholders;
  o Developing strategy;
  o Smart Village Strategy.

  The monitoring concerned the assessment of the **process to engage stakeholders and develop the smart village strategy** and planned solutions, including the assessment of the quality of the strategy itself. Findings have not been published in a dedicated monitoring report but have

been integrated in other public outcomes of the project (such as the Guidebook on 'How to become a Smart Village' and the Final Report).

- **During the second phase the strategy implementation process was monitored** for the 16 villages (see Table 2) where strategy implementation actions were supported by the Smart Rural 21 project, covering steps 6 to 10 of the roadmap, i.e.:
  - o Planning actions;
  - o Finding solutions;
  - o Generating actions;
  - o Financing;
  - o Monitoring.

In the framework of the analysis, final interviews were prepared by the Core Team with the participant villages to learn more about their experience from the project in general, and more specifically on the strategy development process, and implementation support received for the smart solutions, as well as their cooperation with other villages and project communication. In addition to this series of interviews, national experts carried out the monitoring exercise concerning the implementation of strategies and the process of steps 6 to 10 (as above). As far as the specific methodology is concerned, for both the strategy development and implementation phases, the **monitoring framework was defined,** including the: 10 milestones ("roadmap steps" as above), specific criteria linked to each of these, questions to assess the criteria in a qualitative way, and scoring (1 to 10) to provide a quantitative assessment. The combination of quantitative and qualitative assessment provided an objective and systematic assessment of the process. The details of the monitoring methodology were shared publicly through the '[(Self-)monitoring of Smart Village Strategy Design and Implementation process](#)' under the Monitoring step of the Roadmap Tool. This tool can also be used as a self-assessment tool by the villages.

National experts were provided with detailed guidance and templates on how to carry out the monitoring, and individual monitoring reports were produced for each of the participant villages. The guidance and template used for monitoring is also part of the '[(Self-)monitoring of Smart Village Strategy Design and Implementation process](#)' tool in the Roadmap Toolbox. The Monitoring Guidance highlighted that the monitoring has to be informed, objective and evidence based. The initial phase was carried out in collaboration between the national experts and the village representatives, and experts were requested to interview at least 2-3 local stakeholders about the process (beside

the key village representatives). The synthesis of findings of the first phase was reported in the internal analytical report on 'Working with people'. The outcomes of the second phase of monitoring are presented in section 2.3.4.

The monitoring template was first tested with the five pre-selected villages. Based on the experience of this process as well as the strategy development process in all villages, the methodology has been refined – especially, it was decided that national experts should prepare short interviews with local village stakeholders beyond those directly engaged in the preparation of the strategy to reflect on the participatory approach. Furthermore, as an additional activity, a survey was carried out with the additional 16 villages on their experience with the strategy development process. The results are reported under section 2.3.4 of this Final Report.

2.4 COMMUNICATION AND AWARENESS RAISING

The main purpose of the project's 'Communication and awareness raising' actions was **to raise awareness amongst target stakeholder groups about the Smart Villages concept and the specific actions**, outputs and conclusions of the project. This ultimately was expected to encourage the uptake of the Smart Village approach and its wider implementation in Europe's rural areas.

More specifically the communication and awareness raising actions aimed to:

- ✓ **Engage rural communities** with the Smart Villages concept and raise their awareness of its potential for delivering long-term sustainable rural development.
- ✓ **Inform and inspire rural communities** (both participant and non-participant) with the smart village solutions and pathways identified by the project.
- ✓ **Engage policymakers** with the smart village concept and its potential to drive the achievement of important long-term sustainable development objectives.
- ✓ **Inform and inspire policymakers** at European, national and regional levels – in particular National Rural Networks and CAP Managing Authorities (e.g. through the policy meetings, case studies & policy report) and further stakeholders (LEADER LAG, regional and European Commission representatives, e.g. through the Final Conference and other dissemination activities, such as sharing relevant information through the website and social media) - to use the tools at their disposal to support smart village solutions in their countries and regions.
- ✓ **Raise awareness of wider stakeholder groups** about the potential of rural areas in the 21st century in the context of smart village approaches.

In order to structure, plan and implement this work package and tasks, a **Communication and Awareness-raising Strategy** (CAR) was developed early in the project (March 2020). The CAR has outlined the conception, implementation and monitoring of the projects communication and awareness raising activities. The main approach can be summarised as follows:

- ✓ **Rural communities were the priority target group** of the communication actions; being both the main participants in the project and the main direct beneficiaries of the Smart Villages concept and related approaches.

- ✓ **Policymakers, including programming authorities** were another key target group for the project to encourage improved support for Smart Villages.

- ✓ The **national experts in all the EU Member States have had a crucial role to play** in ensuring the content, messages and updates reach out further to the project's target groups (including specific / national social media activity, attending events, contributing through presentations, sharing of Smart Rural 21 outcomes).

- ✓ The communication strategy **intended to mobilise external multipliers** as much as possible given the number of important organisations already in place within the sector with existing followers at both European and national levels (e.g. the European and National Rural Networks; networks of municipalities; LEADER Associations).

- ✓ **Communication and awareness-raising was a crosscutting activity of the project**, meaning that it filtered through and linked with all other work packages.

- ✓ The communication priorities of the **project were changing during the lifetime of the project** across three broad phases: 1. Engage rural communities with the project (Month 1 to 6); 2. Inspire rural communities to become smart villages (Months 7 to 30); 3. Inspire policymakers at all levels - local, regional, national and European - to strengthen support to smart village initiatives (Months 31 to 35).

2.4.1 Engaging rural communities: communication actions during the initial phase

During the initial phase, the **project's visual identity** - including logo[20], key colours, illustrations and short video intro animation – have been developed. A

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[20] The Smart Rural 21 logo (see header of this document) consists of a circle line fragmented by smaller circles – representing a road with steps to proceed towards becoming a smart village. The Smart Villages symbol consists

leaflet and project **infographics** have also been created - using the project illustrations and colours - and regularly used in the course of project to explain the process and outcomes. Some national experts also translated the infographics[21] and used it in their own communication.

Figure 7: Infographics of the Smart Rural 21 Project
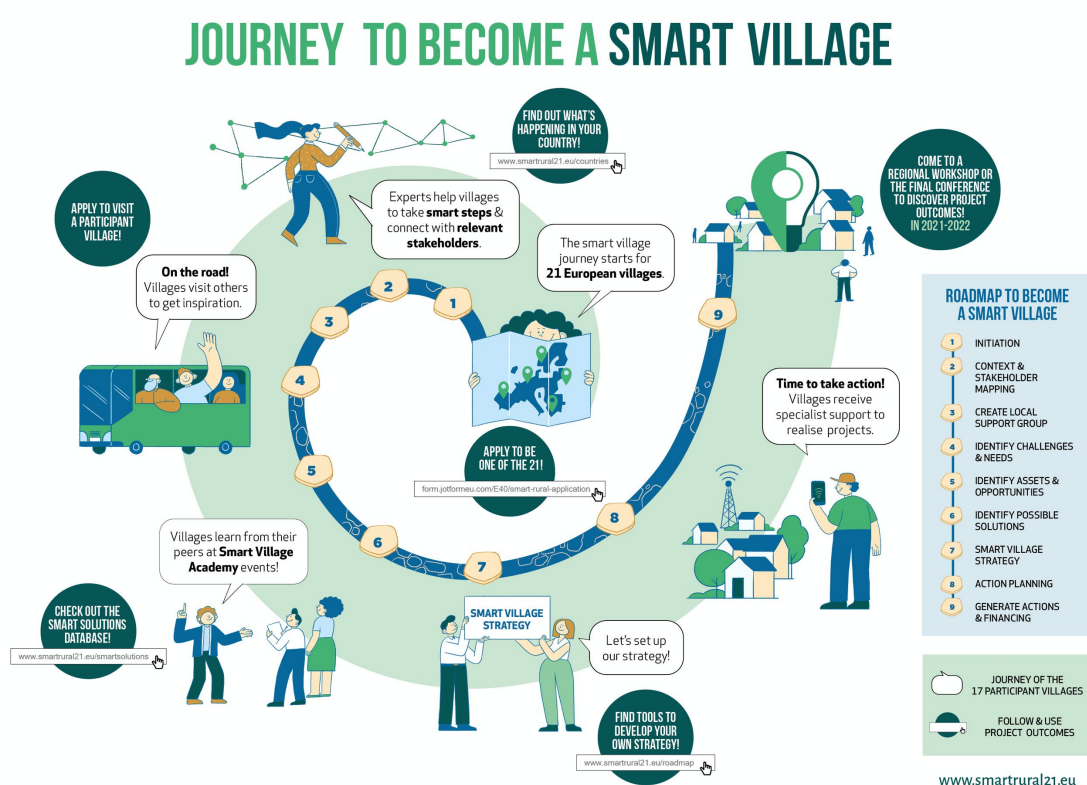
Source: E40 (2020), Project Leaflet

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of half a location and half an innovation (bulb) sign – symbolising that innovation is rooted in and unique to the local area and people.

[21] Among others the infographics has been translated into Portuguese, Polish and Romanian languages.

A short video intro animation of a few seconds – adapted to smart solutions, villages and tools - have also been developed and widely used throughout the project for the various multimedia material.

Figure 8: Snapshot from video animation (2020)

Source: E40 (2020), Project Animation Video (printscreen)

Multipliers were mobilised in the Member States through the work of the national experts; in particular, **National Rural Networks** were contacted in each country, as well as other relevant stakeholders, such as CAP Managing Authorities, LEADER Associations, Cohesion Policy authorities. Among others, multipliers have contributed to the promotion of the call for villages.

The focus of communication during the initial phase of the project was on **raising awareness about the project and promoting the village call** to engage as many rural communities as possible. In this context, key **European stakeholders** were also contacted (to introduce the project) - including the European Network for Rural Development (ENRD), the Smart Village Network, ELARD, Euromontana, ECOLISE, the European Rural Parliament, ECOVAST, representatives of the RUMRA Intergroup and the Committee of the Regions – and some of these organisations promoted the call through their channels. The campaign around the call for villages was highly successful, over 736 applications across Europe[22] were received (as presented above).

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[22] There have been large variations across countries, many applications from Spain, Italy, and Portugal, while no applications received from Luxembourg and Malta.

Chart 1: Number of Smart Village applications received in response to the Smart Rural 21 Call
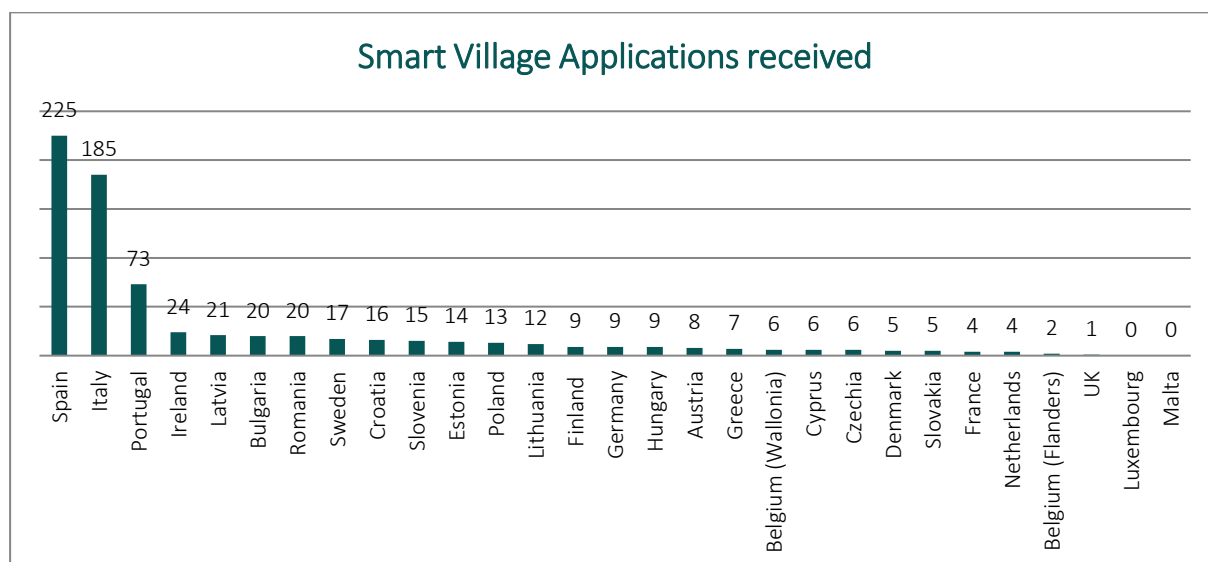
Source: E40 (2020), Deliverable on the Selection of Villages

Finally, **Smart Rural 21 social media accounts** (Twitter: @SmartRural21 and Facebook: https://www.facebook.com/SmartRural21) have been set up in April 2020 and used to promote the project and call.

2.4.2 Inspiring rural communities: communication actions during the main phase

The communication focus during the main phase of the project – and within that the communication and awareness raising activities – was on **inspiring rural communities to become smart villages**, mostly through promoting smart approaches and build capacity through multiple channels – including social media, website (including village news & village of the month sessions), events.

All 21 selected villages were presented with their short profiles (rolling images and descriptions) on the homepage of the Smart Rural 21 website (see image below) and a dedicated page for each village was set up during the first year of the project.

Figure 9: Screenshot of village promotion on the first version of the homepage

Source: E40 (2020), Communication Report

Smart Rural 21 social media

Social media activity through Twitter and Facebook has evolved steadily over the course of the project as demonstrated by the charts below.

Chart 2: Number of Smart Rural 21 central Facebook posts
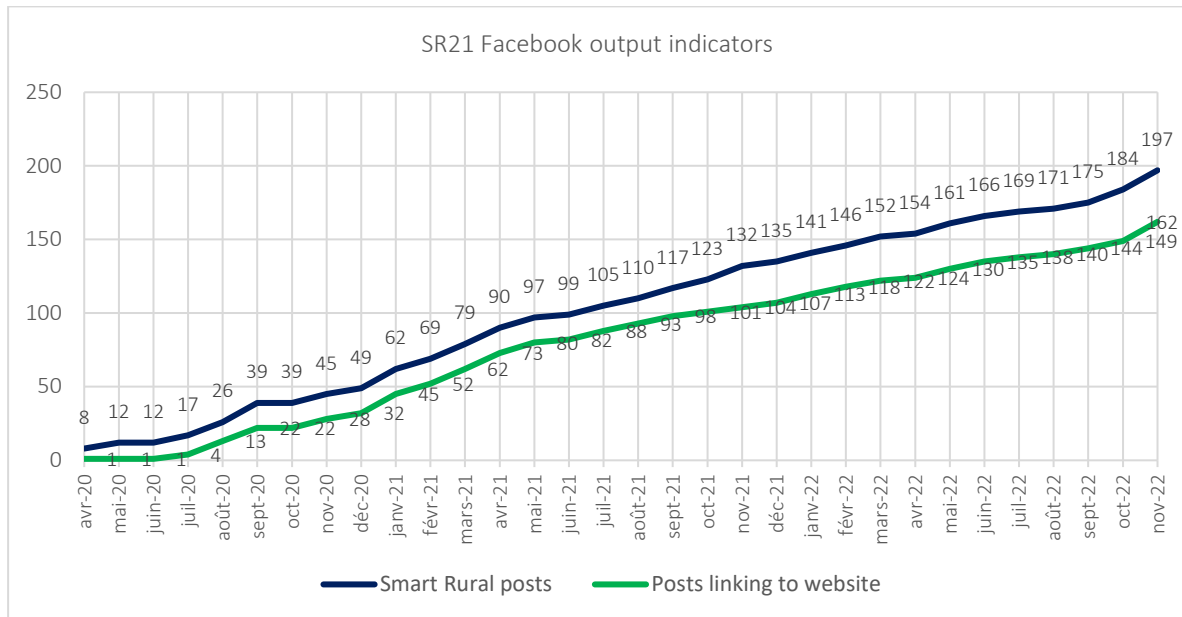
Source: E40 own analysis based social media data for Final Deliverable (2022)

Chart 3: Number of Smart Rural 21 central Tweets & Retweets
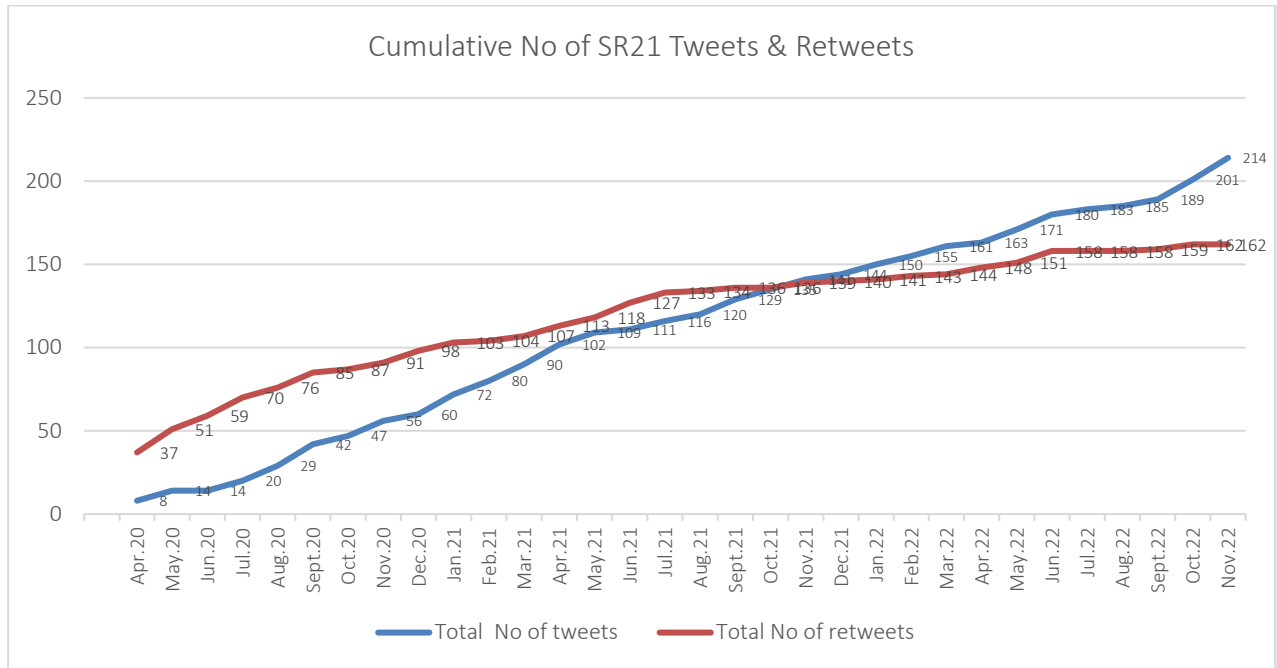
Source: E40 own analysis based on social media data for Final Deliverable (2022)

Until the end of November 2022, 197 posts were posted on **Facebook** (more than 6 on average/ month) with the main goal of raising awareness about the villages and project outcomes presented on the website (out of the 197 162 posts linked to the website). The project's Facebook account had 1 153 followers by November 2022, who were regularly engaged with the posts.

By the end of November 2022, a total of 214 tweets were posted on **Twitter** (over 6 tweets on average per month). If re-tweets are also counted, the number is double (i.e. approx. 12 tweets or retweets per month on average). In October 2021 the cumulative number of own Tweets was exceeded the cumulative number of retweets, i.e. the focus was increasingly on direct communication about the outcomes of the Smart Rural 21 project. In terms of outreach, the total number of Twitter followers had grown steadily (although with a slowing growth rate) and reached over 663 at the end of November 2022.

The **Smart Rural 21 YouTube channel**[23] was set up in August 2020.

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[23] https://www.youtube.com/channel/UCOTxRqMoC5G12iuSHB5cJMg.

Since the channel was set up, a total of 91 public videos and 26 unlisted/private videos were uploaded by November 2022. The public videos were distributed in four playlists as follows:

✓ **Smart Solutions**: 51 videos produced in the framework of the Smart Rural 21 project presenting individual smart initiatives / projects implemented in local communities across Europe;

✓ **Smart Rural 21 Villages**: 18 videos produced in the framework of the Smart Rural 21 project or provided by villages about various aspects of village life, local initiatives and local people;

✓ **Smart Rural 21 Events**: 14 videos produced in the framework of the Smart Rural 21 project about specific SR21 events;

✓ **Smart Rural 21 Tools and Tutorials**: 8 videos explaining methodologies and tools linked to the steps to become a smart village (e.g. strategy design, stakeholder engagement, accessing funding) produced in the framework of the Smart Rural 21 project.

Figure 10: Printscreen of Smart Rural 21 YouTube Playlists
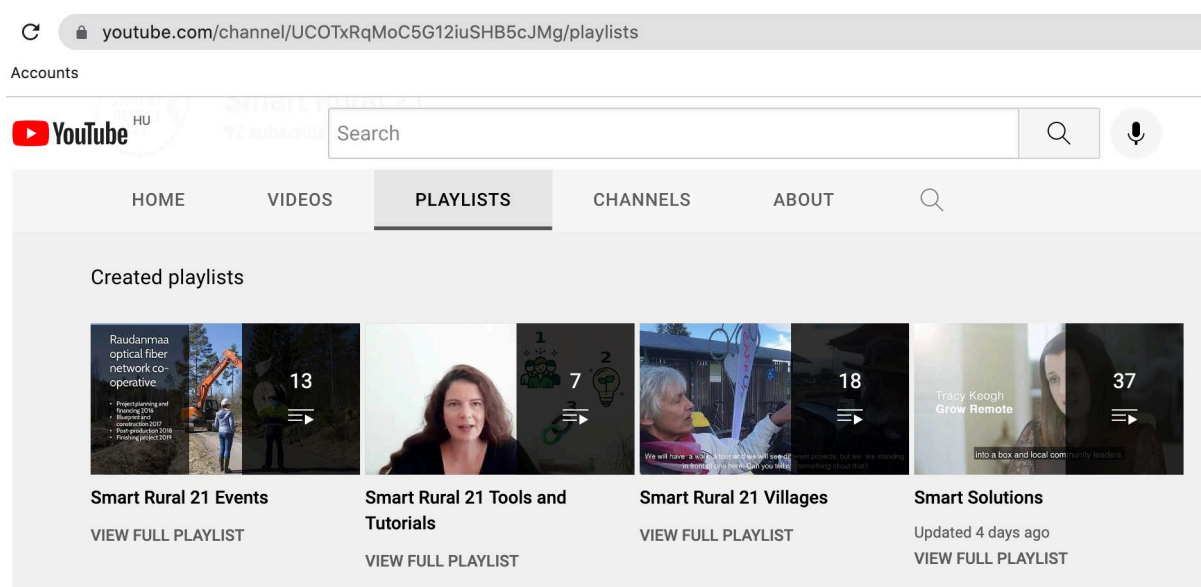
Source: Printscreen of Smart Rural 21 YouTube channel Playlist

Presentations at various events

In the course of the project, the Smart Rural 21 team participated and/or made presentations at several external events about the Smart Rural 21 outcomes at both the European, national, regional and local levels, including over 30 events with Core Team contributions at the European (and occasionally at the national) level and over 40 events at the national level with participation/ contribution from national experts.

Communication activities of multipliers

Specific communication indicators[24] were collected from national experts in terms of **their social media activity**. In the course of the project, four national experts (in Czechia, Ireland, Italy and Portugal) reported to have created national project Twitter project accounts and posted tweets through these. Facebook (FB) project accounts were created in eight countries (Bulgaria, Czechia, Greece, Hungary, Ireland, Latvia, Romania and Slovenia). Many other national experts have been using other individual or organisational Twitter and FB accounts to promote the Smart Rural 21 outcomes. Among other social media channels, the use of LinkedIn has been mentioned by eight experts (Austria, Cyprus, France, Greece, Ireland, Italy, Spain and Portugal), whereas Wallonia, Czechia and Romania mentioned smart village specific NRN pages that they use to promote the Smart Rural 21 outcomes.

Additional communication activities

Beside the above communication activities and achievements, several national experts were also active in promoting the project through **articles and other relevant communication activities**. Many Smart Rural 21 experts carried out individual discussions with key stakeholders, presenting and promoting further the project outcomes.

In the course of the project, **regular inquiries** were received through the web email link. These typically concern information requests about specific topics (including requests from researchers) and request for contacting the participant villages (questions/ emails received through the village contact form).

2.5 THE SMART RURAL 21 WEBSITE

The 'online platform'[25] of the project refers to the Smart Rural 21 website (www.smartrural21.eu). The online platform aimed to provide relevant information to rural communities on how to develop smart village strategies and implement smart solutions, and through this help rural communities becoming smart villages; at the same time inform and inspire support organisations (especially

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[24] Concerning their social media and other communication activity, such as No of Tweets through national SR21 Twitter or other channels, No of FB posts, Number of reactions to social media posted, Number of documents translated, Number of events attended, Number of articles published, Information shared by the NRNs.

[25] The online platform term has often been used to refer to the function of the website as a key point of reference for practical information and exchange.

policymakers) about the needs of rural communities, as well as support tools and policies to help them to become smart villages.

The **core contents and functions** of the online platform and their format including a searchable Smart Solutions database, 'About the project' section (including project news, events, etc.), pages for the selected villages (initially planned to be 17 but increased to 21), 'What's happening in my country' pages for each Member State (with information on the Smart Villages support framework and relevant contacts), and a Smart Villages resources database.

Figure 11: Printscreen of Smart Rural 21 Homepage

SR21: Information about the **project** & **project events** (including presentations)	**Villages**: each selected village has a dedicated page + additional page for Come Along! Villages	**Roadmap tool**: Tools (methods) uploaded under 10 key steps of strategy development & implementation	**Smart Solutions**: Searchable database of smart solutions (innovative projects & initiatives)	**SV support**: Country pages with policy & other information, Guidebook in all EU languages, Resources database & policy case studies

Source: Printscreen of Homepage of www.smartrural21.eu (end of 2022)

2.5.1 Roadmap tool

Figure 12: Printscreen of Roadmap Toolbox entry on Homepage

The roadmap toolbox (https://www.smartrural21.eu/roadmap/) provides practical tools for the process of strategy development and implementation to local-level stakeholders. It is structured according to 10 key steps of the strategy process defined at the start of the project. The 10 steps defined are:

1) Getting started;
2) Mapping context & stakeholders;
3) Engaging stakeholders;
4) Developing strategy;
5) Smart Village Strategy;
6) Planning actions;
7) Finding solutions;
8) Generating actions;
9) Financing;
10) Monitoring.

Source: www.smartrural21.eu

The toolbox is accessible both from the main menu and the Roadmap tool section of the homepage.

Initially, it had been planned that the tools will be developed to help participant villages in the strategy development process. However, the time was limited until the strategy development had to be completed in the participant villages and the roadmap evolved rather independently to provide practical tools to interested rural communities and other stakeholders at the same time also building on the expertise of participant villages[26].

Roadmap tools typically consist of:

- A template / description that summarises the purpose of the tool, how it works, who is it for, 'dos & don'ts', the way the tool was already used, relevant resources;
- A short (approx. 3 to 6 min) tutorial video (for selected examples) where an expert explains in simple terms how the tool can be used;
- One or more tool(s) - e.g. questionnaires, templates, database links, etc. - attached/ linked to the description and tutorial.

Figure 13: Printscreen of example of a Roadmap Toolbox entry

Source: Printscreen of Youth Fund tool (https://www.smartrural21.eu/roadmap-toolbox/creation-of-youth-fund/), 2022

By December 2022, 16 roadmap tools (out of which 8 with tutorial videos) were uploaded to the website:

1. [Community management dashboard](#) (with video);
2. [E-service co-design methodology;](#)
3. [Wisdom on community engagement](#) (with video);
4. [Idea wheel](#) – Belgium, Flanders;
5. [Local Community Profiling](#) – Ireland (with video);

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[26] Including the tools on 'Wisdom on community engagement' (testimonials from four SR21 communities: Torup - Denmark, Stanz - Austria, Ostana - Italy, Raudanmaa - Finland), Local Community Profiling (Dingle - Ireland), Childhood's power (Anso – Spain), E-service co-design methodology (also applied in Sollstedt, Dingle and Penela) the Sustainizability model (Hilvarenbeek, "Come Along! Village"), and final the Smart Village Strategy Template developed by the Smart Rural 21 project and used in 20 Smart Rural communities (all except Brestovo, where simple template was used).

6. [Sustainable support for citizens' initiatives: The 'sustainizability model'](#) – The Netherlands (with video);
7. [Citizen involvement and/through Systemic Consenting](#) – Austria (with video);
8. [The Youth Fund – Engaging young people in local development](#) – Estonia (with video);
9. [Childhood's power for community](#) – Spain;
10. [Smart Village Strategy Template – SR21 project](#) (with video);
11. [Website appraisal and communication planning tool - SR21 project (](#)with video);
12. [Growing your local economy – 'Plugging the Leaks'](#) – UK (with video);
13. [A structuring aid for criteria-based decision-making about alternative financing models](#) – Germany;
14. [(Self-)monitoring of the Smart Village Strategy design and implementation process;](#)
15. [Utilising e-participation tools in the framework of Smart Village Strategy development and/or implementation;](#)
16. [Creating a local energy community supported by a token system & blockchain technology (Stanz, Austria) – Austria;](#)

Specific tools might appear under more than one step, therefore the number of tools linked to the different steps of the roadmap toolbox are presented in the table on the next page:

Table 3: Roadmap tools under steps

Roadmap Tool Step	Number of examples
1. Getting started	1 (tutorial)
2. Mapping context & stakeholders	2 (1 tutorial)
3. Engaging stakeholders	7 (5 tutorials)
4. Designing a strategy	4 (3 tutorials)
5. Smart Village strategy	Links to 17 SR21 strategies
6. Planning actions	5 (3 tutorials)
7. Finding solutions	Links to 50 smart solutions
8. Generating actions	4 (1 tutorial)
9. Financing	2 (1 tutorial)
10. Monitoring	2 (1 tutorial)

2.5.2 Smart Solutions

Smart solutions were continuously collected and uploaded on the Smart Solutions database (https://www.smartrural21.eu/smart-solutions/) – Smart Solutions ('Finding solutions') is also one of the steps of the Roadmap Toolkit. In order to make these solutions practical, inspiring and attractive, it was decided (as an additional activity) that short videos will be prepared for as many of the examples as possible. Short teaser-type videos also help the sharing and promotion of examples. **By the end of November 2022, there were 66 examples uploaded in the smart solutions database and accompanying videos for 51 examples** covering a wide range of themes (note that individual examples might address more than one theme). While 'people' is a separate theme, people & community engagement it is also a cross-cutting dimension of examples (which explains the relatively lower number of examples classified under this theme).

Chart 4: Thematic focus of Smart Solutions in the SR21 Database

Thematic coverage of smart solutions

Category	Value
Environment	23
Economy	20
Governance	20
Living	20
Mobility & connectivity	15
People	14
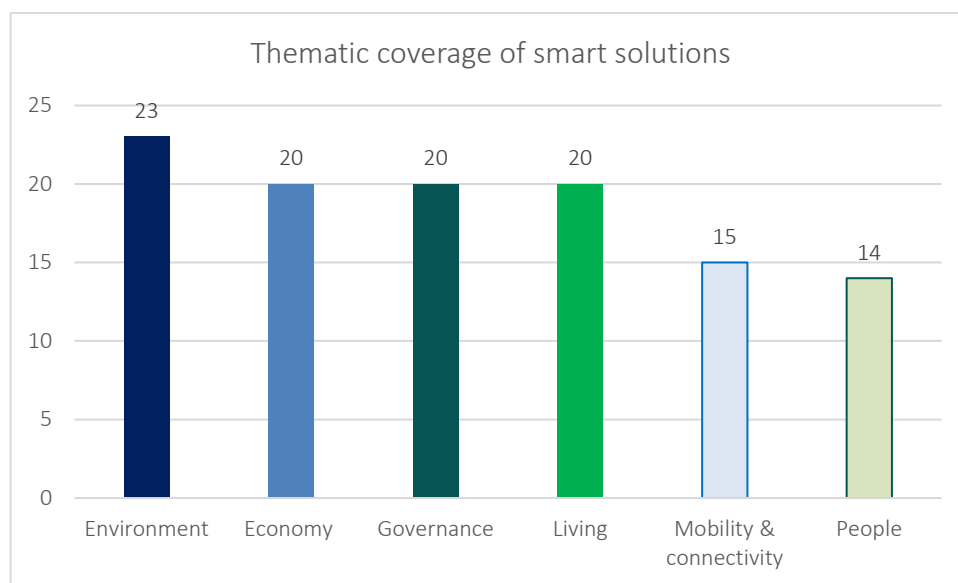
Source: E40's own analysis of 'smart solutions' database entries

Practical details are being shared about examples including:

- What the solution is about;
- What makes it smart;
- How the solution is implemented & financed;
- What the local context of the solution is;
- Who is behind;
- What the local journey was;
- What the main outputs and results are;
- What it brings to the village;
- What is needed to realise the solution;
- What to do and not to do.

The smart solutions database can be searched by Member State, thematic keywords (6 main thematic areas presented in the chart above) and free text search.

2.5.3 What's happening in my country

National experts have been responsible for developing the initial contents of the 'What's happening in my country' pages (through interviews and desk research). The 'What's happening in my county pages' include information on:

- the Common Agricultural Policy (and contacts);

- other policies, especially the Cohesion Policy (and contacts);

- the work of the National Rural Network on Smart Villages (and contacts);

▪ the work of other relevant organisations;

▪ relevant Smart Villages-related resources linked to the given country.

The resources collected in relation to each country page (CAP and beyond) are part of a larger resources database (each resource being tagged according to specific keywords). Initial country page information was gradually uploaded during the first year (2020) and beginning of the second year (2021) of the project (mostly based on background research and interviews with relevant stakeholders). A review of the country information (and updates if necessary) was carried out in the second half of 2022 and completed for all countries.

The resources database includes a search function based on resources being tagged according to keywords. It is possible to search among resources by country, by type of policy, by type of organisation, by type of action, by type of resource and free text search. Resources have been tagged according to keywords (including country, policy, organisation, type of action, type of resource & thematic keywords) until the date of the end of 2022, and refinement of the tagging of resources will continue through the Smart Rural 27 project Inventory work. Until December 2022, **606 resources** were recorded in the resources database. Resources are either files (uploaded to the backend of the website or links to external files) or links (linking to Smart Rural 21 pages or external pages, including websites and video links). They are relevant information source on topics related to Smart Villages, including analytical reports, case studies/ smart solutions/ good practices, websites, article, videos, events information, etc.

Figure 14: Print screen of database search function

Source: Printscreen of www.smartrural21/resources (as of Dec 2022)

2.5.4 Village information

A total of 21 village pages were maintained by the project with direct and regular input from the selected villages[27]. Each selected village page contains – as a minimum - an introduction of the village, a photo, and the location of the village on a map, as well as the smart village strategy and (for most villages) a strategy highlight, village roadmap on the supported smart action where relevant, village resources and contact of the village. Villages had the possibility to add information themselves to the pages

In addition, a separate webpage dedicated to the "Come Along! Villages" was also set up, which contains the short description of the process and the name of the 19 villages that prepared their Smart Village Strategies through their own effort (NB: there are 193 villages that the project has been in touch with). More information about "Come Along! Villages" – including strategies of those who developed one – are now integrated and promoted through the SR27 Geomapping Tool (see for instance Hilvarenbeek – Netherlands, or Kurtovo Konare – Bulgaria).

The 'Village of the Month' started in December 2020 and had featured 17 villages until September 2022, in chronologic order: Torup, Raudanmaa, Remetea, Alsunga, Profondeville, Babina Greda, Ansó, Tomaszyn, Mukařov, Stanz, Šentviška Gora, Ostana, Kythera, Virtsu, Uppony, Vuollerim. Website statistics shown that the village-of-the-month function attracts more attention to the relevant village pages (see website analytics in Chapter III).

2.5.5 About the project, events, news & homepage evolution

The Homepage evolved over time according to the needs of the project:

- During the first phase, the main part of the website displayed information about all the selected villages in a slider format (later replaced by the project news).

- During the main phase, the focus was on individual villages – each month the Village of the Month and its news being displayed on the top of the homepage.

- In the most recent version of the website, the project information (and

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[27] With one of the selected communities (Brestovo, Bulgaria), the cooperation was concluded – in discussion with the village, village representatives and the European Commission - thus their village page is no longer available, i.e. there are currently village pages for 20 villages.

project news) was moved to the top of the homepage to give more attention to the final promotion of the project outcomes.

Beside the standard 'About the project' section, the Smart Rural 21 website also contains event information (date, agenda, presentations and/or video recordings), including the smart village academies, regional workshops, smart café events, policy workshops, the final conference and other events (the European Week of Regions & Cities, Smart Rural 21 session).

2.6 DRAWING CONCLUSIONS & RECOMMENDATIONS

The main purpose of drawing conclusions and recommendations – in line with the overall objective of the project – was to provide both:

- Input and policy recommendations for future CAP and Cohesion Policy in support of Smart Villages and,

- Encourage the uptake of the smart village concept across rural areas of the EU.

The success of Smart Villages very much depends on a supportive EU policy framework as well as knowledge about the Smart Villages concept and capacity to develop and implement smart village strategies at the local level. The Smart Rural 21 project and its conclusions and recommendations are expected to contribute to both.

This section summarises the methods used to draw recommendations. Further information on the recommendations & conclusions are provided in Chapter III.

2.6.1 The methodology of drawing lessons and conclusions from working with villages

Detailed analysis of the selected villages was carried out to assess the applicability and adaptability of the general Smart Villages concept in specific contexts and under different circumstances. Initial conclusions and recommendations were drawn from this analysis in the Smart Villages Models Report to inform the development of future Smart Villages support frameworks. The main findings of the Smart Villages Models report have later been integrated in the Guidebook on How to become a Smart Village and the Final Report (summarised in Chapter III).

The Smart Village Models report started with the review of the basic village characteristics of supported villages. Further sections of the report were structured according to the key topics defined:

- Addressing needs and opportunities;
- Village governance;
- Working with people (stakeholder engagement);
- Bottlenecks and enabling factors (including those impacting on the innovation capacity, participatory approach, strategic approach, cooperation and alliances).

The '**Guidebook on How to Become a Smart Village'** is a systematic and structured collection and elaboration of the material gathered through the project. The structure and contents of the Guidebook is presented on the next page.

Figure 15: Snapshot of Guidebook cover and Table of Contents
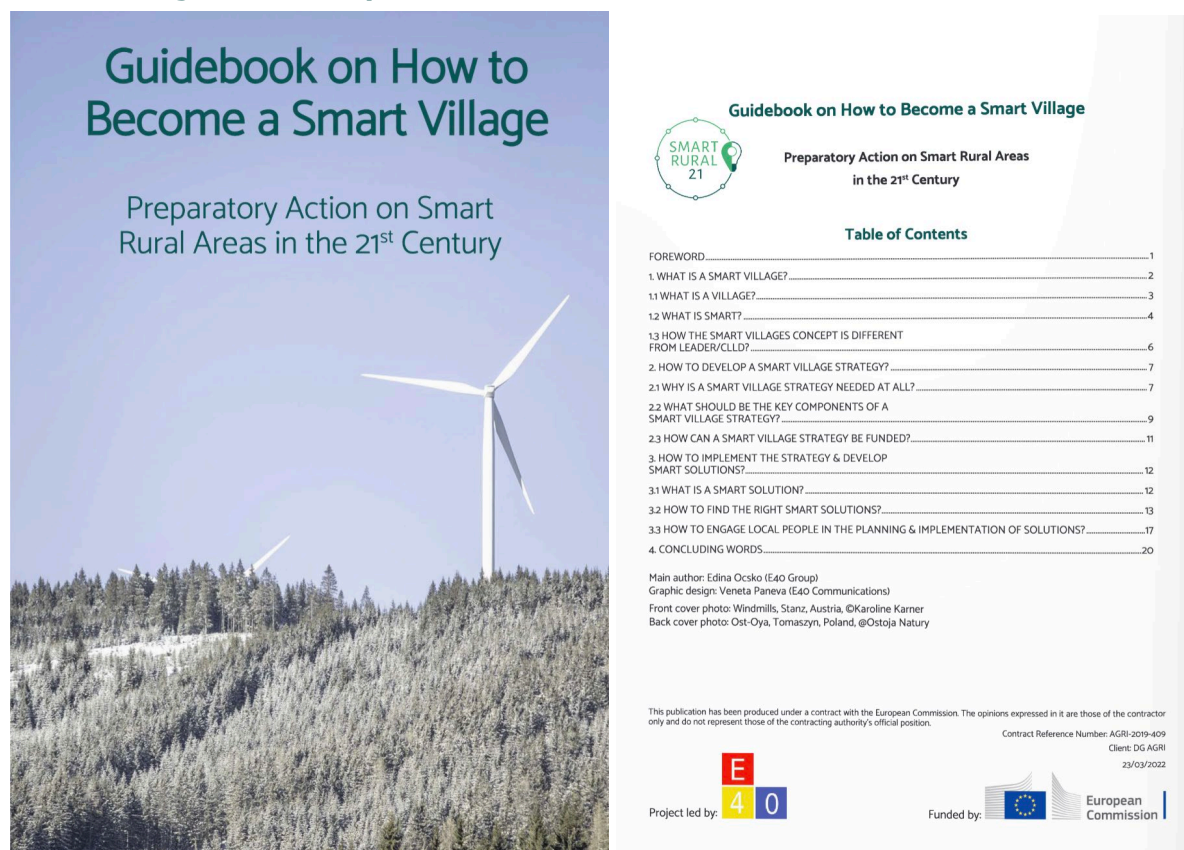
Source: [Guidebook on How to Become a Smart Village](#)

The Guidebook is presented in an accessible and easy-to-use format, with comprehensive visuals and illustrations. It aims to serve as a key reference document for villages and other interested stakeholders with an interest in the Smart Villages approach. The Guidebook is **translated into 22 EU languages**. Although this task was not required by the Technical Specifications (see additional tasks), the project did a laid out version of the guidebook with illustrations for publication. The guidebook language versions were announced at the Final Conference and are available on the Smart Rural 21 website: https://www.smartrural21.eu/guidebook/.

2.6.2 Drawing lessons and conclusions on Smart Village policies

The project **identified and analysed options for future CAP and Cohesion policies** for supporting the implementation of Smart Villages. The assessment of options for future actions was carried out through a combination of:

- ▪ **Desk research**: Review of available Smart Villages analysis (including that of the ENRD), and the review of information provided in the resources of

the Smart Rural 21 inventory. Inventory resources were analysed using the MAXQDA© software for qualitative data analysis which allowed structuring information by means of a coding system.

- The research was **complemented** by available information on the case studies at the time as well as the outcomes of the policy working group discussion.

The report – led by IfLS - was structured as follows:

- Introduction (including methodology and objectives);

- The Smart Villages approach: definitions and development of support framework;

- EU-level policy support for local community development (including CAP, Cohesion policy and communication support);

- National-, regional- and local-level support;

- Cross-cutting thematic areas: technological innovation, cooperation, environment, renewable energy;

- Conclusions.

The conclusions of the report found that:

- **Policy support:** A range of policies are relevant to supporting the Smart Villages approach – notably LEADER/CLLD and other CAP and Cohesion Policy measures, but also range of further policy instruments at the level of the Member States. While there is limited support explicitly targeted at more integrated and strategic Smart Village approaches to date, numerous support activities are covering the various thematic areas relevant with regard to smart local community development. Evidence on economic policy instruments is prominent in the sources analysed in the desktop analysis, there are also relevant regulatory instruments (e.g. national or EU-level regulations on renewable energy, sustainable rural development, or food labels) and communicative instruments (such as the dissemination efforts of the ENRD and the National Rural Networks).

- **Differences between countries:** While there are some 'forerunners' among Member States in terms of a more advanced support framework for Smart Villages and good-practice examples, in other countries there is relatively little activity to date.

- **Contribution of the Smart Village approach to current challenges in rural areas:** The place-based approach of Smart Villages building on rural

communities' needs, assets and opportunities is widely regarded as a useful response to rural challenges complementing other approaches such as LEADER. The potential contribution of Smart Villages to overarching objectives was, for instance, traced in relation to the Green Deal priorities (including renewable energy, sustainable food systems, circular economy and climate actions). According to the Smart Rural 21 policy review's, renewable energy was (following rural services) the second most popular topic in good-practice examples within the documents analysed.

- **Good practice:** There are numerous good-practice examples on the ground, contributing to the Smart Village principles such as cooperation in innovative place-based solutions, integrating the social and technological dimensions. Many individual projects and approaches at different scales (local, regional) and with different time frames (short-, longer-term) are being introduced in the materials analysed.

- **Outlook:** In publications dealing with the Smart Villages concept (until the time of the policy analysis in 2022), a focus on disparate thematic practice appeared to prevail, while more integrated and comprehensive local and regional approaches under the Smart Villages 'label' were still emerging and thus less highlighted. More insights are needed into Smart-Village-type local communities and their activities as they are developing. Projects such as Smart Rural 27 are to further contribute to this.

A set of **policy case studies** were developed to **demonstrate successful interventions to support Smart Villages,** under the CAP and other policies (e.g. Cohesion Policy). The case studies covered different Member States and thematic areas. The cases were identified based on desk research and were developed through more in-depth desk research and interviews with the relevant policymakers and policy influencers.

The final selection of case studies was made on the **basis of the following criteria**:

- 3-5 cases covering a balance of countries and thematic focus;

- Level: regional/national;

- Examples: CAP (e.g. LEADER), other policies/measures;

- Further selection criteria:

  - any funding schemes that villages can access,

  - providing smart strategic support,

- any scheme to successfully support Smart Villages.

At the first stage, a larger pool of possible policy cases was identified based on information compiled by SR21 National Experts. From this initial list, a 'shortlist' was derived by the SR21 team, which was further refined based on discussions at a Policymaker Working Group meeting (see below).

4 policy case studies have been developed to demonstrate successful support schemes for Smart Villages in different policy contexts:

- **Call for 'Smart and sustainable territories', Bourgogne-Franche-Comté Region (France)**: The call 'Smart and sustainable territories' was launched by the Bourgogne-Franche-Comté region, in March 2021. Aiming to provide new solutions to local needs, it targeted both rural and urban areas in order to create interconnection at the regional scale. The main objective of this call for projects was to give opportunities to territories to combine their development, the preservation of natural resources, and the well-being of citizens by using digital means. The funds were provided by the regional government (as investment subsidies).

- **Call for innovative projects 'Smart Territory' Wallonia (Belgium):** In 2019, Wallonia launched a call for innovative projects 'Smart Territory'. The specific objectives of the call for projects were to

  o improve the efficiency of municipalities and therefore of the service to citizens;

  o create useful micro-services for citizens;

  o meet the needs of citizens;

  o include the notion of digital transformation at the strategic and long-term levels in cities and towns;

  o co-finance concrete, ambitious and innovative projects;

  o develop solutions and services by Walloon SMEs and start-ups.

  Initiative launched in the 'Digital Wallonia' smart policy context by the Minister of Digitalisation the Minister of Local Government (i.e. funded from national sources).

- **Innovation Camp methodology (Finland):** The Innovation Camp is a method for capacity building and co-developing smart solutions through a very practical, but intensive way of developing new ideas into concrete innovations. It strengthens the local 'innovation environment', can change the processes, create new linkages between people, NGOs, entrepreneurs and decision-

makers in the area, and boost good energy. It is a good tool to attract new actors and attention to rural development. People who usually do not participate and provides a good way to receive publicity for rural areas and the possibilities the Rural Development Programme (RDP) offers media likes concrete processes and results. Furthermore, innovation camps can be used as a tool in Smart Village development processes; they work best when there is a clear ownership of problems and solutions created during the camp. Funded from CAP Technical Assistance/ National Rural Network funding.

▪ **National Smart Villages Programme (Estonia)**: The 'Smart Villages Programme' is a national LEADER cooperation project that provides support and training activities to participating villages to develop a smart village strategy and implement innovative pilot activities in their area. The development programme of Smart Villages was implemented by 13 Estonian Local Action Groups (LAGs). Twenty-four villages/regions from across Estonia participated in the development programme funded as a LEADER national cooperation project (EAFRD).

The three policy workshops organised with Smart Rural 21 aimed to bring together policymakers from across Europe from Common Agricultural Policy and Cohesion policy with the aim of discussing effective Smart Villages policy instruments. The policymaker working group aimed to raise awareness about the project outcomes, contribute to the selection and development of the specific case studies, at the same time generating discussion among policymakers (especially NRNs, CAP Managing Authorities and Cohesion policy stakeholders) about effective Smart Villages schemes and methods. The policy group was first targeted at specific countries/ policy stakeholders more advanced in the Smart Villages planning process (through direct invitation). The final workshop was extended to a wider interested policy audience.

The 1st Policy Group Workshop was held on 13/12/2021. The main objective of the workshop was to present the outcomes of the Smart Rural 21 project to date, with specific focus on policy findings and recommendations. The workshop aimed to contribute to the identification and selection of future policy case studies and identify specific needs of policymakers to develop more effective Smart Villages policy instruments in the future through exchange of experience.

2nd Policy Group Workshop was held on 18/01/2022. The main objective of the policy workshop was to present Smart Villages policy instruments from across Europe through the active engagement of participants. Following practical presentations on Smart Villages support by members, smaller break-out room discussions were organised with the participants around specific funding

mechanisms and schemes. The workshop also aimed to contribute to the elaboration of policy case studies within the Smart Rural 21 project.

3rd Policy Group Workshop was held on 28/02/2022: The main objective of the policy workshop was to present and discuss the policy case studies developed by the Smart Rural 21 project in Wallonia, France, Finland and Estonia, as well as inform participants about the next steps in the policy work (including the work of the Smart Rural 27 project).

2.7 ADDITIONAL TASKS

A series of additional tasks – in addition to those specified in the Contract and Technical Specifications for the project – have been offered by the Contractor (based on allocation of additional and regrouping of existing resources). These are elaborated on throughout this report and included:

✓ Selection and **support for 21 villages** instead of the initially planned 17.

✓ Selection and **support for 3 instead of the initially foreseen 2 villages** for the real world testing of strategies.

✓ **Liaising with and support for a large number of additional villages** ("Come Along!") process including strategy development guidance (almost 200 "Come Along! Villages" signing up for the process, although less have been active).

✓ Development of additional **visual material, especially a large number of videos** (more than 90 videos up on the website).

✓ Developing **strategy highlights** (short accessible summaries) for most strategies presented on the village pages.

✓ Organising **10 Smart Rural Communities Cafés** for villages for an informal exchange of experience.

✓ **Extending the scope of events** (online), especially the 2 Smart Café Events with over 100 participant each (instead of the selected villages only) & **livestreaming of face-to-face events** (Tomaszyn, Stanz and Final Event).

✓ **Organising field visits not only to the 2 selected villages but in total of 8 Smart Rural 21 villages, financing the travel costs** of interested villages (8 field visits including some back-to-back with regional workshops).

✓ **Providing a laid-out (ready-to-print)** version of the '**Guidebook on How to become a Smart Village'** in all the EU languages.

✓ **Extending the scope of the Final Event** to include an additional (large-scale) visit to Tomaszyn.

III. LESSONS LEARNT THROUGH SMART RURAL 21

3.1 Results & lessons about communication & dissemination

3.1.1 The impact of social media

This section aims to review the impact of social media activity of the project. Graphs on Facebook and Twitter outreach indicators are presented below.

Chart 5: Facebook outreach indicator
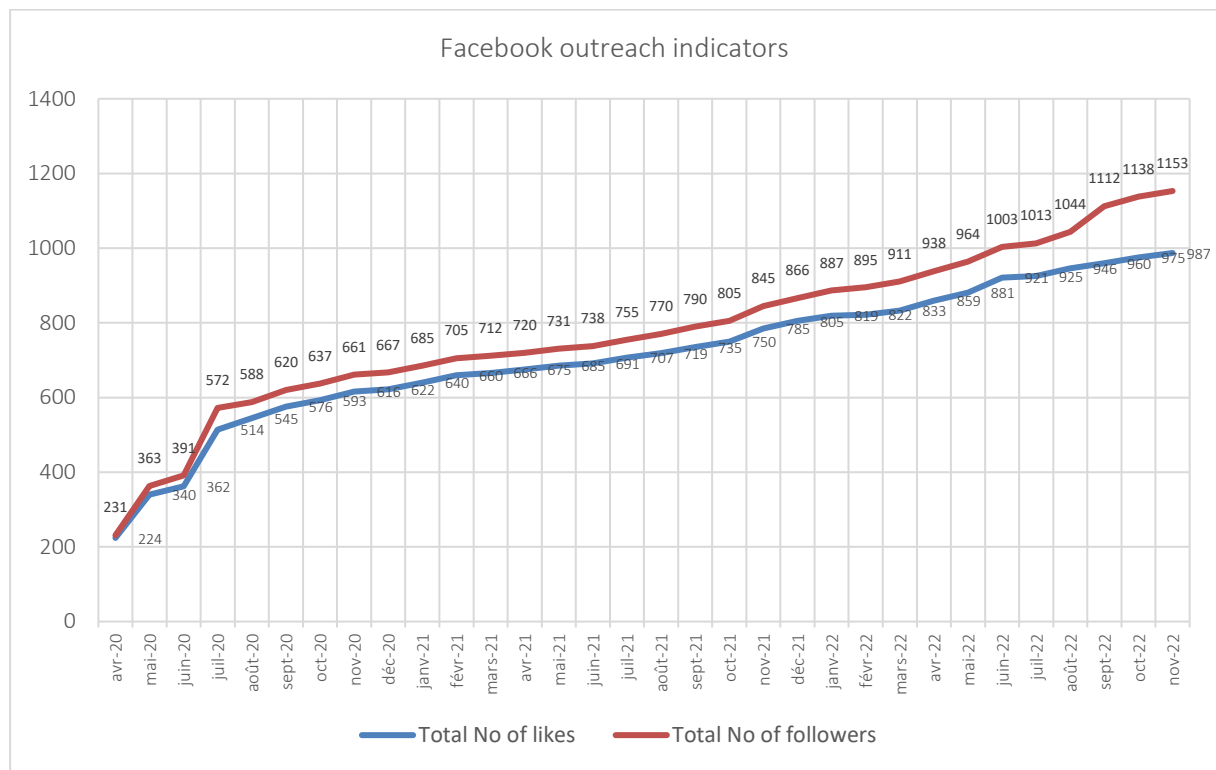
Source: E40's own analysis of social media data

Chart 6: Twitter outreach indicator

Cumulative No of SR21 Twitter Followers
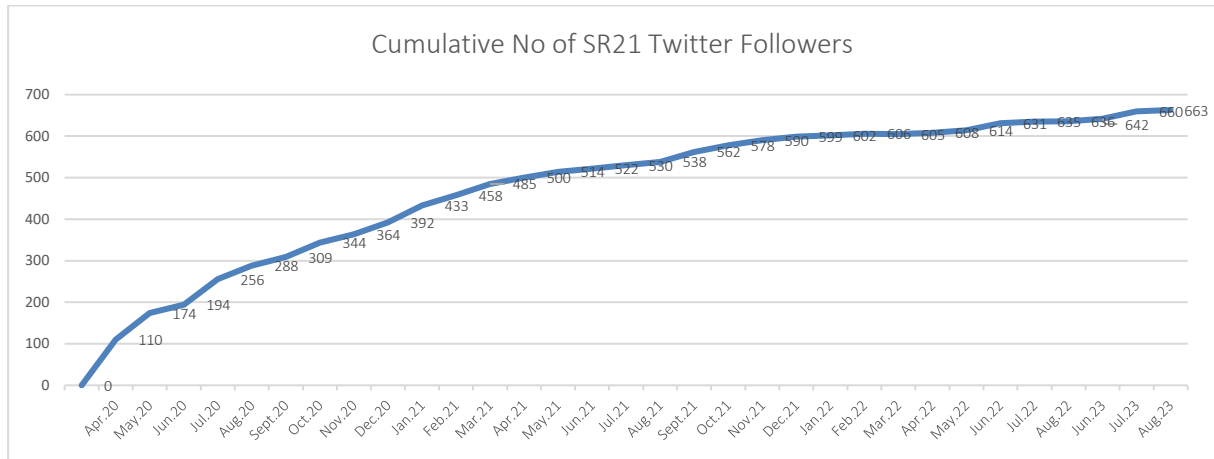
Source: E40's own analysis of social media data

The **Facebook** engagement rate – calculated based on all of the interactions (likes, shares, comments, etc.) divided by total follower count –fluctuated between 6 % and 16 %. Higher engagement in certain months, can be explained by various factors such as interest in the project's final conference and related live posts from the event and popularity of individual smart solution video posts. The impressions earned by month on **Twitter** – an indication on how many times the tweets had appeared on someone's timeline reached 12 600 monthly at its highest point (monthly average 4,813 impressions until November 2022).

For the entire period between the creation of the **YouTube channel** in August 2020 and November 2022[28], all channel videos got a total of 13,642 views[29] and 869 hours of watch time – this is the YouTube estimated viewing time of Smart Rural 21 content from the channel's audience. Finally, throughout its existence, the channel got 110 subscribers.

Generally, among social media channels, Facebook – still the most popular social media platform - tended to attract more followers and engagement than Twitter (that generally has its specific target audience) and FB also drove consistently higher amounts of people to the website.

While videos were not planned to be used so widely initially, **the project invested considerable additional resources in developing videos and promoting these on social media**. Knowledge and information can be made better accessible through these visually more attractive products, particularly the smart

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[28] Monitoring period allowed by YouTube analytics: 16 August 2020 – 8 December 2022.

[29] This number includes views of unlisted and private videos, as well as of public ones.

solution videos and events videos (such as the Smart Café videos) were popular among users.

Naturally, certain types of post have attracted more attention than others, including the call for villages, announcement of the selected villages, invitation to become a "Come Along! Village", smart solutions and most recently the promotion of the final event.

3.1.2 The role of networking & multipliers

The Smart Rural 21 project's outcomes were communicated through many different channels, and especially using multipliers (the national experts). In this context, the national experts did not only fulfil expert roles, but were also key **"ambassadors" of the project** at the national level. They contributed to the spreading of messages through their activities, including participation and contribution to various Smart Villages related events, producing articles and other communication materials, interviews with key stakeholders, social media channels, etc.

3.1.3 The impact of the Smart Rural 21 website

The online platform (Smart Rural 21 website) was a **key repository of information** on all the outcomes of the project and other relevant Smart Villages information. Over the whole project duration until the end of the project, the website was identified mostly through organic search (i.e. via search engines such as Google), followed by direct access (when user land on the website directly), referral (from other websites) and social media. **Over time, the share of organic search access increased** (most likely due to the increasing amount of information shared through the website), **as well as did the share of direct access** (with some variations). Consequently the share of accessing the website through social media overall decreased, while the share of referrals varied (but generally remained stable). Basic data on the number of users, sessions, page views, etc. are presented on the next page.

Chart 7: How users landed on the Smart Rural 21 website?
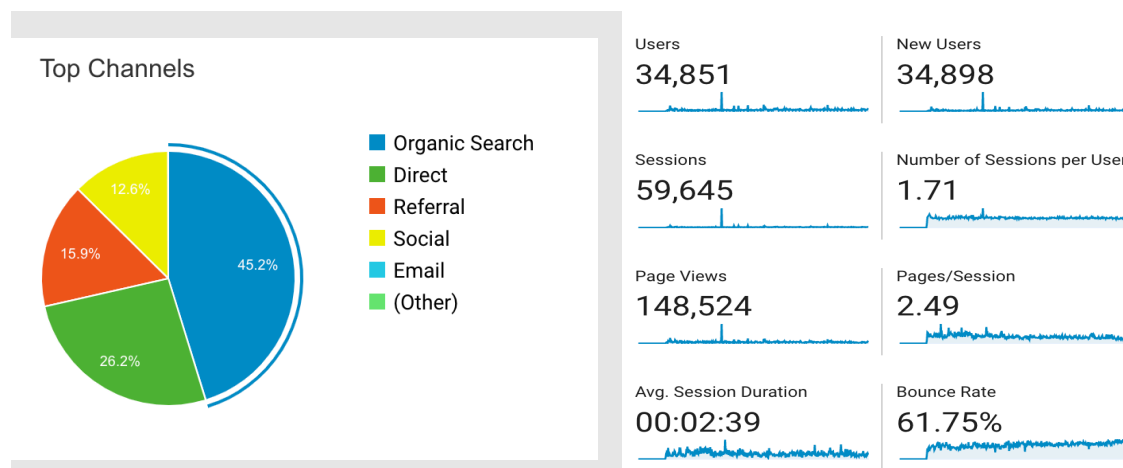
Source: Website statistics (Google Analytics, end of 2022)

Most visitors within the EU are accessing the website from Spain, Italy, Ireland and Portugal (followed by Germany, Belgium and Croatia)– interestingly these statistics correspond with the larger interest from the same countries during the initial call for villages (from Spain, Italy and Portugal).

Chart 8: No of visitors by country

	Country	Users	% Users
1.	Spain	3,469	9.94%
2.	United States	3,061	8.77%
3.	Italy	2,091	5.99%
4.	Ireland	1,313	3.76%
5.	Portugal	1,246	3.57%
6.	Germany	1,148	3.29%
7.	Belgium	1,021	2.93%
8.	Croatia	1,013	2.90%
9.	United Kingdom	944	2.71%
10.	India	924	2.65%

Source: Website statistics (Google Analytics, end of 2022)

Other than the most commonly visited landing / home page that contains key information on the project outcomes, the **most visited pages were the smart solutions and the village pages**[30]. These were the most promoted information sources of the project through social media.

Chart 9: Most visited pages of the Smart Rural 21 website

Page Title	Page Views	% Page Views
1. Smart Rural Areas – in the 21st Century	32,482	21.86%
2. Smart Rural project – Smart Rural Areas	10,145	6.83%
3. Smart solutions – Smart Rural Areas	9,447	6.36%
4. (not set)	8,888	5.98%
5. Villages – Smart Rural Areas	7,759	5.22%
6. Countries – Smart Rural Areas	4,910	3.30%
7. Roadmap Toolbox – Smart Rural Areas	3,944	2.65%
8. Torup – Smart Rural Areas	2,768	1.86%
9. Ansó – Smart Rural Areas	2,702	1.82%
10. Smart Village Strategy Template – Smart Rural Areas	2,334	1.57%

Source: www.smartrural21.eu website data Google analytics

The outcomes of the village interviews with the Smart Rural 21 villages[31] show that Smart Rural 21 respondents visited most regularly the smart solutions pages, followed by the village pages (the share of regularly or very often is the highest).

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[30] Ansó in Spain being the most visited one.

[31] Based on 17 interviews.

Chart 10: Website usage of Smart Rural 21 village representatives

	(Almost) never	Occasionally	Regularly	Very often
Village pages (https://www.smartru	18.8%	50%	18.8%	12.5%
Events pages (https://www.smartru rural-21-...	25%	62.5%	12.5%	0%
Smart solutions (https://www.smartru solutions/)	6.7%	60%	33.3%	0%
Roadmap toolbox (https://www.smartru	46.7%	33.3%	20%	0%

Source: Village interview with SR21 villages (2022)

Based on the same set of interviews, **the feedback on the website contents and functions was very positive** from the participant villages. The respondent villages found generally that the structure of the site is clear and the website attractive visually. As an example, an interview specifically requested to *"Keep it live because it's very useful to go back there for inspiration"*.

Overall, **the website seemed to effectively fulfil its planned function of providing a common point of reference** and source of practical information about the selected villages, smart village strategies and smart solutions, as well as country (policy) information and other practical tools. It is foreseen that the website will be maintained in static format at least for one more year (until end of 2023) to create synergies (and avoid the duplication of work with the Smart Rural 27 project). While most pages will be sustained in a static form, the resources database will be updated with new data even after the end of the project (linked to Smart Rural 27). It is an important feature of the website that it **contains information in a simple and accessible way** (without too many layers and pre-defined structure[32]). Visuals – especially videos – were used widely to make the contents more accessible and attractive.

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[32] For instance, the resources database can be searched according to the needs of the user (rather than listing resources in a pre-defined structure)

3.2 Results & lessons about the village selection process

The main feature of the selection process has been that it was **inclusive and unbiased**, ensured through the open calls & promotion, as well as objective, structured and staged selection process (rather than "hand-picked" from a smaller pool of suitable villages). While this process made the project **workload much heavier** (both at the selection phase and later in terms of supporting "Come Along! Villages"), it **created** also **trust** with a large number of engaged villages – that remained the core target group of activities throughout the project.

Keeping up engagement with as many villages as possible was an essential part of the project, creating the opportunity for many (rather than just a small group of privileged villages) to get involved and engaged through direct support – especially for exchange of experience (including connecting villages and financing travel costs of many village representatives). The "Come Along!" process and the engagement of a large number of villages, **compensated for the reduced number of face-to-face meetings due to Covid**. Online meetings, in this context, allowed a much wider participation of villages (e.g. the Smart Village Academy events that would have been otherwise targeted at selected villages).

The wide promotion of the call was important, in particular, in the Southern European countries the interest has been extremely high (as presented above). The large number of applications gave credibility for the project and allowed creating a strong communication base (through the contact list of interested villages).

3.3 Results & lessons learned through the village support process

The technical support provided had to recognise the **diverse needs and different contexts** of villages, i.e. that there is no "one size fits all" approach and propose variations in the guidance to be provided:

Firstly, **the 'level of readiness' varied** from village to village, e.g. depending on whether a strategy existed already; local animation capacity was weak or strong. As it was often stated during the project, that the Smart Rural 21 technical assistance did not only provide support for the villages but **worked *with* them**. Generally, when villages had the capacity to invest in the process they could benefit a lot – among others from visibility, technical support and exchange and learning from other communities. However, **some communities did not have sufficient capacity to invest** the efforts into the project, and in these cases the Smart Rural 21 support could not add as much value. Secondly, the **contexts in**

which the strategies were developed have differed widely in terms of population and area covered, their links to the wider economy and regional / national level strategies and the types of stakeholders to be mobilised, as well as different geographical (mountainous, coastal, island, remote, border, etc.) contexts. Furthermore, the main characteristics of areas also varied according to the specific challenges/needs, opportunities and assets, and possible smart solutions developed in response to these. It was requested to continue exchanging among rural communities, **bringing together villages with similar interests.**

Thirdly, selected villages were facing **different types of bottlenecks**, and they had different levels of access to financial resources. **Lack of human capacity and lack of financing** identified as the most important bottlenecks in the communities to engage in the Smart Villages process. Designing, managing and monitoring a strategy required considerable resources from the villages, that were not always been available. The most successful villages in managing strategies were those where local leaders (e.g. elected mayor) were supported by local organisations (e.g. local NGO, association, private consultancy) – i.e. operated based on a public-private-civic partnership. Financial resources are generally hard to access for small communities. Many of the selected villages have no access to EU funding sources and projects (e.g. lack both the specialist knowledge about opportunities, and the capacity to apply).

3.3.1 Smart Villages governance models

Overall lessons are drawn from working with the participant villages. An indicative typology of governance structures were developed in the Village Models Report (see table on next page).

Table 4: Village Governance Models

Indicative model	Key characteristics	Typical pros	Typical cons
Model 1A: Relatively dominant position of elected mayors / deputy mayors and his/her team	These local rural communities are often characterised by a (charismatic) local elected mayor or deputy mayor, who is initiating and/or leading the smart village development process. At the same time, there is evidence for some kind of dominant position of these elected leaders, and the level of community engagement in some cases is not very strong.	✓ Strong vision ✓ Strong leadership ✓ Elected by local community (legitimacy)	✗ Less evidence for effective or strong community engagement ✗ Risk of lack of continuity in case change in leadership following an election
Model 1B: Elected mayors / deputy mayors & strong support by other local organisation(s)/ community engagement	These local rural communities are also led by elected mayors/ deputy mayors and their teams. At the same time, the elected leaders typically engage the local community in decision-making. There is often strong local democratic tradition and (relatively) strong local communities/ engagement. Often elected leaders are supported by local NGOs, associations or private entities.	✓ Strong vision ✓ Strong leadership ✓ Elected by local community (legitimacy & trust) ✓ Good community engagement	✗ Risk of lack of continuity in case change in leadership by election
Model 2A: Strong (non-elected) local leaders/ leading local figures with dominant position	These local rural communities are typically led by charismatic local leading figure(s) who are also influencers. In some cases there is less evidence for strong or wide community engagement. The community leaders tend to drive the vision and village forward – and in this context, the	✓ Strong vision ✓ Strong leadership	✗ Dependency on vision and efforts of charismatic figures ✗ Risk of lack of continuity in case leader cannot provide support/ vision further

Indicative model	Key characteristics	Typical pros	Typical cons
	advancement of the community is also dependent on these leaders.		✗ Less evidence for effective community engagement
Model 2B: Strong (non-elected) local leaders/ leading local figures & strong collaboration with ('buy-in' from) community	These local rural communities are typically led by charismatic local leading figure(s) who are also influencers. The community leaders tend to drive the vision and village forward – and in this context, the advancement of the community is also dependent on these leaders. This is coupled with strong community engagement/ collaboration with local people.	✓ Strong vision ✓ Strong leadership ✓ Strong commitment of community towards leader & his/her vision	✗ Dependency on vision and efforts of charismatic figures ✗ Risk of lack of continuity in case leader cannot provide support/ vision further
Model 2C: Local professional/ individual or specialist organisation driving the process	In these local communities, the smart village process is led by a local professional (or professional connected to the village in some ways). These professionals have generally neither dominant position nor engage the community strongly. The approach they represent is often led by professional/ personal or organisational interest.	✓ Strong links/ connection to local community ✓ Interest (personal/ professional/ philanthropic) in development of local community ✓ Professional contribution/ specialist knowledge	✗ Less evidence for effective community engagement ✗ Risk of uni-dimensional approach ✗ Lack of legitimacy ✗ Personal/ professional interest might dominate (often no clear support from community)
Model 3: Self-organised local governance bodies (village associations	These local communities are often characterised by strong commitment of (a relatively large group of) local people and their pride and commitment towards the	✓ Strong local community	✗ Potential lack of engagement of certain segments of the community (e.g. youth)

Indicative model	Key characteristics	Typical pros	Typical cons
or similar local bodies)	local area and community. They are characterised by self-organised community groups, with strong local democratic traditions	✓ Strong community coherence, commitment, and democratic traditions ✓ Strong democratic traditions & volunteering	✗ Demanding on local community resources

Source: Typology created by E40

The 21 selected villages were classified according to the various governance models, based on the available information through strategy development and implementation[33].

Chart 11: Number of Smart Rural 21 villages under different governance models

Governance models of selected villages

| Model 1A | Model 1B | Model 2A | Model 2B | Model 2C | Model 3 |
| 4 | 6 | 0 | 3 | 5 | 3 |
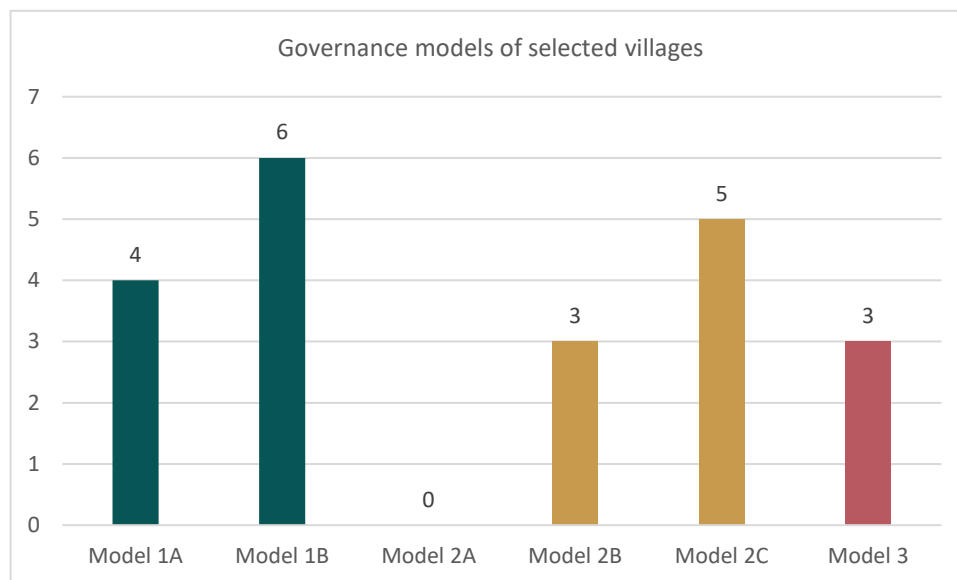
Source: E40 analysis

Based on the Village Model Analysis (2021) half of the selected villages (10) and their smart village process are led by elected leaders (mayors/ deputy mayors) supported by a professional team and/or by a local board or council. Slightly less than half (8) are led by other leaders (local leading figures / organisations or local professionals or professional organisations). Some of the local rural communities (3), especially in the Nordic countries, do not have elected leaders at the sub-municipality level and here the process is often driven by self-organised local governance bodies (e.g. village association). Overall, **there seemed to be strong level of community engagement in more than half of the villages** (whether led by elected or non-elected leaders or local community organisations).

The **local leaders** - including leading figures in village associations, mayors, deputy mayors and their advisors, expert groups, or boards – **are most often key figures to lead the Smart Villages process**. However, it is important to ensure that these leading figures are respected by the community. The lack of strong leadership or leadership vision often hampers the strategic process. Furthermore, there is also evidence that, when there is a lack of strong involvement of elected representatives in the process (lack of legitimacy), this can also slow down the progress of smart village development. **Elected representatives often have a stronger 'mandate' to coordinate and**

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[33] Firstly, it must be noted that the information about how the villages is precisely governed might not be fully complete, therefore the classification is to some extent subjective/ indicative. Secondly, the villages under different categories are not named on purpose: the aim is not to be judgmental on village governance of individual villages but rather to draw overall conclusions.

manage the local strategies (non-elected leaders can lack the mandate and the capacity, due to other professional commitments).

Local 'self-governance' structures are typical in villages with no elected leaders. In some of these cases, villages also feel that they are 'neglected' by the municipality government or need to fight to gain recognition and support for their initiatives. There is often very strong community spirit and local engagement in these somehow "neglected" small villages, and volunteering has strong traditions.

3.3.2 Overall lessons drawn through working with villages

Overall, participant villages found useful or very useful their participation in the Smart Rural 21 project (average **rating of 4.3** of respondent villages on a scale of 1 to 5, where 5 = very useful)[34]. When the participation was not rated 'very useful' – based on the interviews - it was **due to the lack of capacity of the village community to get more engaged** in such a process (not due to the way the project has been running). The most commonly cited main benefits of participation were:

- Contacts with other villages and countries, learning about practices from elsewhere;
- Developing a strategy and coming together locally to exchange;
- Visibility and publicity that the village has gained through its participation.

The most quoted challenges are linked to:

- **Lack of local capacity** especially resulting from (i) other strategic priorities and projects (that for instance had to be prioritised due to administrative and financial reasons), (ii) losing staff in the administration / changes due to election, (iii) not enough interest in the administration to manage the strategy (few people leading the process).

- **Lack of active participation of the community**: often only small or relatively limited segments of the local community could be mobilised for action.

- **Covid-19**: brought specific challenges and hampered local interactions, meetings, engagements.

The Village Models Report also drew 21 key lessons through the Smart Rural 21 project and working with the participant villages that are presented in the box on the next page.

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[34] Based on 17 interviews with villages.

Twenty-one lessons from the Smart Rural 21 project

1. No unique smart ways: No direct correlation between type of area and the smart village journey

It has been stressed in many Smart Villages discourses and beyond that there is no 'one-size-fits-all' solutions for the development of local communities. The Smart Rural 21 project also shows that there are no "typical rural areas" and no strong direct correlation between the type of area (e.g. mountainous, coastal, etc.) and the kind of challenges, assets and solutions that characterises these different types of areas. In this context there are no common 'village models' either. However, as presented throughout this report, some key considerations and common trends can be drawn from the analysis of challenges, assets, smart village strategic frameworks and solutions, and there is a lot of scope for learning on how to support rural communities – including enabling exchange - operating under different circumstances.

2. Villages mean different things in different country contexts

While Smart Villages has become a common and more-and-more widely used EU terminology, it is important to note that 'villages' might not be the most suitable term to use for the rural communities (target groups) of the Smart Villages concept. Local (rural) communities are a more neutral term that can better express the diversity of areas (communities) covered in different European contexts. The Smart Rural 21 project found that smart villages are characterised by a diversity in size and scope. Most selected villages cover smaller communities (of less than 1000 inhabitants) and only few are larger than 10,000 inhabitants. It is recommended to continue to use Smart Villages as the 'conceptual term' for consistency and coherence, however, smart rural/ local communities might be a more suitable term for the communities supported through the concept (i.e. as an alternative of a 'village').

3. Exchange of experience should be facilitated with focus on peer-to-peer and practical learning

The Smart Rural 21 project has put strong emphasis on enabling exchanges among interested rural communities due to the interest expressed by several hundreds of rural communities across Europe[35]. It is important to keep such exchanges inspiring, practical, and focused. The most suitable format seems to be the informal 'peer-to-peer' exchanges: rural communities have strong need to exchange, visit, and learn from other communities. This has also been one of the key focus areas of strategy implementation support provided in villages. Support organisations in Member States and at the EU level should focus on 'match-making' villages with similar interest for mutual learning (ideally also providing financial support for traveling/cross-visits).

4. Common themes of interest do emerge from different villages contexts

Several villages – often coming from quite different contexts – have similar interests and can potentially support each other with new ideas. For instance, several rural communities requested support for sustainable (eco) architectural planning and design of local (community) buildings. Similarly, engaging young people or supporting the elderly (including e-health) has been a challenge in a couple of villages and the focus of smart solutions. Support should be structured around such common themes of interest (communities of practice).

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[35] See also the Smart Rural Café sessions: https://www.smartrural21.eu/smart-rural-21-project/events/smart-cafe/.

5. Youth engagement requires innovative approaches

While community engagement is generally not an easy task, engaging young people (e.g. teenagers) is particularly challenging. Experience shows that classical community engagement methods might not work effectively with young people (e.g. discussions/ exchanges led by local teachers /facilitators or training sessions). There are several tested innovative youth engagement methods that can be applied in such cases (that give more 'power' and responsibility to young people to influence local planning). Local communities should be encouraged to apply 'out-of-the-box' methods. According to the Smart Rural 21 project experience, village leadership is not always easy to convince about using non-conventional methodologies.

6. Consider the specificities of governance models when providing support to rural communities

As presented in this report, a wide range of governance/ smart village development models exist, from communities led by elected leaders, through those led by non-elected (visionary / charismatic) leaders, to self-governed communities. Each of these models have their own pros and cons. The specificities of these models – and the key leading figures or organisations – need to be considered when planning Smart Villages support actions in specific local contexts (see points below).

7. Elected leaders: legitimacy & trust?

Elected leaders might have strong legitimacy; however, legitimacy does not automatically create trust from the wider community. There are a number of positive examples – also from the Smart Rural 21 communities – where elected leaders provide a strong vision for the community and there is evidence for respect and trust from the community for the elected leader(ship). However, such internal/ local dynamics are often not that easy to disentangle, as elected leaders often have considerable power in local communities that in some cases can even be counterproductive and/or cover some of the real dynamics (i.e. community engagement might look strong from the outside, but other dynamics – e.g. led by power-relations – might work in the background).

8. Encourage working with local professionals / influencers

The development of local communities is often driven by the vision and commitment of some individuals or key organisations. Some of these local leaders have considerable influence on how a community is developing and can bring new ideas and innovation, often driven by professional interest and commitment (and therefore, often focusing on specific thematic areas and objectives). Such people are crucial for the development of some local communities (especially in weaker communities), and sometimes are called "yeast people" indicating their ability to bring change to an otherwise more static community. Such local leaders should be encouraged and supported in their efforts. At the same time, it is important to have local committed followers ('believers') and not to allow some private/ professional interest to dominate over a community. While Smart Rural 21 villages mostly offered positive examples in this regard, there is also example for the lack of local commitment of local community members and in this context, isolated actions of individuals.

9. More recognition of the power of local self-governance

A number of communities are exemplary of community cohesion and action. These communities are often characterised by strong local identity – and in some cases are fighting for recognition from higher administrative level where leaders are formally elected (especially in some of the Nordic countries). The efforts of such communities need to be acknowledged and encouraged. Collaboration and dialogue between these rural communities and higher administrative units should be particularly encouraged also by policymakers to ensure synergies between the strategic objectives of small rural communities and the higher administrative levels where decisions are often taken.

10. Consider the circumstances of villages before raising expectations on the participatory approach

Participatory approach is an important feature of the Smart Villages concept, however, one needs to carefully consider the specific circumstances of a local community, before "judging" the level of engagement of communities. Some communities are particularly weak in terms of local capacity and should not be expected to achieve the same level of engagement as more advanced communities (e.g. "yeast people" might be needed). It is important to note that many rural areas and villages are struggling with depopulation that have negative repercussions on the level of activity of communities. Mobilising communities in such areas is highly challenging and lagging behind areas cannot be expected to achieve the same level of engagement as those with strong community engagement traditions. Furthermore, experience shows that it is much easier to advocate the participatory approach, than to realise it in real life. Different dynamics of communities need to be carefully (and 'open-mindedly') examined.

11. Many local plans & strategies exist on paper, but longer-term strategic thinking is often lacking

Many rural communities (villages, towns, etc.) have had some forms of local plans in place. However, several communities have focused on isolated (and often funding-driven) actions and have not had a longer-term strategic plan or vision for the community. The smart villages strategy development process can help to structure and prioritise forward-looking/ innovative ideas in local communities.

12. Support for strategic planning is still needed

The Smart Rural 21 project demonstrated that most villages need technical guidance and support for developing smart village strategies[36.] It is important to help villages developing a simple and meaningful (S.M.A.R.T. = Specific – Measurable – Achievable – Realistic – Timebound) strategy that can help the village planning smart actions with a future-oriented view. It is important to make villages understand that the strategy can be developed in different shapes or formats as long as it contains some basic elements that define Smart Villages, and it is not just a document with a shelf-life. Strategies could be simple but should look beyond single projects.

13. Sustaining engagement in implementation is the most challenging

One of the most challenging tasks of rural communities is securing and sustaining interest in planning and implementing concrete smart actions. While the strategy planning is often carried out by a leading group, wider community engagement is essential when it comes to the implementation of actions. There is evidence from the Smart Rural 21 project, that some villages struggle to ensure engagement from the community in the realisation of actions. This is why capacity-building should start at the strategy planning stage, carefully considering which stakeholders can be latter mobilised for the realisation of planned actions. Specialist expertise need to be sought for engaging community members in the planning of particular actions (for instance the Smart Rural 21 project is providing support for joint planning of actions with community members, e.g. in the field of e-health/ e-care services in some of the villages).

14. Lot of local presence to support local engagement processes

Community engagement cannot be realistically judged or supported remotely. Sometimes actions that seem to represent a strong participatory approach from a distance, turn out to be isolated actions of few individuals or organisations. If support is provided to realise Smart Villages, it is important to closely accompany local

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[36] This has been provided by national experts in all participant villages and additional strategy development expertise in villages where this has been requested.

communities and monitor progress. The emphasis should not be on 'auditing' actions in a formalised way, but rather to identify areas where local dialogue and exchange could be strengthened, including bringing in independent/external views and assistance.

15. Innovation is one of the key distinguishing features of the Smart Villages approach

Innovation ('smartness') is an essential feature of Smart Villages, that helps distinguishing the concept from more classical rural development approaches. A pre-condition for a clear Smart Villages support framework is the further operationalisation of the existing definition, with particular focus on defining innovation, i.e. what constitutes a "smart solution".

Digital / technological and social innovation are often emphasised in the context of smart villages. The latter (social innovation) especially needs to be refined. Without a precise definition of 'social innovation', there is a risk of potentially including a wide range of actions within the scope of Smart Villages that renders the concept too vague and hard to relate to.

Smart Villages act at the interface of social and technological (sociotechnical) innovations. For instance, in the [Horizon Europe work programme 2021-2022](#) social innovation is most commonly "*recommended when the solution is at the sociotechnical interface and requires social change, new social practices, social ownership or market uptake*". However, it is important to note that not all social practices that accompany technological innovation are social innovations. For instance, a training to improve digital skills of certain segments of the population to take up technological innovation – while crucial - is not a social innovation. Further discussions of such considerations are needed.

16. Villages must be provided specialist expertise to realise innovative actions

Specialist knowledge in key areas of interest is one of the main identified needs of selected villages. There are specific areas, where villages need specialist technical knowledge, such as architectural planning, knowledge about eco-solutions under specific geographical circumstances, smart and sustainable mobility solutions, smart agricultural technology, digital solutions, IT expertise, etc. It is crucial to provide rural communities with support to identify and finance the relevant expertise needed to plan relevant smart actions.

17. Let the villages take the lead on what expertise they need

Experience in working with Smart Rural 21 participant villages has shown that rural communities often have very clear ideas on what kind of specialist support they need and which institution or expert they would like to work with, and most often it is the lack of capacity and resources to hire specialists that stand in the way of further actions. In fact, there is clear evidence that villages trust local expertise or specialist institutions they have previously been working with much more than external expertise brought to them in a top-down manner. Villages can very often identify the specialist expert(ise) they would need, e.g. based on their own search.

18. Provide eye-openers to avoid path-dependency

At the same time, the Smart Rural 21 project also found that in some cases villages are not fully open to new perspectives and ideas, especially specialist knowledge from elsewhere (i.e. external expert that the villages have not yet worked with). This attitude can lead to 'path-dependency'.

The challenge, from both a policy / support framework and local perspective, is finding the right balance, i.e. to provide resources for villages to mobilise the right expertise locally (e.g. not to force on them external expertise in a top-down way), at the same time encouraging the village to be 'open-minded' towards new innovative solutions and ideas.

19. Clear policy support framework is needed

A clear support framework for the Smart Villages concept is needed. However, support is not needed to support smart solutions (ready-made project ideas) only.

Based on experience of the Smart Rural 21 project, support to villages can be provided at different phases and aspects of the Smart Villages development *process* including:

A. **Capacity building for strategic planning**: helping communities to develop a smart strategic approach -in a participatory way as much as the local context allows - i.e. a longer-term innovative development concept with clearly defined smart objectives elaborated based on the opportunities (assets) and needs of the local community.

B. **Capacity-building of local communities**: Helping through innovative methods to mobilise local people for local actions, with particular focus on mobilising young people. Traditional consultations of community members might not be sufficient, rather inspiring engagement methods (networking, collaboration) are needed.

C. **Support for developing project ideas**: Helping communities to elaborate on project ideas – always with a view on how these fit into the wider smart strategic framework of the village (i.e. not just isolated initiatives). Besides helping to structure ideas, **specialist knowledge / expertise** is needed in specific thematic areas (legal, architectural, technological, etc.). Rural communities need to be encouraged to be open-minded to new methods and ideas.

D. **Support in identifying the right access to finance**: Communities need capacity-build for developing strategic and innovative initiatives and identifying the funding sources for these (i.e. technical support for elaborating proposals in response to relevant calls), improving the ability of rural communities of presenting ideas and their added value to wider strategic objectives.

E. **Support for networking and promoting innovative local approaches**: Helping communities to connect to each other ('match-making') and also to other key stakeholders – especially public bodies/ policymakers and private entities - who might be able to help to advance and support the smart approach of rural communities.

20. Alternative financing needs to be encouraged

While a supportive policy (and financial) framework is required (see above), it is important to help villages in finding alternative ways of sustaining initiatives – i.e. not to be fully dependent on public funding. Crowdfunding and private funding needs to be mobilised for initiatives and villages are to be provided with technical support on how to set up such schemes or how to connect to private investors.

21. The Long-term vision for rural areas offers a useful framing

There is a wide range of thematic areas where bottom-up/ participatory, innovative actions of local rural communities can have considerable impact. As presented in the review of thematic approaches, rural communities are active in many thematic areas. However, there are some major future trends – such as the ability to efficiently use of digital technologies and address climate actions – where rural communities should be particularly encouraged to act.

The Long-term vision for rural areas (LTVRA) has identified key areas for action, and these can be meaningfully applied as a framing concept to help focus the concept of Smart Villages. While Smart Villages are primarily referenced under 'stronger rural areas' area of action, it can meaningfully contribute to all other areas: (1) Connected rural areas; (2) More resilient rural areas that foster wellbeing, (3) Prosperous rural areas.

Classifying Smart Village initiatives according to their contributions to these areas of actions can also help understanding the contribution of Smart Villages to the future oriented LTVRA and goals.

The [Final Conference](#) of the Smart Rural 21 Project (held in Poland on 17–18 October 2023) has presented the main lessons learned through the project, allowing discussion among participants on the outcomes and next steps. The box below contains the main messages that emerged from the final event.

Main messages from the Final Conference of the Smart Rural 21 project

Europe is facing a **set of imminent and long-term challenges** and it is crucial to act urgently to deal with these. The most important challenges include climate change, a democratic crisis (resulting in populist movements and outcomes such as Brexit), a sustainability and energy crisis,Covid-19 resulted in personal losses and an economic recession; a war in our neighbourhood that has further exacerbated some of the on-going challenges, such as the energy crisis, an educational crisis (the educational systems would need to better adapt where to the needs of the 21st Century).

The impact of community-led actions on local and global economic, social and environmental development is undisputable. Smart Villages – as a new territorial development concept that acts at the level of local communities - offers a new chance to rejuvenate community-led development and reinforce innovation. *Firstly*, Smart Villages has become an attractive concept that stakeholders at all levels (from local to European) can easily connect with as it both highlights the need of adapting to the innovations of the 21st Century in particular digitalisation (smart approaches) as well as captures the importance of acting at the very local community level through community-driven actions.

Secondly, **Smart Villages treats development in a holistic way**, cutting across many types of interventions (agriculture and other economic sectors, as well as social and environment development).

Thirdly, Smart Villages act at the local community level – unlike LEADER/ CLLD that operates at micro-regional level - and it has strong capacity to mobilise people on the ground. Presenters and participants showed that many innovative and inspiring smart actions are happening in rural communities. However, policymakers at all levels have to support the process much more proactively and effectively. There is no time left to find excuses and blame others for the lack of effective actions**. Everybody needs to think much more seriously how they can make real change at their own levels**, by supporting local community-led actions, such as Smart Villages.

Strategic approach is important to set a clear direction and priorities for the future, at the local level just as well as at regional, national and European levels. Smart Village Strategies are key instruments to set the frame for strategic actions at the local level. However, **strategies might not suit all types of stakeholders**. Strategy 'owners' need to have the capacity and the mandate in the community to guide, coordinate and supervise the implementation of strategies. Typically, locally elected mayors are better positioned to realise local strategies in a synergetic way with the broader geographical strategies. It is harder for others – for instance leading/ visionary local NGOs or private organisations – to find the time, capacity and mandate to get through with the implementation of strategies.

The smart actions that Smart Rural 21 villages and other rural communities have taken are numerous and can inspire others. Many practical actions were supported by the Smart Rural 21 project in the participating communities (outcomes are published on the [Smart Rural 21 website's village pages](#). These cover several themes and fields, including community engagement spaces and tools, regenerative agriculture, improvement of basic services through digitalisation, smart and sustainable mobility, smart tourism and youth engagement. There is need for more space to allow exchange among rural communities on common themes of interest, to learn about the practical implementation of smart actions, including right to and learning from failures.

3.3.3 Lessons on strategy development

The monitoring of strategy development concerned an assessment of the five key strategy development steps on a scale of 1 to 10. The graph below presents the findings of the monitoring exercise in a 'spider-web' presentation on **the strategy development** process. Specific lessons have been drawn from the monitoring.

Figure 16: Outcomes of strategy development monitoring
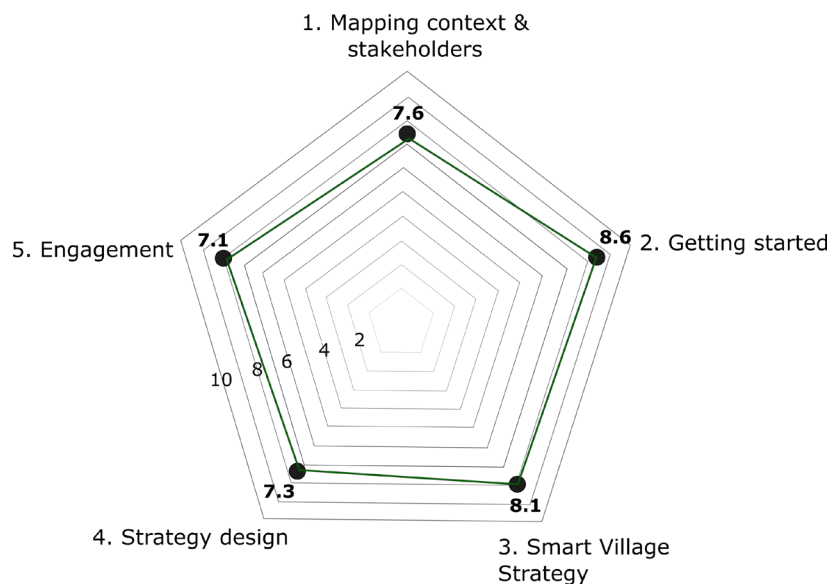
Source: E40 (2021)

Although **developing a strategy** has often been challenging for the villages, most of the village respondents found it a **very useful process and outcome**. Getting started through the Smart Rural 21 project has been generally smooth (8.6/10), and overall villages completed the process and developed a good quality strategy at the end of the strategy development process (8.1/10). However, due to the relatively limited time there was less scope and/or villages faced challenges in terms of proper stakeholder analysis and mapping (that mostly relied on previous work: 7.6/10), for engaging stakeholders in the process of strategy design (7.1/10), and also found the strategy design process itself relatively challenging (7.3/10).

Chart 12: Usefulness & communication of strategy

How useful do you think developing (and having a) smart village strategy has been on a scale of 1 to 5?

Avg. 4.5
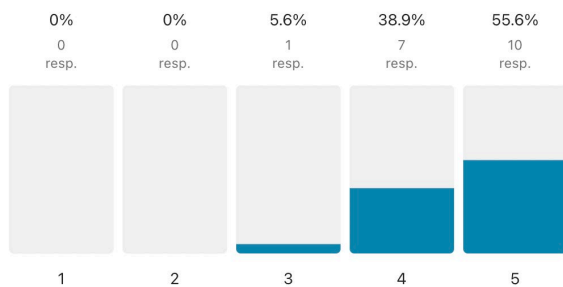
How far members of your community know about the smart village strategy? Which describes you best?

0%	0%	5.6%	38.9%	55.6%
0 resp.	0 resp.	1 resp.	7 resp.	10 resp.
1	2	3	4	5

Some community members know about the strategy — 9 resp. 50%

Mostly the local coordinating team knows about the strategy — 4 resp. 22.2%

Few community members know about the strategy — 3 resp. 16.7%

Many community members know about the strategy — 2 resp. 11.1%
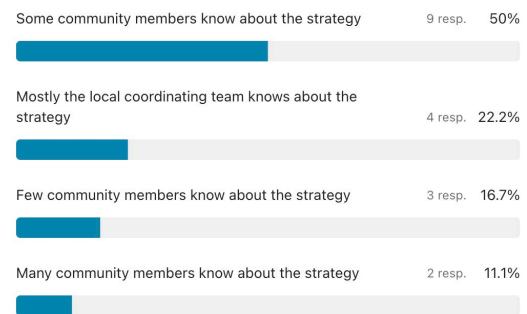
Source: Village interviews with SR21 selected villages (E40, 2022)

The main benefits associated with strategy development have been: (i) getting focused, getting a direction, structure ideas & establish priorities, allowing looking forward; (ii) engage and gather the community members around the strategy.
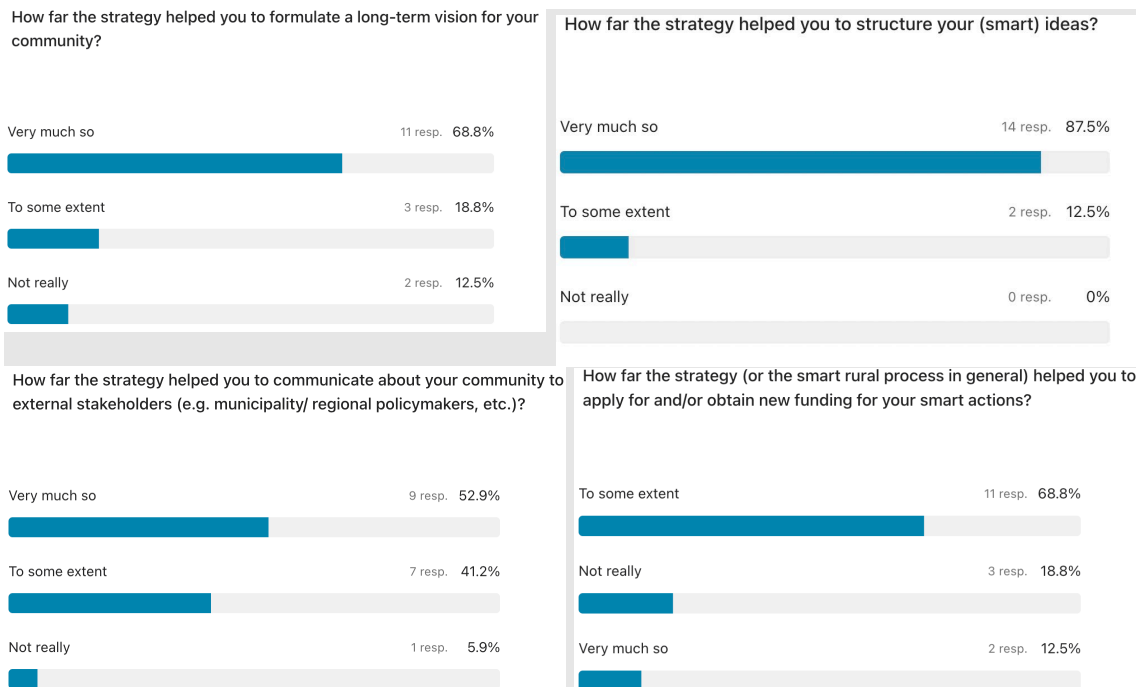
> *"SV status gives more credibility to what we do."*
> *"It helped a lot at the national level, we are now in the national SV programme."*
> *"Through this strategy they recognise us more as a partner."*

The 'quantitative' assessment also reflects a similar picture: **the strategy is seen as largely helping to structure ideas and contributing to formulate a long-term vision** for the village (87.5 % and 68.8 % of village respondents rating it a very important benefit). As far as communication towards external stakeholders are concerned most village respondents found that the strategy helped to communicate towards external stakeholders to some extent (41.2 %) or very much (52.9 %). **Accessing funding due to the strategy is less obvious**, answers behind 'to some extent' (68.8 %) indicate that although the strategies might not yet have triggered new funding yet, there are high hopes that it will (e.g. due to pending applications or plans).

Chart 13: Main benefits that the smart village strategy brought to SR21 villages

How far the strategy helped you to formulate a long-term vision for your community?

Very much so	11 resp.	68.8%
To some extent	3 resp.	18.8%
Not really	2 resp.	12.5%

How far the strategy helped you to structure your (smart) ideas?

Very much so	14 resp.	87.5%
To some extent	2 resp.	12.5%
Not really	0 resp.	0%

How far the strategy helped you to communicate about your community to external stakeholders (e.g. municipality/ regional policymakers, etc.)?

Very much so	9 resp.	52.9%
To some extent	7 resp.	41.2%
Not really	1 resp.	5.9%

How far the strategy (or the smart rural process in general) helped you to apply for and/or obtain new funding for your smart actions?

To some extent	11 resp.	68.8%
Not really	3 resp.	18.8%
Very much so	2 resp.	12.5%

Source: Village interviews with SR21 selected villages (E40, 2022)

The strategic process is genuinely led by a smaller group (or leadership) of the community, and strategies are not always easy to communicate towards the local community members. While local inhabitants have been engaged in most cases, the messages from the strategy **had to be translated into 'plain language' for the community** that is generally not interested in longer strategic documents. Most community leaders have made efforts to communicate about the existence of the strategy (which does not necessarily mean that community members are familiar with all the details).

> *"People don't like long papers."*
> *"We communicated the strategy – it's not so near to everyday life of people. They focus on the actions."*
> *"The fact that there is strategy many know, but they don't know the details inside."*

The main lessons drawn from the strategy development process can be summarised as follows:

- **Strategies are important means to help structure existing ideas into a coherent innovative long-term vision**. They can also help communicating about the village externally, and hopefully can contribute to better accessing funding.
- **The strategy development process is challenging at the local level**, mostly due to lack of capacity (such as time and human resources to coordinate the strategy development process, insufficient strategy development knowledge or skills). Therefore, each community should also carefully consider what benefits the strategy development brings to the community in the light of the efforts and resources needed.

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- Generally, smaller communities are often characterised by stronger cohesion, especially in the Northern-European countries (in the selected Smart Rural villages). **Social cohesion and wide community engagement is harder to achieve in the larger communities**. In larger communities, it is normally a smaller cohort within the community (typically approximately 30-50 people) that engages actively. Engaging youth is particularly challenging in many of the villages and therefore, should be one of the focus areas of capacity-building.

- **Strategies are also not easy to communicate towards the wider community**. Strategic documents have to be translated into the "language of the community". Communities are more interested in action. Finding the balance of involving the community (and include ideas from the community) and the role of a (visionary) leadership is one of the key challenges of the strategy development process.

- **Capacity-building actions for strategy development** – similar to that of the Smart Rural 21 process (including how to design a strategy, engage stakeholders and plan actions, budget & resources) – are certainly needed. The technical support provided by the Core Team and national experts in the process has been much appreciated by villages. It was also stressed during the interviews that an **'external' view can help** to ask questions that the local community might not ask.

- It is important to **have a person with a dedicated role to coordinate**/ monitor the process, without such a responsibility the Smart Villages process often did not get enough momentum. As part of the capacity building for strategy development, it is suggested **to create as many connections with other villages facing similar challenges and/or having similar goals as possible**.

- **Local leaders** - including leading figures in village associations, mayors, deputy mayors and their advisors, expert groups or boards – **are most often key figures in the Smart Villages process**. At the same time, it is important to ensure that **local leaders / elected representatives work closely with community organisations**.

- **Strategies should be kept simple**. While it is advisable to consider/ include the key strategic elements in the strategy (such as challenges of the village, assets & opportunities, planned actions and resources), the strategy should primarily **serve generating long-term thinking and identifying new ideas** in the community according to a clear logic, rather than be driven by external (formal/ administrative) requirements. As much as possible they should be an evolving framework that can be adapted to the changing circumstances and developments.

▪ **Strategy development takes time.** Generally the project framework for this (i.e. approx. 6 months) was not sufficient to plan local engagement actions, and therefore, the villages also largely relied on previous stakeholder engagement actions. Despite the difficulties, **considerable stakeholder engagement and needs analysis** took place across the villages, according to the monitoring report (that sometimes also compensated for the lack of a comprehensive baseline an analysis).

> *"In general, experience shows that communities do not feel the need for a village development strategy and perceive it as a formal, complex document that will be rarely in use. However, while working with the village, I observed that the strategy gave the community leaders the opportunity to organise and coordinate the goals, activities with the community people. And now, at the suggestion of the leaders, we plan to update the development strategy for a new period (2-– years) together with community members."*
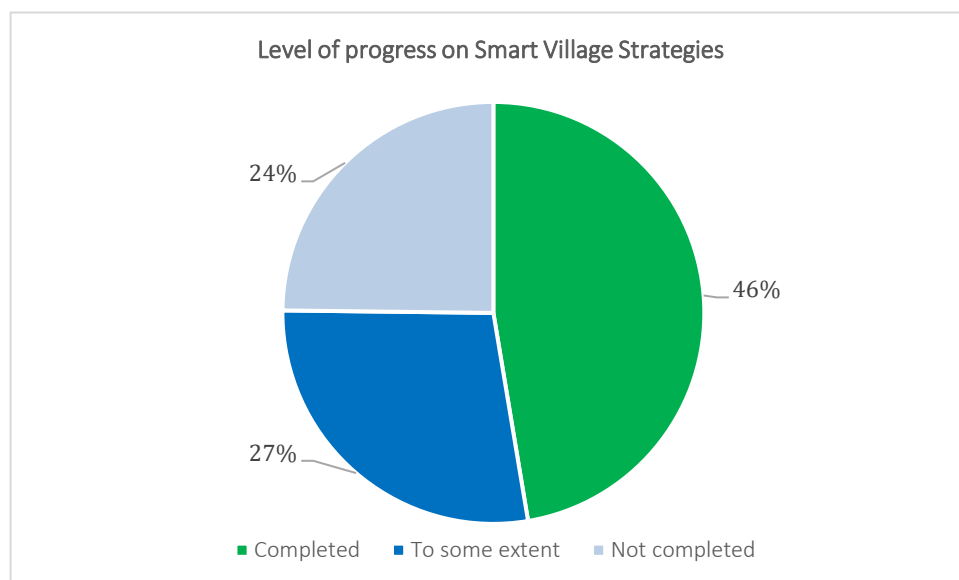
3.3.4 Lessons on strategy implementation

The monitoring process also covered the implementation of strategies. Firstly, national experts looked at how far the planned interventions have been implemented action by action. Overall, **villages made good progress in completing their strategies**. Most planned actions were either completed (46 %) or partially completed/ in progress (27 %). A relatively small portions of actions (24 %) is not completed, which is due to various reasons, including overambitious initial targets, lack of capacity, changing circumstances and priorities (including Covid-19) and lack of funding.

Chart 14: Level of progress of actions set out in the Smart Village Strategy for the project period


Level of progress on Smart Village Strategies

24% 27% 46%

■ Completed ■ To some extent ■ Not completed

Source: Village interviews with SR21 selected villages (E40, 2022)

Secondly, **five key milestones that concern strategy implementation** were also assessed both in terms of the quality of actions and stakeholder engagement (see summary of outcomes in the figure below). The findings show that overall villages made good progress in terms of planning their actions (7.93/10) and

finding the right solutions (8.71/10), with a focus on solutions supported by the project. However, in some villages the overall implementation of the strategy was not as effective as planned (7.36/10) mostly due to weaknesses in the internal capacity to contribute to planned strategic actions. The lack of capacity is also reflected in the capacity to manage and monitor the smart village strategy, one of the weakest aspects of the strategy process (6.54/10) – although it is important to stress that the performance of villages vary in this regard (and range between 3 to 9 on a scale of 10).

The monitoring reinforced that financing strategic actions were the most challenging aspect of strategy implementation (6.29/10). Based on the qualitative responses, most villages have to rely on private funding, community funding (and voluntary work) and local (municipal) and regional public funding when realising smart solutions. Often the only source of finance for the planned smart actions was the Smart Rural 21 project. **Villages seem to have limited access to EU programmes and funding**, with the exception of LEADER funding (that is mentioned in a couple of cases as a source of support to certain actions). The human capacity to engage in applications and projects is limited in most villages.

Figure 17: Outcomes of strategy implementation monitoring
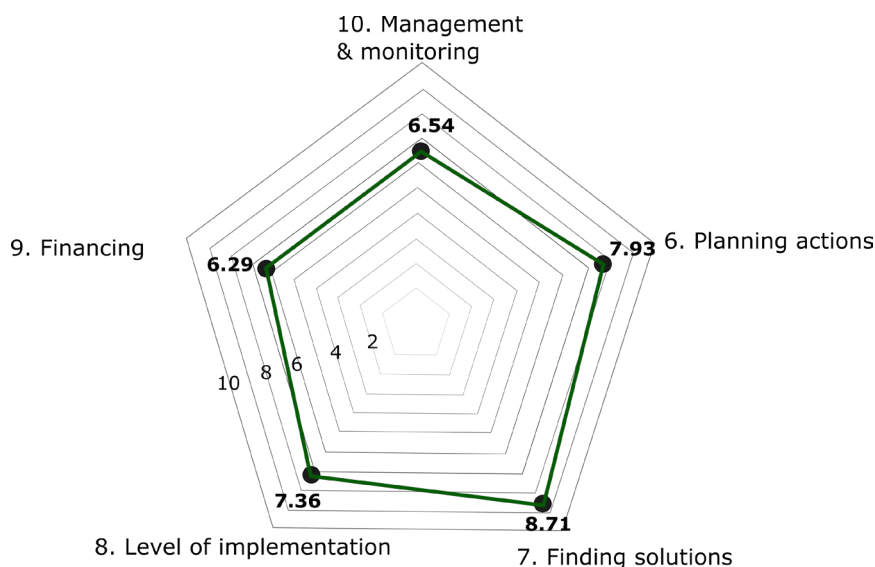
Source: E40 (2022)

The strategy implementation support by the Smart Rural 21 was overall rated very useful (4.6 on a scale of 1 to 5; the large majority – 10 out of 12 respondents - rating it 5)[37].

Furthermore, the extended Smart Rural 21 project duration and time allowed for strategic actions and have contributed to more and improved actions on the ground. The project specifically helped to identify the right specialist expertise in collaboration with the village. **This process was highly appreciated by the villages.**

"If this project continues in one way or another, I would definitely encourage to participate."

"[Expert support] was right and very good and timely."

"I liked the idea to be very agile and reactive to how our project is evolving."

The most important benefits mentioned by village reprsentatives were: (i) the support gave benchmarks and ideas on how to do things differently (i.e. brought new ideas) and (ii) brought new perspective for the village, helped stakeholder engagement in specific actions.

Smart actions were much easier to communicate towards the community than the strategy (see Chart 12 above and Chart 15 below). Information about the actions have reached many more community members (53.8 %) or at least some (38.5 %). **In 42 % of the respondent villages many community members were also directly involved in the supported actions** (in others some or few).

Chart 15: Knowledge and engagement of community members about smart actions

How far members of your community know about the selected smart action(s) implemented?

Many community members know about the smart action	7 resp.	53.8%
Some community members know about the smart action	5 resp.	38.5%
Mostly the local coordinating team know about the smart action	1 resp.	7.7%
Few community members know about the smart action	0 resp.	0%

How far members of your community were involved in the selected smart action(s) implemented?

Many community members were involved	5 resp.	41.7%
Few community members were involved	4 resp.	33.3%
Some community members were involved	2 resp.	16.7%
Mostly the local coordinating team were involved	1 resp.	8.3%

Source: Village interviews with SR21 selected villages (E40, 2022)

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[37] Based on 14 interviews. Rating might be slightly different once all responses are complete.

Overall, identifying, implementing and monitoring tailor-made technical support on actions with tangible outputs required more effort for the Smart Rural 21 project team, but this effort was paid off. Villages found this form of support very useful, and engagement and trust could be built in most villages.

However, the support was not always a complete success. **Some of the villages could not – or did not fully – benefit from the support.** This is mostly due to the fact that support actions **always required input and commitment also from the villages** and local **capacity to implement the process** has not always been available. This was typically the case with regard to the e-health & care process planned in three of the villages (Cumeirra / Penela, Dingle and Sollstedt). The 'feedback loop' process designed by partner *empirica* provided villages with guidance and methods on how to run the process, but local engagement sessions were also required to complete the cycle. While the villages benefitted from expert guidance, often there was no sufficient capacity to carry out the engagement actions locally. This also indicates that planning digital solutions and systems particularly requires time and considerable investment on behalf of the local community.

Another bottleneck was local capacity (role/ responsibility) for coordinating the SR21 actions. Since the Smart Rural 21 support was small-scale, experimental and technical (i.e. did not include direct investment-type support) it often had to compete with larger projects in some communities. When capacities were limited, the villages often focused on the more formal obligations and projects (as one national expert stated it the "*they went for the quick wins*").

The most successful villages were those that **tried to take advantage of the type of the support offered by the SR21 project,** which was ultimately a combination of technical (innovation/ experimental) support, opportunities for exchanging with others (e.g. cross-visits) and support for EU, national and local promotion/ visibility. These villages largely benefitted and often gained national-level recognition for their action, which encouraged them to carry on further.

Overall, more support actions of the SR21-type are needed (and requested), especially **funding should be allocated to villages for pilot actions**, support for strategic planning is to be provided, and networking and exchange opportunities with other villages around common smart themes are to be created. Rural communities need support, technical expertise and inspiration for hands-on actions to realise their vision.

Many villages highlighted the added value of exchanging with other villages and the motivation that comes from the recognition that "we are not alone". The Smart Rural Communities Cafés (where village representatives could exchange with each other in an informal environment) and the cross-visits that allowed village representatives to visit other villages and get inspiriation from their smart solutions were highly appreciated.

3.4 Results & lessons learned about Smart Village policies

At the time of running the project, **the development of CAP Strategic Plans was still under way** and the policy-framework has been largely evolving. The EU Smart Villages country pages aimed to provide up-to-date information about this supporting environment, not only within the CAP but also in other EU policies (especially the Cohesion Policy), as well as support provided through national programme and relevant organisations.

Mapping the landscape was challenging not only because it is continuously changing, but also due to the fact that **Member States have often not programmed Smart Villages** in the framework of future (let alone past) EU policies – this is mostly addressed in the CAP (if at all) and, in this context, **it is important to learn from a few more experimenting Member States** (such as Poland, Austria or Finland). Smart Villages are often supported 'indirectly', i.e. without dedicated policies (e.g. through regional and local / municipal public funding) or through the activities of relevant organisations (specialised NGOs). The Smart Rural 21 project also collected information about the activities of organisations and non-EU funded initiatives (see also policy case studies in Chapter 2.6.2) to provide inspiration for policymakers.

The 2nd Preparatory Action on Smart Rural Areas in the 21st Century (Smart Rural 27 Project) has carried out further analysis, based on information collected – including village applications - from rural communities in the course of the Smart Rural 21 project, on how local communities are supported in their efforts to implement smart actions locally. It is important to note that **there are clear indications that local rural communities have limited access to EU funding sources**. The most commonly used financial sources for smart actions implemented in local communities are private funding, regional or municipality public funds and community funding (including the value of voluntary work). The only EU funding that is commonly identified to provide financial support is LEADER. Therefore, it is important to find ways to channel EU resources towards smart communities and actions more effectively. **It is no longer sufficient to use the argument that priorities, objectives and/or thematic areas of EU programmes are aligned with the Smart Villages goals** – as this in itself unfortunately, does not guarantee that the resources are actually reaching villages. While Smart Rural 21 village represent only a small segment of rural communities, they have been selected from a representative sample (of 736 applicant villages). The findings in relation to the selected Smart Rural 21 villages also reinforce the overall finding that public (regional, national and European funding) is often limited in these communities. Very often, the only source to finance smart actions in the selected villages was actually Smart Rural 21. For the efficient realisation of Smart Villages, it is important to further explore how to support rural communities in implementing smart actions and how to adapt future

Smart Villages support frameworks to the needs and capacities of communities for a better uptake of EU funds and other public resources.

The Smart Rural 27 Project (AGRI-2020-0332) is taking the legacy of Smart Rural 21 forward also in this regard. The Smart Rural 27 project aims at creating a supporting policy environment for Smart Villages. Among others it continues to support local communities – enabling exchange among them around common themes of interest, facilitate multi-actor dialogue at all levels (through national taskforces), and bring relevant stakeholders together in the framework of the future European Smart Villages Pilot Observatory. The Smart Rural 27 will further analyse the CAP Strategic Plans on Smart Villages and share relevant information through the Smart Rural 27 website, including country factsheets and villages and resources databases.

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of the European Union