Introduction

The Pilot Project on Smart Eco-Social Villages, initiated by the European Parliament, has been carried out by a consortium consisting of Ecorys, Origin for Sustainability and R.E.D. under the responsibility of the European Commission (Directorate-General for Agriculture and Rural Development). This workshop, its final part, aims to discuss the main findings of the Pilot Project. Its outcomes will inform and develop its final conclusions.

One of the tasks of the project is to clarify the concept of Smart Villages by elaborating a definition. Following input received from stakeholders, our definition has sought to embrace the width of current activities and future possibilities as well as the need for flexibility to facilitate its use in diverse national and local contexts. It also considers the policy context, and particularly the proposal for the CAP after 2020, which anticipates greater flexibility in policy choices for Member States. The idea is to allow Member States to align and focus policy on their specific needs, and thus also in relation to design and implementation of interventions for support to Smart Villages. The purpose of the definition is therefore to inspire and explain the potential of the concept – for communities in rural areas to take action, as well as for policy makers in taking decisions on future support of Smart Villages.

Definition of Smart Villages

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.

Communities in rural areas can include one or several human settlements, without any restrictions regarding the administrative boundaries or the number of inhabitants. As regards eligibility conditions for support, Member States may use definitions of rural areas as provided for by the OECD, EUROSTAT or other definitions.

A participatory approach means an active participation of the local community in the drawing up and decision-making regarding the Smart Village strategy. During the implementation phase, the participatory approach will ensure that the needs for capacity building and for training of people are properly addressed.

Digital technologies include, for example, information and communication technologies, the exploitation of big data or innovations related to the use of the Internet of Things (IoT). They act as a lever to enable Smart Villages to become more agile, make better use of their resources and improve the attractiveness of rural areas and the quality of life of rural residents. The use of digital technologies is not a precondition for becoming a Smart Village. Where possible, high-speed broadband will facilitate the deployment of the digital solutions.

Smart Village strategies respond to the challenges and needs of their territory by building on their local strengths and assets. Strategies must determine short, medium and long-term goals. Progress must be measurable through performance indicators that will be set in a roadmap. These roadmaps should be reviewed at regular intervals to allow continuous improvement. Strategies may aim, for example: to improve access to services (in various fields such as health, training or transport), to enhance business opportunities and create jobs, to the development of short food supply chains and farming practices, to the development of renewable energies, to development of a circular economy, to a better exploitation of natural resources, to adapt to climate change, to preserve the environment and biodiversity, to a better valorisation of the cultural heritage for a greater tourist attractiveness etc.

First Panel: Innovative services in Smart Villages

Over time, many rural areas have experienced a decline in the range of services available. Changing demographic structures, public sector cutbacks and the impact of climate change can stimulate local communities to step in and fill the gap. Discovering and implementing new solutions to address local challenges is therefore one of the key characteristics of Smart Villages. The definition proposed by this Pilot Project states that Smart Villages "use innovative solutions to improve their resilience, building on local strengths and opportunities." This includes innovative services that can act as a catalyst for improving the quality of life in a village. The Pilot Project found that:

❖ **Villages can develop a wide range of creative solutions to overcome challenges**

Smart Villages innovate in various areas and in very diverse ways, depending on the opportunities and challenges stemming from their local contexts. Findings from the Pilot Project, as well as those from the European Network for Rural Development (ENRD) case studies, illustrate the wide diversity of scope, scale, and type of innovative services developed by villages. The workshop will illustrate this variety by presenting practical examples.

❖ **Working arrangements are changing**

One of the common features of Smart Village innovative services is that their design and implementation involves several people or organisations. These include locals (internal stakeholders) and supporting actors from outside (external stakeholders). In addition, the private sector can play an important role. Private companies often demonstrate flexibility and innovation, which can bring added value in the provision of services to the local community. Whether or not external stakeholders are involved, innovation cannot happen without sufficient capacity and a strong organisational process to see it through.

❖ **Integrating services enhances efficiency**

Combining services can go a long way to maximise the efficiency of service delivery. Small communities in rural areas face difficulties in finding specialised workers and mobilising financial resources. Therefore, creative solutions are necessary to ensure that such communities can benefit from a relatively wide range of services. One of the case studies of the Pilot Project offers a good example of this: the recently constituted Ville D'Anaunia municipality was established by merging previously autonomous smaller municipalities. In order to avoid duplication of services and tools (including infrastructure and equipment) an online platform for sharing goods and services has been established to support, in a cost and time efficient way, local organisations, public services and also citizens in implementing their activities.

Fintry Development Trust (UK): aims to enhance the sustainability of its rural community through climate change mitigation and alleviation of fuel poverty. FDT provides on-going energy advice services to local homes and businesses, and supports the development of community energy projects, by making use of innovative ways of working involving internal and external stakeholders (e.g. Scottish Government and private companies).

Comune di Ville d'Anaunia (IT): this Italian village is seeking to provide its citizens with plenty of opportunities for their future. Several public services, such as the management of local public spaces, are delivered to the community by using innovative solutions and tools. Moreover, the creation of a digital hub will foster the use of teleworking opportunities.

Second Panel: Role and importance of digital technologies

Digital tools and connectivity are closely associated with the "smart" concept and innovation. Unsurprisingly, digital technologies are widely used within Smart Villages development, and "act as a lever that enables Smart Villages to become more agile, make better use of their resources and improve the attractiveness of rural areas and the quality of life of rural residents."

What makes a village smart is not limited to increased levels of digitisation or connectivity. Instead, "smartness" stems from the use of digital technologies as vehicles for local development goals and the improvement of the quality of life of citizens. The Pilot Project drew attention to the following aspects of the use of digital technologies:

❖ **Some rural areas are more advanced than others in the use of digital tools**

Many villages make use of the opportunities offered by digital technologies, whereas others are much less advanced. The Pilot Project, as well as the ENRD, case studies identified multiple examples of such projects. For instance, tackling depopulation can be pursued through exploiting digital technologies to create work opportunities without the need for working-age adults to leave the community. Nonetheless, it is important to keep in mind that connectivity remains a crucial enabling factor for the utilisation of digital solutions.

❖ **Digitisation is a tool, but not a goal in itself**

The use of digital technologies is not what defines a Smart Village, nor are they the only way to achieve development objectives. The previous section described solutions that also incorporate use of a wide range of non-digital tools. Nevertheless, digital technologies will in many cases be part of the solution to reach objectives of a Smart Village in a more efficient and effective way.

❖ **Awareness raising and training should accompany the introduction of new technologies**

As with other aspects of Smart Villages, citizens' involvement in rolling out digital solutions is an essential component of success. Citizens need to be able to use digital technologies to their full potential and be able to recognise their added value for improving their quality of life. This is particularly true for rural communities with an ageing population. Moreover, local communities (including at the local government level) need to be aware of the opportunities these technologies provide.

> Through the implementation of LED technology in the public lighting system, Los Corrales de Buelna (ES) used digital technologies to manage municipal infrastructures (lighting, water, waste, etc.) in a more efficient way, as well as offering new services to citizens (e.g. open and public Wi-Fi hotspot access).
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> In order to stimulate entrepreneurship, Bras-sur-Meuse (FR) created telework centres with high-speed broadband, a co-working space, and provided training for silver surfers in addition to many activities for citizens. The Commune also developed tools for administrative management, such as an open online agenda, and introduced the use of digitised devices.

Third Panel: How to develop a Smart Village strategy

A Smart Village strategy aims to channel the resources of its community to deal with key problems faced within their local context. Typically, the strategy offers new solutions to local challenges by "building on their local strengths and assets." Strategies can be initiated as a reaction to a particularly challenging situation, such as demographic decline. They can also arise from the intention to seize an opportunity to improve local conditions and quality of life.

The diversity of local contexts, starting points and triggers indicates that there is no one-size-fits-all approach for becoming a Smart Village. However, there are common elements that characterise most of the initiatives examined by the Pilot Project, with three enabling conditions identified as essential for the development and implementation of Smart Village strategies:

❖ **Establishing good governance structures and adequate capacity is the first step**

An effective governance structure is vital for a successful Smart Village initiative. The process can be initiated through existing structures but can also be steered by a group of active citizens. It should be open and inclusive, engaging with a wide range of relevant stakeholders to ensure that all voices are being heard when making strategic decisions[1]. Local authorities can play a crucial role in this process, as they are in a strategic position to liaise between and coordinate different interest groups. Ensuring sufficient capacity to follow through on the plans is essential. The participation of people with first-hand experience and know-how is especially vital. In addition, links with the research community can go a long way in helping to make a success story out of strategic planning processes.

❖ **An active and engaged local community is crucial for success**

The active engagement of locals – not only in initiating the planning processes but also in delivering on planned actions – is a familiar feature of successful Smart Villages. Involving citizens from an early stage helps establish a common understanding of needs and opportunities, thereby ensuring the development of a strategic plan founded on a shared vision for the future. In addition, participation creates a sense of ownership, which can prove to be a key driver during the implementation stage.

❖ **Strategies should aim for simplicity**

Strategies should be rooted in a shared understanding of needs and should be conceived as a sequence of actions aimed towards a clear goal. It is important that the strategies do not duplicate efforts that have already been formulated as part of another strategy – whether national, regional or local. They should instead focus on smaller-scale development goals that respond to the most direct needs of the community that created them.

> **In Killorglin (IE), active stakeholder engagement and participation has been at the centre of the preparation of the strategy. The public sector played the role of facilitator between the various stakeholders, aligning the diverse interests of locals towards shared objectives.**
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> **Svärdsjö (SE): the village built its strategy on a common shared vision and developed it by cooperating with different local actors. The community is strongly engaged in the implementation of the local development plan, notably through associations, which guide the initiation of the development strategy.**

[1] ENRD (2018) How to support Smart Village Strategies which effectively empower rural communities?

Fourth Panel: How to finance Smart Villages

Securing funding for the implementation of projects is an important component of a successful Smart Village strategy. The Pilot Project has found a wide variety of financing models, building on, as the definition says, "a variety of public and private sources." However, some solutions require no, or only minimal, funding. Overall, the most prevalent financing approach observed is the leverage of funding opportunities from different institutional levels, including EU, national and regional sources when possible.

The cases studied by the Pilot Project reveal a number of challenges in finding and applying for funding. There are multiple potential financing sources available, but mapping of these opportunities is a challenging and time-consuming exercise. Moreover, application processes for EU and, in some cases, even national funds are perceived as complicated and cumbersome, discouraging some potential applicants. Therefore, future public funding schemes should consider the following:

❖ **Support should be adapted to the scale and level of development**

Even when targeting larger areas, Smart Village strategies initially require relatively small-scale investments. Nonetheless, these can also be part of larger cooperative efforts which require a different financing model. Hence, being able to unlock financing adapted to the specific project scale for subsequent implementation stages would make it easier to manage the financial aspects of these processes. In addition, specific stages of development require tailored funding opportunities. Building up administrative capacity to plan and implement strategies calls for a different type of support than actual execution of projects.

❖ **The administrative setup should be simplified and streamlined**

As small communities have limited resources, the relatively high level of administrative burden associated with European Structural Investment Funds (ESIF) puts severe constraints on their abilities to follow through on Smart Village initiatives. Funding schemes should consider this and should aim to reduce administrative complexity to a minimum. A potential solution would be the creation of a streamlined "one-stop-shop" solution. To eliminate the need to deal with multiple layers and instruments, beneficiaries should be able to access the resources required to implement Smart Village strategies in one place.

❖ **A network of Smart Village advisors could help relatively disadvantaged areas**

Embarking on a Smart Village trajectory requires specialised knowledge and expertise. Being able to use experts active in local development and financing can help to unlock opportunities for those areas most in need of support. It can also speed up the exchange of experiences by providing a forum for sharing of best practices and enhancing cooperation between communities.

> Alsómocsolád (HU) has decades-long experience in financing its Smart Village strategies, using multiple funding streams to implement projects. These include pre-accession instruments, ESIF and Norway grants.
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> By using LED technology – which is less costly and therefore creates savings – in the public lighting system, Comillas (ES) created a virtuous circle where the savings became available for investment in community projects or initiatives.