



European Network for  
Rural Development

# EU RURAL REVIEW No 26

# SMART VILLAGES REVITALISING RURAL SERVICES



## European Network for Rural Development

The European Network for Rural Development (ENRD) is the hub that connects rural development stakeholders throughout the European Union (EU). The ENRD contributes to the effective implementation of Member States' Rural Development Programmes (RDPs) by generating and sharing knowledge, as well as through facilitating information exchange and cooperation across rural Europe.

Each Member State has established a National Rural Network (NRN) that brings together the organisations and administrations involved in rural development. At EU level, the ENRD supports the networking of these NRNs, national administrations and European organisations.

Find out more on the ENRD website (<https://enrd.ec.europa.eu>)

***Europe Direct is a service to help you find answers  
to your questions about the European Union.***

**Freephone number (\*):  
00 800 6 7 8 9 10 11**

(\* The information given is free, as are most calls  
(though some operators, phone boxes or hotels may charge you).

**Managing editor:** Neda Skakelj, Head of Unit, EC Directorate-General for Agriculture and Rural Development.

**Editor:** Derek McGlynn, ENRD Contact Point.

ENRD Contact Point

Manuscript text finalised during May 2018. Original version is the English text.

More information on the European Union is available on the internet (<https://ec.europa.eu>).

Luxembourg: Publications Office of the European Union, 2018

ISSN 1831-5321

© European Union, 2018

Reproduction is authorised provided the source is acknowledged.

The contents of this publication do not necessarily express the opinions of the institutions of the European Union.

The text in the publication is for information purposes only and is not legally binding.

*Printed by Imprimerie Centrale in Luxembourg.*

Printed on recycled paper that has been awarded the EU Ecolabel for graphic paper (<http://ec.europa.eu/ecolabel/>)

You can also order one paper copy free-of-charge via the EU Bookshop website: <http://bookshop.europa.eu>

### **Acknowledgements**

**Main contributors:** Steffen Hess, Katalin Kolosy, Eamon O'Hara, Veneta Paneva, Paul Soto.

**Special thanks to:** Jure Bizjak, Christiane Kirketerp, Gyorgy Mudri, Enrique Nieto, Konstantinos Zapis.

**Layout:** Benoit Goossens, Geraldine Meeus (Tipik)

Cover photo © Background photo: Andreas Gücklhorn, Unsplash; © Bubbles: Maaseutuverkosto / Samuel Petttersson, European Union / Luke Porter, Unsplash / Pexels





© Markus Spiske, Pexels

Foreword by Phil Hogan, European Commissioner for Agriculture and Rural Development .....	2
Foreword by Tibor Szanyi and Franc Bogovič, Members of the European Parliament .....	4
1. Smart villages .....	6
2. National and regional support for smart villages .....	16
3. Harnessing social innovation .....	23
4. Using digital innovation to revitalise rural services .....	32
5. RDPs as catalysts for innovation in rural services .....	40



# EU Action for Smart Villages

Foreword by Phil Hogan, European Commissioner for Agriculture and Rural Development



I am delighted to introduce this edition of the EU Rural Review which delves into the concept of smart villages and highlights many inspiring smart initiatives that are springing up across rural Europe.

This publication is inspired by the results of a Thematic Group on 'Smart Villages' organised by the European Network for Rural Development. There has been a huge interest in the work of the group from many stakeholders and local authorities – a clear sign of the appetite for smart villages in our rural areas.

I am often asked: what is a smart village? As you will read in this publication, smart villages are essentially about people – they are about rural communities taking the initiative to

find practical solutions to challenges and make the most of new opportunities. Digital solutions can power many such new opportunities, but smart also implies cooperation and developing new alliances – thinking outside the box and charting your own path to prosperity and sustainability.

The European Commission's smart villages initiative was launched a year ago, so this is an excellent opportunity to take stock of where we stand. We have started work on a pilot project – the idea is to develop a model for smart villages which rural communities can use as a template to improve their situation.

The European Parliament has also allocated €3.3 million for a preparatory action which we will launch next year. Here, the idea is to provide support for the development of up to ten smart villages throughout the European Union (EU).

This is the important ground work that needs to be done to get the concept of smart villages on the policy map. But we cannot stop there. If we really want to see a large roll-out of smart villages, more needs to be done.

Smart villages begin with local people coming together to develop a strategy around local assets and aspirations. We need to invest in these people, their ideas and the much-needed infrastructure and capacity building. This is our role as policy-makers – we need to make sure the right tools are available.





For the digital aspects, it is clear that we need better broadband connectivity and infrastructure. Despite the great efforts to date, there is still a serious digital gap between rural and urban areas. According to our most recent figures, only 47% of rural households have access to fast broadband, compared with more than 80% of urban households.

To help close this gap, around €6 billion in funding (both EAFRD and ERDF) is available from the EU budget to finance broadband roll-out, as well as other digital infrastructures, especially in rural and peripheral areas.

The estimated contribution from the EAFRD is almost €1 billion. This will benefit around 18 million rural citizens. At the same time, the European Commission is implementing an Action plan for Rural Broadband,<sup>(1)</sup> aiming to help broadband roll-out in rural and remote areas. In parallel, the EU is investing in digital skills and in various kinds of rural digital hubs, co-working spaces and living labs that can bring communities together and speed up the use of digital technologies.

We also need to ensure that we use this improved connectivity to boost the quality of life and standard of living in rural areas: better services, better access to jobs and better solutions for the environment.

In this edition of the EU Rural Review, you will find many examples of how communities are developing innovative solutions for rural services. These can often be enhanced by digital technology to develop new and improved services in fields such as e-health, online education, mobility, local energy production and much more.

Although this publication focuses on rural services, digital platforms and the data economy can also help create new local markets that allow small and medium-sized farmers get a better price for their products. Similarly, they can foster the use and roll-out of precision farming and other modern technologies.

While there are already many great initiatives taking place, we want to scale up the ambition and turn more of this potential into reality. We need to invest in people, in ideas and in businesses, in local communities and in the surrounding countryside. We need to support digital infrastructure, but we also need to empower rural citizens to develop online and offline solutions that strengthen rural vitality and sustainability through social innovation and smart specialisation.

I am sure that this EU Rural Review will provide you with many ideas and examples of how to go about this shared opportunity.

---

(1) <https://ec.europa.eu/digital-single-market/en/news/european-commission-joins-forces-help-bringing-more-broadband-rural-areas>



# A smarter future for Europe's rural areas

Foreword by Tibor Szanyi and Franc Bogovič, Members of the European Parliament



We are happy to give food for thought to all the stakeholders, to highlight the importance of smart villages, to show the great interest that the approach has sparked leading to the signature of the Bled Declaration on 13 April 2018 and to understand the lessons learned via the work of the ENRD Thematic Group on 'Smart Villages'.

The smart villages approach must be front and centre of any attempt to solve depopulation, boost the provision of services and realise opportunities for growth in rural areas. Smart villages embrace a functional cross-sectoral approach, interlinking the available and future development tools. It is about the life of rural citizens and it reaches out to a broad range of stakeholders



beyond local people, including rural development practitioners, legislators, politicians, entrepreneurs, NGOs and academics.

The Cork 2.0 Declaration was formulated in the spirit of creating 'a better life in rural areas'. We believe that smart villages offer the best way towards a sustainable realisation of this vision. Smart villages arise from integrated approaches and the successful interaction of different policy fields to increase complementarity and coherence and leverage the advantage of large-scale synergies.

This approach is currently being developed together by the European Parliament and the European Commission.





The political commitment involving European Commissioners and their respective services, as well as all input from rural development experts have been indispensable to the progress made in supporting smart villages.

Europe invests in human resources, innovation and development, prioritising sustainable quality of life over short-term economic gain. Despite that, it has become increasingly clear that rural areas have been lagging behind in implementing the new, mainly digital technologies.

To mitigate this phenomenon, we have been actively pushing for a smart village approach via a pilot project in the 2016 EU budget, which received the full commitment of the European Commission led by Agriculture and Rural Development Commissioner Phil Hogan. The smart villages approach has also been mentioned in many official publications since then and is the subject of a preparatory action programme in this year's EU budget.

The strategic and financial support is underpinned by a series of events, such as the kick-off meeting in Brussels on 11 April 2017 and the high-level meeting in Bled, Slovenia on 13 April 2018. The latter was supported by four European Commissioners and their Slovenian ministerial counterparts as well as the Slovenian Prime Minister.

We know well the complex challenges rural areas are facing, such as ageing populations and lack of services.

As a solution, the co-signatories of the Bled Declaration and the supporting European Commissioners consider *"the preparation of the future EU and national policies as an opportunity to develop the smart villages approach"*. They go on to state in the same Declaration that *"smart villages have the potential to increase economic and social cohesion, and improve the social equality of our societies, especially between rural and urban areas"*.

We recommend that you read the commitments of the Bled Declaration<sup>(1)</sup> and then begin the work towards a brighter, smarter future for rural areas!

**Franc Bogovič** (European People's Party, Slovenia) is a member of the European Parliament's regional development committee.

**Tibor Szanyi** (Socialists & Democrats Group, Hungary) is a member of the European Parliament's agriculture and rural development committee.

(1) [https://enrd.ec.europa.eu/news-events/news/new-declaration-smarter-rural-areas\\_en](https://enrd.ec.europa.eu/news-events/news/new-declaration-smarter-rural-areas_en)



# 1. Smart villages

© Andraz Ladic, Unsplash

Rural areas across Europe are undergoing rapid change. Transition contains risk but also real opportunity for rural areas to play a new and distinct role. Whereas previous editions of the EU Rural Review have covered initiatives to boost rural economies and businesses, this edition focuses on both social and digital innovation in rural services.

In this context, smart villages can be understood as communities that refuse to simply wait for change to happen to them. Smart villages are made up of rural people who take the initiative to explore practical solutions to the underlying challenges they face and to seize new opportunities. Thousands of rural communities are doing just this in various ways.

Many are taking advantage of new digital technologies. But these are just one of the tools available. There are also many examples of social innovation in rural services, new win-win relationships with urban areas, and activities which reinforce the role of rural areas in the transition to a greener, healthier and more caring society.

To create an enabling environment for smart villages, rural policies need to evolve. This is why policy-makers and project promoters at the EU, national, regional and local levels are also exploring new approaches.

---

**WHAT ARE SMART VILLAGES?**

---

**WHAT IS DRIVING SMART VILLAGES?**

---

**SMART VILLAGES – IN ACTION**

---



## WHAT ARE SMART VILLAGES?

In April 2017, the European Commission launched its 'EU Action for Smart Villages'<sup>(1)</sup>. The plan contains a pragmatic definition of smart villages.

This working definition and subsequent discussion in a dedicated ENRD Thematic Group have clarified a number of important points.

As Commissioner Hogan notes in the foreword to this EU Rural Review, **smart villages are about people**. They are about rural citizens taking the initiative to find practical solutions – both to the severe challenges they face and, importantly, to exciting new opportunities which are transforming rural areas.

**Smart means using digital technologies** when they are appropriate – not because they are fashionable. Smart villages often use the power of digital technologies. But these are just one of the tools available.<sup>(2)</sup>

**Smart means thinking beyond the village itself.** Some initiatives are taking place at village level, but many involve the surrounding countryside,



### EU ACTION FOR SMART VILLAGES

Smart villages are rural areas and communities which build on their existing strengths and assets as well as new opportunities to develop added value and where traditional and new networks are enhanced by means of digital communications technologies, innovations and the better use of knowledge for the benefit of inhabitants.

groups of villages, small towns and links to cities.

**Smart means building new forms of cooperation and alliances:** between farmers and other rural actors; between municipalities; the private sector and civil society; from the bottom-up and the top-down.

**Smart means thinking for yourself.** There is no standard model or solution for smart villages – it is about local people taking stock of local assets, drawing on the best available knowledge, and taking the initiative.

The above points emphasise the differences between smart cities and smart villages. Smart cities tend to focus more on big data and the opportunities for transforming the way in which cities function through interrelated digital technologies. Smart villages are not simply an extension of these principles to dispersed areas. The smart village focus is more on local communities taking their future into their own hands – often, but not exclusively, with the help of digital technologies.

The 'EU Action for Smart Villages' also makes specific reference to the need to go beyond individual isolated initiatives. In line with the Cork 2.0 Declaration, it recommends developing integrated approaches.

The Action states: "We need more than just building blocks. We need strategic approaches which will help policy-makers, stakeholders and project promoters on the ground to deliver results, taking into account the comparative strengths and needs of their respective territory".



© Pexels

(1) [https://enrd.ec.europa.eu/news-events/news/eu-action-smart-villages\\_en](https://enrd.ec.europa.eu/news-events/news/eu-action-smart-villages_en)

(2) In this sense, it is closer to the term 'intelligent communities', currently used in the US: [www.intelligentcommunity.org/what\\_is\\_an\\_intelligent\\_community](http://www.intelligentcommunity.org/what_is_an_intelligent_community) Mareike Meyn, 'Digitalization: Status Quo and Future Trends – A New Impact on Life in Rural Areas?', 2017: [www.acgusa.org/wp-content/uploads/2017/11/1-2017-Meyn-Digitalization-in-Rural-Areas-FINAL.pdf](http://www.acgusa.org/wp-content/uploads/2017/11/1-2017-Meyn-Digitalization-in-Rural-Areas-FINAL.pdf)

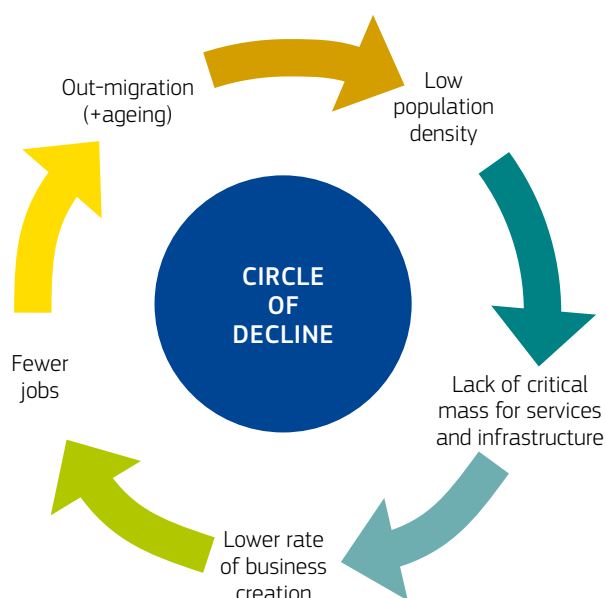
### THE ENRD THEMATIC GROUP ON SMART VILLAGES

The ENRD Thematic Group (TG) on smart villages was set up in October 2017 as an important part of the 'EU Action for Smart Villages'. Its aims are to become a focal point for sharing experiences between initiatives for smart villages around Europe and for building evidence and momentum for improvements in the implementation of Rural Development policy.

One of the first activities of the TG was to carry out a scoping exercise. This highlighted that many rural areas are locked into a 'circle of decline' by two mutually reinforcing trends: firstly, a shortage of jobs and sustainable business activity; and secondly, inadequate and declining services.

Nearly all approaches identified by the TG to support smart villages address both.

Previous ENRD thematic work and editions of the EU Rural Review have covered initiatives to boost rural economies and businesses, namely the issues on 'Smart Supply Chains' (No 22) and 'Re-imagining rural business opportunities' (No 24). The TG on smart villages therefore focused its attention on **both social and digital innovation in rural services**. This edition of the EU Rural Review reflects many of the TG's conclusions.



### WHAT IS DRIVING SMART VILLAGES?

Smart villages are laboratories where local people and policy-makers at different levels are testing innovative solutions to some of the major challenges of rural life. In this way, they are seeking to seize opportunities that can strengthen rural vitality in Europe. Both the challenges and the opportunities vary enormously across rural areas and between different parts of Europe. It is always important to understand the context and starting point of the broader strategies and individual projects that contribute to smart villages.

The ENRD's thematic work has uncovered at least five main drivers of smart villages. The first two are usually considered primarily as threats or challenges, while the last three involve both risks and opportunities for rural areas. These drivers are closely

#### FIVE DRIVERS OF SMART VILLAGES

1. Responding to depopulation and demographic change;
2. Finding local solutions to public funding cuts and the centralisation of public services;
3. Exploiting linkages with small towns and cities;
4. Maximising the role of rural areas in the transition to a low-carbon, circular economy;
5. Promoting the digital transformation of rural areas.

intertwined and digitisation can be considered as a cross-cutting theme.

#### 1. Responding to depopulation and demographic change

Even though depopulation is considered a symptom of rural decline rather than a cause, there is no doubt that it is one of the main factors driving the smart villages agenda.

Predominantly rural areas account for around 28% of the EU population, while a further 31.6% live in towns and suburbs (intermediate areas), and 40.4% live in cities<sup>(3)</sup>. There is a seemingly unstoppable worldwide trend towards urbanisation and by 2050, the EU population living in cities is expected to grow by 24.1 million, while the population in predominantly

(3) Eurostat, Statistics on rural areas in the EU, data from February 2017.



rural areas is expected to shrink by 7.9 million.

However, these global trends hide substantial differences between different parts of Europe and different types of rural area. Overall, nearly two thirds of rural regions in the EU13 (i.e. those countries that joined the EU in 2004 or more recently) are declining, whereas in the EU15 (those that joined prior to 2004), the reverse is the case, with two thirds of rural regions retaining their population or actually growing<sup>(4)</sup>.

Figure 1 shows major population loss:

- in rural areas in the east of Europe where significant agricultural (and

industrial) restructuring is still taking place;

- in the interior of the southern European countries (particularly Greece, Spain, Portugal and Italy and to a lesser extent the centre of France); and
- in the sparsely populated Nordic and Baltic countries.

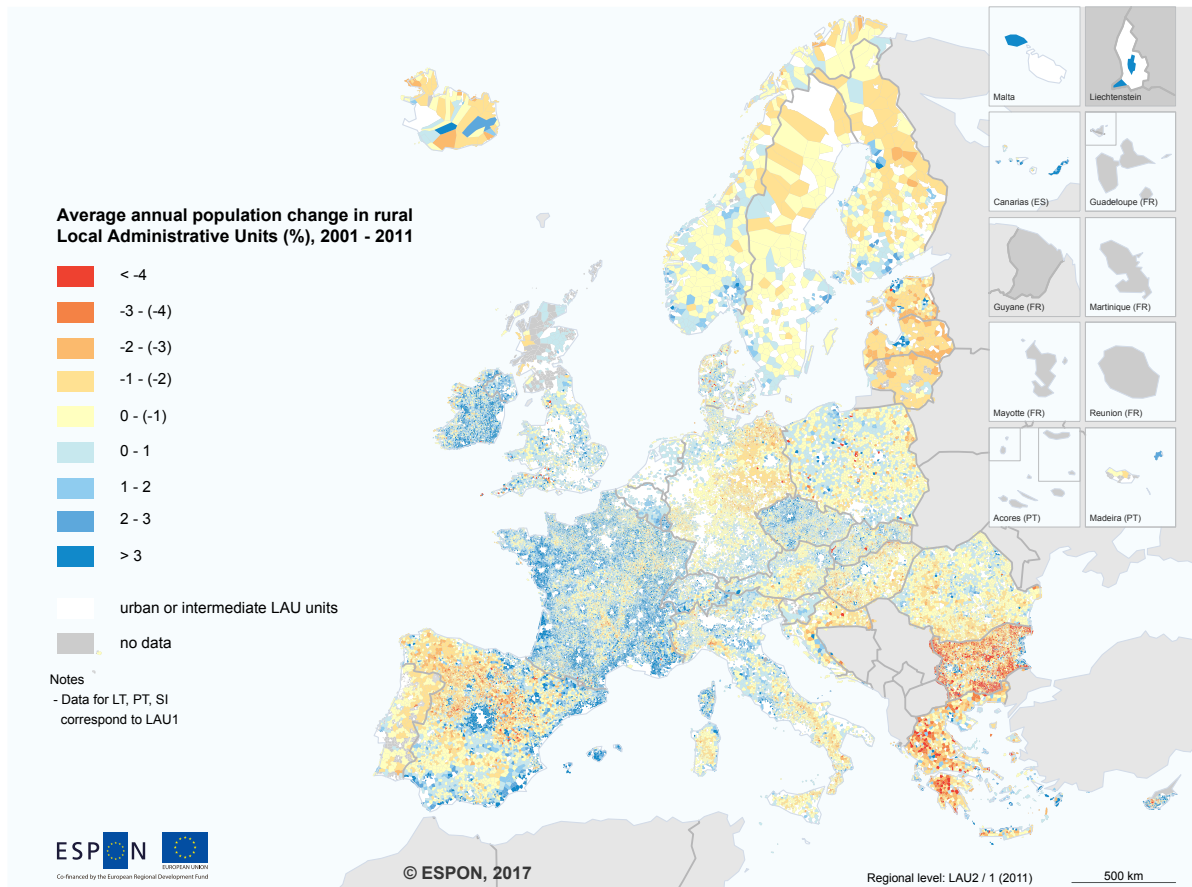
## 2. Finding local solutions to cutbacks and the centralisation of public services

Even when the population of rural areas is stable or growing, lower population densities, together with complicated logistics drive up the

unit costs of providing certain basic services like education, healthcare, commerce and public transport. The situation is particularly acute in places like the north of Finland, the centre of Spain and Portugal, and many mountainous regions. The costs of providing services are also much higher when the population is spread around many small settlements rather than concentrated in larger ones.

Higher-cost rural services for smaller numbers of people are often the first to be cut when public budgets are tight. As a result of the financial crisis public budgets were cut and social spending reduced in many EU countries.

Figure 1. Rural population change



Origin of the data: Eurostat, ESPON, 2017

(4) ESPON, 'Policy Brief: Shrinking rural regions in Europe', 2017: [www.espon.eu/rural-shrinking](http://www.espon.eu/rural-shrinking)

Throughout this period, public administrations have been looking for cost savings by reducing the level of service provision and increasingly, privatisation and outsourcing.

Local authorities in many EU Member States have been or are in the process of being reorganised into larger units. One of the obvious consequences has been a reduction in the services in rural areas and their concentration in larger towns and cities.

This trend exacerbates the inequality between rural and urban areas. Illustrating this point, just over a quarter of the EU population living in rural areas has tertiary education compared to nearly double this amount in cities; the proportion of early school leavers and young people with neither a job nor training is higher; and rural populations are more likely to have unmet healthcare needs<sup>(5)</sup>.

Once again, there is a stark contrast between the EU13 and EU15: the

proportion of people at risk of poverty is much higher in rural areas than in cities in the EU13, whereas in the EU15, as a whole, the reverse is the case. In Romania, Bulgaria and Malta, at least half of the rural population is at risk of poverty, whereas in nine other Member States the share is between 30 and 40% (Croatia, Cyprus, Hungary, Latvia, Lithuania and Poland, together with Greece, Spain and Portugal).

The emergence of smart villages is often triggered by people coming together to explore practical solutions to these acute social problems.

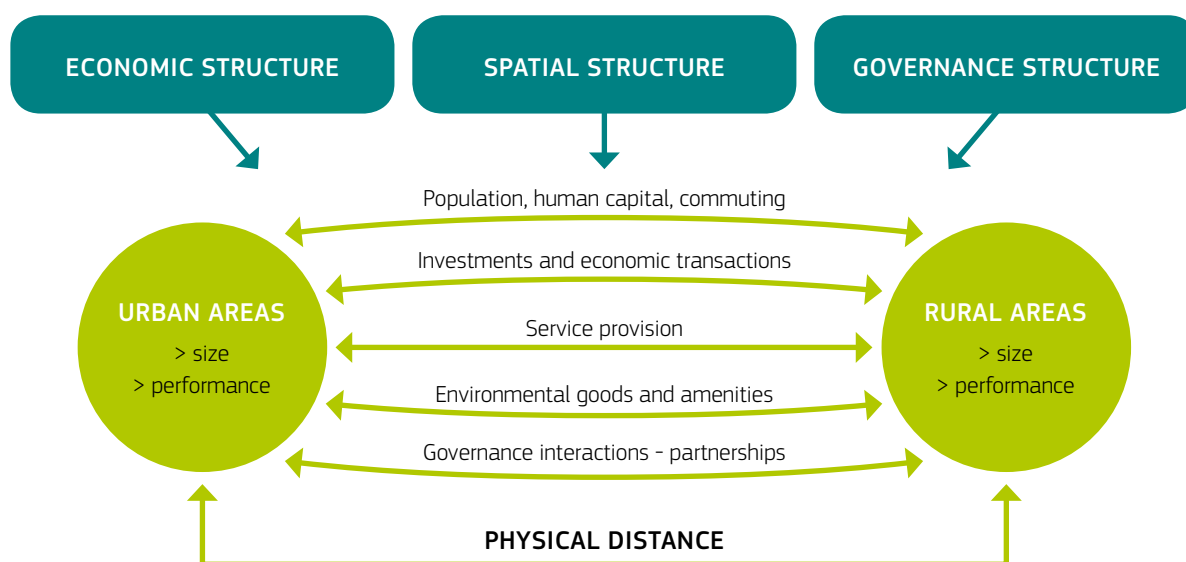
### 3. Exploiting linkages with small towns and cities

Rural areas have a symbiotic relationship with cities and towns. Historically, the relationship has sometimes been seen in purely competitive terms – as a zero-sum game. What the cities gained, rural areas were thought to lose.

However, the Organisation for Economic Co-operation and Development (OECD) and others have analysed the complex web of linkages between cities and rural areas and shown that, if carefully managed, there is much potential for win-win arrangements between the two.

The OECD finds that in nearly all of its member countries, it is the rural areas close to or accessible from cities that are the fastest growing in terms of Gross Domestic Product (GDP), productivity and population<sup>(6)</sup>. They note that “rural regions close to cities perform particularly well. Rural regions close to cities displayed higher productivity growth before the 2008 economic crisis and higher resilience after the crisis began.” They add that “the strong performance of rural regions close to cities is not solely linked to their proximity to a large metropolitan area.” The definition of ‘rural close to city’ refers to any city of more than 50 000 inhabitants. Small

Figure 2. Rural-urban functional linkages



Source: OECD, Rural 3.0: A framework for rural development, Policy note

(5) Eurostat, Statistics on rural areas in the EU, 2017: [http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics\\_on\\_rural\\_areas\\_in\\_the\\_EU](http://ec.europa.eu/eurostat/statistics-explained/index.php/Statistics_on_rural_areas_in_the_EU)

(6) OECD, 'OECD Regional Outlook 2016: Productive regions for inclusive societies', 2016: <https://regions20.org/wp-content/uploads/2016/08/OECD-Regional-Outlook-2016.pdf>



and medium-sized cities do play an important role for the economic development of rural regions, but benefits cannot be achieved without access<sup>(7)</sup>.

For smart villages, it is not just a case of overcoming the urban-rural divide, but of harnessing the unique potential of each for mutual benefit.

Naturally, closer linkages are not without risk. For example, the increased use of private cars and online shopping could have a detrimental effect on local businesses and rural services such as commerce.

In seeking to achieve the most successful outcomes smart village projects are increasingly cooperating – both with other similar rural areas and with their associated small and large population centres – to develop mutually beneficial planned territorial solutions. For example, the French government has supported a series of so-called reciprocity contracts between cities and their surrounding countryside. The case of Brest and Centre Ouest Bretagne presented in the following chapter (see page 21), shows how both areas have gained in terms of the supply of renewable energy and the distribution of service activity contracts<sup>(8)</sup>.

#### 4. Maximising the role of rural areas in the transition to a low-carbon, circular economy

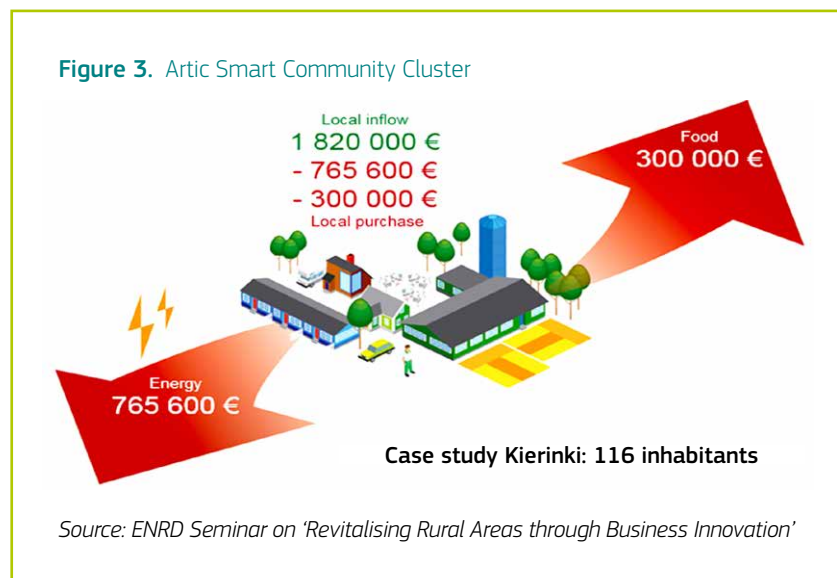
Rural areas are front-and-centre in the shift to a low-carbon economy, according to the OECD.<sup>(9)</sup> Rural and intermediate areas account for 88.2% of the EU's territory<sup>(10)</sup> and the clear majority of its natural assets.

These natural assets often form the cornerstone of their competitive advantage as well as their identity and attractiveness as places to live. They are, therefore, both particularly exposed to the risks of climate change and environmental degradation, and in a privileged position to make a difference.

In this context, it is not surprising that there are now around 15 000 ecovillages<sup>(11)</sup> in six continents, and that many villages in different parts of Europe are implementing projects for energy saving, renewable energy production and sustainable transport, as well as promoting local clusters of activity in the circular and bio-economies.

One impressive example is the Artic Smart Community Cluster<sup>(12)</sup>. It illustrates how one of the most remote rural areas of Europe (under two inhabitants per square km) is putting into practice a bottom-up strategy

for smart specialisation. By working closely with entrepreneurs from the villages, the cluster – comprising various entities including businesses, funders, researchers and mediators – identified huge potential for reducing capital outflow and adding local value in two key fields: energy and food. They developed an integrated strategy to support local entrepreneurs, which includes education in schools, opening up public procurement and building local food and energy hubs. The projects have been shown to create local jobs, cut waste and emissions, reduce costs and keep local income in the local economy.



(7) OECD, 'Rural 3.0: A framework for rural development, Policy Note', 2018: [www.oecd.org/cfe/regional-policy/Rural-3.0-Policy-Note.pdf](http://www.oecd.org/cfe/regional-policy/Rural-3.0-Policy-Note.pdf)

(8) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_fr.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_fr.pdf)

(9) OECD, 'OECD Regional Outlook 2016: Productive regions for inclusive societies', 2016: <https://regions20.org/wp-content/uploads/2016/08/OECD-Regional-Outlook-2016.pdf>

(10) Eurostat, Share of land area using different typologies (% of land area), 2016: [http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share\\_of\\_land\\_area\\_using\\_different\\_typologies\\_\(%25\\_of\\_land\\_area\)\\_update.png](http://ec.europa.eu/eurostat/statistics-explained/index.php/File:Share_of_land_area_using_different_typologies_(%25_of_land_area)_update.png)

(11) An ecovillage is an intentional, traditional or urban community that is consciously designed through locally owned participatory processes in all four dimensions of sustainability (social, culture, ecology and economy) to regenerate social and natural environments.

(12) [https://enrd.ec.europa.eu/sites/enrd/files/s4\\_rural-businesses\\_aric-cluster\\_havukainen.pdf](https://enrd.ec.europa.eu/sites/enrd/files/s4_rural-businesses_aric-cluster_havukainen.pdf)

For additional information, see: [http://luotsi.lappi.fi/c/document\\_library/get\\_file?folderId=1664044&name=DLFE-29555.pdf](http://luotsi.lappi.fi/c/document_library/get_file?folderId=1664044&name=DLFE-29555.pdf)

### 5. Promoting the digital transformation of rural areas

Digital technologies have the capacity to radically transform the disadvantages that rural areas face in terms of distance and low population density by permitting instantaneous virtual communication and access to e-services. Although the potential opportunities and benefits are great, there are also risks that could, for example, lead to closures of local shops.

Equally, appropriate tools should be put in place to ensure that more can benefit from the digital transition. The Menter Môn Local Action Group (LAG) in Anglesey, Wales (UK) has supported projects<sup>(13)</sup> that tackle the digital exclusion of elderly people and of hearing-impaired people.

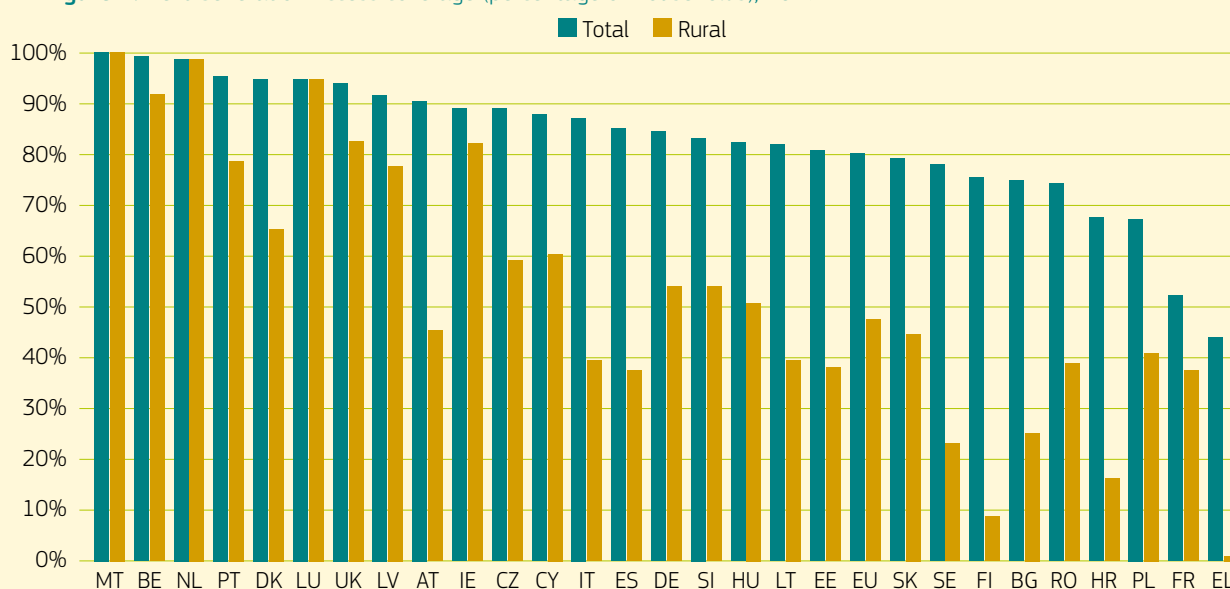
Rural areas are often characterised as suffering from a **triple digital divide: broadband connectivity, skills and uptake**. In addition to the lack

of supply of Next Generation Access (NGA)<sup>(14)</sup> to the internet (only 47% of rural households have NGA, compared to 80% of total EU households, see figure 4 below), many rural populations lack the necessary digital skills and the use of digital technologies is lower than in urban areas (see chapter 4).

The creation of a high-speed digital infrastructure in rural areas, accompanied by digital education and training, has to be a continued investment priority. Both are needed to tackle the digital divide and to raise the capacity of European rural stakeholders and communities to exploit their digital potential.

Smart villages take digitisation one step further. Their aim is not simply to catch up with urban areas by bridging the divide, they want to increase the attractiveness of rural areas and to develop new roles for them in Europe's transformation to a digital economy.

Figure 4. Next Generation Access coverage (percentage of households), 2017



Source: IHS and Point Topic

(13) For more information on the LAG-supported projects, see: [www.mentermon.com](http://www.mentermon.com)

(14) Next Generation Access (NGA) describes modern forms of superfast broadband access commonly defined as at least 30 Megabits per second (Mbps). NGA marks a step change in speed and quality of internet access compared to standard broadband services.



## SMART VILLAGES – IN ACTION



© Fraunhofer IESE Digitale Dörfer

The wide range of challenges faced by rural communities in different parts of Europe, coupled with emerging opportunities created by rural-urban linkages and the transition to a low-carbon, circular economy is energising many people to actively look for solutions. They often have different concerns and priorities, and operate at different levels, but people are increasingly working together and joining forces in the quest to develop the smart villages of the future.

Aside from making the most of economic opportunities for new forms of smart rural businesses (see EU Rural Review No 24), people are also exploring new innovative ways of delivering services in rural communities, the focus of this publication.

Many rural communities are simply reacting to the **closure of local services**: the school, shop or bus service. They are using various forms of community-owned and social enterprises, taking over and investing in local buildings and assets and running these with a combination of public and private funding streams and voluntary labour. For example, in Scotland there are now 5 600 social enterprises operating in transport, social care, energy, housing, and shops and many more fields: a 10% increase in two years<sup>(15)</sup>.

Across the EU, the ongoing withdrawal of public agencies from the supply of social services of general interest, increasing pressures on traditional non-profit organisations to diversify their income sources and rising interest in

social innovation among mainstream enterprises suggest a strong growth dynamic in social enterprise.<sup>(16)</sup>

Other communities are motivated mainly by the threat of **climate change**, the desire to build a more sustainable way of living and to take the opportunities offered by renewable energy in rural areas. For example, there are around 3 000 renewable energy cooperatives in Europe active in energy production, grid operations, energy monitoring and saving and e-car sharing.

Most of them are concentrated in the north of Europe (the UK, Denmark, the Netherlands, Belgium, Germany, Austria, Finland, Sweden) where the legislative environment is more favourable for individual and decentralised energy production.

(15) Bill Slee, 'Revitalising rural services through social innovation', SIMRA project: [https://enrd.ec.europa.eu/sites/enrd/files/tg2\\_smart-villages\\_social-innovation\\_slee.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg2_smart-villages_social-innovation_slee.pdf)  
For a definition of a social enterprise, see: [https://enrd.ec.europa.eu/sites/enrd/files/s4\\_rural-businesses-factsheet-social-innovation.pdf](https://enrd.ec.europa.eu/sites/enrd/files/s4_rural-businesses-factsheet-social-innovation.pdf)

(16) European Commission, 'A map of social enterprises and their eco-systems in Europe', 2015: <http://ec.europa.eu/social/BlobServlet?docId=12987&langId=en>

However, according to REScoop, the European federation of renewable energy cooperatives of 1 250 members, the movement is also growing further in the south of Europe (France, Italy, Spain, Portugal) and the east (Czech Republic).

Rural communities are also increasingly involved in putting in place both the fibre infrastructure and the demand stimulation required to ensure that rural areas meet their potential in the **digital economy**. For example, in Sweden nearly 50% of local fibre networks are owned by municipalities or community-run enterprises. There is also a growing EU-wide movement for encouraging local digitisation through various forms of rural digital hubs and co- working spaces – such as the ERUDITE project.<sup>(17)</sup>

At the next step in the multi-level governance chain, spatial planners at municipal, regional and national levels are working with rural citizens to explore various formulas for co-locating rural services into multi-service centres or hubs – often linked to larger units in the population centres (for example the multi-service centres in Flanders<sup>(18)</sup> and Finland, or the ‘Maisons de services’ in France<sup>(19)</sup>).

Further still up the chain, these specifically rural initiatives are complemented by a wide range of regional, national, and European sectoral policy initiatives for health, education, transport, digitisation etc. Based on the experience of several countries (the UK, Finland and Sweden), the EU is now recommending unpacking the impact of these policies on rural areas through ‘rural proofing’. Finally, at the EU level, all the major institutions have recently expressed their active support for various aspects



of smart villages, illustrated by the considerable number of EU policy initiatives: European Commission Action; Opinions of the European Economic and Social Committee and the Committee of the Regions; Pilot Action of the European Parliament; and future preparatory action on smart villages<sup>(20)</sup> and the number of international conferences on the subject such as the recent OECD workshop on ‘smart villages’ and the Bled conference ‘EU action for smart villages’. The challenge for

rural areas is now to consolidate and grow this diverse alliance for change and to use this energy to deliver real improvements on the ground.

(17) [www.interregeurope.eu/erudite](http://www.interregeurope.eu/erudite)

(18) [https://enrd.ec.europa.eu/sites/enrd/files/tq2\\_smart-villages\\_service-hubs\\_hoet.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tq2_smart-villages_service-hubs_hoet.pdf)

(19) See OECD Rural Policy 3.0: [www.oecd-ilibrary.org/urban-rural-and-regional-development/oecd-regional-outlook-2016/rural-policy-3-0\\_9789264260245-7-en](http://www.oecd-ilibrary.org/urban-rural-and-regional-development/oecd-regional-outlook-2016/rural-policy-3-0_9789264260245-7-en)

(20) See the ENRD Smart Villages Portal: [https://enrd.ec.europa.eu/smart-and-competitive-rural-areas/smart-villages/smart-villages-portal/eu-policy-initiatives-strategic-approaches\\_en](https://enrd.ec.europa.eu/smart-and-competitive-rural-areas/smart-villages/smart-villages-portal/eu-policy-initiatives-strategic-approaches_en)



SMART VILLAGES LINK TO SOCIAL AND DIGITAL INNOVATION



**EUROPEAN PARLIAMENT**  
Franc Bogovic

“The smart village concept sets out to create liveable European villages where people can and want to be based, because innovative, digital solutions improve their lifestyle.”



**EUROPEAN PARLIAMENT**  
Tibor Szanyi

“Rural life is not solely about agriculture. It is also about girls and boys, women and men, youngsters and the elderly. They should not be socially or digitally abandoned.”



**EUROPEAN COMMITTEE OF THE REGIONS**  
Enda Stenson

“We call for greater ambition and the development of a targeted and forward-looking policy on Smart Villages with a view to the post 2020.”



**EUROPEAN ECONOMIC AND SOCIAL COMMITTEE**  
Tom Jones

“It is essential to enhance cooperation between communities, organisations and authorities in rural and urban areas in order to gain the full benefit of social, cultural and economic links which such cooperation can bring.”



**SOCIAL INNOVATION IN MARGINALISED RURAL AREAS (SIMRA)**  
Bill Slee

“Social innovation brings collective response of the community and a willingness to invest time and resources to solve local problems.”



**EUROPEAN NETWORK FOR COMMUNITY-LED INITIATIVES FOR CLIMATE CHANGE AND SUSTAINABILITY (ECOLISE).**  
Eamon O'Hara

“Rural areas are both heavily affected and can make a major contribution to a transition to a low-carbon economy with an enabling policy framework that meets the bottom-up and top-down.”



## 2. National and regional support for smart villages

© Riccardo Bresciani, Pexels

The 'EU Action for Smart Villages' states that “we need more than just building blocks; we need strategic approaches which will help policy-makers, stakeholders and project promoters on the ground to deliver results.” Although smart villages are fundamentally about rural people taking the initiative, national regional and local governments can provide an enabling environment for their activity.

In looking at smart villages, the scope of this edition of the EU Rural Review is on social and digital innovation in rural services only. See previous editions for initiatives that can boost rural economies and businesses.

This chapter looks at some of the smart village approaches being put into place across Europe with a specific focus on rural services. Many of these initiatives are just beginning – although momentum is growing – and some preliminary lessons can already be drawn.

---

CREATING SUSTAINABLE RURAL SERVICES

---

PANORAMA OF APPROACHES TO SERVICE DELIVERY

---

LESSONS FROM FOUR INSPIRING EXAMPLES

---



## CREATING SUSTAINABLE RURAL SERVICES

The Economic Co-operation and Development (OECD) argues that “the provision of quality services in rural areas has come to the forefront of policy debates in recent years”<sup>(1)</sup>. It considers that even though the majority of its member countries have recovered from the financial crisis, public budgets remain tight. As the costs of providing certain services are higher in rural areas than in cities, these are proving to be particularly vulnerable to cuts worldwide.

However, the OECD notes that “rural communities cannot exist without the appropriate public services to meet residents’ needs. Accessibility to schools, health and social care and other such services are critical to the well-being of rural residents and the social and economic resilience of these communities.”

### NEW FORMS OF RURAL SERVICE DELIVERY

#### 1. Integrated service delivery, including:

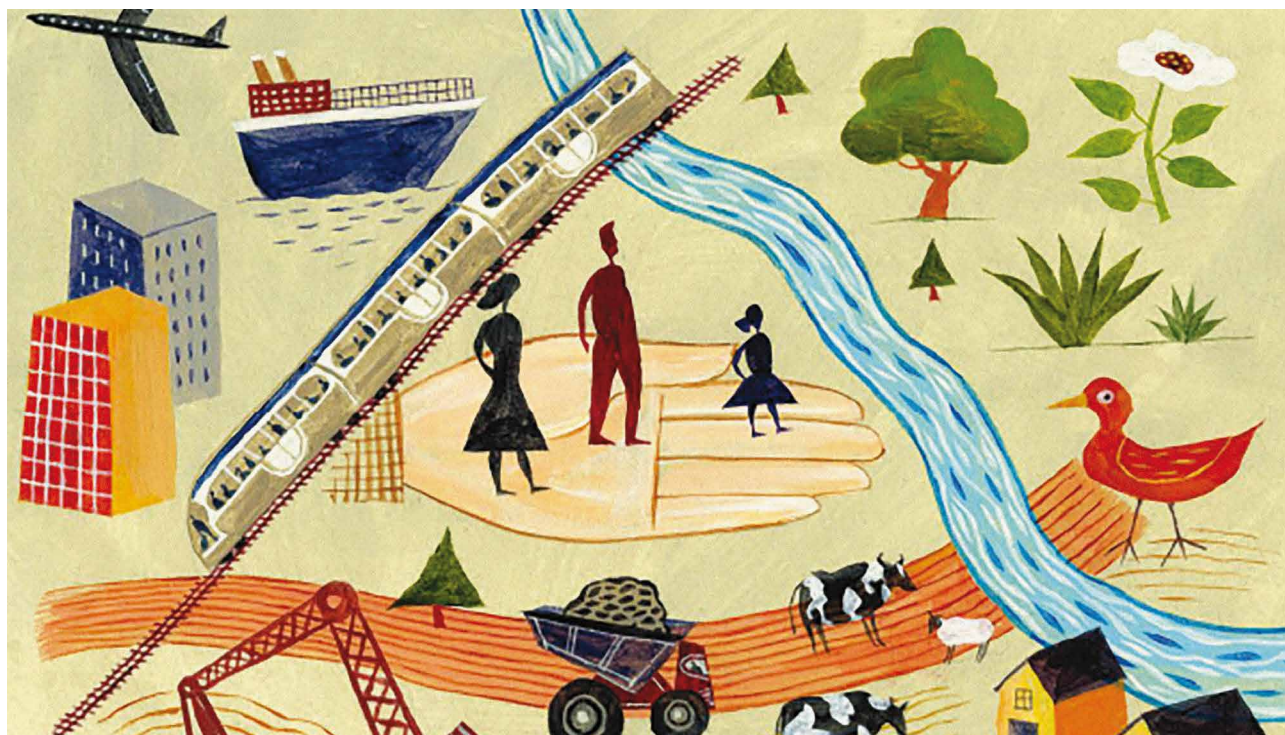
- *Colocation* of several services into one building or space;
- *Collaboration* between service deliverers in terms of information, administration, training, etc.;
- *Cooperation* between professional teams to provide more joined-up services;
- *Co-production* between public, private and community organisations, and particularly, *community-based solutions*.

#### 2. Alternative and more flexible delivery approaches, including:

- *Mobile services* – taking the service to the people;
- *Hub and spoke models* – where the services are provided regularly from a central location, but there are outreach services less regularly or at a lower level in more remote areas;
- *New and improved services adapted to local needs* (quality, marketing, the creation of totally new service approaches).

#### 3. Digital solutions<sup>(\*)</sup>

(\*) The OECD includes digital solutions as one possible alternative delivery approach along with mobile services, but given their horizontal nature and their growing importance for smart villages, they have been separated out here and covered in chapter 4.



(1) Making public services work for rural communities, 20th meeting of the working party on Rural Policy, 5 December 2017. See also OECD, 'Strategies to Improve Rural Service Delivery,' 2010: <http://dx.doi.org/10.1787/9789264083967-en>. OECD, 'Regional Outlook 2016,' 2016: <https://regions20.org/wp-content/uploads/2016/08/OECD-Regional-Outlook-2016.pdf>

### OECD RECOMMENDATIONS FOR RURAL SERVICES<sup>(\*)</sup>

1. The supply of rural services should be designed to match the characteristics and assets of different rural regions.
2. Equity and efficiency targets should be carefully balanced.
3. Innovative rural-urban contracts should guide service delivery.
4. Government should move from a logic of spending to a logic of investment.
5. Effective and inclusive governance is key to rural service delivery.

This means:

- Recognising a more strategic enabling role for the top tier of government;
- Facilitating knowledge pooling and simpler decision making;
- Engaging local communities;
- Mainstreaming rural proofing.

(\*) OECD, 'Innovative Service Delivery: Meeting the challenges of Rural Regions', 2008.

The ENRD Thematic Group on smart villages has revealed the following additional insights.<sup>(2)</sup>

**Creating markets** for public services can help the retention of the service in rural areas. In many countries, legislation has often driven a contracting-out process. It is likely that many tasks such as snow clearance can be more efficiently provided by a farmer than by the municipality. Similarly, local people can often provide better care for the elderly and disabled than agency staff who have to travel long distances.

**Bridging a public service to a third-sector provider** may be desirable. Whether with housing associations delivering affordable homes or libraries housed by newly formed NGOs, an arm's length third-sector provider is now often preferred. For instance, by creating a charitable trust, YouthBorders<sup>(3)</sup> has been able to substantially increase the available funding, and improve the support for young people in the Scottish Borders.

The OECD argues that it is critical, "to take a spatial lens to the organisation and provision of these services", by looking holistically at settlement patterns, trends in migration and mobility, and other linkages between cities, towns, villages and different types of rural area. It suggests that the location and form of certain anchor public services, such as education and health, can be planned proactively to serve as a catalyst rather than a break on rural development, while at the same time ensure the best access for as many people as possible.



© Nigel Tadyanehondo, Unsplash

While there are many interesting individual examples of rural service delivery, in most countries there is still some way to go. In a study of rural services in Europe, Dr Sarah Skerratt<sup>(4)</sup> argues that "where strong national interventions exist, rural services can be addressed in a relatively coherent way." But despite the recommendations above, in most other cases, rural services continue to be: compartmentalised into sectoral budgets; subject to short-term pilots or interventions; subject to political priorities and changes; or incoherently organised.

Following this line of argument, the Lisbon Agri Innovation Summit of 2017 recommended "enhancing targeting and coordination through bottom-up strategic planning and rural proofing of all policies and funding streams. This will enable a better identification of the local needs with respect to the provision of services in rural areas and the targeting of interventions under the different policies."<sup>(5)</sup>

(2) [https://enrd.ec.europa.eu/sites/enrd/files/tq\\_smart-villages\\_briefing\\_business-models.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tq_smart-villages_briefing_business-models.pdf)

(3) [www.youthborders.org.uk](http://www.youthborders.org.uk)

(4) Sarah Skerratt, Senior Researcher, Rural Society Research, 'Rural Services: European Policies and experiences'.

(5) [www.aislisbon2017.com](http://www.aislisbon2017.com)

## PANORAMA OF APPROACHES TO SERVICE DELIVERY

The ENRD carried out an exploratory scoping exercise to identify initiatives on rural services taking place at national and local levels<sup>(6)</sup>. The exercise confirmed that there is a complex web of sectoral strategies for different services in most countries, revealing only the very tip of the iceberg. However, it confirmed that integrated spatial approaches to rural services are the exception rather than the rule.

The scoping exercise identified several EU Member States that are in the process of preparing strategies and pilot projects related to rural services, which share the characteristics of smart villages, even if they do not necessarily use the same

terminology. These examples have been supplemented by information gathered through the work of the ENRD Thematic Group<sup>(7)</sup>. These strategies and projects generally respond to one or more of the following three challenges:

- **Rural depopulation.** Relevant strategies mainly address the ongoing depopulation and loss of young people in certain rural areas, such as the north of Finland, Sweden and Scotland, the inner parts of many southern European countries (Italy, Spain, Portugal, Greece and the centre of France), and emigration from Central, Eastern and Baltic countries. Many strategies combine actions to promote economic development

and jobs with actions to support improvement or innovation in service provision, typically in areas such as education, mobility, employment, healthcare and energy.

- **The rural-urban divide and the spatial concentration of services.** Even where rural areas are stable or growing in terms of population, a combination of public service cuts, centralisation, the increasing use of cars and the decline of public transport can mean that rural communities are 'emptied out' of both public and private services.
- **Promoting a digital transformation of rural areas.** These strategies focus particularly on the creation of broadband infrastructures and

### NATIONAL AND REGIONAL STRATEGIES TO REVITALISE RURAL SERVICES

#### Rural depopulation

- **Inner Area Strategy in Italy:** a national integrated strategy for the socio-economic development of inner areas affecting some 13 million people who are relatively far from service centres. It includes four multi-funded area-based pilot strategies with a strong focus on supporting local service innovation.
- **Services in peripheral and rural areas of Sweden:** the strategy supports actions to promote accessibility to private and public services.
- **The Spanish law for sustainable rural development:** an integrated approach to support rural infrastructure, ICT and a wide range of rural services, as well as economic development. The law was dormant during the financial crisis, but has recently been revived. The Spanish government is also developing a strategy against depopulation.

#### The rural-urban divide and the spatial concentration of services

- **'Reciprocity contracts' in France** take the form of a contract between cities and their surrounding countryside

aimed at improving the sustainability of rural services and environment, as well as economic development.

- **The 'Service Design' strategy in Flanders, Belgium,** aims to improve transport and mobility in the Belgian western Flemish municipalities by involving citizens in decision-making processes.
- **Social resilience in the Brabant Region, the Netherlands,** supports learning networks and community-led initiatives.

#### Promoting a digital transformation of rural areas

- **The 'Smart Countryside' study in Finland** provides a comprehensive analysis of the challenges and opportunities for digitising rural services in Finland. The intention is to develop pilot actions that support innovation in a series of rural services.
- **The 'Digital Villages' initiative in Germany** involves pilot initiatives in three villages to develop digital solutions for rural services.
- **The digital agendas of several countries such as Germany, Spain, Latvia, Sweden** have or are planning to have specific actions directed at rural areas and services.

(6) Over 90 strategies and over 100 projects were identified in 2017 (\*not all are relevant for smart villages): [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_scoping-work-plan\\_draft.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_scoping-work-plan_draft.pdf)

(7) [https://enrd.ec.europa.eu/smart-and-competitive-rural-areas/smart-villages\\_en](https://enrd.ec.europa.eu/smart-and-competitive-rural-areas/smart-villages_en)



improving the uptake of digital opportunities through rural digital hubs, co-working centres and training courses for both citizens and entrepreneurs. Some of the most promising strategies support pilot digital innovations either for specific services or for the village as a whole.

As detailed in chapter 5 of this publication, the Rural Development Programmes (RDPs) play a role within some strategies, especially Measure 19 for LEADER/CLLD and Measure 7 for basic services and village renewal. However, they usually work together with other EU

Funds, such as the European Regional Development Fund (ERDF), and European Social Fund (ESF), as well as national funds.

The ENRD scoping exercise identified interesting strategies to boost the provision of services (some of which are highlighted in the box on page 19).

## LESSONS FROM FOUR INSPIRING EXAMPLES

The ENRD Thematic Group (TG) is exploring approaches to revitalising rural services through digital and social innovation and considering how the RDPs can be best used to support smart villages. The TG's work has uncovered how essential rural services – such as health, social services, education, energy, transport, retail – are being improved and made more sustainable through the deployment of Information and Communication Technology (ICT) tools and through community-led actions and projects. Below are some prime examples of how vibrant, sustainable and attractive rural areas are being created.

### 1. The Inner Areas Strategy in Italy

In the 2014–2020 programming period, Italy has put in place a new integrated policy called the National Strategy for Inner Areas (NSIA).<sup>(8)</sup> Italy's inner areas are rural areas characterised by their distance from the main service centres. These areas are home to 23% of the country's population (13.5 million inhabitants) and cover 60% of the national territory (4261 municipalities).

The NSIA focuses on the most peripheral and ultra-peripheral inner areas where demographic decline and ageing population are most pronounced. The aim is to foster job

creation, social inclusion and to reverse demographic decline. The strategy is based on four main innovations:

- simultaneous investment in improving services (mainly through national policy) and economic development (involving EU Funds);
- a national dimension and multi-level governance (national, regional, municipal and inter-municipal);
- a multi-fund approach (EAFRD, ERDF, ESF combined with national funds); and
- a participatory approach to local development.

By the end of April 2017, a total of 71 pilot areas had been selected, covering 1 066 municipalities. Selected areas are, on average, quite small, having about 29 000 inhabitants. The average budget available is €17.4 million per area, which is higher than the average Local Action Group (LAG) budget in Italy. Inner Areas and LAGs frequently overlap.

### FOUR INSPIRING SMART VILLAGE EXAMPLES

1. The 'Inner Areas Strategy' in Italy – to respond to rural depopulation.
2. The 'Reciprocity Contracts' in France – to build rural-urban linkages.
3. The 'Smart Countryside' initiative in Finland – to address depopulation and the digital transition.
4. The 'Digital Villages' initiative in Germany – to harness the digital transition.

### Key lessons:

- The RDPs can contribute to the Inner Areas Strategy, using LEADER or other Measures, or a mix of both.
- Pre-existing capacity building in LAGs is key in designing good-quality strategy.
- Synergies can be positive when LAGs participate directly in the design and implementation of the strategy.
- Broader and more innovative impacts can be achieved by integrating the strategy and LEADER Local Development Strategies (LDS), with inner area partnerships focusing on access to services and LAGs on local development.
- Different rules for different EU and national funds can complicate integration of LEADER and inner area strategies.

(8) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_it.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_it.pdf)

## EXAMPLES OF SUPPORT TO INNOVATION IN RURAL SERVICES

Investments in local service innovation are funded from national funds. Actions being supported include:

- A community car-pooling initiative in Val Maira (Piedmont), which uses a web platform and is managed by a local community cooperative;
- Remote classrooms in secondary schools in Beigua Sol (Liguria) and Piacenza-Parma Apennine (Emilia Romagna);
- Equipping local pharmacies in Matese (Molise) with smart technologies to allow remote diagnostics by hospital personnel;
- Smart devices to allow inhabitants to monitor landslides and strengthen civil protection in Madonie (Sicily).

## 2. The Reciprocity Contracts in France

In 2015, France launched an experimental scheme to promote inter-municipal cooperation, called 'city-countryside reciprocity contracts'<sup>(9)</sup> (*contrat de réciprocité ville-campagne*). The aim is to close the gap between urban and rural areas by promoting win-win partnerships in areas of common interest.

Four territorial partnerships were selected in the first phase of the scheme, with the Brest metropolitan area and the Pays du Centre Ouest Bretagne being the first to officially sign a contract together. Brest is seeking to boost medium and long-term competitiveness, while the Pays Centre Ouest Bretagne is focused on the provision of healthcare services and finding new markets for its fast-growing wood sector.

The two areas are now working together to support innovative projects around four main strands: economic development; social inclusion; health, culture and services; and environment and the energy transition. Under each strand, local government officials and residents contributed to the development of a joint roadmap, which was formally adopted in

November 2016. It subsequently made a €2 million provision in the multi-annual framework contract agreed by the state and the regional authority of Brittany until 2020.

One year after the signing of the contract, the cooperation was already showing tangible results, with around 30 projects reported to be underway. Examples include an audio-visual cluster, healthcare and bioenergy initiatives<sup>(10)</sup>.

### Key lessons:

- The right governance structure was needed to ensure success. The Brest urban planning agency took on this responsibility.
- Agreed funding mechanisms were also key and included financial contributions from the region, the state, and the EU.
- The initial pairing was also an essential success factor and this needs to go beyond political alliances to include the active engagement of local communities in designing a shared vision and a long-term development strategy.

## 3. The Smart Countryside Initiative in Finland

Digitisation is high on the Finnish government's agenda. In 2016, it carried out a 'Smart Countryside'

study,<sup>(11)</sup> to investigate the challenges facing rural areas and the opportunities offered by digitisation. The goal was to explore possibilities for developing and diversifying rural services through digitisation and experimentation.

The study found that rural residents and businesses are willing and ready to use digital services. Digitisation can bring services nearer to the customer, reduce costs and have a major impact on the countryside where structural change is rapid and distances to physical services are increasing.

However, not all citizens or companies have the willingness or skills to benefit from the opportunities presented by digitisation. It is important, therefore, to familiarise people with digital tools and invest in building their capacity and willingness to use digital services.

The study provided a range of recommendations for improving digital innovation in rural services, which are now being used to inform both existing and new programmes, for example, tailoring support under RDP Measures 7 (basic services) and 19 (LEADER/CLLD), the national strategy for broadband, and the governmental decision on Rural Digitisation of 2017.

For example, the Pohjoisin Lappi LAG in Lapland, Finland, conducted a preliminary study to examine the provision of digitised medical services in remote areas through a health service kiosk with diagnostic equipment (e.g. laboratory tests and blood pressure monitoring) that patients could use independently. The kiosk also had a video connection to a nurse or a doctor. The results were positive, yet, it became clear that a more diverse and complex service was needed to support the use of digital services.

(9) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_fr.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_fr.pdf)

(10) See pages 3 and 4: [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_fr.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_fr.pdf)

(11) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_fi.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_fi.pdf)



'Abilities to make a digital leap' (Valmiudet digiloikkaan) is a one-year project funded by the Jokivarsikumppanit LAG. The goal is to build the capacity of local businesses, NGOs and residents to utilise digital services. The project combines training, information and demonstration events. Topics covered include video conferencing for businesses, marketing on social media, search engine optimisation, information security, the use of digital services by the elderly, as well as virtual reality as a means of enhancing remote working.

#### Key lessons:

- To reduce the risk of digital exclusion (by area, age, education, income, etc.), support for functioning data connections (broadband) and training for people with a low level of digital skills are needed.
- When developing digital services for rural areas, the solutions must be based on local knowledge and local needs. Here, the public sector plays a crucial role in creating platforms and providing access to information and good practices.
- It is important to measure the economic benefits of digitisation, to encourage more businesses to digitise their services and to ensure people reap the benefits.
- Innovative solutions to local challenges (mobility, healthcare, etc.) should be discovered through local experimentation.

#### 4. The Digital Villages initiative in Germany

The Digital Villages project in the Rhineland-Palatinate state, Germany<sup>(12)</sup> is testing a holistic approach to the digitisation of rural services in three pilot areas: the associations of communities of Eisenberg, Göllheim and Betzdorf-Gebhardshain.



The project was initiated by the Ministry of Internal Affairs and Sports Rhineland-Palatinate and the Fraunhofer Institute for Experimental Software Engineering (IESE) in 2015 and runs until 2019, with a total budget of around € 4.5 million. The creation of a common digital platform aims to develop and test new solutions for the supply of local goods, communication, mobility and e-government.

The project has five main objectives:

- Innovation within a smart rural ecosystem;
- Development of cross-sectoral solutions;
- Create a culture of collaboration between local stakeholders;
- Build solutions that are sustainable;
- Develop digital solutions that are affordable.

Implementation of the Digital Villages project is based on a 'living lab' approach. During the first phase, concepts and concrete solutions are discussed with local residents and other stakeholders. Following this, prototypes are developed, which are further elaborated with stakeholders until specific solutions have been digitised, mostly in the form of mobile apps or digital web services. Examples of services developed so far include

an online marketplace with a system of voluntary deliveries and a local news portal.

#### Key lessons:

- To successfully implement a digitisation project, it is first necessary to build an innovation infrastructure, which requires interdisciplinary teams, as well as local people from the rural area concerned.
- Creativity and good ideas are essential. Researching existing initiatives and projects can be a good source of inspiration.
- Working with early prototypes which specifically respond to residents' needs leads to positive outcomes.
- Involving local influencers, as well as providing flexible participation models for residents, is essential.

(12) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_de.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_de.pdf)



### 3. Harnessing social innovation

© Pixabay, Pexels

The previous article examined how regional and national governments can support smart village initiatives that deliver or enhance the provision of services through the framework of top-down policies and programmes and with local implementation.

This article looks at how communities can take the initiative themselves, responding directly to local needs and opportunities. Such bottom-up or community-led initiatives are widespread and diverse. However, the full innovative potential of community-led action can only be realised when local energy is supported by a policy framework that nurtures the creativity inherent to bottom-up approaches.

---

COMMUNITY RESILIENCE

---

REVITALISING RURAL SERVICES THROUGH SOCIAL INNOVATION

---

CLIMATE ACTION AS A DRIVER FOR INNOVATION

---

BARRIERS TO COMMUNITY-LED INNOVATION

---

AN ENABLING FRAMEWORK

---

## COMMUNITY RESILIENCE

In the past, cities were often characterised as the “locomotives of economic development, and rural areas as carriages being pulled along in the wake of the great modern metropolis”.<sup>(1)</sup>

However, rural areas have proven to have their own dynamic and be sources of important innovation. As the Cork 2.0 Declaration says “the rural potential to deliver innovative, inclusive and sustainable solutions for current and future societal challenges such as economic prosperity, food security, climate change, resource management, social inclusion and the integration of migrants should be better recognised”.

Research projects such as SIMRA<sup>(2)</sup> (Social Innovation in Marginalised Rural Areas) and networks such as ECOLISE<sup>(3)</sup> are uncovering the fact that many thousands of villages and rural areas are doing just this. They re-confirm that smart villages exist and are simply places where local people pool their intelligence and resources to conceive of and develop innovative responses to pressing local and global challenges. In doing so, they are engaging in different forms of social innovation.

In rural communities in all parts of Europe, there is evidence of how local energy and ingenuity, combined with available technology, are being successfully applied to address critical needs in areas such as transport, social care or education, but also concerns and threats in areas such as the environment and climate change, which have both a local and a global dimension.

Many such community-led responses have proven to be incredibly effective in addressing deep-seated issues that are otherwise difficult to tackle and in reversing trends in population decline, unemployment, environmental degradation and quality of life. This is especially true in situations where community action is aligned with and supported by public policy and initiatives that recognise and nurture a bottom-up approach.

A concern, however, is that policy is falling behind and not keeping pace with developments on the ground. Barriers and constraints are increasingly evident, often due to a disconnection between local, grassroots responses and policies and programmes developed at other levels.

“Social innovations are innovations that are social both in their ends and their means. In other words, they are innovations that are both good for society and enhance societies capacity to act.”<sup>(4)</sup>

In the absence of a supportive policy environment, there is a real danger that the opportunity for wider community engagement and social innovation will be lost, making it increasingly difficult to achieve positive change at the local level. The challenge, therefore, is to create a more favourable enabling environment for smart villages: providing capacity building and tools for community planning; removing legislative and administrative barriers; and integrating the use of Rural Development Programmes (RDPs) with other EU and national funds, while promoting opportunities to leverage private financing.

### SCOPE

Whereas previous editions of the EU Rural Review have covered initiatives to boost rural economies and businesses – see ‘Smart Supply Chains’ (No 22) and ‘Re-imagining Rural Business Opportunities’ (No 24), this edition focuses on the provision of rural services.

(1) Mark Schucksmith, ‘New Labour’s countryside: rural policy in Britain since 1997’, 2008: <http://press.uchicago.edu/ucp/books/book/distributed/N/bo13438809.html>

(2) SIMRA is a project funded by the European Union’s Horizon 2020 research and innovation programme: [www.simra-h2020.eu](http://www.simra-h2020.eu)

(3) ECOLISE, the European network for community-led initiatives on climate change and sustainability, is a coalition of national and international networks: [www.ecolise.eu](http://www.ecolise.eu)

(4) European Commission, ‘Social Innovation: A Decade of Changes’, 2010: [http://espas.eu/orbis/sites/default/files/generated/document/en/social\\_innovation\\_decade\\_of\\_changes.pdf](http://espas.eu/orbis/sites/default/files/generated/document/en/social_innovation_decade_of_changes.pdf)



## REVITALISING RURAL SERVICES THROUGH SOCIAL INNOVATION

Service provision is the fastest growing sector worldwide, but an anomaly exists in many rural areas where service provision has experienced a decline in recent decades. Small businesses have closed, larger businesses have closed village branches (e.g. banks, post offices), public sector cutbacks are leading to service decline or centralisation, and the privatisation of some services (housing, libraries, social care) threatens delivery in remote areas.

In this context, communities themselves often have to step in to try to fill the gaps, intervening in areas as diverse as housing, transport and mobility, social care, banking, training, energy, recycling, and economic development. The trigger for this kind of community response can vary, from the closure of a vital service (school, post office, shop, bus service), to a marked decline in the quality of a service, such as social care, or sometimes even the recognition of a threat or an unrealised opportunity.

In the village of Braemar, Scotland, for example, the local community found that elderly and disabled residents were having to wait for long periods for provision of social care services as carers had to travel from distant locations. In addition, the carers were often changed or substituted with agency staff who never really got to know their clients. The community, therefore, negotiated an arrangement whereby they would manage the care budget themselves, employing local people to look after residents they already knew.

The loss or decline of an important service or the identification of an opportunity is not necessarily sufficient to catalyse social innovation. Certain enabling conditions are needed for communities to act. Principal among these are leadership and social capital<sup>(5)</sup>, and the existence of sufficient bonds and trust between local people to support collective action.

In some areas, a high level of social capital already exists, developed over many years. In other areas, measures and processes to support leadership



© kinderbetreuung

### LEARNING-GROWING-LIVING WITH WOMEN FARMERS

Social farming (or care farming) refers to the short or long-term use of agricultural resources, such as animals and plants, to promote and generate social services in rural settings. Such services include rehabilitation, therapy, sheltered employment, life-long education and other activities that contribute to social inclusion.

An interesting social farming initiative in Italy is the social cooperative 'Learning-growing-living with women farmers' (*Mit Bäuerinnen lernen-wachsen-leben*) located in the province of Bolzano-Bozen. Set up in 2007, the cooperative has over 100 daycare mothers who offer flexible childcare on their farms with the direct integration of agricultural resources and the environment as teaching elements.

Some of the cooperative members also offer educational farm activities for school children. The cooperative is continuously expanding its activities across the territory and is also planning to expand the social farming activities to people with disabilities, holidays on farms with specific care service, horticulture and animal therapy.

In 2014, it also began offering care for the elderly, in response to the ageing of the local population. Today, 32 farms offer these services on request. The cooperative has received European Social Fund (ESF) support.

[www.kinderbetreuung.it](http://www.kinderbetreuung.it)

(5) Whereas physical capital refers to physical objects and human capital refers to the properties of individuals, social capital refers to connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them. Robert Putnam, 'Social capital and civic community', 2000: [http://infed.org/mobi/robert-putnam-social-capital-and-civic-community/#\\_Social\\_capital](http://infed.org/mobi/robert-putnam-social-capital-and-civic-community/#_Social_capital)

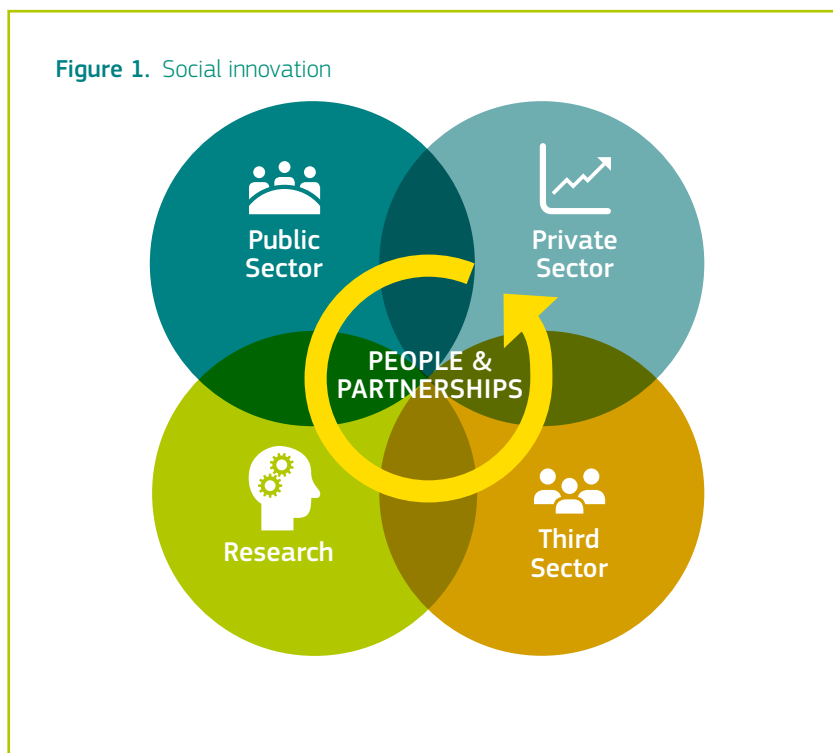
and build trust and capacity may be needed before more ambitious projects are undertaken.

Institutional support is also important for the establishment, success and long-term sustainability of community initiatives. In recent decades, for example, public sector contracting has played an important role in stimulating social innovation and the creation and development of social enterprise<sup>(6)</sup>. However, a broader framework of public support is also needed.

While there is no single model for social innovation in rural service provision, evidence suggests that it requires a critical appraisal of local assets<sup>(7)</sup> and the right combination of public, private, research or civil society initiatives. Opportunities for social innovation occur at the creative intersection between the service provision models.<sup>(8)</sup>

Case studies analysed by the ENRD Thematic Group point to several possible social innovation scenarios:

- In rural areas with strong social capital (and flexible regulations), there is evidence of direct community investment in strategic



local assets (energy, broadband, transport, care). Such investment draws on community sources of finance and labour, with the re-investing of surplus funds generated by these assets into other economic and social activities (for example, the English and Scottish Community Development Trusts<sup>(9)</sup>

or German and Danish renewable energy cooperatives).

- In some rural areas, the initiative comes from innovative municipalities (for example, the multiservice centres of Flanders<sup>(10)</sup> and Finland).
- In other cases, the initiative is research-led (for example, the case of Digital Villages in Germany<sup>(11)</sup>).

However, in all cases, **people are at the centre** and smart villages typically seek to draw in the best of different models of service provision through partnerships and networking.



© Clough Jordan Ecovillage

(6) See EU Rural Review No 22, Chapter 4 on 'Accessing the market for public food' for procurement examples: [https://enrd.ec.europa.eu/publications/eu-rural-review-22-smart-and-competitive-food-and-drink-supply-chains\\_en](https://enrd.ec.europa.eu/publications/eu-rural-review-22-smart-and-competitive-food-and-drink-supply-chains_en)

(7) ENRD Briefing on 'Co-designing and co-planning village services', 2018: [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_briefing\\_services.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_briefing_services.pdf)

(8) ENRD Briefing on 'Business models for rural services', 2018: [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_briefing\\_business-models.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_briefing_business-models.pdf)

(9) Braemar Community Trust in Scotland: [www.dtascot.org.uk](http://www.dtascot.org.uk)

(10) [https://enrd.ec.europa.eu/sites/enrd/files/tq2\\_smart-villages\\_service-hubs\\_hoet.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tq2_smart-villages_service-hubs_hoet.pdf)

(11) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_de.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_de.pdf)



© Alston Moor Partnership

### THE UK'S FIRST SOCIAL ENTERPRISE TOWN

The village of Alston Moor in Cumbria has taken social innovation to new levels, becoming the UK's first certified 'Social Enterprise Town'. With a population of 2 100, this former mining village lost its lead mines in the 1950s. Thirty years later, the area's largest employer – a steel foundry employing more than 200 people – also closed, leading to a period of prolonged decline, not helped by the village's remote location.

However, a turning point came in 2002 when the village was bypassed by internet service providers and the community rallied and set up its own locally owned broadband service, Cybermoor. When the local shop closed,

the community mobilised again and over time a new local dynamism developed.

There are now 24 registered social enterprises in the area ranging from a bakery and gymnasium to a community snowplough and heritage railway station, all run largely by volunteers. Each one trades as a separate business, but they must all benefit and re-invest profits back into the local economy. With more than 50 jobs supported, hundreds of volunteers involved, and a £2.2 million annual turnover, the judges of the UK Social Enterprise Awards described Alston Moor as "a model to be copied in other small areas".

[www.alstonmoorpartnership.co.uk](http://www.alstonmoorpartnership.co.uk)

## CLIMATE ACTION AS A DRIVER FOR INNOVATION

Concerns about climate change and environmental degradation have also become an important driver of community-led social innovation. The Paris Agreement<sup>(12)</sup> provides a framework for the international response to this global threat. While governments are still discussing the modalities of implementation, many communities are already taking the initiative themselves, deciding to be part of the solution rather than the problem.

Across Europe and globally, tens of thousands of communities are taking

action in a wide range of areas: from community energy, car-sharing and cycling schemes to community gardens, waste management and recycling.

The scale of projects undertaken varies considerably, depending on the local context and the experience of the community. In the community energy sector, for example, this can range from small-scale neighbourhood projects, such as the Energy Lucioles,<sup>(13)</sup> a project in Brittany, France, to install 150 m<sup>2</sup> of solar panels on a public

building, to much larger projects, such as the transformation of the Danish island of Samsø (population 4 000) into a carbon-neutral net exporter of renewable energy.

These community-led initiatives are not only having important environmental impacts, but are also helping to revive local economies and build social capital and resilience. The EU-funded TESS project,<sup>(14)</sup> which assessed a sample of 63 community-based climate initiatives across Europe, highlighted their

(12) [http://unfccc.int/paris\\_agreement/items/9485.php](http://unfccc.int/paris_agreement/items/9485.php)

(13) [www.luciolesriatransition.fr/lucioles\\_energies/presentation](http://www.luciolesriatransition.fr/lucioles_energies/presentation)

(14) TESS is a project funded by the European Union's Seventh Framework Programme: [www.tess-transition.eu](http://www.tess-transition.eu)



© Rezo Pouce



**SUSTAINABLE MOBILITY**

Rezo Pouce is a smart *autostop* (hitch-hiking) service, first developed in the Tarn et Garonne and Haute Garonne regions of France in 2010. The service is a response to transport needs in rural and peri-urban areas and is similar to car-sharing, but focuses mainly on short journeys organised at short notice.

The service is established as a social enterprise which brings together different groups that have an interest in mobility: local authorities; transport operators; associations; foundations; users; employees. More than 1 500 French municipalities have enrolled.

[www.rezopouce.fr](http://www.rezopouce.fr)

through working together to bring about change."

While it is difficult to quantify the number of existing initiatives, recent estimates by ECOLISE suggest there are around 1 200 Transition Town initiatives,<sup>(15)</sup> 15 000 ecovillages and over three million permaculture practitioners driving community-led sustainability projects across the globe. Specifically in Europe, there are also an estimated 2 500 community energy initiatives, 1 500 Slow Food communities (focused on preserving traditional and regional cuisine and encouraging the farming of plants, seeds, and livestock characteristic of local ecosystems) and about 7 000 community-supported agriculture schemes feeding over a million citizens.

"large potential for climate change mitigation". It also found that "at least as significant as the direct carbon savings that many of these initiatives are achieving are the wider environmental impacts, the awareness-raising, the social cohesion, the creation of local livelihoods and retention of wealth in local economies and the feelings of empowerment that can come



© Cloughjordan Ecovillage

**CLOUGHJORDAN ECO-VILLAGE: A MODEL FOR SUSTAINABLE LIVING**

The Cloughjordan ecovillage in Ireland was established in 1999 by a group of people who came together to create an ecologically, economically and socially sustainable community on a 27-hectare farm. The community now has 50 families who live in low-energy homes that rely on renewable energy, allotments for individual growing and research, a farm, an enterprise centre, a performance space, a hostel and numerous educational offerings.

The EU-funded Milesecure research project<sup>(16)</sup> identified Cloughjordan ecovillage as one of Europe's leading 'anticipatory experiences' of the transition towards a low-carbon society. Ecovillages generally have some of the lowest carbon footprints of any settlements in developed countries, with Cloughjordan having a footprint of less than half the Irish national average.

[www.thevillage.ie](http://www.thevillage.ie)

(15) Transition Town is a movement that has been growing since 2005. It is about communities stepping up to address the big challenges they face by starting local actions. By coming together, they are able to crowd-source solutions. The approach has now spread to over 50 countries, in thousands of groups: <https://transitionnetwork.org>

(16) [www.milesecure2050.eu](http://www.milesecure2050.eu)

## BARRIERS TO COMMUNITY-LED INNOVATION

Despite the positive momentum, community initiatives face a number of barriers and constraints that can limit their potential for growth and replication. A major constraint for many initiatives is the heavy or often exclusive reliance on volunteers. With family, work and other commitments, many people find it difficult or impossible to take on additional roles in the community, and for those who do, this generally implies additional demands and pressure on a smaller group.

Regulatory barriers, difficulties in accessing or controlling local assets, lack of access to public funding, and difficulties in negotiating complex regulatory and administrative processes present further impediments to the development of community initiatives.

Market distortions also exist, subsidies to the fossil fuel industry, for example. The net effect can serve to augment the competitive advantage of larger, industrial-scale processes, ones which do not necessarily factor in social and environmental costs. These issues are clearly complex and finding solutions requires dialogue between policy-makers and community initiatives to identify and remove barriers and provide the support and assistance needed to unlock the real potential of community-led action.

Some countries and regions are making good progress in this regard, providing important insights as to how different elements of an enabling framework can be constructed. In Denmark, for example, where 70–80% of existing wind turbines are community-owned and the rate of renewable energy generation by communities is one of the highest globally, we can clearly see the

### BIOENERGY VILLAGES

In the rural area of Göttingen, Germany, the Göttinger Land LAG is strongly focused on renewable energy and climate action. Its Bioenergy Villages project seeks to promote local renewable energy production in the 120 villages in the area.

Local interest is evident. The initial call for proposals in 2006 saw 34 villages applying to the project, nine of which progressed to the feasibility study stage. Five Bioenergy Villages are now operational.

#### Project implementation has distinct phases:

1. Initiation: information sharing about the project, start of the selection procedure, and citizen participation;
2. Planning: including a survey of heat consumption data, investment requirements and running costs, a feasibility study and financial modelling;
3. Building: construction of biogas plant, wood chip furnace and village heat grid.

The project connects local farmers to village cooperatives which manage energy production and distribution. Initial funding comes from three main sources: the local community; LEADER, and the federal government.

Under the Renewable Energy Sources Act (EEG), the owners of renewable energy generators received a set rate per kilowatt/hour supplied over a period of 20 years. For farmers and the local community, this implied income diversity and long-term price stability, independent of fossil fuel prices.

The project attracted high levels of local citizen participation and provides important social, economic and environmental benefits. However, changes to the EEG mean that it no longer provides the same economic incentive for new biogas projects.

impact of supportive legislation on the community energy sector.

The Scottish government has also been supporting community-led climate action since 2008 (see page 30), while in the Göttingen district in Germany, the Bioenergy Villages project supported by the local LAG has provided an important stimulus (see above).

Policy-makers at all levels are beginning to recognise the value of community-led projects. A recent policy paper from the European Economic and Social Committee (EESC) on 'Boosting climate actions by non-state actors'<sup>(17)</sup> reflects the attention given at EU and international

levels to the role of non-state actors in helping to meet future climate goals. As the Paris Agreement moves into the implementation phase, the potential role of communities is attracting increasing attention. If this translates into appropriate policies and initiatives, it could provide a real opportunity to ensure that communities are at the centre of the transition to a more sustainable future.

(17) [www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/boosting-climate-actions-non-state-actors](http://www.eesc.europa.eu/en/our-work/opinions-information-reports/opinions/boosting-climate-actions-non-state-actors)

© Keep Scotland Beautiful



**GOVERNMENT SUPPORT FOR LOCAL CLIMATE ACTION**

The Scottish government’s Climate Challenge Fund (CCF) provides grants and support for community-led projects that reduce local carbon emissions. Since its inception in 2008, the CCF has provided grants totalling £66.2 million to almost 1 000 projects in 549 communities across Scotland.

The projects incorporate a diverse range of activities: from community energy to energy efficiency improvements, to low-carbon travel options and community schemes to tackle waste. The current programme runs from 2018 to 2020 and provides grants of up to £ 150 000 per organisation, per year.

Analysis of data from 132 projects supported in the 2012-2015 period shows a total estimated lifetime emissions reduction of 179 796 tonnes of CO<sub>2</sub>, with an actual reduction during the projects of 54 209 tonnes of CO<sub>2</sub>.

CCF-funded projects were shown to have many additional positive environmental, social and economic outcomes, including engaging with a total of 78 835 people, creating 188 full-time jobs, recycling 6 000 tonnes of waste and converting 45 000 m<sup>2</sup> of unused land into growing spaces. Participating communities are connected via the Scottish Communities Climate Action Network (SCCAN), a network of committed community organisations across Scotland engaged in activities to reduce carbon emissions.

[www.keepsotlandbeautiful.org/sustainability-climate-change/climate-challenge-fund/](http://www.keepsotlandbeautiful.org/sustainability-climate-change/climate-challenge-fund/)

**AN ENABLING FRAMEWORK**

Constructing an appropriate enabling framework that involves all stakeholders is essential in optimising the contribution of social innovation. Community initiatives must be part of the process, contributing either directly at the local level or through representative networks or associations. At the European level, meta-networks such as ECOLISE can provide an appropriate platform for engagement. Sector networks such as RESCoop (energy communities) and Slow Food also have an important role to play.

An enabling framework should be constructed at different levels. At the European level, for example, relevant policy and legislation (energy, waste, climate, etc.) could be proofed to consider the potential implications for and role of local communities. Implementation frameworks must also be assessed and aligned to ensure that barriers are removed and that communities have access to the information and resources they need to participate in implementation processes.

In particular, more needs to be done to create awareness about the potential of various Rural Development Programme (RDP) Measures and in particular of Community-led Local Development (CLLD) to support social and digital innovation in rural services. Chapter 5 of this review shows that, if well managed, CLLD can provide flexible and tailor-made support to local innovators at every stage: from the initial idea through to successful scale-up. CLLD is also dependent on building the capacity of the various authorities concerned with the management of the European



Structural and Investment Funds (ESIF) so that they design and implement programmes in ways that create the enabling conditions for local innovation.

At the local or regional level, there is a need to ensure that the necessary supports are in place to assist communities in finding innovative responses to identified challenges and opportunities. Of critical importance here is targeted support to help communities:

- Build capacity and social capital, by providing training, advice, facilitation and assistance with group formation and establishment;
- Navigate administrative processes and procedures, including developing funding proposals;
- Use diagnostic tools to help prioritise projects and activities;
- Identify appropriate organisational models (cooperatives, social enterprises, associations, etc.);
- Strengthen links between services and activities by creating village hubs and multiservice centres;
- Access funding and resources through the RDPs and other EU and national funding sources;
- Network with other communities involved in similar local initiatives.



## EUROPEAN-LEVEL NETWORKING AND COLLABORATION

ECOLISE, the European network for community-led initiatives on climate change and sustainability, is a coalition of national and international networks, as well as other organisations that support a community-led transition to a resilient Europe.

Founded in 2014, it currently has 38 member organisations, whose activities extend to all EU Member States, as well as internationally. ECOLISE connects practitioners with researchers and policy-makers, in seeking to raise the profile of community-led climate action in Europe. It also engages with policy-makers on developing a more supportive policy framework.

[www.ecolise.eu](http://www.ecolise.eu)

For example, the **European Day of Sustainable Communities** (EDSC) is an ECOLISE initiative, supported by the European Economic and Social Committee (EESC), aimed at showcasing and celebrating the pioneering work of communities across Europe.

Taking place on the third weekend of September (with the next edition on 22 September 2018), communities and other organisations are invited to take part by hosting events or activities on the theme of sustainable living.

[www.ecolise.eu/european-day-of-sustainable-communities](http://www.ecolise.eu/european-day-of-sustainable-communities)



## 4. Using digital innovation to revitalise rural services

© Pexels

Digitisation can bring services closer to the customer, reduce cost and have a major impact on quality of life in the countryside where structural change is rapid and distances to physical services, including health and social care, are increasing.

Existing broadband infrastructures, the availability of digital services and digital literacy are three potential gaps that need to be bridged on the road to creating smart villages. This article considers the challenges of the digital divide and examines the steps needed to realise digital transformation, while noting some inspiring examples of digitised rural services along the way.

---

THE DIGITAL TRANSFORMATION OF RURAL AREAS

---

SMART VILLAGES AND THEIR DIGITAL ECOSYSTEM

---

WHAT SMART VILLAGES NEED TO KNOW

---

## THE DIGITAL TRANSFORMATION OF RURAL AREAS

There are three main pillars of the rural digital divide: broadband infrastructure, the uptake of digital services and the digital literacy of the residents. However, the policy discussion is often dominated by just one of these pillars. The strong focus on Next Generation Access (NGA) networks is understandable. Some 80% of EU households were covered by NGA in 2017, i.e. fast or ultra-fast broadband networks, however this figure falls to just 47% in rural, remote and mountainous areas. As shown in the figure 4 on page 12, in many countries, the digital divide between urban and rural areas is very large.

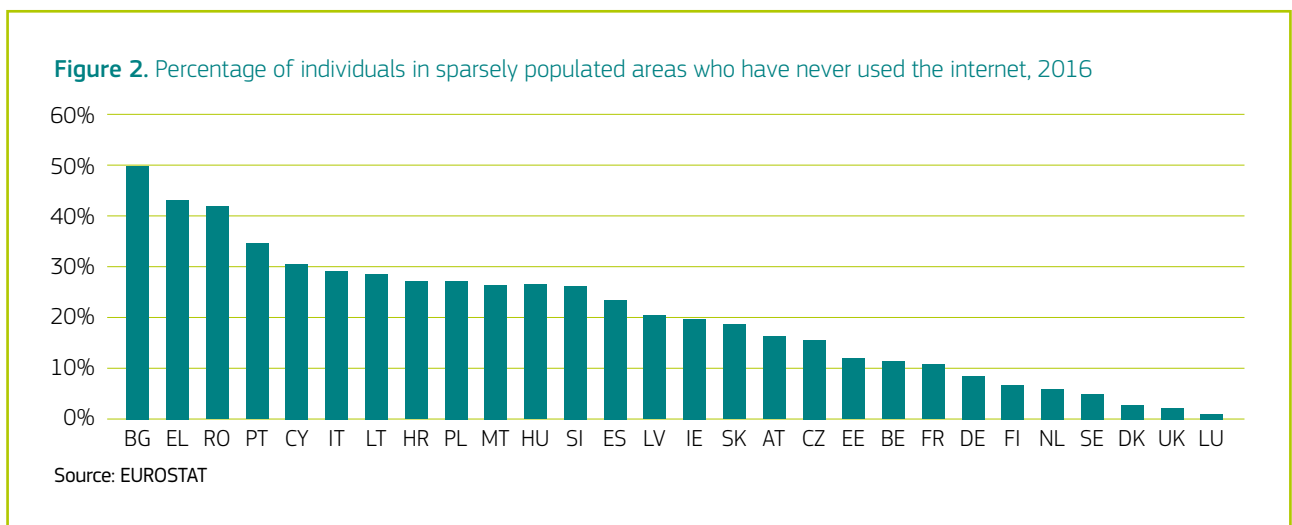
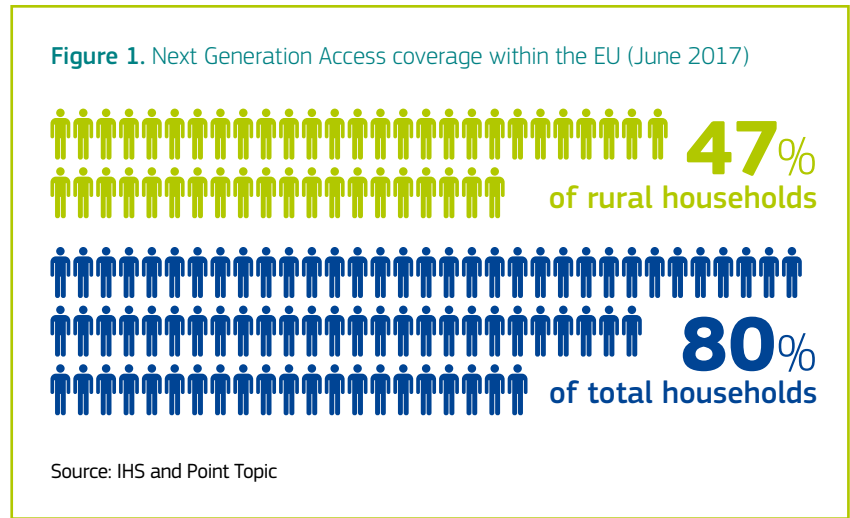
However, a key message from the ENRD Thematic Group on 'Smart Villages' is that broadband infrastructure issues should not impede or slow down progress in developing the two other pillars of digital innovation, namely, digital services and digital literacy<sup>(1)</sup>. Building rural areas that are fit for the future requires action on all three pillars at once. Villages should not wait

to have great connectivity before deciding what to do with the enhanced connectivity. They need to act now.

The availability of digital services is crucial in leveraging the potential of a good broadband infrastructure. In urban areas, such services can run autonomously due to the plentiful availability of citizens and service providers. The scale that can rapidly enable, for example crowd-sourced

mobility services or a health and social care support network, is not always apparent in rural settings. As a result, different solutions may be needed in rural areas, ones that often require innovative thinking and an appropriate, context-specific organisational structure to be put in place.

Figure 2 starkly illustrates a crucial factor that hinders the development of the first two pillars – the digital literacy



(1) [https://enrd.ec.europa.eu/sites/enrd/files/tg3\\_smart-villages-designing-ict-services\\_hess.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg3_smart-villages-designing-ict-services_hess.pdf)





of residents in rural areas. Digital education is not simply achieved by having access to broadband connection and digital services. It requires a level of knowledge of and competence in operating digital tools and it is reliant on having at least a basic knowledge of a range of topics, such as security, privacy or app usage.

Where they are well-designed and operational, smart villages are not only looking to bridge the digital divide. They are a lot more ambitious than that. If they successfully address all three pillars, smart villages can support a genuine *digital transformation*.

There are many parallels between the digital transformation taking place in industry and in rural areas. Digital technology is rapidly changing the use of media and data in certain services and products. Technology-driven digital processes are changing markets and industry before our eyes. Digital business models are emerging that have the potential to completely rethink existing ones (e.g. music streaming versus buying a CD). Those ready to embrace the opportunity presented by digitisation

stand to benefit – regardless of where they live.

The Digital Neighbourhoods project<sup>(2)</sup> in rural Cornwall, the UK is investigating just how transformative digitisation can be for rural areas when all three pillars are tackled together. It will measure the effect of superfast broadband on social inclusion and in realising emerging digital business models.

It should be noted that the scope of this edition of the EU Rural Review is primarily on the provision of rural services. Obviously, digitisation has broader applications. Previous ENRD thematic work and editions of the EU Rural Review have covered initiatives to boost rural economies and businesses – namely the issues on 'Smart Supply Chains' (No 22) and 'Re-imagining Rural Business Opportunities' (No 24).



### A RURAL DIGITAL FUTURE

The Digital Neighbourhoods research project at Plymouth University is investigating the effect of superfast broadband access on rural neighbourhoods. Research is being undertaken in villages in Cornwall, the UK, that were part of Superfast Cornwall Labs (an initiative partly funded by the EU) that involves building a brand new fibre-based superfast broadband network.

The research project will deliver both a theoretical framework and in-depth empirical results on how interaction in rural social networks, enabled by technological infrastructures such as high-speed broadband, can affect social cohesion and overcome digital divides in rural areas.

The research results will be shared with four key audiences: the local community; academics; the general public; and agencies or policy organisations concerned with future planning of communities.

(2) [www.plymouth.ac.uk/research/digital-neighbourhoods](http://www.plymouth.ac.uk/research/digital-neighbourhoods)

## SMART VILLAGES AND THEIR DIGITAL ECOSYSTEM

Smart villages have to achieve a digital transformation that brings out the full and distinctive potential of their specific area. To do so, they need to consider the full digital ecosystem in which they want to become involved. The ecosystem may comprise a variety of cloud-hosted solutions that connect devices and that collect, combine or manage data for different rural services, such as mobility, health, care, education. However, the different components of a digital ecosystem need careful consideration to deliver the best results. The ecosystem is a mix of digital and human-led process and it is not simply comprised of off-the-shelf technical solutions.

Managing such a local ecosystem implies mastering the five layers

of which it is comprised: society; digital services; technical platform; infrastructure; and the cross-cutting layer of the organisational ecosystem (see figure 3).

### Layer 1: Society

Involving different stakeholder groups is a necessity for successfully implementing digital innovation projects in rural areas. Typically, this means working with municipalities, the private sector and local residents.

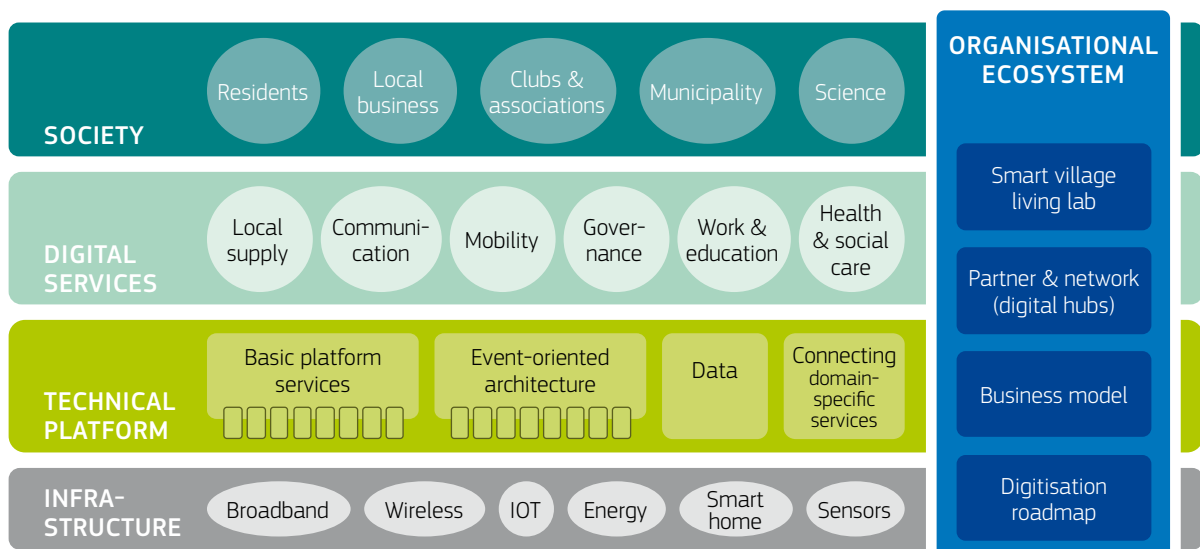
The Finnish government's study<sup>(3)</sup> of the challenges facing its rural areas and the opportunities offered by digitisation provides recommendations for the integration and activation of various stakeholder groups in rural areas. The results are being used to inform both existing and new

programmes: for example, tailoring support under RDP Measures 7 (basic services) and 19 (LEADER/CLLD), the national strategy for broadband, and the governmental decision for Rural Digitisation of 2017.

Local residents should be included from the very beginning and digital solutions should be built based on their defined needs. The involvement of local businesses and the local municipality is very important. Organisations that proliferate in rural areas, such as associations and local clubs, should be seen as multipliers, especially if projects are targeting social innovation and voluntary activities.

Interestingly, the study calls for innovative solutions to providing services – such as for rural mobility

Figure 3. A digital ecosystem for a smart village



Source: Steffen Hess, Fraunhofer IESE

(3) [https://enrd.ec.europa.eu/sites/enrd/files/tq\\_smart-villages\\_case-study\\_fi.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tq_smart-villages_case-study_fi.pdf)

and transport challenges – and says they should be identified through local experimentation. It recommends:

- Digital advisory points in local service centres;
- Strengthening digital skills through voluntary peer support organised by NGOs;
- Training digital ambassadors in municipalities and government offices;
- Transmitting voluntary help, peer support or neighbourhood help by digital means;
- A return of multi-actor, multi-functional and digitised village schools;
- Developing the digital capital of rural businesses.

## Layer 2: Digital services

At village level, these are made up of single services or applications that run in connected ecosystems. Digitisation offers the possibility to solve an existing problem or challenge, but it is not necessarily the sole option. Digital services should not be considered to be a kind of holy grail that will solve everything and nor should smart villages inadvertently neglect traditional problem-solving approaches.

Figure 3 on page 35 highlights the most important types of digital service currently identified in rural areas, but there are many more and their relevance depends on the context.

The most significant developments in these main rural service domains are listed below.

**Local supply** refers to the provision of daily goods and food products to people in rural areas. Existing solutions like the Digital Villages<sup>(4)</sup>

### DIGITISATION ROADMAP: A CHECKLIST

1. Identify the needs of the local community.
2. Envision the digital future of the rural area or village.
3. Collaborate and consider all available resources – elaborate the potential of digital hubs, authorities, industry, research and local residents.
4. Take an integrated approach rather than focus on just one sector, consider the value of platforms providing multi-sectoral services.
5. Identify skilled personnel to support the establishment and performance of the ICT projects.
6. Define the ICT budget available to support the establishment and performance of projects.
7. Mobilise all potential sources of funding, such as regional, national and European funding initiatives, as well as cooperation with the local industry.

project in Germany use regional online marketplaces for existing local vendors and service providers. Participating vendors include local bakeries, organic farms, vegetable farmers, supermarkets, but also non-food vendors, such as sports stores, pharmacies, laundries, bookstores and libraries, to name just a few.

Once an order is registered, the system processes the delivery. The final stage of the order delivery is done by local volunteers, who are notified via a smartphone application. The idea is that people traveling on the required route can deliver parcels to their neighbours.

Another example concerns the local community of Ballstädt in Germany, which created a financially self-sustaining combined village shop and café that acts as an important meeting place for the local community as well<sup>(5)</sup>. Combining an innovative local concept like in Ballstädt with a digital tool or service like in the Digital Villages project would be a perfect example

of mastering the challenge of digital innovation in rural areas.

Improving **communication** and **transparency** is often seen as one of the major goals of digital services from the point of view of the municipality. Easily achievable services can start with having digital regional news or integrated social media type applications to enable collaboration between residents and a municipality.

Reaching the local residents with local news and a simple push message on their mobile phone is one such scenario. Existing solutions vary from using WhatsApp or Facebook groups to have a local “my village in my pocket” solution as was the case with *DorfFunk* developed by the Digital Villages project<sup>(6)</sup>.

The above-mentioned Digital Neighbourhoods<sup>(7)</sup> are also a prime example of how the provision of communication infrastructure can be an enabler of local communication as a digital service.

**Mobility** solutions tend to be cross-cutting or supportive of other rural

(4) [https://enrd.ec.europa.eu/sites/enrd/files/tq\\_smart-villages\\_case-study\\_de.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tq_smart-villages_case-study_de.pdf)

(5) [https://enrd.ec.europa.eu/projects-practice/new-cooperative-store-ballstadt\\_en](https://enrd.ec.europa.eu/projects-practice/new-cooperative-store-ballstadt_en)

(6) [https://enrd.ec.europa.eu/sites/enrd/files/tq\\_smart-villages\\_case-study\\_de.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tq_smart-villages_case-study_de.pdf)

(7) [www.plymouth.ac.uk/research/digital-neighbourhoods](http://www.plymouth.ac.uk/research/digital-neighbourhoods)



services. For example, this is the case with an on-demand rural bus service in rural Wales<sup>(8)</sup> that allows those without cars to access key services, including health and education, as well as employment opportunities. It makes a particularly significant contribution to the lives of people with reduced mobility. While this project focused on providing a solution tailored to the needs of rural passengers – digital innovation was not needed as part of it.

However, digital innovation can be useful in this context. The School Bus Olfen project<sup>(9)</sup> in Germany also realised an on-demand rural bus, in this case, to optimise pupils' transport. It developed a digital service using chip cards, an app and a smart optimisation algorithm running in the background. Every pupil scans their chip card when entering the bus and then the system automatically calculates an optimal route home based on all pupils sitting in the bus.

**Health and social care** is a widespread and important discussion topic for rural life. Digital services in this context can often refer to established telemedicine solutions. The role of digital innovation should be highlighted here. RelaxedCare<sup>(10)</sup> is derived from an EU research project with partners from Austria, Switzerland, Slovenia and Spain. The idea was to connect informal caregivers, such as family members, and assisted persons in an easy and unobtrusive way.

Another project implementing a holistic approach to providing sustainable digital innovation is IMPROVE<sup>(11)</sup>. The common challenge the project is tackling is how to deliver quality public services in remote areas despite the long distances and the shortage of skilled staff to operate these services and the high cost per head of developing and maintaining

services (compared to urban areas). The project solved this challenge in the area of e-Health and telecare services by using a smart technology which involved the caregivers and assisted persons from the very outset.

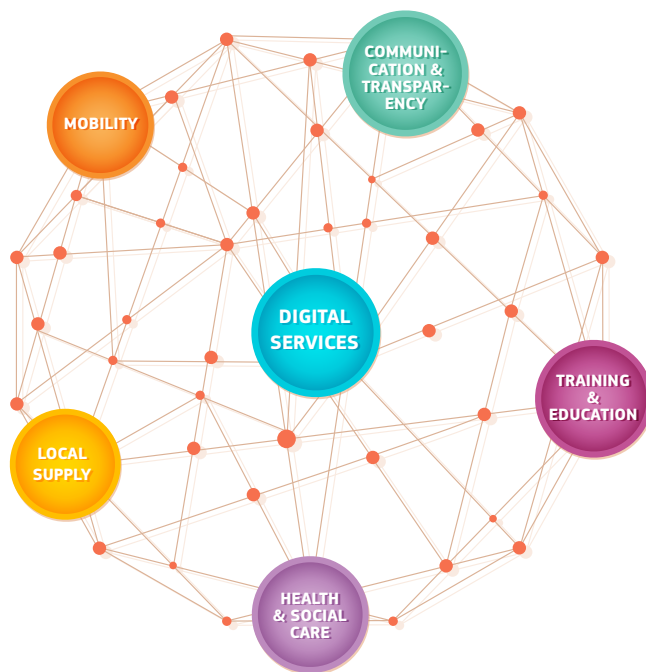
**Training and education** to make the most of digital innovation. The Digital Clare project<sup>(12)</sup> is taking advantage of digital opportunities in Ireland by using training, mentoring and regular online exchanges to improve digital skills in the rural community.

Other domains, such as employment and governmental services, and economic activities, such as smart farming, energy and logistics, are very important as well and there are many promising examples available on the ENRD Smart Villages Portal.<sup>(13)</sup>

### Layer 3: Technical platforms

Smart villages can make a qualitative advance when their digital services run on a common technical platform. Common platforms are in themselves innovations that combine technical aspects essential for the sustainable operation of digital services in rural areas. They also allow for the transfer of well-established approaches to other regions.

A well-designed platform architecture based on industry standards is a key success factor that can often be neglected in the rush to develop digital services. However, the costs of maintaining and operating such a technical platform must not be underestimated, as they are often crucial for operational continuity beyond an initial funding period. Rural areas usually have fewer users, fewer transactions, less experience in and



© Freepik

(8) [https://enrd.ec.europa.eu/projects-practice/demand-rural-bus-service-rural-wales\\_en](https://enrd.ec.europa.eu/projects-practice/demand-rural-bus-service-rural-wales_en)

(9) [www.olfen.de/rathaus-buergerservice/mobilitaet/schuelerbefoerderung.html](http://www.olfen.de/rathaus-buergerservice/mobilitaet/schuelerbefoerderung.html)

(10) [www.relaxedcare.eu/en](http://www.relaxedcare.eu/en)

(11) <http://improve.interreg-npa.eu>

(12) [https://enrd.ec.europa.eu/projects-practice/digital-clare-taking-advantage-digital-opportunities-rural-ireland\\_en](https://enrd.ec.europa.eu/projects-practice/digital-clare-taking-advantage-digital-opportunities-rural-ireland_en)

(13) [https://enrd.ec.europa.eu/smart-and-competitive-rural-areas/smart-villages/smart-villages-portal\\_en](https://enrd.ec.europa.eu/smart-and-competitive-rural-areas/smart-villages/smart-villages-portal_en)

capacity for operating a complex digital ecosystem.

#### Layer 4: Digital infrastructure

It was already noted that the availability of adequate digital infrastructure is a necessary but not sufficient condition for digital innovation in smart villages (for additional information, see the ENRD factsheet on digitisation, the use of ICT and access to broadband<sup>(14)</sup>). To be an enabler of digital transformation, however, the infrastructure must go beyond the availability of broadband and wireless networks. It can include, for example, the availability of sensors to realise applications in the areas of smart homes, smart energy and further technologies based on the Internet of Things.

#### Layer 5: Organisational ecosystem

Digital innovation projects require a significant amount of background organisational work. The blue column on the right-hand side of figure 3 on page 35, shows the cross-cutting

**organisational components** of a complex ecosystem of rural digital services.

Four main tools may be necessary: establishing a living lab; collaboration with ICT partners within a digital hub; creating sustainable business models; and, finally, developing a digitisation roadmap for rural services.

Local **living labs** in rural areas can work together with societal stakeholders on solutions targeting a single digital service in the whole digital ecosystem. Having this structure in place it is easy to work with early prototypes, perform innovation workshops and work jointly on the solutions. Furthermore, it provides an environment where potential partners from industry can road test their solutions quickly with real end-users.

**Rural digital hubs**<sup>(15)</sup> can also play a vital organisational role as they are often combined with co-working spaces to attract and retain digital entrepreneurs (for more on digital

The **living lab** concept is based on a user-centred approach to integrating research and innovation processes. Typically operating in a territorial context, it involves the co-creation, exploration, experimentation and evaluation of innovative ideas in real life use cases.

hubs, see EU Rural Review 24 'Re-imagining Rural Business Opportunities'<sup>(16)</sup>). By integrating local business into digital hubs and involving local residents in living labs it is possible to develop sustainable business models for digital innovation, local entrepreneurship and service delivery<sup>(17)</sup>. For more information on sustainable business models for rural services, see the ENRD Thematic Group on 'Rural Businesses'.<sup>(18)</sup>

All the layers and components of the digital ecosystem mentioned above can be combined into a digitisation roadmap that can act as the central vision for digital innovation in rural services (see page 36).

## WHAT SMART VILLAGES NEED TO KNOW

The above-mentioned challenges and activities may appear difficult to manage. However, it should be remembered that digital innovation and especially the establishment of a digital ecosystem has the potential to solve many major challenges facing rural communities around Europe.

Digital transformation can connect communities – local residents,

municipalities, industry and research – and can enhance existing social innovation efforts that are improving the quality of rural life. But it is also worth remembering that digital innovation is not a panacea and that it may not be the most appropriate solution in every situation.

There is much help out there on the road to digitisation. For example, the ERUDITE Interreg<sup>(19)</sup> project

has designed a methodology that can support the development and implementation of promising ideas for rural services.

Citizens and businesses can stay informed about broadband developments and deployment in their country or region via their Broadband Competence Office (BCO). BCOs also provide technical support (regulatory, investment models, procurement,

(14) [https://enrd.ec.europa.eu/sites/enrd/files/tg1\\_rural-businesses\\_brief\\_digitisation.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg1_rural-businesses_brief_digitisation.pdf)

(15) [https://enrd.ec.europa.eu/sites/enrd/files/s4\\_rural-businesses-factsheet\\_digital-hubs.pdf](https://enrd.ec.europa.eu/sites/enrd/files/s4_rural-businesses-factsheet_digital-hubs.pdf)

(16) [https://enrd.ec.europa.eu/publications/eu-rural-review-24-re-imagining-rural-business-opportunities\\_en](https://enrd.ec.europa.eu/publications/eu-rural-review-24-re-imagining-rural-business-opportunities_en)

(17) [https://enrd.ec.europa.eu/sites/enrd/files/s4\\_rural-businesses-factsheet-social-innovation.pdf](https://enrd.ec.europa.eu/sites/enrd/files/s4_rural-businesses-factsheet-social-innovation.pdf)

(18) [https://enrd.ec.europa.eu/thematic-work/smart-and-competitive-rural-areas/rural-businesses\\_en](https://enrd.ec.europa.eu/thematic-work/smart-and-competitive-rural-areas/rural-businesses_en)

(19) [www.interregeurope.eu/erudite](http://www.interregeurope.eu/erudite)

technology, etc.) to local and regional authorities about means to support the deployment of broadband networks. These include ways of investing effectively in broadband projects with the support of the European Regional and Rural Development Funds (ERDF and EAFRD), in combination with Financial Instruments where possible, and including information on state-aid rules and procedures.

Whilst digitisation and development of innovation capacity are essential elements of current policy instruments, the full range of new digital opportunities to support employment growth, quality of life and territorial attractiveness still needs to be seized. The development, design and implementation of smart rural digital strategies requires innovative thinking at each level of the digital ecosystem.

Challenges remain regarding NGA access, stimulating digital demand in rural areas and increasing digital literacy and training. In terms of demand creation, there remains a need to highlight the services and benefits that can be put in place and which can improve quality of life and create jobs. More generally, the capacity of all European communities to digitally innovate and deliver social and economic growth needs to evolve.

#### ROLE OF THE BROADBAND COMPETENCE OFFICES

- Enhance the efficiency and effectiveness of broadband investments.
- Underpin the implementation of the Digital Single Market by accelerating public investment in broadband, including through the ERDF and EAFRD.
- Provide advice and assistance to citizens and businesses about broadband deployment (mapping coverage, quality of service and future investment plans).
- Support public authorities in the planning, implementation and monitoring of broadband projects.
- Help in the coordination with relevant EU entities.
- Promote the use of Financial Instruments.
- Support the aggregation of demand for high-speed broadband.

<https://ec.europa.eu/digital-single-market/en/broadband-competence-offices>



© Samuel Petterson, European Union 2015





## 5. RDPs as catalysts for innovation in rural services

© Ricardo Gomez Angel, Un splash

The Rural Development Programmes (RDPs) can enable and support smart villages. They provide a versatile toolbox, backed up by significant funding, that can foster, enable and help scale up innovation in rural services around Europe.

This chapter explores how national and regional Managing Authorities (MAs) are using the RDPs to have a multiplier effect on other EU, national and private funds, and to support smart village developments in fields ranging from renewable energy to broadband, to mobility. In the future, such initiatives can be strengthened and reinforced by policy tools like 'rural proofing'.

In examining smart villages, the scope of this edition of the EU Rural Review is limited to social and digital innovation in rural services. See previous editions for initiatives that can boost rural economies and businesses.

---

SEEDS FOR LOCAL INNOVATION

---

SMART VILLAGES AND THE RDP TOOLKIT

---

ONE + ONE = THREE

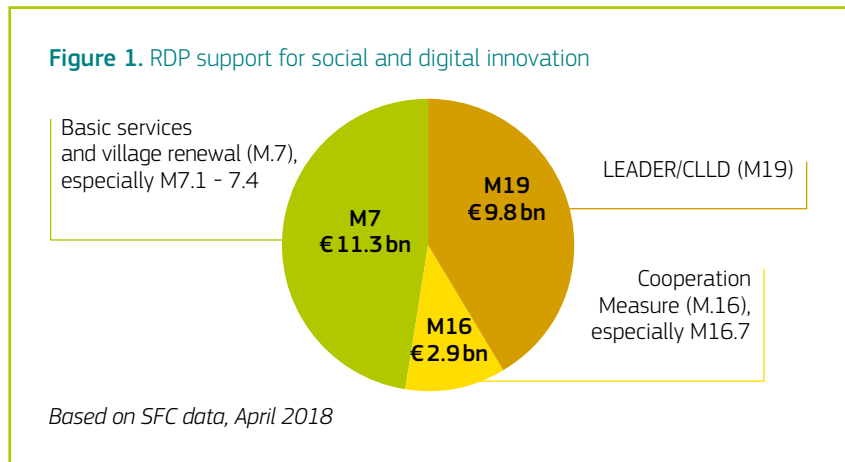
---

## SEEDS FOR LOCAL INNOVATION

Smart villages are about people. They are about rural citizens finding practical solutions – both to the challenges they face and, as importantly, in realising exciting new opportunities to transform rural areas. Smart villages are therefore communities who are seizing the initiative and Rural Development Programmes (RDPs) can play a decisive role in making change happen.

A defining characteristic of EU RDPs is that they are based on the needs of rural people and the millions of farms, small businesses, municipalities and civil society organisations that make up the fabric of rural society.

When it comes to supporting social and digital innovation in rural services, three specific RDP Measures are especially relevant: Measure 7 (M7) for basic services and village renewal;



M19: LEADER/CLLD support for local development; and M16: Cooperation.

M6: farm and business development (and specifically, sub-Measures M6.2: business start-up aid for non-agricultural activities; and M6.4: support for investments in creation

and development of non-agricultural activities) can also be used to support business development in rural services.<sup>(1)</sup>

Taken together, the first three of these Measures have a total public budget of €24<sup>(2)</sup> billion.

## SMART VILLAGES AND THE RDP TOOLKIT

Individual RDP Measures can be used to support improvements in rural infrastructure, buildings, businesses and human capital related to rural services. However, the Measures' added value truly emerges when they are combined strategically to support smart village initiatives along the road to change, i.e. from the initial idea right through to successful scale-up.

STAGE	RDP MEASURES <sup>(3)</sup>
Bottom-up planning	M7, M19
Animation and technical support	M19, M16
Finance for innovation	M7, M19, M6, M4
Coordination	All

### Bottom-up planning and community involvement

For example, LEADER Local Action Groups (LAGs) often play a vital role in the initial stages of bringing communities together, motivating them and helping them to plan and prioritise the next steps. Measure 7.1: support for drawing up and updating of plans for the development of municipalities and villages in rural areas and their basic services can be used very effectively to support plans for village and municipal

(1) The total public expenditure foreseen for M6 was €10.6bn. However, just over half of this investment is dedicated to young farmers and small farms and therefore the figure is not included in the chart above.

(2) All the expenditure figures in this chapter are expressed in terms of total public expenditure, unless otherwise indicated.

(3) This is not an exhaustive list. It refers to the main Measures that can be specifically directed at rural services. Measures – such as M4: Investments in physical assets – are vital in supporting innovation more generally in farming and food. M1 (knowledge development) and M2 (advisory services) can also help support the development of rural SMEs.



development. Both Austria and Finland have shown how this sub-Measure can improve the effectiveness of subsequent investments.

**Animation and technical support**

Successful innovation usually takes place in a series of steps. There is an initial trigger – often a problem or crisis – which leads to the idea for a solution and generates enthusiasm. However, the idea typically requires support from various sources and sound technical and business advice if it is to develop into a sustainable activity. Both LEADER (M19) and the Cooperation Measure (M16) can be used to tailor such support to the real needs of inhabitants.

**Flexible finance for innovative projects**

Innovation is risky and a high proportion of innovative projects fail. But both public and private funding often comes rather slowly and in large ‘lumps’. This can either demotivate local people or encourage them to invest more than what is necessary at a given time. However, various EU Member States have been using M7, M19 and M6 for small-scale pilots which, if successful, can pave the way for bigger investments. In these cases, various Financial Instruments can be used to leverage private capital.

**Coordination and integration with other policies and funds**

Successful pilot projects and good practices need to be scaled up and rolled out according to a sustainable business model. There are many examples of the RDPs being used in this way to attract larger investments from other EU Funds, national public funding and private finance (including crowd funding). If smart villages are to spring up and grow across Europe, this is

precisely the area that will need most attention in the future.

**Key RDP Measures**

**LEADER/CLLD (M19)**

LEADER has a € 9.8 billion public expenditure budget and represents 6% of the planned total RDP expenditure<sup>(4)</sup>. There are 2562 LAGs foreseen in the EU for the 2014-2020 period. In four countries – France, Germany, Poland, Spain – the geographical scope of LEADER is important with more than 200 LAGs per Member State. These groups can be an invaluable initiator, relay or multiplier in supporting smart villages.

The LEADER Measure is the most versatile funding source for smart villages: Local Developments

Strategies (LDS) developed by the LAGs often include smart initiatives covering several fields of intervention, such as energy, mobility, care, territorial inequalities or climate action. When managed correctly, LEADER funding can be used to provide integrated support itineraries that can take project promoters from their original idea through to launch, as illustrated by figure 2.

Individual LAG budgets vary substantially across EU Member States. They range from less than € 1 million over the whole period, to over € 9 million (in Greece or Ireland) and up to € 15 million in Saxony (Germany) where some 40% of the RDP is implemented through LEADER (see figure 3).

**FROM LEADER TO CLLD**

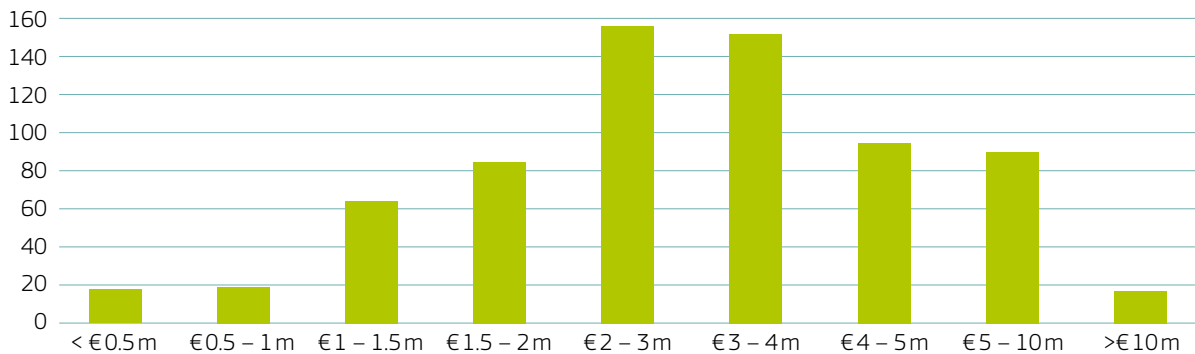
In the 2014-2020 programming period, the LEADER method has been extended under the broader term Community-led Local Development (CLLD) to open up the possibility of drawing on three additional EU funds (EMFF, ERDF, ESF).



(4) Total public expenditure equals: EAFRD + Member States matching funds + any national top-ups. Data includes programme modifications until April 2018.



Figure 3. Average LAG budgets



Source: ENRD Contact Point LAG survey, December 2017.

In some cases, such as in Wales (UK), LAGs only engage in planning and facilitation and are not tasked with carrying out capital expenditure. Instead, they prepare the ground for expenditure under other investment Measures, such as M7. However, at the other extreme, the LAGs with significant budgets have the funds to invest directly in small-scale infrastructure and services.

Even in these cases, the funds available to LEADER are normally not sufficient on their own to deal with all the investment needs faced by rural

areas. However, it is when they are combined with other Measures and other funds or when several LAGs join forces to cooperate that they can become a more powerful force.

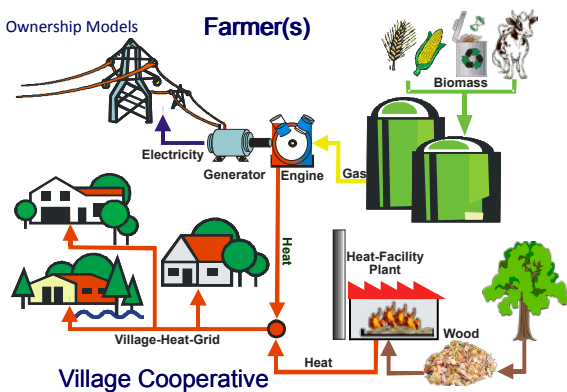
For example, in the southern part of Lower Saxony, the Göttinger Land LAG has focused on energy efficiency and climate action. It has put an integrated bioenergy model in place with the LEADER implementation Measure (M19.2), involving 34 municipalities (see figure 4).

Five villages decided to go ahead with the project. The business model for

each village involves a €2.5 million investment for design and creation of a joint biogas plant and a woodchip furnace, both connected to a common heat grid. LEADER is investing around €200 000 in each village to carry out certain functions (project design and planning, in particular) in combination with other funds to bring together farmers and other villagers in a sustainable cooperative project for renewable energy.

Also under M19.3 for cooperation, LEADER is boosting local entrepreneurship by offering new ways

Figure 4. The Bioenergy Villages Project



Source: Leader Göttingerland

Project Resources

PHASE	VILLAGE	LEADER PROGRAMME	MUNICIPALITY	LOCAL GOVERNMENT	FEDERAL GOVERNMENT	UNIVERSITY / CONSULTANT
Initiation	M	M M M		M		M M
Planning	M M	M M M	M	M		M M M
Building	M M M	M	M		F F F	M
Operating	M				F	

M Manpower F Financial Means



### JOINED-UP LAGs

In Catalonia (Spain), 11 LAGs combined strengths in a large cooperation project called ENFOCC<sup>(5)</sup>, worth half a million euros, to boost energy efficiency, under M19.3.

To stimulate awareness of energy consumption, the EneGest software was developed, which allows small enterprises to monitor energy use. EneGest is shared with 100 SMEs, 11 public schools and 47 town halls that received advice regarding energy management.

Savings of €250 000 have been reported. The savings are being reinvested in further measures to save even more

energy. In 2018, the project developed an innovative model that calculates the costs of energy transition by using a simple survey.

The model provides data about the investment needed, the current economic savings as well as future and accumulated costs, and the energy needs of a municipality or a region to become energy self-sufficient. In addition, the project assessed the spread of electric vehicles in rural municipalities by studying options for installing charging points in rural areas.

of working in Tarragona, Spain. Four LAGs came together to form a single co-working platform: COWOCAT<sup>(6)</sup>. Over a two-year period (2014-2016), some 14 co-working spaces were created, hosting 60 to 65 co-workers each. The local entrepreneurs not only use the place to work, they also stimulate cooperation projects among the local community, creating synergies and trying to attract new business.

### Basic services and village renewal (M7)

At the EU level, planned support under this Measure amounts to €11.3 billion public expenditure<sup>(7)</sup> and represents 7.3% of total RDP expenditure. Germany is committing by far the highest amounts under this Measure with €2.95 bn (or 18% of the total budget for all its RDPs). For example, the Sachsen-Anhalt region in Germany has chosen to spend 39% of their RDP on basic services and village renewal.

France, Poland, Romania and Italy are also making high financial provisions under this Measure, and Bulgaria is allocating 22% of its RDP budget to it.

An important proportion of this investment is directed at basic infrastructure and services (e.g. water and waste infrastructure and local roads) in some of the poorer EU regions and countries. For example, the French region of Guyana dedicates 43% of their RDP budget to M7 and Romania plans to spend €1.3 bn on M7 representing 14% of the total public planned expenditure of the RDP.

When M7 is used strategically in combination with other Measures or to complement a domestic policy, it becomes a very interesting way to seed fund essential innovations in rural services. Sweden, for example, estimates that 46% of its rural population will benefit from improved services or infrastructure through local

development actions, and another 5% under ICT measures. The first four sub-Measures of M7 have the most potential for supporting smart village initiatives (see the box above).

*Sub-Measure 7.1: Support for drawing up and updating of plans for the development of municipalities and villages in rural areas and their basic services and of protection and management plans relating to Natura 2000 sites and other areas of high nature value.*

M7.1 often focuses on support for preparing or updating management plans for Natura 2000 sites and other nature protection areas. However, it is also used to plan renewable energies and access to ICT. Some RDPs in Germany and Austria also include community plans.

(5) [https://enrd.ec.europa.eu/projects-practice/energy-forest-and-climate-change-enfocc\\_en](https://enrd.ec.europa.eu/projects-practice/energy-forest-and-climate-change-enfocc_en)

(6) [www.cowocatural.cat](http://www.cowocatural.cat)

(7) Ibid footnote 1

## USES OF MEASURE 7

1. Austria implements an integrated strategy that foresees the involvement of the community in the planning phases.
2. Germany, Saxony-Anhalt focuses on investments in broadband and ICT, Hessen and Lower Saxony and Bremen support groups of communities and municipalities, and Mecklenburg-Vorpommern targets social services and the development of nature and renewable energies.
3. Greece focuses on broadband infrastructure.
4. Hungary has a strategy focused on social care, mobility, employment services, and developing community-based spaces.
5. Sweden foresees the cooperation of EAFRD and ERDF to improve broadband coverage.

In the Austrian RDP, public expenditure of €779 million is allocated to M7<sup>(8)</sup>. In 2017, the Austrian Ministry for Agriculture, Forestry, Environment and Water Management set out a master plan for rural areas based on a participative process. It includes a special toolkit to support municipal plans.

**Sub-Measure 7.2: Support for investments in the creation, improvement or expansion of all types of small-scale infrastructure, including investments in renewable energy and energy saving.**

M7.2 is designed generally to improve basic living conditions in rural areas and connectivity to other areas. In some EU Member States, there is a strong focus on the construction or upgrading of local roads and basic water infrastructure. However, in others like Austria and Finland, it has been used to support projects for renewable energy and the circular economy<sup>(9)</sup>.

**Sub-Measure 7.3: Support for broadband infrastructure, including its creation, improvement and expansion, passive broadband**

**infrastructure and provision of access to broadband and public e-government.**

M7.3: although priority is given to hardware, some RDPs also support the development of e-governance services and broadband uptake. However, only 46 of the RDPs have decided to use this sub-Measure.

In Finland, the Smart Countryside study,<sup>(10)</sup> carried out at national level in 2016, revealed that the Finnish digital infrastructure was of high quality and that the general attitude towards digitisation was positive.

However, the supply of skills development and customer guidance were quite low. The priority needs identified for digital strategies were: transport; social and health services; distance learning and teleworking. In light of these findings, the RDP calls for projects to focus on: broadband infrastructure and access to broadband, and public e-government (M7.3): it covers small-scale data connection infrastructure investments (the so-called 'village network' projects) and the digitisation of municipal services, including

Number of RDPs implementing M7 sub-Measures	
SUB-MEASURE	NO. OF RDPs (TOTAL 112)
M7.1	80
M7.2	55
M7.3	46
M7.4	51

online video connection systems for customer services.

This type of support is matched with the Finnish government's resolution of November 2017 on rural digitisation. The resolution stresses the need to develop digital services. The resolution also underlines the potential to support rural populations and businesses, and create new livelihoods and possibilities for rural economic development with the help of digital solutions that take local specificities into account.

**Sub-Measure 7.4: Support for investments in the setting up, improvement or expansion of local basic services for the rural population, including leisure and culture, and the related infrastructure.**

M7.4 has a broad scope that can include health, child care, mobility, cultural services, and infrastructure for community services and leisure activities. As a result, it supports projects covering diverse fields of intervention – from digitisation to the silver economy to e-health.

For example, in Finland, the Smart Countryside study identified digital

(8) Collection of projects presented by ENRD TG members (for Austrian use of M7, see page 2): [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_project-Compilation.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_project-Compilation.pdf)

(9) [www.bmnt.gv.at/english/agriculture/Master-Plan-for-Rural-Areas0.html](http://www.bmnt.gv.at/english/agriculture/Master-Plan-for-Rural-Areas0.html)  
Other relevant strategies: Breitband Austria 2020: [www.bmvit.gv.at/telekommunikation/breitband](http://www.bmvit.gv.at/telekommunikation/breitband)

(10) [https://enrd.ec.europa.eu/sites/enrd/files/tg\\_smart-villages\\_case-study\\_fi.pdf](https://enrd.ec.europa.eu/sites/enrd/files/tg_smart-villages_case-study_fi.pdf)



strategies targeting improvement of local services, including leisure and culture, and the related infrastructure. The sub-Measure supports projects seeking to plan, study or improve services for the rural population, such as feasibility studies on remote health services.

**Farm and businesses development (M6)**

Measure 6 has a comparable financial allocation to Measure 7 with € 10.6 billion<sup>(11)</sup> of which just over half targets set up of young farmers. Two sub-Measures can however directly support economic diversification in rural areas and the transformation to smart villages: M6.2: Business start-up aid for non-agricultural activities in rural areas and M6.4: Support for investments in creation and development of non-agricultural activities.

Developing new business activities in rural areas – beyond farming – is a vital component of rural attractiveness and is being pursued in many regions and Member States. When combined with other initiatives such as LEADER, successful businesses can support



© Marc Planaguma

generational renewal encouraging a new population to settle, bringing children to rural schools, more customers in local markets and services and boosting a virtuous cycle of development.

Start-up aid (of maximum € 70 000) for the development of new non-agricultural activities in rural areas was introduced for the first time in the legal set-up for the 2014-2020 programming period, alongside with a requirement for submission of a business plan.

Support for investments and development of non-agricultural

activities can now also be provided to small-sized rural enterprises (previously this was only for rural tourism and service provision, with the rest limited to micro-sized enterprises). Support for investments in non-agricultural activities can now be allocated to people in rural areas (i.e. there is no requirement to set up an enterprise prior to applying for the support). All of these elements encourage flexibility and can trigger smart strategies.

The Finnish RDP uses M6.2 to help rural businesses trial ideas that promote market-driven and customer-oriented



**RDP SUPPORT TO YOUNG ENTREPRENEURS**

In Asturias, Spain, the 11 LEADER groups all have a priority for supporting young entrepreneurs in their Local Development Strategies. They have been given the responsibility for managing the so-called ‘ticket for rural self-employed persons’ funded under sub-Measure 6.2. This provides support of up to € 25 000 to young entrepreneurs who settle in rural areas.

This new measure attracted 150 new entrepreneurs in less than one year, with a support of over € 2 324 400 as of December 2017. The ‘ticket’ is open to all kinds of entrepreneurial activities: social services, business initiatives of all kinds, advisors, productive and processing activities, distribution companies, tourism, maintenance services and is complementary to additional investments.

The beneficiaries have to come from a situation of unemployment or from another economic activity. They present a detailed business plan, on the basis of which the LAG makes a decision. Provisions are made for expenses corresponding to taxes, social insurance, health benefits and a basic salary for the entrepreneur for a period of 3 years. Based on the experience to date, the 11 LAGs from Asturias, together with the Managing Authority are considering a substantial raise in funding for this scheme in future calls.

(11) Ibid footnote 1

innovations, such as start-up aid for an IT company or e-learning services. Under M6.4, a company offering mobile services to micro and small enterprises operating in rural areas may also get investment support.

### Other Measures

A Finnish NGO used M16.2 (Support for pilot projects and for the development of new products, practices, processes and technologies) to create GreenCareLab<sup>(12)</sup>, a network

of nature-based service providers and activities to support their development, such as study trips and work groups. As a result, more than 100 service providers participated in GreeeCareLab's activities during its first year. Dozens of business start-ups joined the platform for testing and developing business ideas and services.

In the field of training and digital upskilling, the combined issues of

accessibility, skills and connectivity remain a chicken and egg story, but with the same objective: digital inclusion for all. In Austria, IT labs are opening in schools, allowing for free training. In other countries, like Spain and France, professional training operators provide certified upskilling through various RDP sub-Measures, depending on which group is being targeted. LAGs are in a good position to match skills and needs within their local communities.

## ONE + ONE = THREE

For many people, rural areas are simply home – a place to live, work and raise families. Rural communities need jobs, basic services, connectivity and smart transport solutions, as well as a favourable climate for entrepreneurship. This means intervening on all these fronts in a joined-up way. The 'EU Action for Smart Villages'<sup>(13)</sup> is already signalling the way forward by bringing together the European Commission's Directorates for Agriculture and Rural Development, Regional Policy, and Mobility and Transport.

Rural proofing is a critical first step for implementing these more integrated approaches. For example, in Finland, rural proofing is considered central to attaining the rural policy vision that the countryside forms an inseparable part of the national prosperity and society.

Similarly, in its opinion on the 'Revitalisation of rural areas through smart villages',<sup>(14)</sup> the Committee of the Regions states that "the concept of

'rural proofing' should be incorporated as part of the 'Smart Rural Areas' initiative with a view to applying this approach to the development of broader policy initiatives with implications for rural areas."

Commissioner Phil Hogan has added that, "[rural proofing] is more than just checking for potential impact and implications of policies. It is also about designing schemes and strategies that reflect the needs and aspirations of rural communities, about recognising the rural potential to deliver innovative, inclusive and sustainable solutions."<sup>(15)</sup>

Earlier in this chapter, we have seen that RDP Measures are most efficient when strategically combined with one another. However, this multiplier effect can be made much larger when combined with other funds, be it EU, national or private. Guidance on 'Enabling synergies between European Structural and Investment Funds, Horizon 2020 and other research, innovation and competitiveness-

related Union programmes'<sup>(16)</sup> is available online for policy-makers and implementing bodies. The advice includes explanations of the basic rules and principles for obtaining synergies and combining the different funds, and contains recommendations for the relevant actors, as well as information on EU Commission support to facilitate synergies.

For example, approximately €21.4 billion is made available from various ESI Funds<sup>(17)</sup> for ICT investments over the 2014-2020 funding period. In order to optimise the impact of ICT investments, Member States and regions were asked to develop two strategies before making any digital investments using the funds:

- A strategic policy framework for digital growth within their broader research and innovation strategies.
- A Next Generation Network Plan that identified where public intervention is necessary to provide broadband access.

(12) [www.gcfinland.fi/in-english/](http://www.gcfinland.fi/in-english/)

(13) [https://ec.europa.eu/agriculture/sites/agriculture/files/rural-development-2014-2020/looking-ahead/rur-dev-small-villages\\_en.pdf](https://ec.europa.eu/agriculture/sites/agriculture/files/rural-development-2014-2020/looking-ahead/rur-dev-small-villages_en.pdf)

(14) <http://cor.europa.eu/en/activities/opinions/pages/opinion-factsheet.aspx?OpinionNumber=CDR%203465/2017>

(15) [https://enrd.ec.europa.eu/publications/rural-connections-magazine-autumn-winter-2017-edition\\_en](https://enrd.ec.europa.eu/publications/rural-connections-magazine-autumn-winter-2017-edition_en) (page 27)

(16) [http://ec.europa.eu/regional\\_policy/en/policy/themes/ict/](http://ec.europa.eu/regional_policy/en/policy/themes/ict/)

(17) European Regional Development Fund (ERDF), European Social Fund (ESF), Cohesion Fund (CF), European Fund for Agriculture and Rural Development (EAFRD), European Maritime and Fisheries Fund (EMFF).

As was seen in chapter 2, there are many examples of more integrated national and regional approaches that can create the enabling conditions for smart villages. The Italian Inner Areas Strategy<sup>(18)</sup> is just one of these. With a total budget of over € 2 billion, the RDPs form an integral part of it. The choice of the method and financial resources allocated to inner areas are set out in Italy's regional RDPs.

However, far more needs to be done to extend these integrated approaches across Europe. As the 'EU Action for Smart Villages' says, to ensure the sustainability of smart village initiatives, robust strategic approaches are needed. For policy-makers, stakeholders and project promoters on the ground to deliver the best results, planning needs to take into account the needs and comparative strengths and weaknesses of respective territories.

In this context, the RDPs have the potential for achieving a far bigger impact than is suggested by their size alone. They can act as the seed money empowering local people, mobilising assets, leveraging in further investments and creating the conditions for building the smart villages of the future.



© ENRD Contact Point, 2018

(18) The Italian financial commitment for the Inner Areas Strategy amounts to €190 million:  
[www.agenziacoesione.gov.it/opencms/export/sites/dps/it/documentazione/Aree\\_interne/Presentazione/Relazione\\_al\\_CIPE\\_24\\_01\\_2017\\_def.pdf](http://www.agenziacoesione.gov.it/opencms/export/sites/dps/it/documentazione/Aree_interne/Presentazione/Relazione_al_CIPE_24_01_2017_def.pdf)



## ENRD PUBLICATIONS

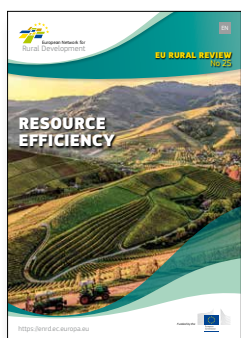
Keep up to date with all the latest news, views and developments in European rural development by reading the various ENRD publications.

These are available on the Publications section of <https://enrd.ec.europa.eu> or you can subscribe by emailing [subscribe@enrd.eu](mailto:subscribe@enrd.eu). For further information write to [info@enrd.eu](mailto:info@enrd.eu).

### EU RURAL REVIEW

The EU Rural Review is the ENRD's principal thematic publication. It presents the latest knowledge and understanding of a particular topic relevant to rural development in Europe. Themes range from rural entrepreneurship and food quality to climate change and social inclusion. It is published twice a year in six EU languages (EN; FR; DE; ES; IT; PL).

#### No.25 – Resource Efficiency



#### No.24 – Re-imagining rural business opportunities



#### No.23 – Green Economy – Opportunities for rural Europe



### EAFRD PROJECTS BROCHURE

The ENRD publishes brochures presenting good and interesting examples of EAFRD-funded projects. Each edition highlights successful project examples around a particular rural development theme. The brochures aim to showcase the achievements of the EAFRD and inspire further projects. They are published in six EU languages (EN; FR; DE; ES; IT; PL).

### RURAL CONNECTIONS

Rural Connections is the European Rural Development Magazine. Produced by the ENRD, Rural Connections presents individual and organisational perspectives on important rural development issues, as well as stories and profiles of rural development projects and stakeholders. The magazine also updates readers on the rural development news they may have missed from across Europe. It is published in spring and autumn in six EU languages (EN; FR; DE; ES; IT; PL).

### NEWSLETTER

All the latest rural development news from Europe – delivered straight to your inbox once a month! The ENRD Newsletter provides quick bite-sized summaries of emerging issues, hot topics, news and events about rural development in Europe.

Subscribe here: [https://enrd.ec.europa.eu/news-events/enrd-newsletter\\_en](https://enrd.ec.europa.eu/news-events/enrd-newsletter_en)

#### HOW TO OBTAIN EU PUBLICATIONS

##### Free publications:

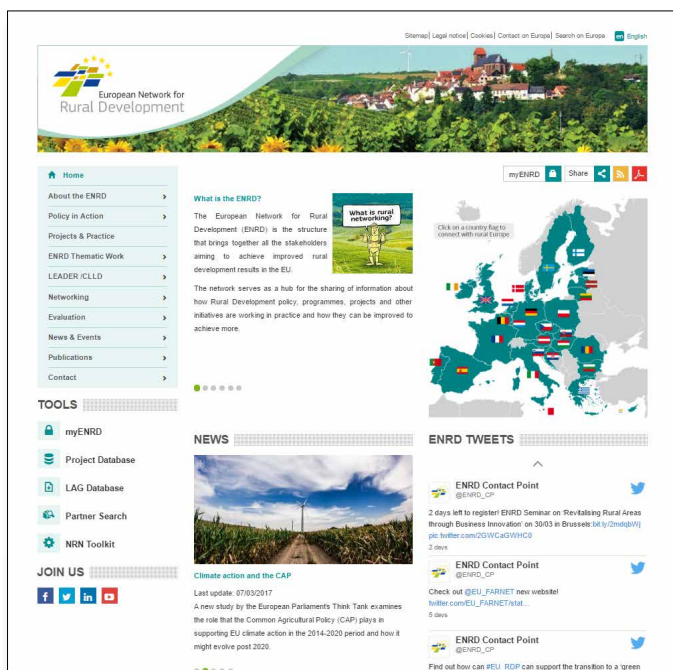
- one copy:  
via EU Bookshop (<http://bookshop.europa.eu>);
- more than one copy or posters/maps:  
from the European Union's representations ([http://ec.europa.eu/represent\\_en.htm](http://ec.europa.eu/represent_en.htm));  
from the delegations in non-EU countries ([http://eeas.europa.eu/delegations/index\\_en.htm](http://eeas.europa.eu/delegations/index_en.htm));  
by contacting the Europe Direct service ([http://europa.eu/europedirect/index\\_en.htm](http://europa.eu/europedirect/index_en.htm)) or  
calling 00 800 6 7 8 9 10 11 (freephone number from anywhere in the EU) (\*).

(\* ) The information given is free, as are most calls (though some operators, phone boxes or hotels may charge you).

##### Priced publications:

- via EU Bookshop (<http://bookshop.europa.eu>).

# ENRD online



Like the  
ENRD Facebook page



Follow [@ENRD\\_CP](#)  
on Twitter



Watch **EURural** videos  
on YouTube



Join the **ENRD** LinkedIn  
discussion group



ENRD Contact Point  
Rue de la Loi/Wetstraat, 38 (bte 4)  
1040 Bruxelles/Brussel  
BELGIQUE/BELGIË  
Tel. +32 2 801 38 00  
[info@enrd.eu](mailto:info@enrd.eu)



Publications Office

<https://enrd.ec.europa.eu>



European Network for  
Rural Development