

Rural Pact Conference

15-16 June 2022



Digitalisation, transforming rural areas





Speakers

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SHAFE Co-Ordinator and NET4 Vice-Chair and Grant Holder



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Gigabit and 5G connectivity

Enabling the digital transition of the rural economy and society



Connectivity as an essential enabler for the digital transition

- ❑ New EU Digital Decade policy targets: 1Gbps to all households, 5G in all populated areas
- ❑ Connecting the “small”: IoT systems, towards a “zero-distance society”
- ❑ Connecting the “large”: pan-European, cross-border backbones and 5G corridors
- ❑ Connectivity driven by innovative use-cases, stimulus to EU digital supply, strategic autonomy



What is the situation of connectivity in rural areas?

DESI – EU Digital Infrastructures

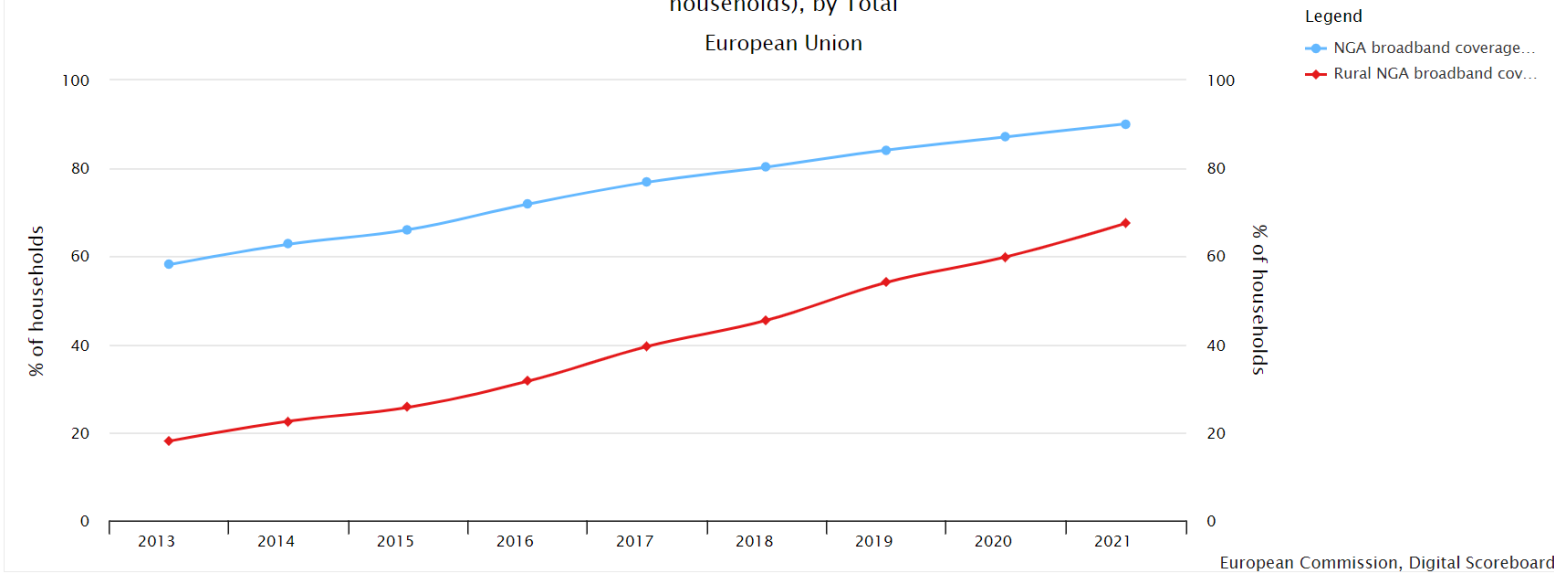
The Digital Decade defines two targets in the area of broadband connectivity for 2030: **Gigabit coverage for all households and 5G in all populated areas.**

	DESI 2019	DESI 2021	DESI 2022 (as reported in the European Semester)
2a1 Overall fixed broadband take-up % households	74% 2018	77% 2020	
2a2 At least 100 Mbps fixed broadband take-up % households	21% 2018	34% 2020	
2a3 At least 1 Gbps take-up % households	NA	1.3% 2020	
2b1 Fast broadband (NGA) coverage % households	80% 2018	87% 2020	
2b2 Fixed Very High Capacity Network (VHCN) coverage % households	33% 2018	59% 2020	70% 2021
2c1 4G coverage % populated areas	98.8% 2018	99.7% 2020	
2c2 5G readiness Assigned spectrum as a % of total harmonised 5G spectrum	15% 2019	51% 2021	
2c3 5G coverage % populated areas	NA	14% 2020	66% 2021
2c4 Mobile broadband take-up % individuals	65% 2018	71% 2019	
2d1 Broadband price index Score (0-100)	NA	69 2020	

The Rural Picture

NGA broadband coverage/availability (as a % of households), by Total and Rural NGA broadband coverage/availability (as a % of households), by Total

European Union



Marked increase in broadband coverage of rural areas BUT the challenge remains:

- 10% of households are not covered by any fixed BB network (89.7% coverage in 2020)
- 32.5% are not served by any NGA (67.5% coverage in 2021).

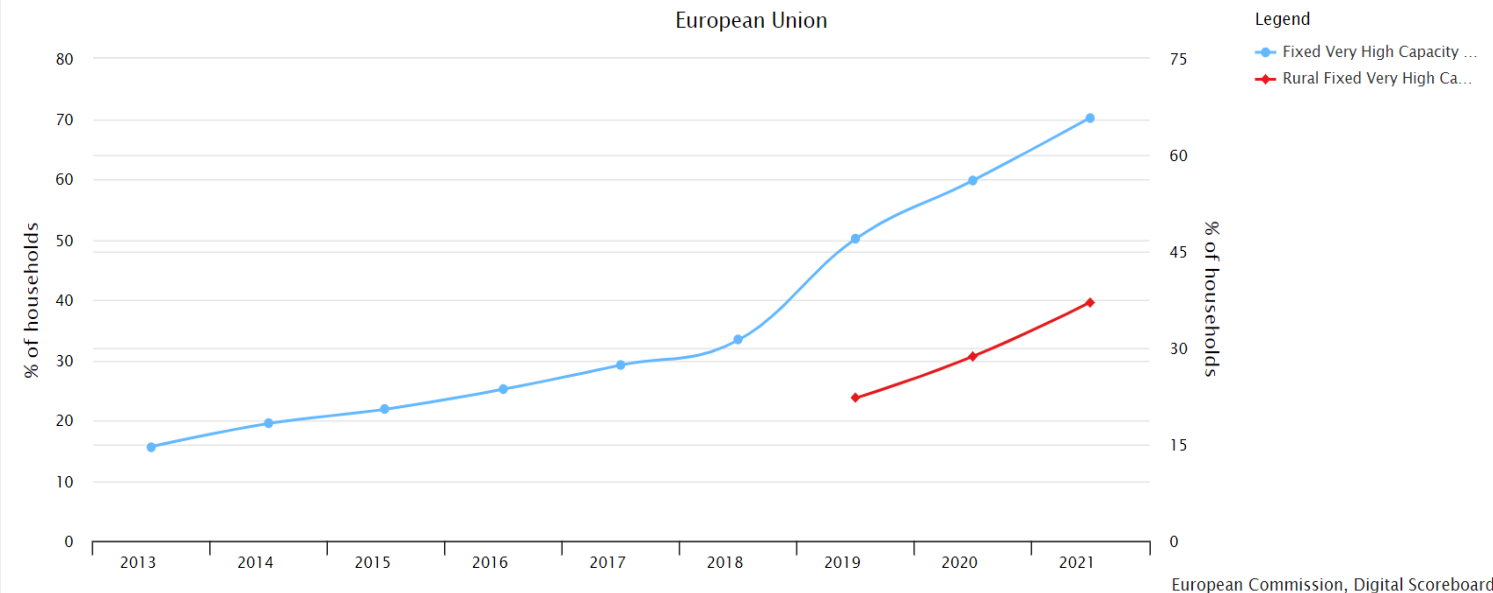
In rural areas, VHCN coverage has increased substantially (8.4% in one year) BUT 62.9% of rural households have no VHCN coverage yet (37.1% coverage in 2021).

The large gap between total and rural VHCN coverage shows regional disparities and confirms that

more investment is needed in rural areas in order to catch up.

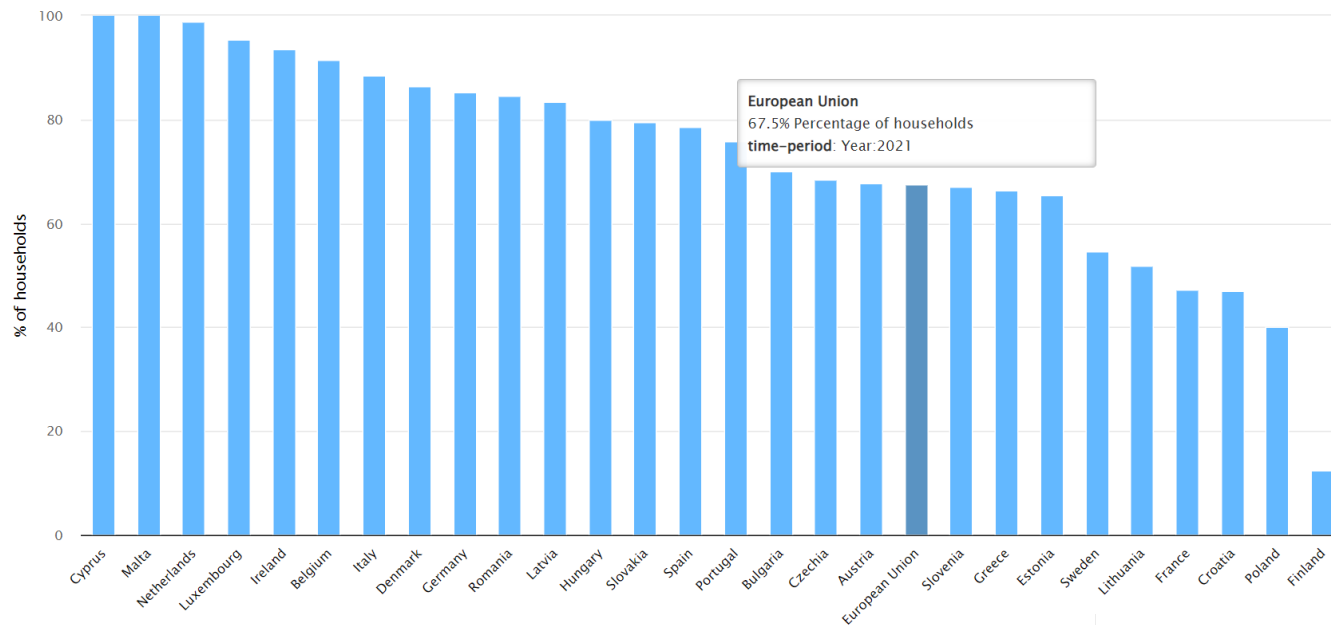
Fixed Very High Capacity Network (VHCN) coverage, by Total and Rural Fixed Very High Capacity Network (VHCN) coverage, by Total

European Union



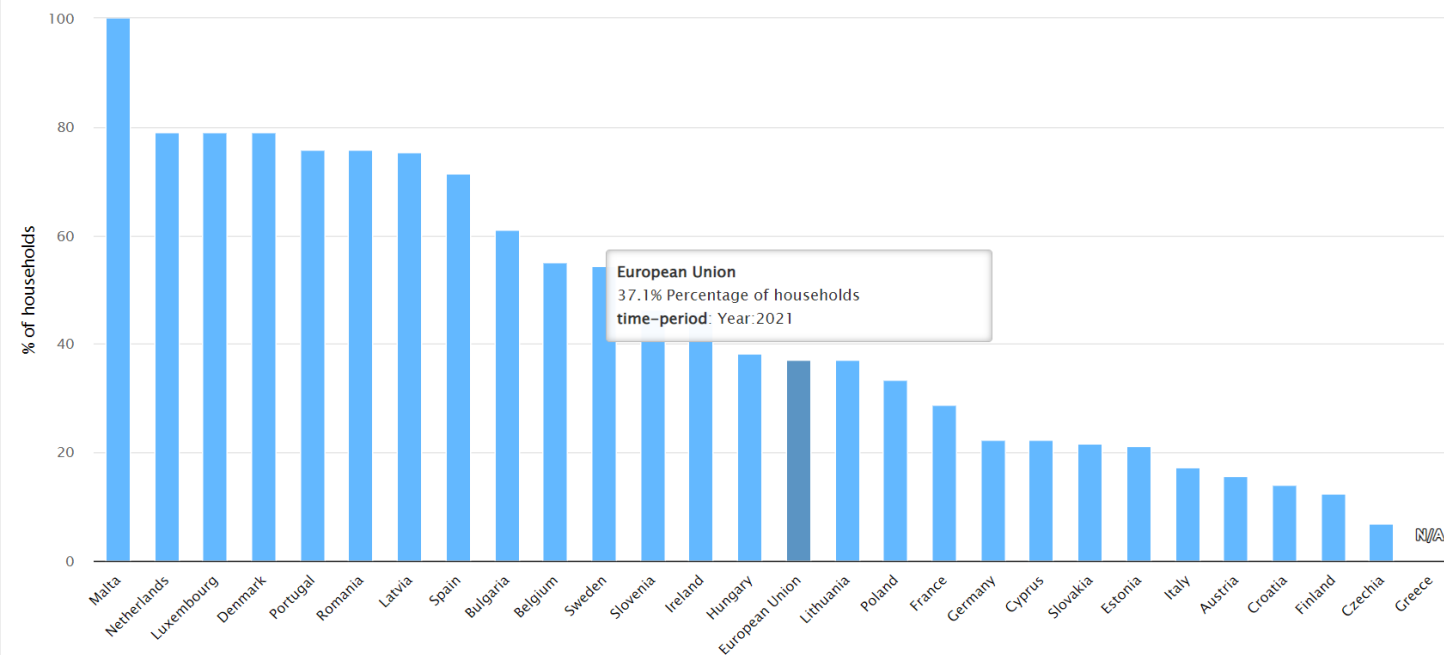
Rural NGA broadband coverage/availability (as a % of households), Total

Year:2021

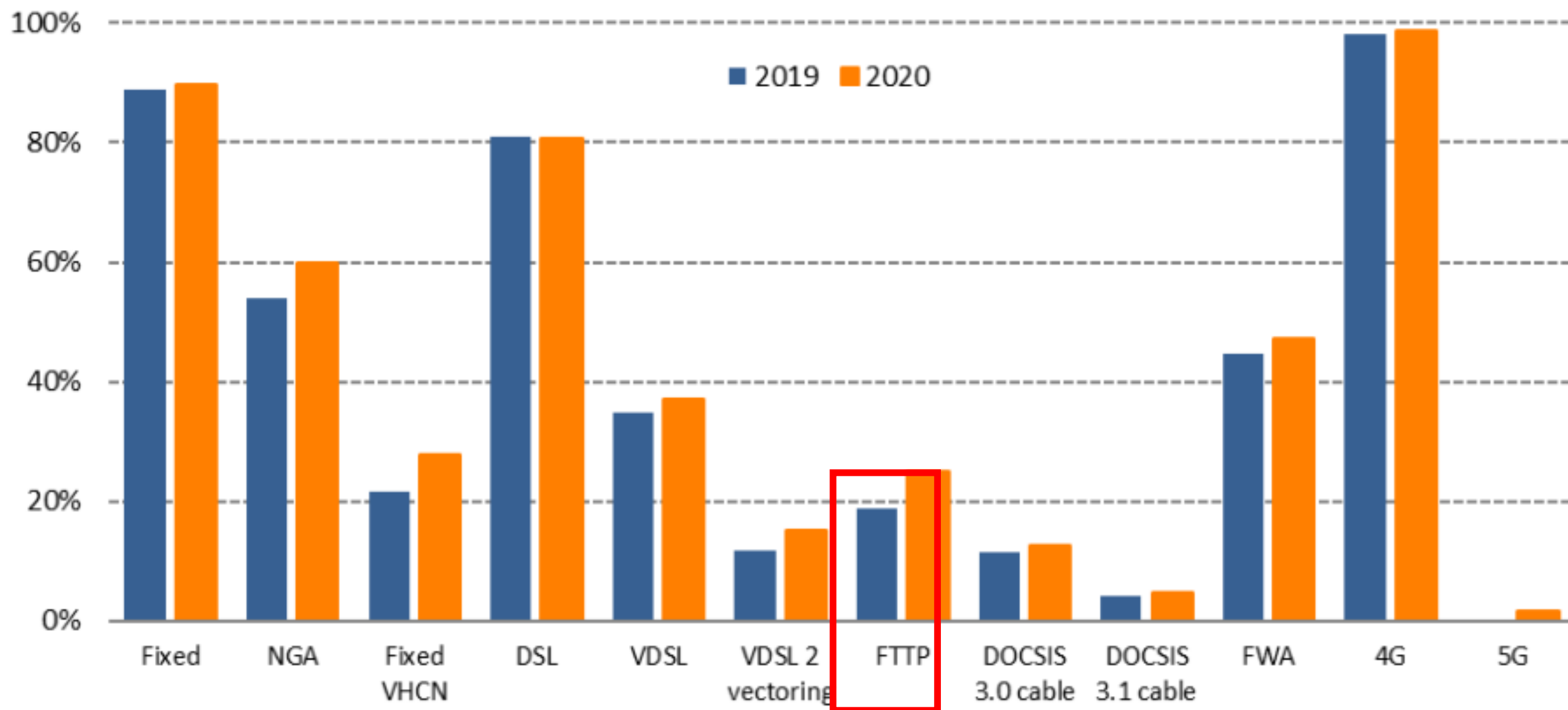


Rural Fixed Very High Capacity Network (VHCN) coverage, Total

Year:2021

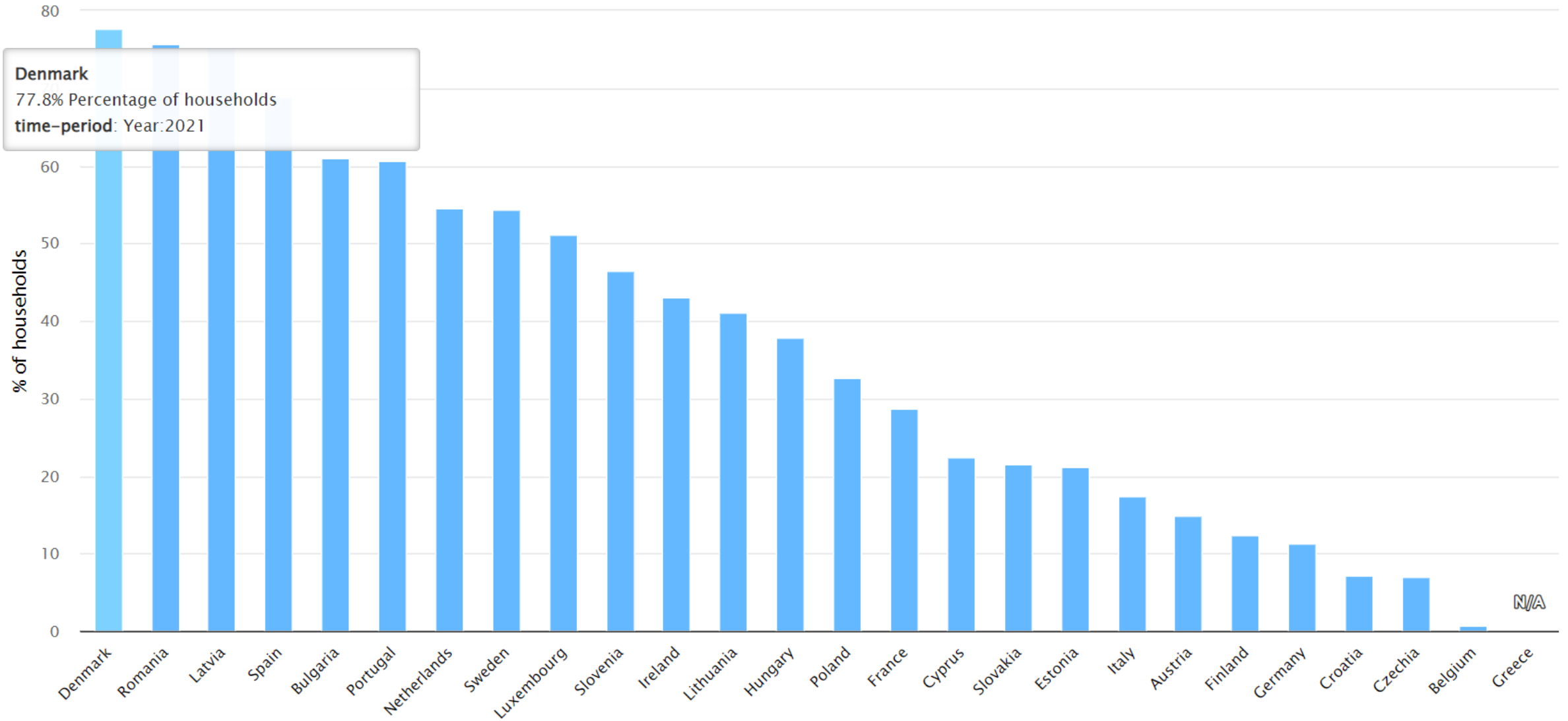


Rural coverage by technology at EU level (% of households), 2019 – 2020



Rural Fibre to the Premises coverage/availability (as a % of households), Total

Year:2021

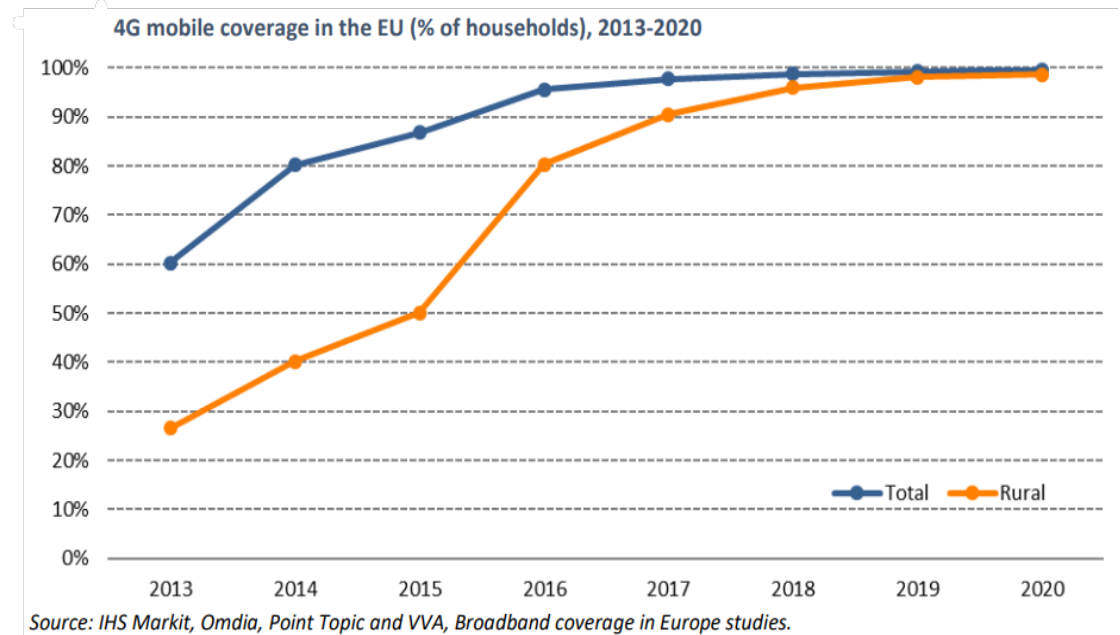


European Commission, Digital Scoreboard

Rural Mobile

4G (LTE) is almost ubiquitous with 99.8% of populated areas covered by at least one operator

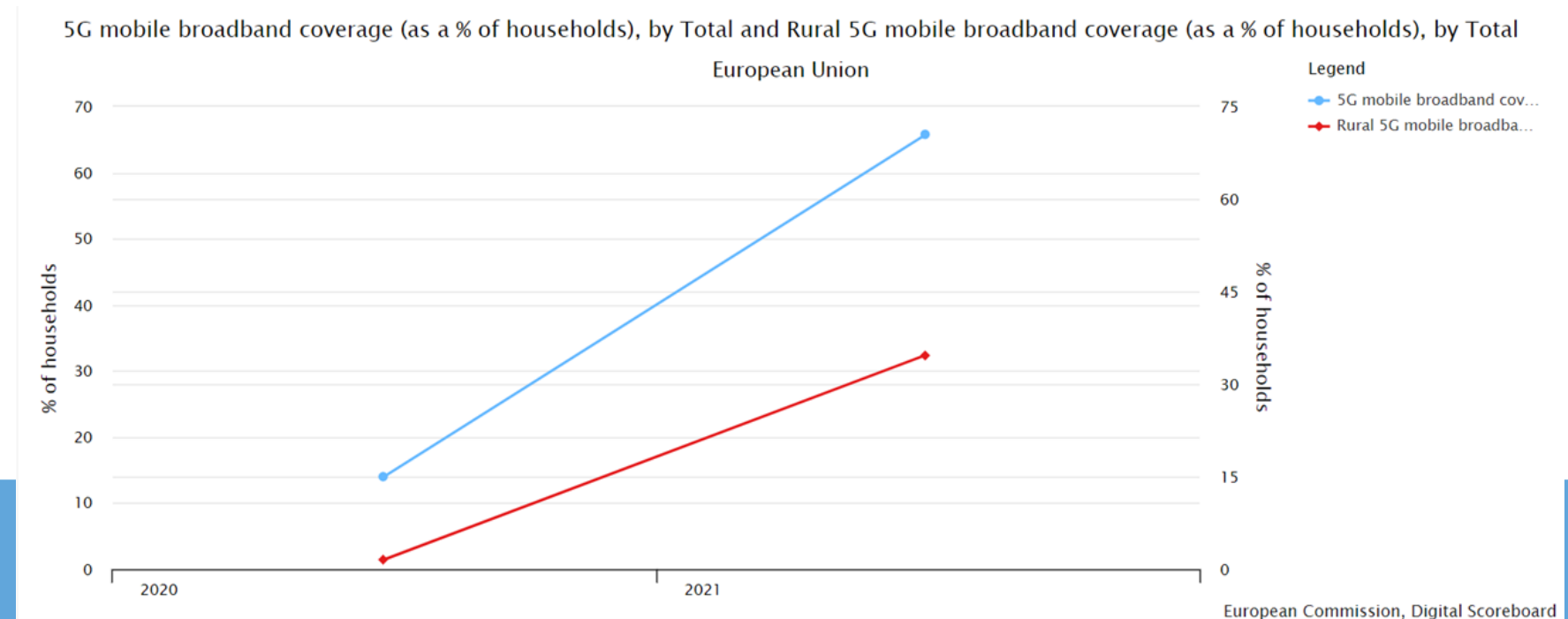
In the last years, the gap between rural and overall 4G coverage almost closed.



The challenge for the economic deployment of rural areas is **territorial coverage** (tourism, agriculture...) and **5G**;

65'8% of European households had some form of 5G in 2021, but

only **34'7% of rural households**

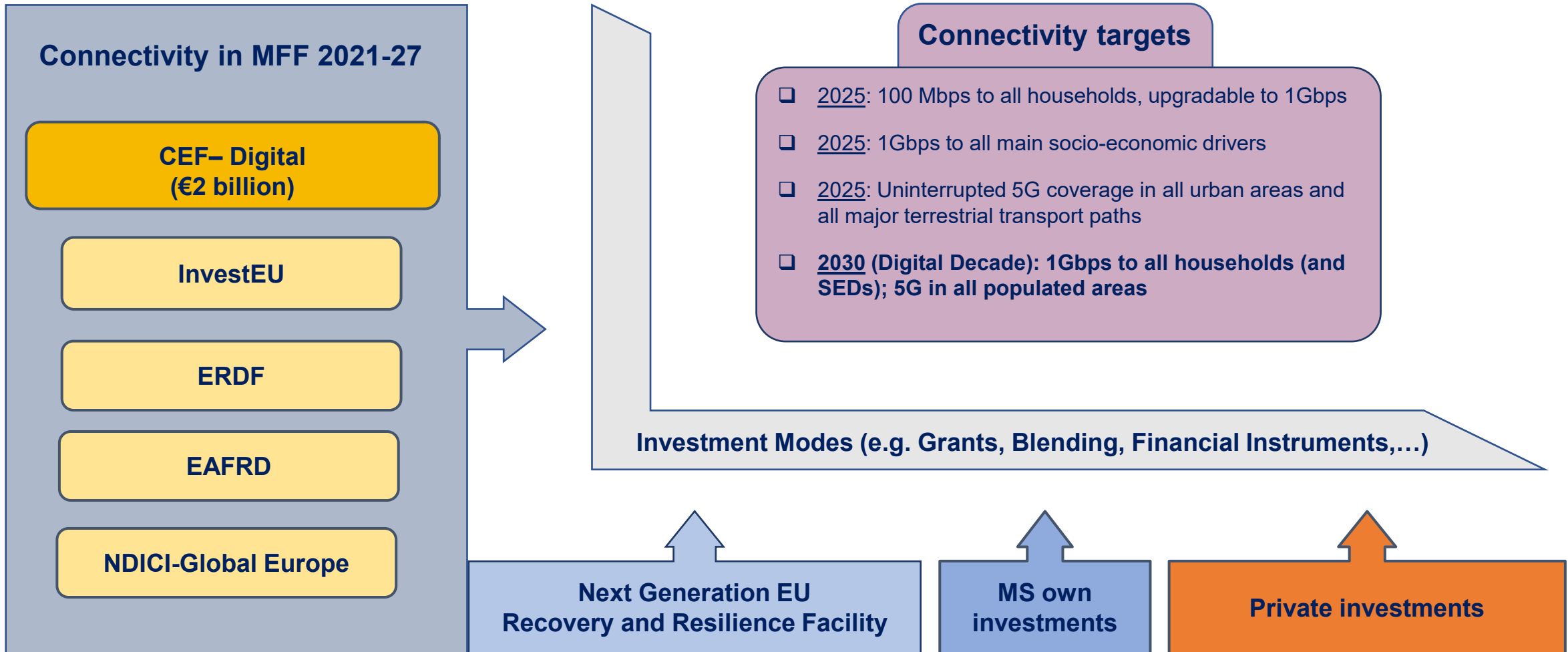


How to accelerate the deployment of high capacity network in EU?

How to accelerate the deployment of high capacity network in EU?

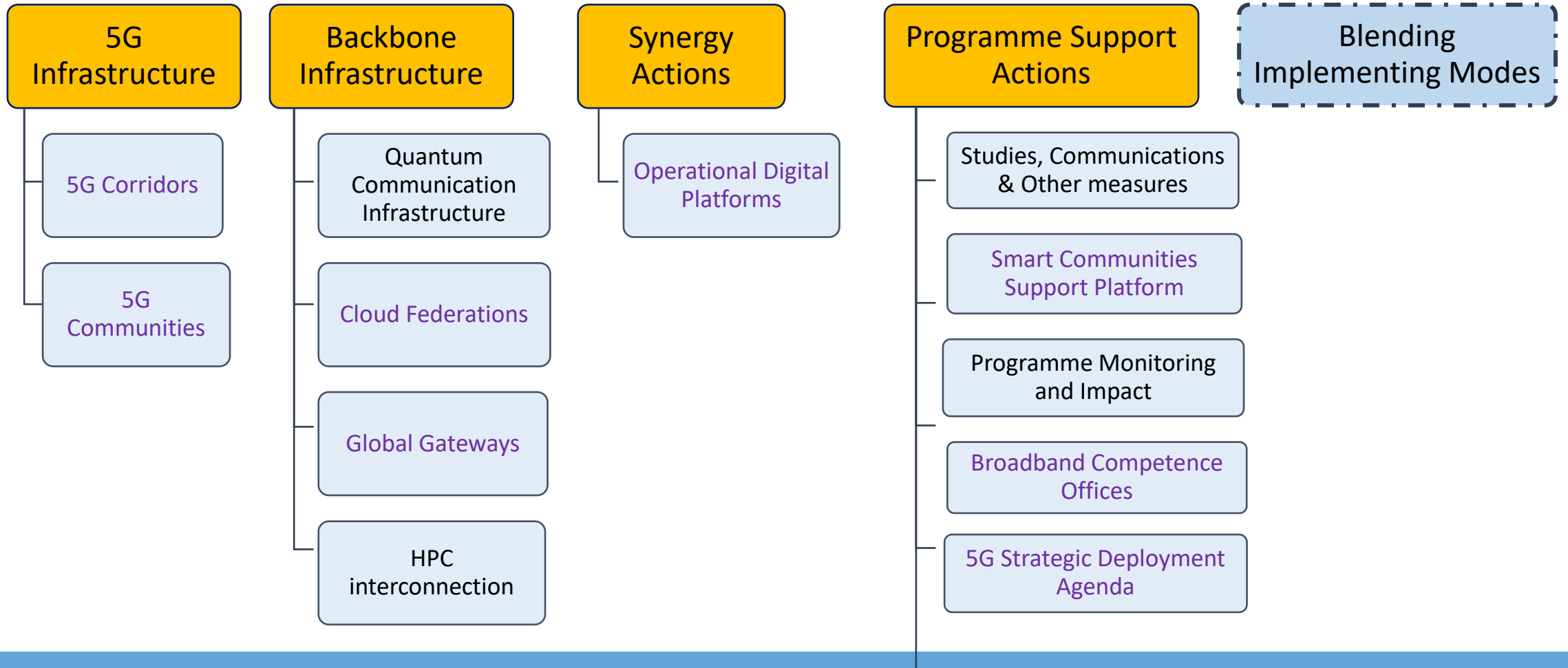
- Further **simplify** the regulatory framework and facilitate cost reduction
- **Update state aid** Framework
- Boost **Investment** in Gigabit and 5g connectivity
- **Involve** all key actors in the planning and execution of investments

Funding connectivity: a wide set of programmes and implementing modes



11% of digital investments in the RRP (approximately €13 billion out of a total of €117 billion), are dedicated to connectivity!

CEF Work Programme 2021-23 – Content Overview



The 5G “continuum”

Large-scale 5G deployments

Local 5G systems

Major transport paths



Urban areas



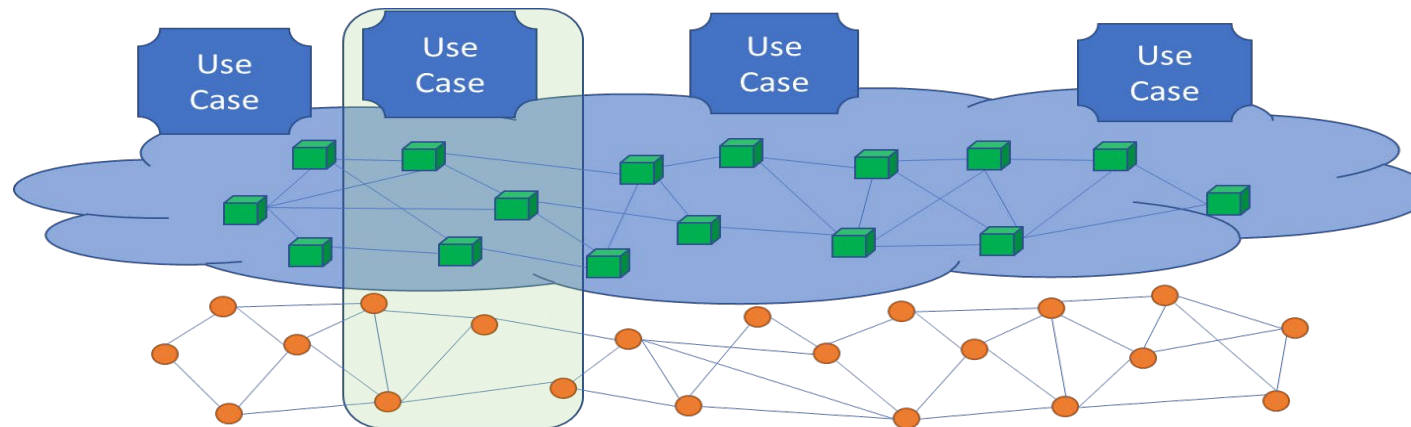
Rural areas



Geographical continuum:
From main corridors and cities to
local communities and villages

Cloud Edge
infrastructure

Connected objects
and devices (IoT)



Technological continuum:
Application-driven vertical
integration, stimulus to EU
digital supply chain

5G deployment and take up (bundling connectivity to applications via cloud-to-edge/data/IoT)

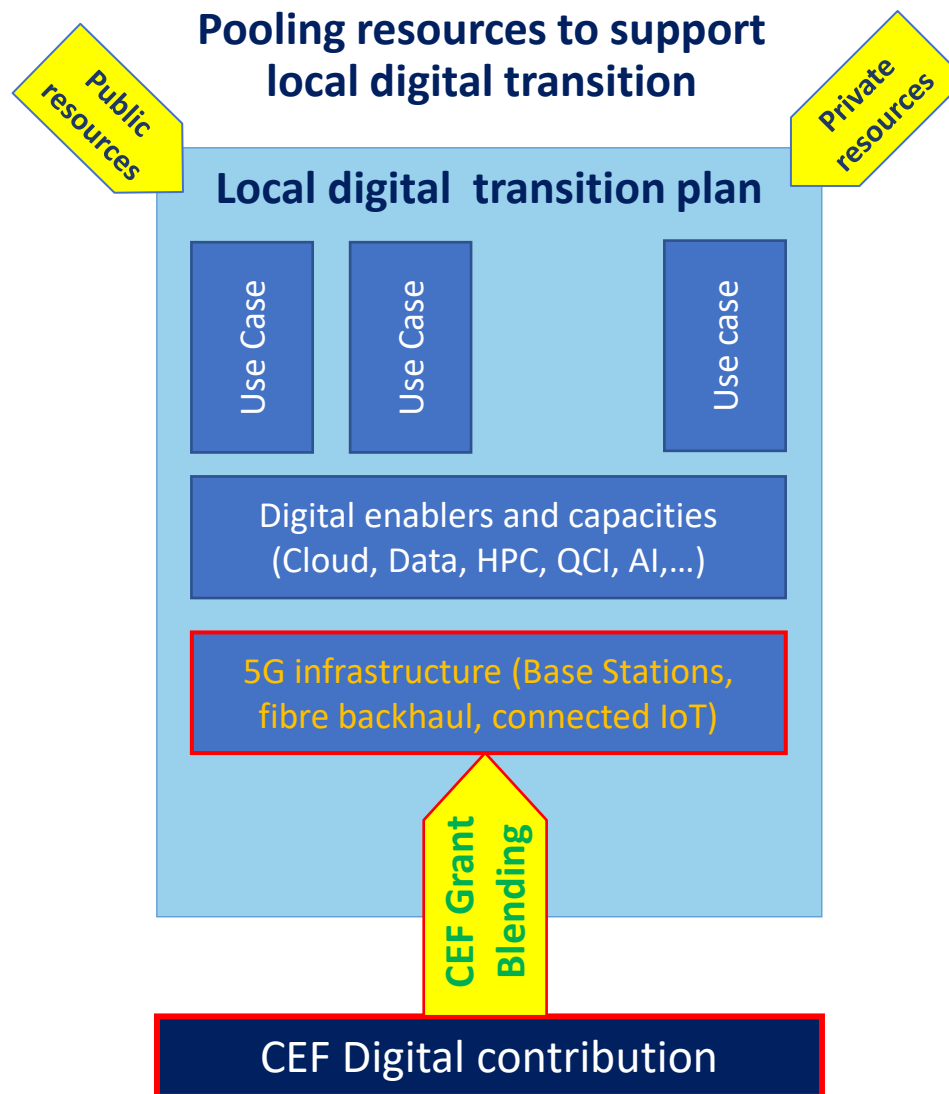
5G connectivity for Smart Communities

Application-pull



Technology-push

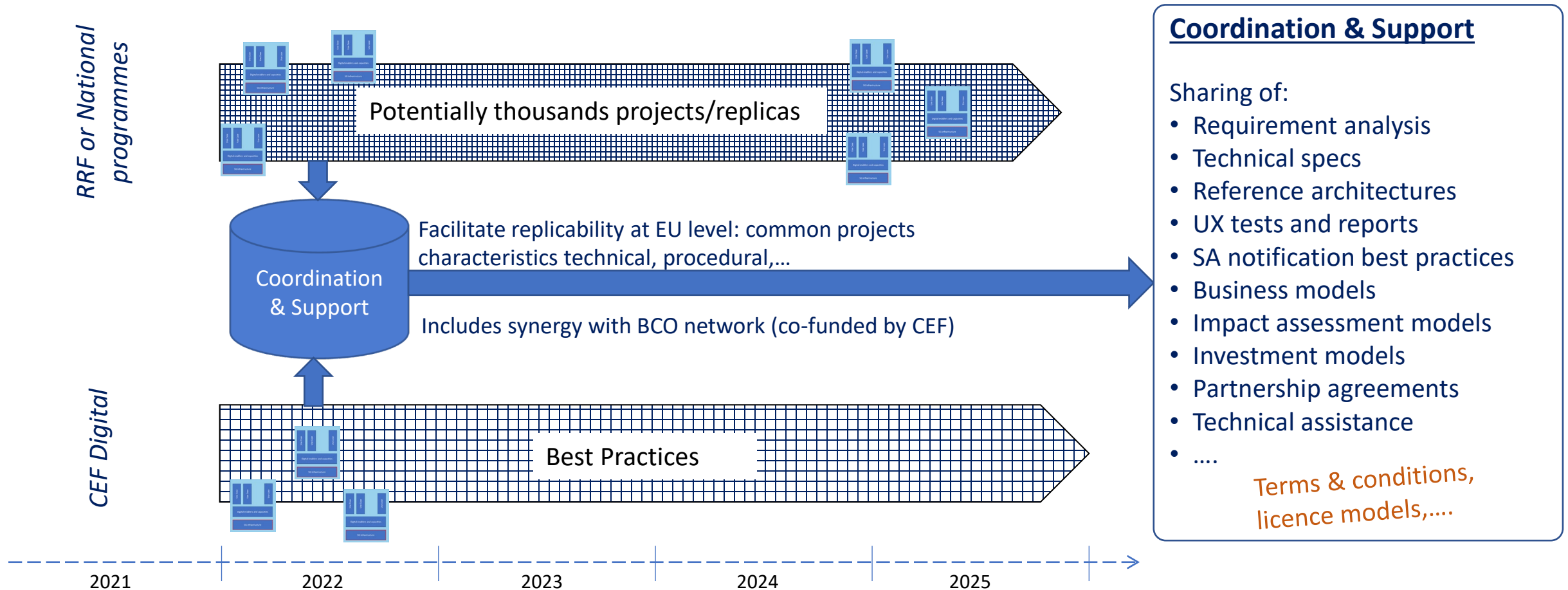
- Use cases to develop or improve public services for a local community ...
- Stimulating European digital supply chain and standards
- Gigabit and 5G rollout linked to use cases and enabling digital capacities' interconnection



Examples of use cases:

- Healthcare: patient monitoring and assistance at home
- Disaster prevention: geo-environmental data, predictive modeling
- Immersive virtual education and smart working environments
- Smart agriculture and precision farming
- Industry 4.0, manufacturing and logistics

Synergy between programmes (sharing of best practices, knowledge...)



Working with all key actors to make it done!

- **EC-Study “Investing in local and regional gigabit broadband deployment: opportunities and challenges for investors in the EU”:**
 - Support municipalities/regions for triggering, organizing, designing infrastructure projects
 - “EU Broadband Investment Advisory Committee”
 - Facilitate networking between project promoters and investors (e.g. Broadband Investment Portal, investor event, investment-readiness trainings)
- **Further rely on the BCO network (joint initiative by AGRI-CNECT-COMP-REGIO)**
- **Partnership with CoR**
- **CEF Support Actions**

State aid

Large number of Decisions adopted after notification concerning fixed and increasingly mobile broadband roll out as well as take-up support measures (social and economic).

Building on this experience the Commission is revising the 2013 Guidelines on State aid for broadband networks - Public consultation closed on February 2022

Work to facilitate national and RRF funding through new State aid Framework:

- **“MFF GBER”** - Targeted review of the General Block Exemption Regulation -(GBER) – to accompany the new Multiannual Financial Framework and to facilitate certain recovery-related aid measures– **adopted 23 July 2021**
- **“Green and digital GBER”** - Targeted review of the General Block Exemption Regulation: revised rules for State aid promoting the green and digital transition – **Public consultation closed on December 2021**

General Block Exemption Regulation

Declares specific categories of State aid compatible with the Treaty if they fulfil certain conditions, thus **exempting them from the requirement of prior notification and Commission approval.**

- Threshold for grants: **EUR 100 million total costs per project;**
- **Wholesale access** must be provided
- Deployment of **fixed (including fixed-wireless) broadband networks**
 - **in areas with no 100 Mbps** connectivity (present or credibly planned to be deployed within 3 years) verified by mapping and public consultation
 - **in areas with no 300 Mbps** connectivity for “**socioeconomic drivers**”
- Deployment of **mobile networks** in areas without 4G coverage:
 - In areas **without 4G coverage**
 - Support limited to **passive elements (towers, masts, ducts...)**

General Block Exemption Regulation

- Aid for **projects of common interest financed or selected under CEF*** (submarine cables, cross-border sections of 5G corridors, HPC and cloud backbones)
- **Connectivity vouchers** for consumers or SMEs
 - Maximum duration 24 months;
 - Connectivity of at least 30 Mbps (residential users) or 100 Mbps (for SMEs);
 - Includes 50% of total set up costs;
- In the context of energy efficiency measures, investments in the **smart readiness of residential/public administration/education buildings** (including passive in-house wiring).
- aid involved in **financial products supported by the InvestEU Fund**

Ongoing GBER revision will build on more recent decisions and alignment with the forthcoming revision of the Broadband Guidelines

*Programmes directly managed by the Commission have already been designed to in line with State Aid policy (e.g. CEF and DEP) but if combined with other funds SA may be present

Revising the 2013 Guidelines on State aid for broadband networks

- Commission **assessing the results of the public consultation** (closed on February 2022)
- Some key elements in the **Draft submitted to Public consultation**:
 - As we progress towards the Digital Decade 2030 connectivity objectives, the presence of a fixed Next Generation Network (30 Mbps) is not sufficient to exclude the presence of a **market failure** and the need of public support;
 - Inclusion of State Aid for **mobile networks** in the Guidelines;
 - Increased harmonization of **mapping**;
 - Revised **wholesale access obligations**;
 - **Backhaul** networks.

A scenic landscape featuring rolling hills, a small village with red-roofed houses, and distant mountains under a cloudy sky. The foreground is dominated by a field of tall, golden-brown grass. The middle ground shows a small village nestled in a valley, surrounded by green fields and trees. The background consists of a range of mountains with jagged peaks, partially covered in snow or light-colored rock, under a sky with soft, white clouds.

Thank you

Session #5.2

Digitalisation, transforming rural areas

The eHealth applications in rural areas

Willeke van Staalduinen

AFEdemy | SHAFE | NET4Age-Friendly

Speaking on behalf of Carina Dantas



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In the aftermath of the pandemic, what do we need for eHealth uptake?



CITIZENS need to improve:

- digital skills
- health literacy
- engagement & democratic participation
- less inequalities on access

ENVIRONMENTS have as major challenges:

- house retrofitting
- digital infrastructures
- transports & mobility
- climate neutral solutions

and, finally, **PUBLIC SERVICES** need:

- reliable accessible big data
- integrated and person-centered pathways
- long-term sustainable business models

We acknowledge all these challenges are connected and a global approach is needed - SMART HEALTHY AGE-FRIENDLY ENVIRONMENTS



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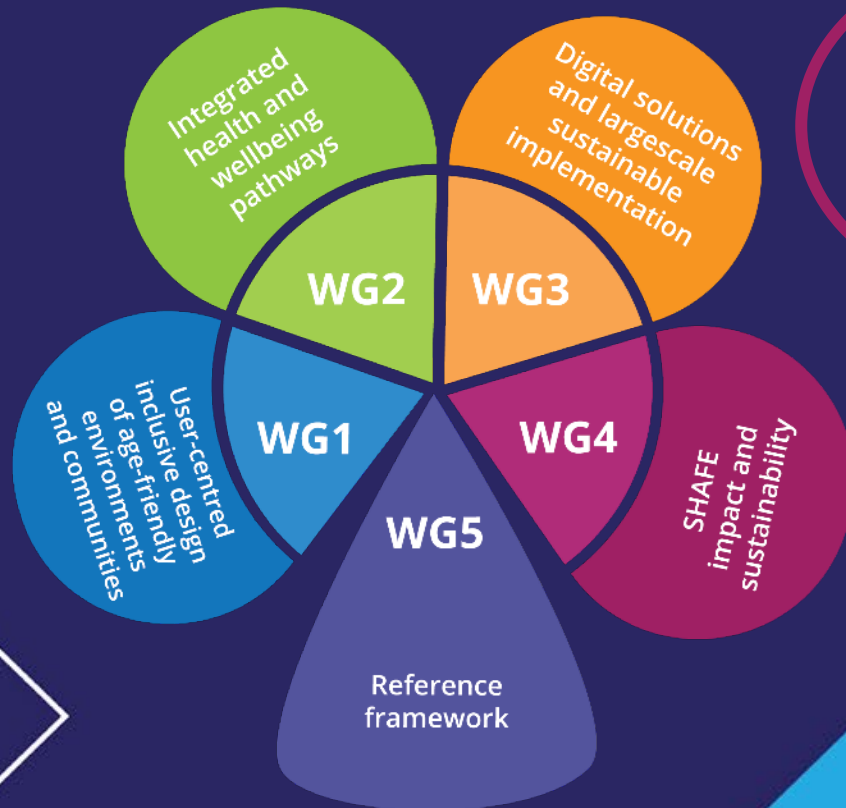


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People should not need to adapt to environments or products.

We advocate for solutions and environments that include, adapt, grow, and respond to our personal needs, at any age or condition.



Smart Healthy
Age-Friendly
Environments



This COST Action main goal is to foster **awareness and support the creation and implementation of smart, healthy indoor and outdoor environments** for present and future generations.



MANAGEMENT COMMITTEE | 51 Countries
FULL NETWORK | ~330 participants



Chair
Carina Dantas



Vice-Chair
Willeke van Staalduinen

Telemonitoring



TELEMONIT <https://www.sns24.gov.pt/guia/utilizar-a-aplicacao-movel-telemonit-sns-24/>



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Infrastructure

This innovative space is called **'CoEbreLab 5G Rural'** and is the first 5G Area created beyond urban areas. Its final goal is to install 5G, a technology that would allow testing in real rural settings and the creation of digital products and services. The base for the project is the installation of a 5G network infrastructure in Móra la Nova and Móra d'Ebre.

The impact of this initiative will reach the economic and social fabric, promoting economical innovation and the revitalization of the territory while reducing the rural digital divide. Aiming to boost the Catalan 5G ecosystem and transforming Catalonia into an international reference in this field, the 5G Area projects aim to **improve technical services around Catalonia**, promoting the commercial use of 5G networks and propelling its display, as well as promoting use cases and prototypes in real settings and fostering a digital economy beyond urban areas with the development of new products and services based on 5G technology.

CoEbreLab is part of the **Cat Sud Collaboratory**, the first Digital Social Innovation lab in Catalonia. The Cat Sud Collaboratory aims to create a network in the territory that benefits from various assets and knowledge, expecting to solve the challenges outlined in the area through joint innovation.



CoEbre 5G LAB <https://i2cat.net/the-first-5g-area-in-catalonia-inaugurates-in-terres-de-lebre/>



WHAT IS H2020 – AURORAL?

H2020-AURORAL was launched in January of 2021 aiming to contribute to increase economic growth in rural areas and to tackle significant societal challenges.

H2020-AURORAL is building a new concept, the Smart Communities, a new European paradigm for sustainable development. Those are areas based in the use of innovative solutions to improve their resilience, building on local strengths and opportunities. The main objectives are:

- Connect and share data collected locally through a secure and privacy-preserving framework.
- Engage external technology and application providers in exploiting their data by offering advanced horizontal services to process and create value out of these data.
- Participate in new dynamic online marketplaces as commodities services and online platform operators.
- Implement an interoperable way and based on open application interfaces based on open standards.

H2020-AURORAL IN A NUTSHELL

 25 PARTNERS	 10 EUROPEAN COUNTRIES
 +5 DOMAINS (Farming, Tourism, Mobility, Energy, Health...)	 50 INNOVATIVE APPLICATIONS
 8 PILOT REGIONS	 4 YEARS

OUR PILOTS

H2020-AURORAL digital environment is demonstrated through pilots in 8 European regions.

- Alentejo (Portugal)
- Southern Burgenland (Austria)
- Hålogaland (Norway) - Tourism
- Hålogaland (Norway) - Health
- Västerbotten (Sweden)
- Lapland (Finland)
- Piedmont (Italy)
- Penedès (Catalonia, Spain)

Project AURORAL <https://www.auroral.eu/#/>



Work





The Silver Economy in rural areas and less developed regions

These regions and their traditional local facilities are usually safer, providing better conditions for young families and people in their mature years (40+) to live. But better healthcare, education and cultural facilities, as well as digital infrastructure are needed.

CREATE BETTER INFRASTRUCTURES for families to go to rural areas with the increase of online working is a real opportunity in the current period.

JOB CREATION – energy, sustainable jobs, agriculture, tourism can also help to improve this situation and promote the EU self-sufficiency.

Strengthening the TOURISTIC OFFER of such regions and areas, coupling it with innovative services that have an added value for health (thermal spas, healthy walks, healthy food, cultural attractions for cognitive stimulation, special accessible services) may engage local residents and increase attractiveness, off-season and in season.



**"Success is not final; failure is not fatal: It is the
courage to continue that counts."**



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Thank you



Time for your voices





How can we contribute to the Rural Pact?



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Conversations in small groups

1. Introduce yourself to one another and share what connects you to the topic of this session
2. Exchange ideas and take notes on the Template

GROUPS



GROUP #1: Focus on BUILDING GIGABIT NETWORKS infrastructure

GROUP #2: Focus on APPLICATIONS of this infrastructure



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Template



Rural Pact Conference, 15-16 June 2022

How can we contribute to the Rural Pact?

Session topic: _____

Participants:

Key Ideas:

What new ideas emerged from the presentations? What key ideas can you share from your own context?

Opportunities for collaboration:

What opportunities for collaboration do you see?

Concrete actions (name, organisation, action)*:

What concrete actions are you willing to take to contribute to the Rural Pact?



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Conversations in small groups

Etiquette



- Speak with intention
- Listen with attention
- Listen together for new insights and deeper questions
- Link and connect ideas
- Slow down



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Harvesting from our conversation



1) What new ideas emerged from our conversations that see Digitalisation as a way to contribute to the Rural Pact?

2) What opportunities for collaboration came to life that can contribute to the vision goals of the Rural Pact?



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Harvesting from our conversation



Join at
slido.com
#river



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Don't forget to submit a commitment



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COMMITMENT CANVAS

What concrete actions am I / is my organisation willing to take to contribute to the Rural Pact?

Please fill out one canvas for each commitment you are willing to submit

This is: <input type="checkbox"/> An idea for a commitment / <input type="checkbox"/> A formal commitment	
Name: Name of organisation: Sector/type of organisation:	
Contact email:	Country:
Are you a member of the Rural Pact Community? <input type="checkbox"/> Yes / <input type="checkbox"/> No	
Description of the commitment: <div></div>	
Key milestones you are planning:	





Thank you

Thank you

