

Rural Pact Conference

15-16 June 2022



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

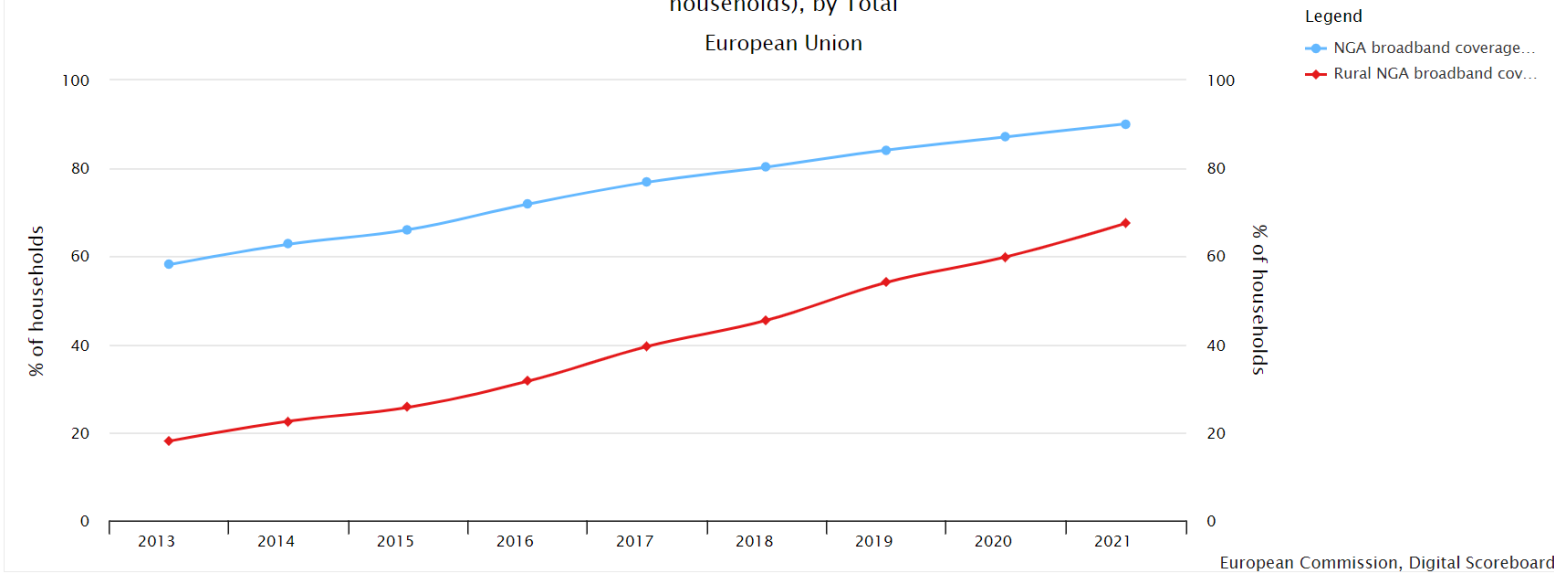
The Digital Decade defines two targets in the area of broadband connectivity for 2030: **Gigabit coverage for all households and 5G in all populated areas.**

	DESI 2019	DESI 2021	DESI 2022
2a1 Overall fixed broadband take-up % households	74% 2018	77% 2020	(as reported in the European Semester)
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).

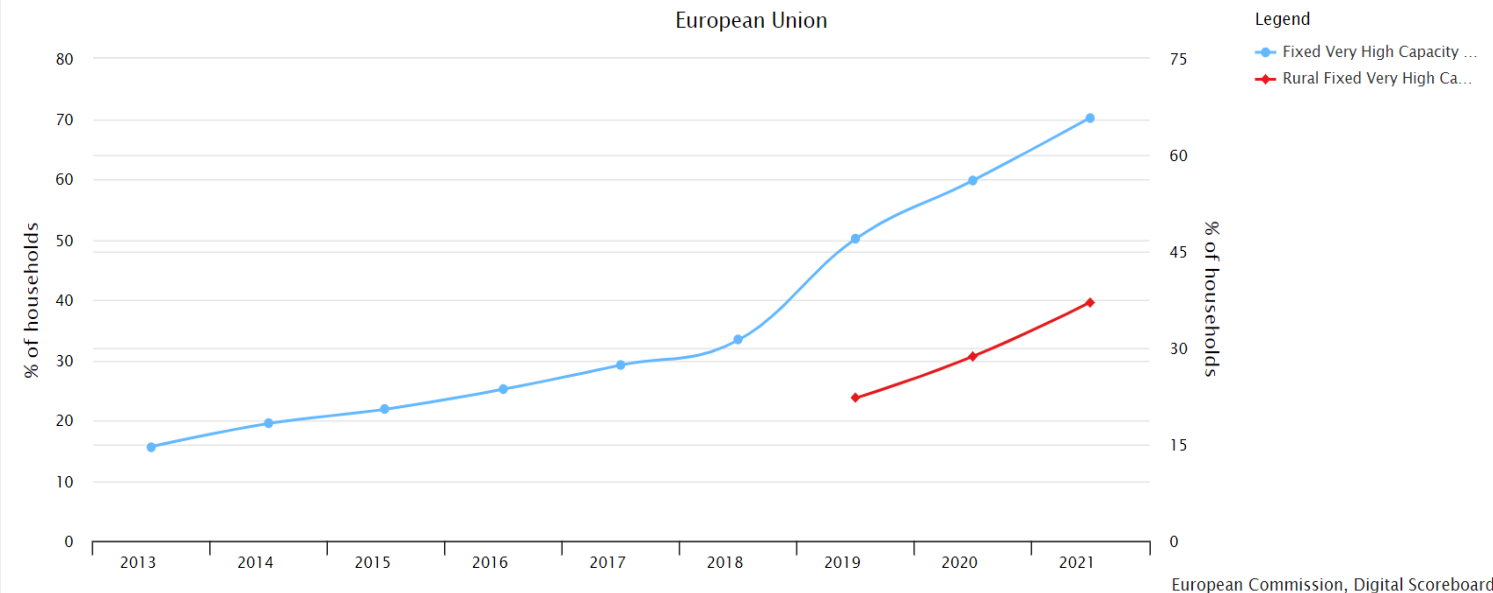
In rural areas, VHCN coverage has increased substantially (8.4% in one year) BUT 62.9% of rural households have no VHCN coverage yet (37.1% coverage in 2021).

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.

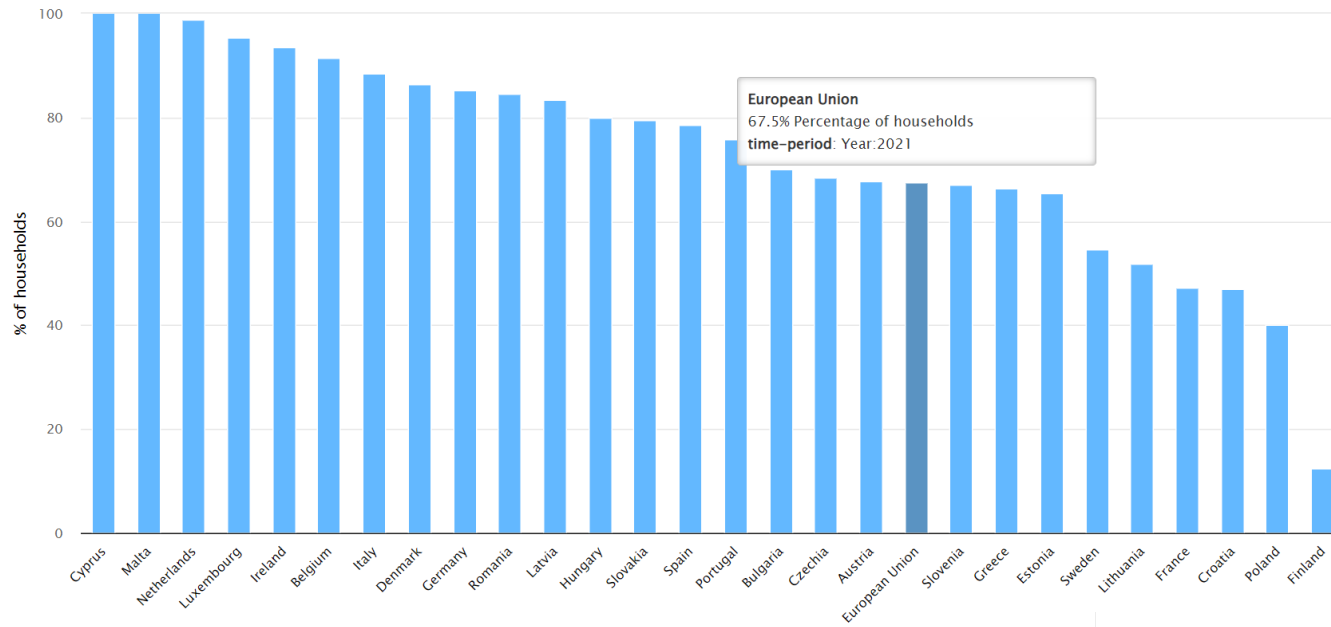
Fixed Very High Capacity Network (VHCN) coverage, by Total and Rural Fixed Very High Capacity Network (VHCN) coverage, by Total

European Union



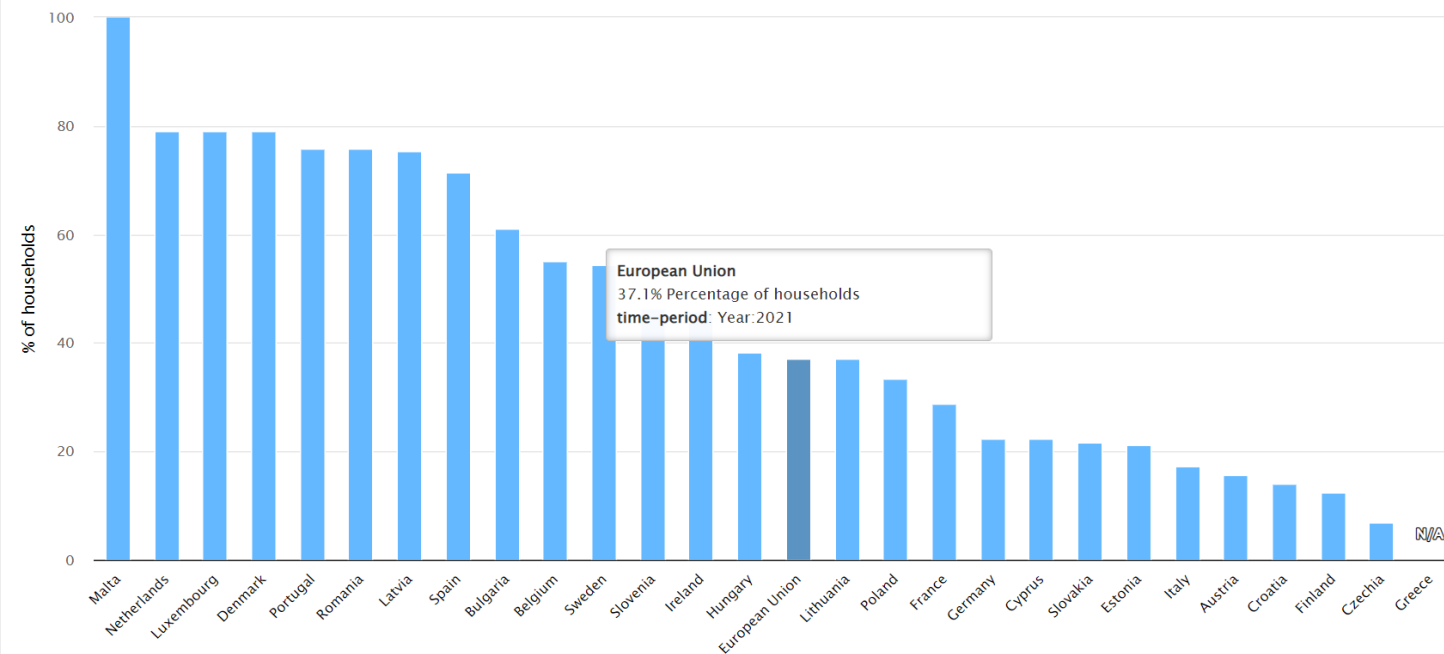
Rural NGA broadband coverage/availability (as a % of households), Total

Year:2021

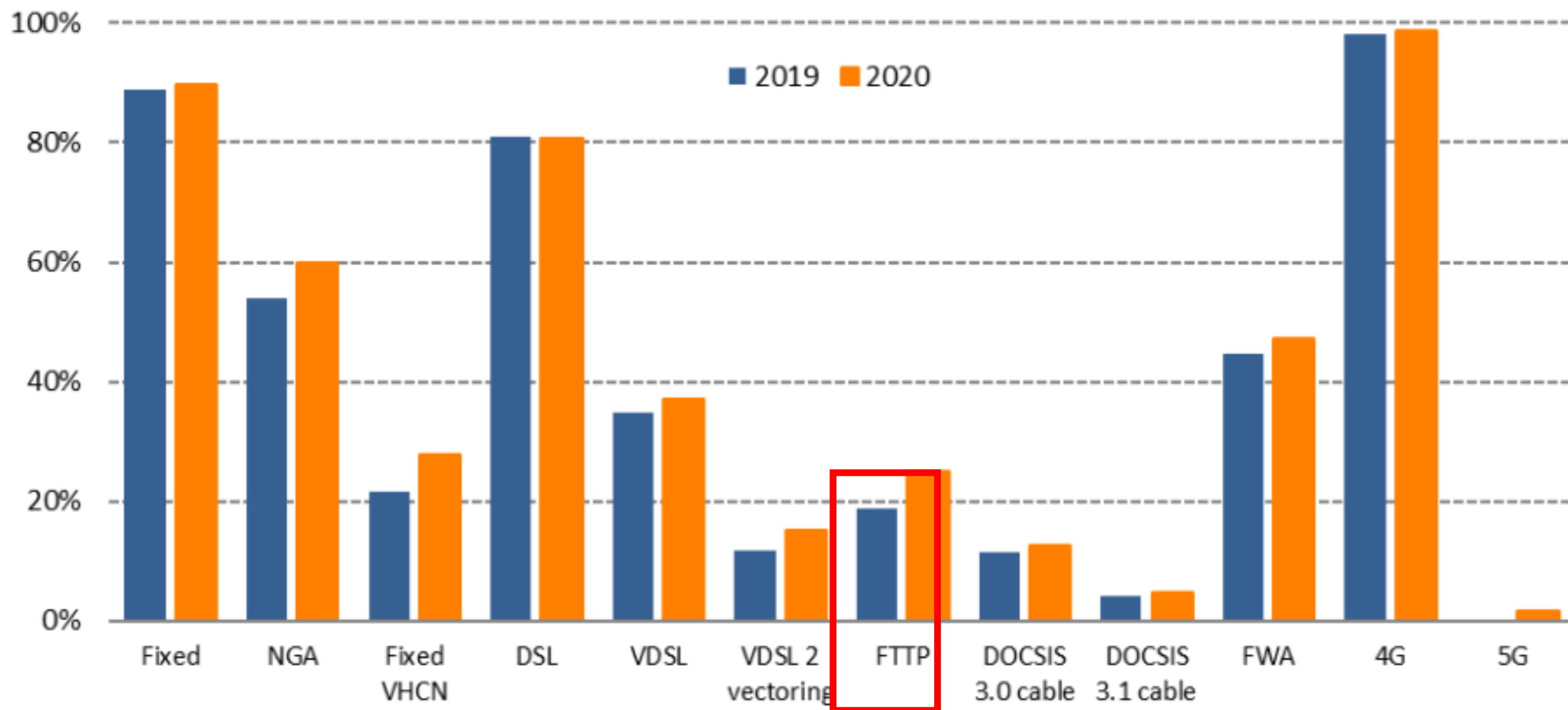


Rural Fixed Very High Capacity Network (VHCN) coverage, Total

Year:2021

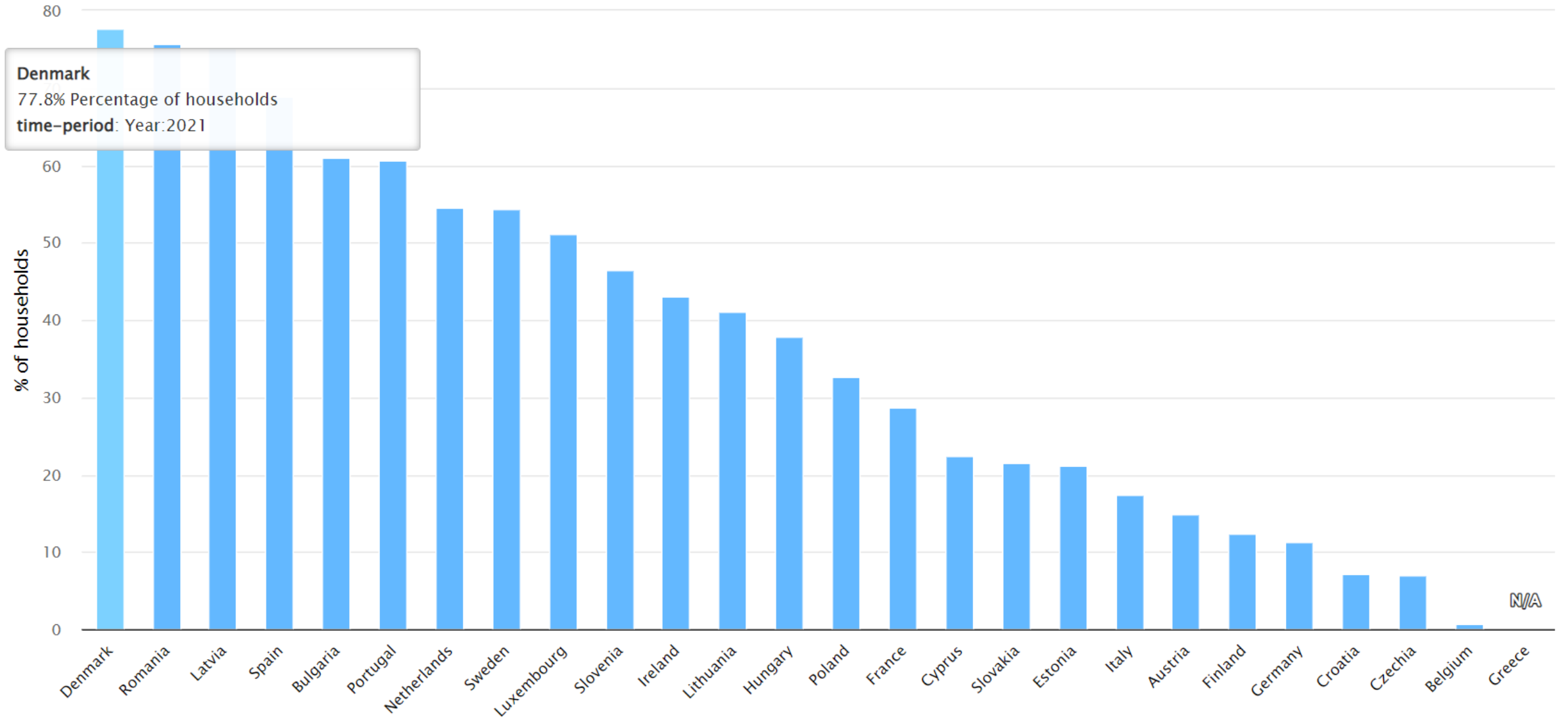


Rural coverage by technology at EU level (% of households), 2019 – 2020



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

Year:2021

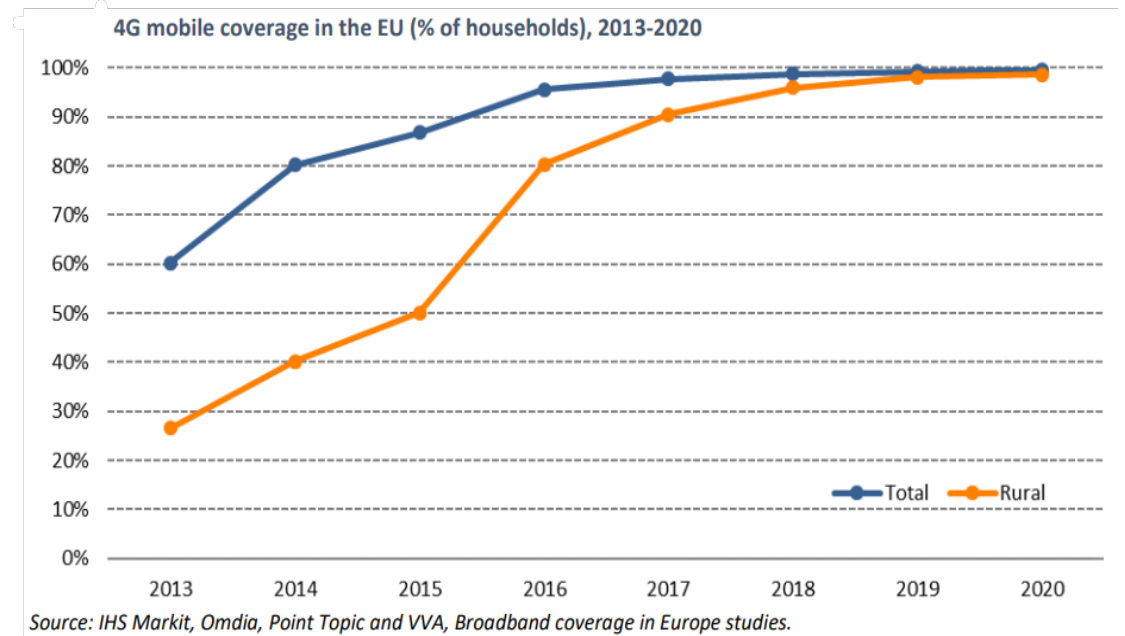


European Commission, Digital Scoreboard

Rural Mobile

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

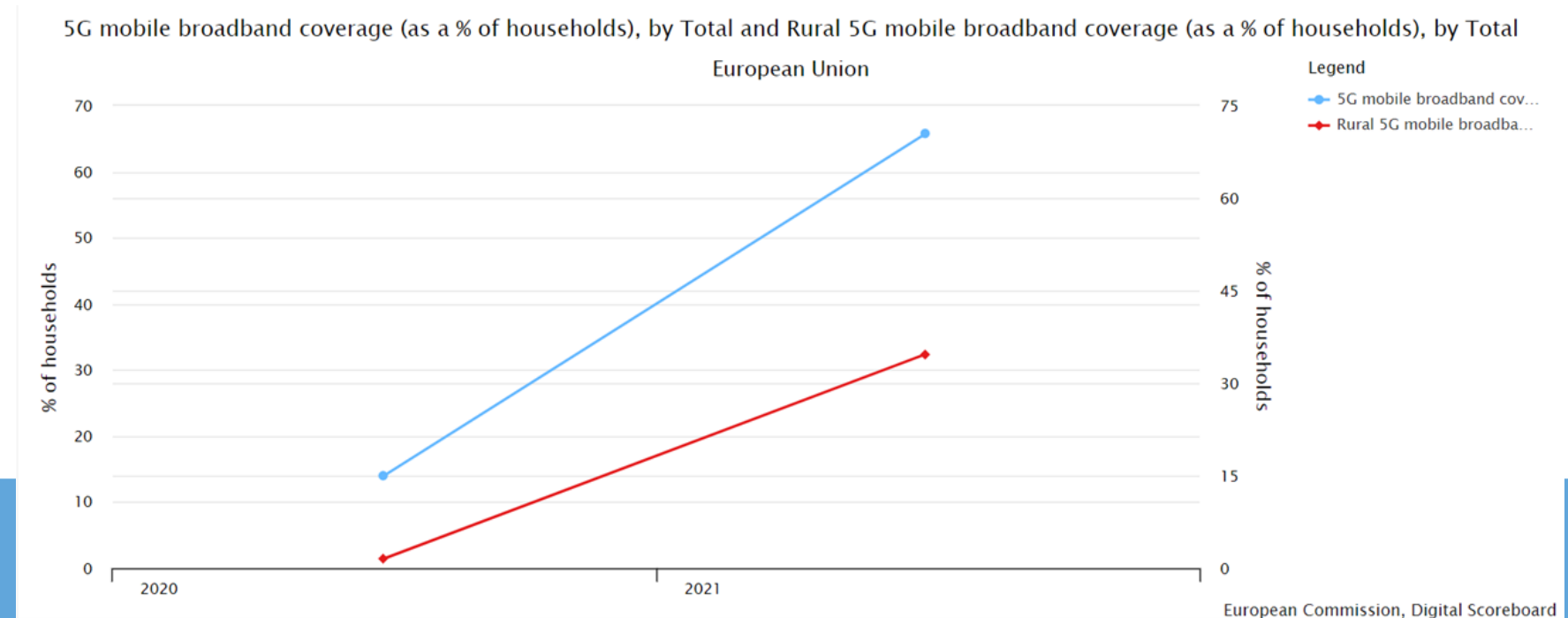
In the last years, the gap between rural and overall 4G coverage almost closed.



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**

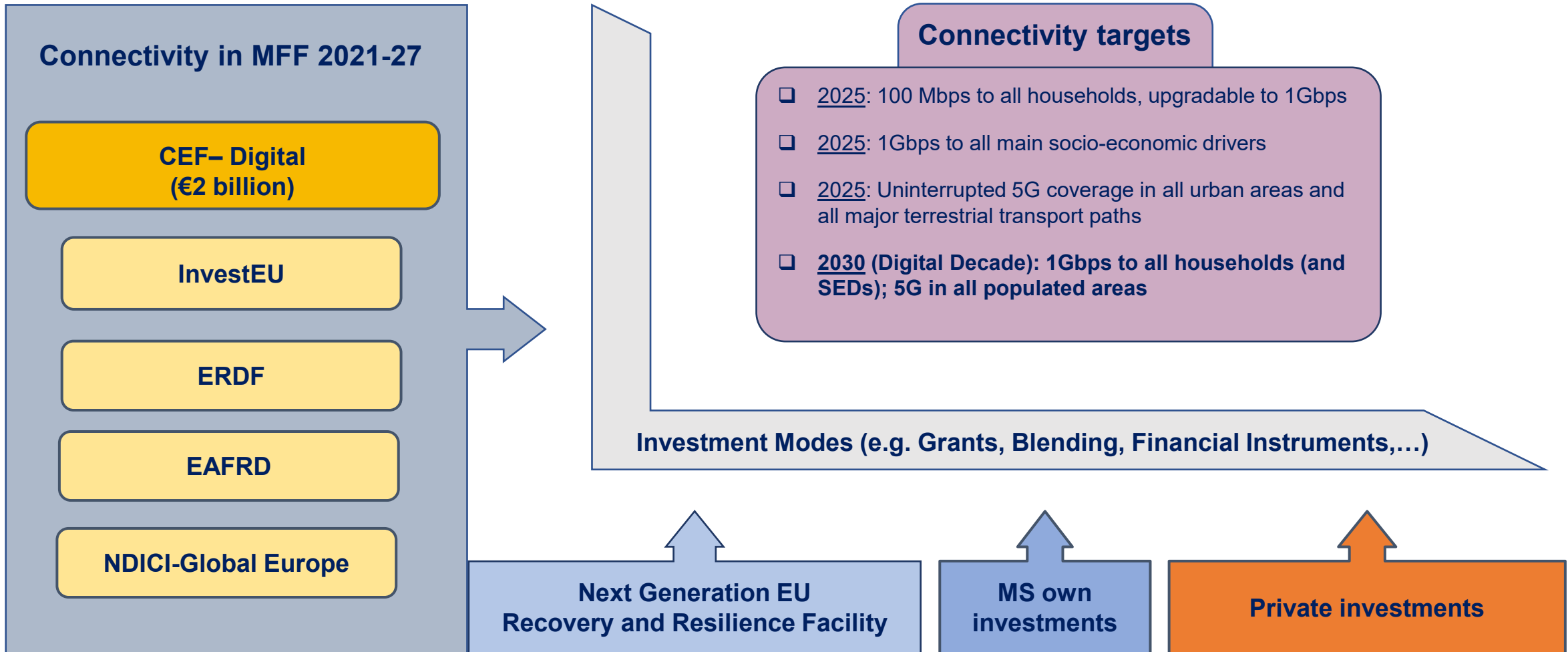


How to accelerate the deployment of high capacity network in EU?

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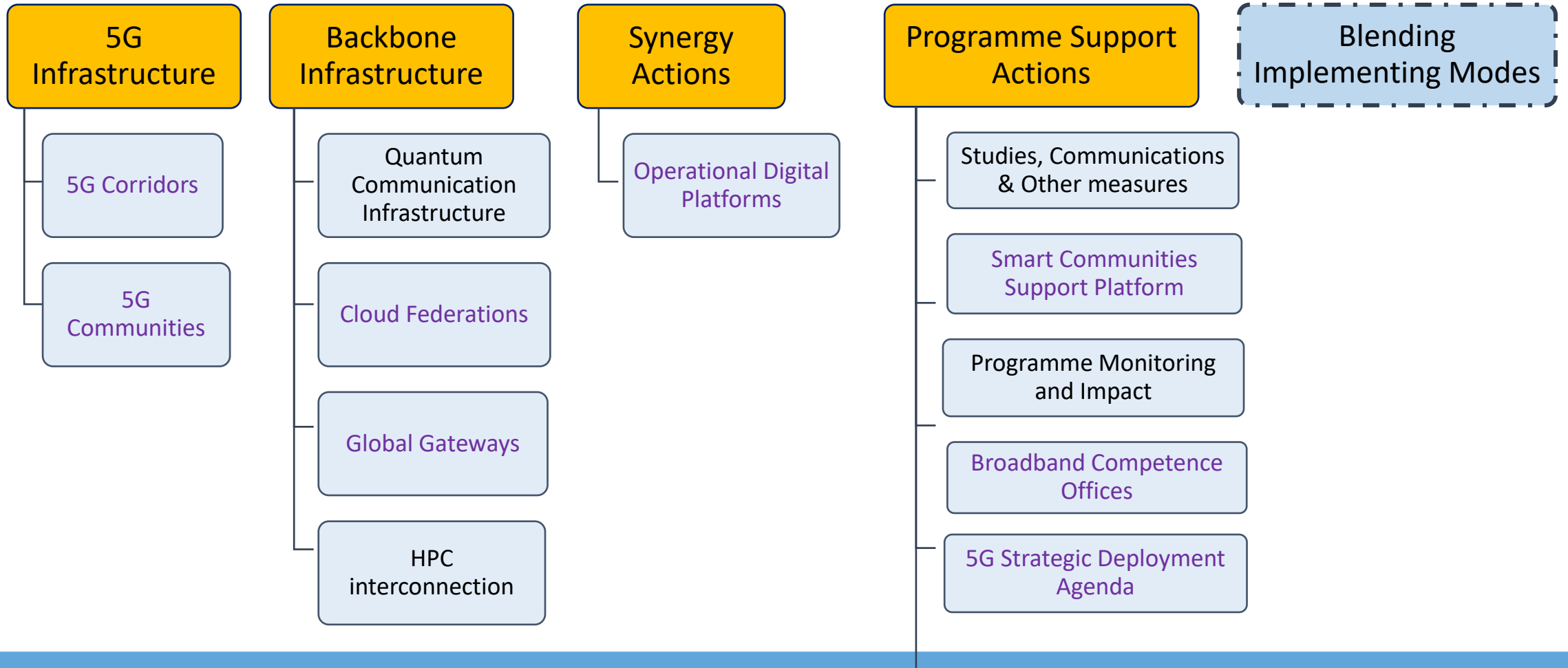
- Further **simplify** the regulatory framework and facilitate cost reduction
- **Update state aid** Framework
- Boost **Investment** in Gigabit and 5g connectivity
- **Involve** all key actors in the planning and execution of investments

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



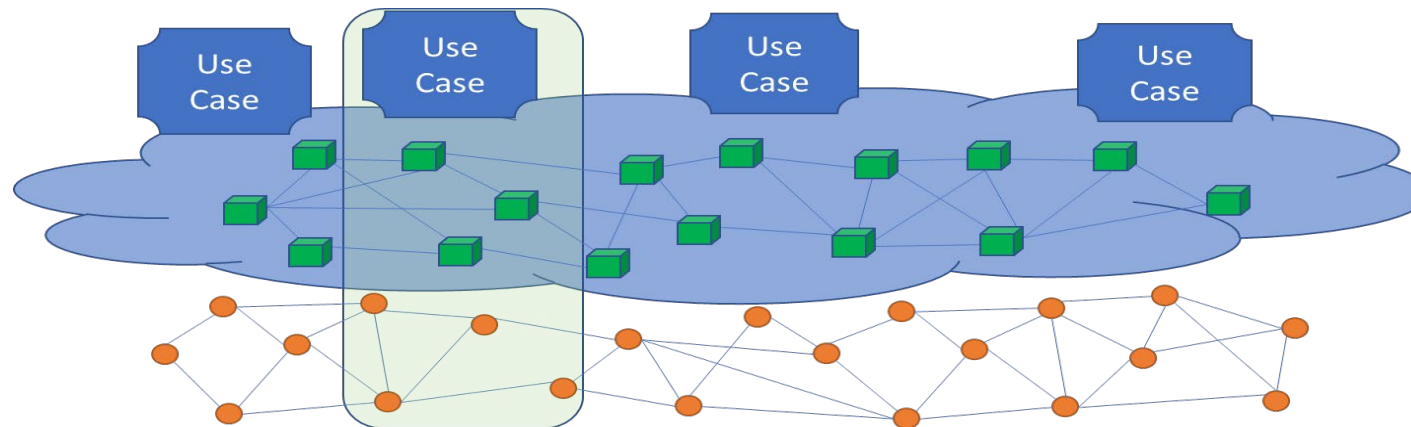
Rural areas



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)

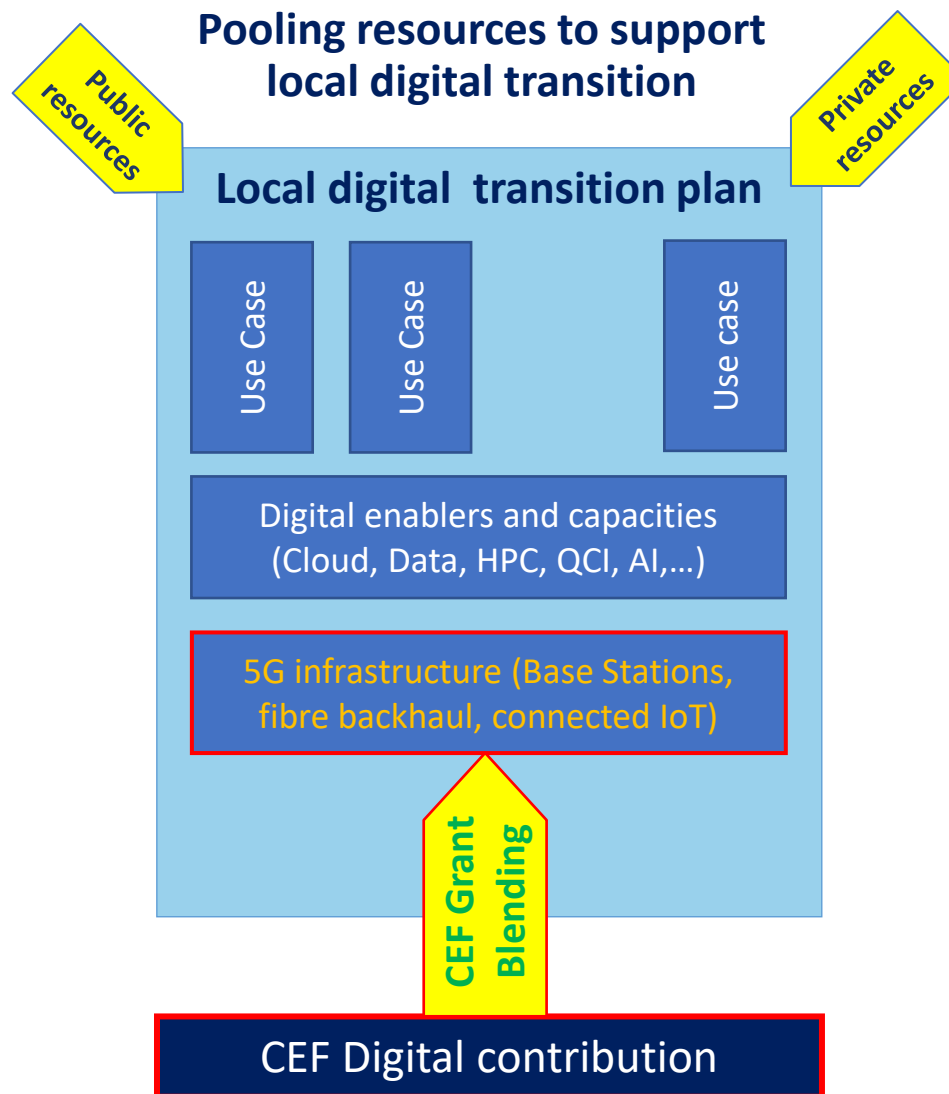
5G connectivity for Smart Communities

Application-pull



Technology-push

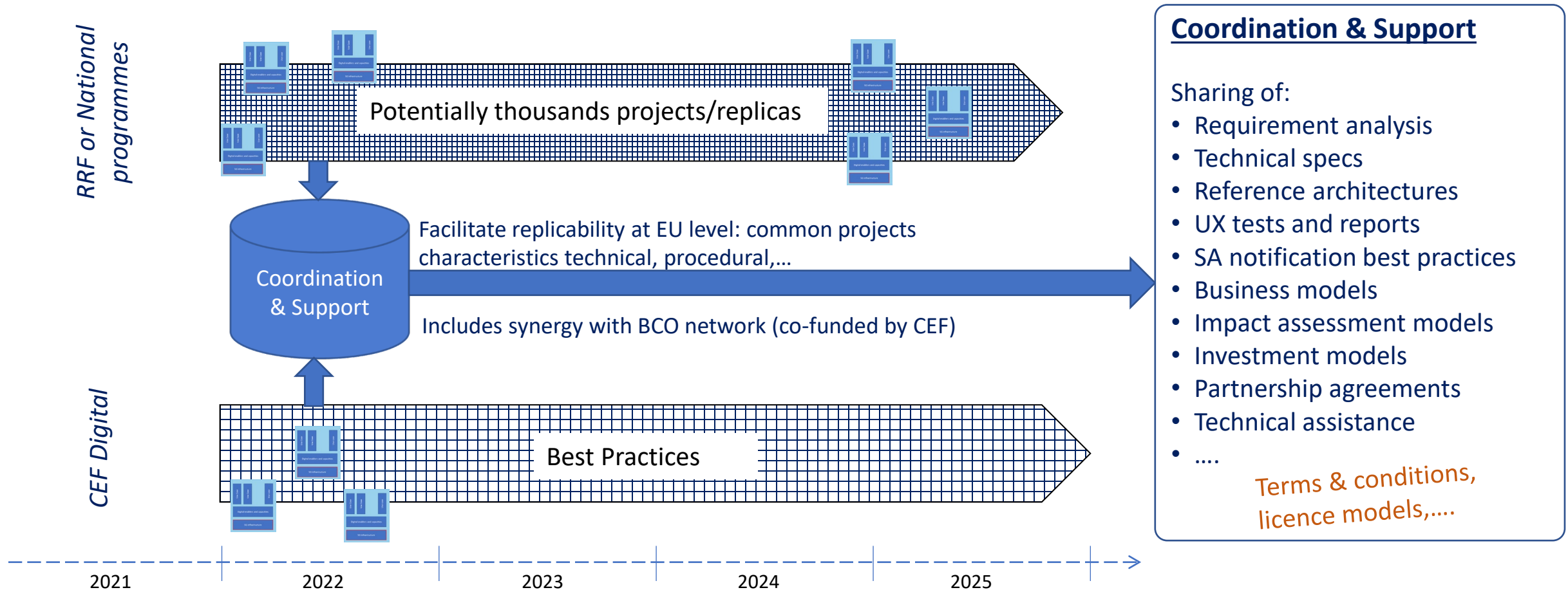
- Use cases to develop or improve public services for a local community ...
- Stimulating European digital supply chain and standards
- Gigabit and 5G rollout linked to use cases and enabling digital capacities' interconnection



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 filled with golden-brown grass. The text "Thank you" is overlaid in the center in a large, white, sans-serif font.

Thank you