

5GSC

5G for Smart Communities

Community Survey

Public funding
support for 5G
roll-out in EU
Member states

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Public funding support for 5G roll-out in EU Member States

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INTRODUCTION AND KEY FINDINGS

This study, prepared by the 5GSC Support Platform, aims to provide a comprehensive overview of the public support (EU and national funds) made available at national level across the EU-27 Member States for roll-out of 5G infrastructures in the period 2022-2024. At the same time, it provides a forward looking perspective by offering insights on active and forthcoming support schemes for the period 2025-2027. Finally, the study builds a repository of best practices and use cases by collecting in one place links to the national lists of supported projects.

Key findings resulting from the study:

- Ten out of twenty-seven Member States have funded 5G pilots in the last three years, for a total budget of Euro 2.44 bn.
- Seven out of twenty-seven Member States plan further support to 5G in the coming three years. The schemes are under preparation. Others might emerge later, if a need is identified.
- The majority of the budget was allocated in just two Member States, Spain and Italy, for infrastructure investments.
- 5G Use cases were funded in seven countries.
- Given the low 5G Stand-alone availability in the EU the development of use cases is a challenge. Often these are developed in limited sites, with scaling limited in the current environment. Some countries might foresee further action in the future to promote Standalone roll out and up-take.
- The majority of nationally supported 5G Use Case pilots were implemented under General Block Exemption Regulation (GBER) State aid regime, and hence had a strong innovative component. Therefore the commercial viability of these is not guaranteed. Several countries plan assessments or impact assessments in 2025 to draw lessons on the commercial viability and possible businesses cases.
- Thanks to GBER Section 4, most countries also funded industrial uses cases, going beyond the Services of General Economic Interest (SGEI) support only. This on the other hand limited the average size of pilots to around Euro 1 Million.
- In most countries the market reaction was slow in the start regarding use cases, hence several countries had to launch several calls / funds to allocate all the planned resources.

METHODOLOGICAL REMARKS

Data gathering on public support schemes for 5G roll-out was based on **desk research**, as well as on responses received from national Broadband Competence Offices (BCOs) in a **targeted survey**. The survey was active during 10 February 2025 - 17 March 2025 and was addressed to BCOs in all 27 EU Member States. In total, 21 written responses were received from the national BCOs; for Czechia, the information was filled in based on the oral responses received by the 5GSC Support Platform experts during the online interview with the national BCO representatives. For other countries (e.g., Italy) the information presented here is based exclusively on desk research.

To complement the desk research and the BCO survey, a **series of interviews** was conducted with funding authorities in several Member States.

The **mapping of public support measures across the EU-27 Member States** considered several **coordinates**:

A **retrospective view**, focused on **2022-2024** as a reference period; funding schemes/ measures outside this time frame were excluded from the report (this is the case of Luxembourg, for example, where two calls for proposals promoting implementation of 5G solutions were launched in 2019). A second, **forward looking perspective** focuses on **2025-2027** as a reference period and aims to capture the information available on support measures for roll-out of 5G infrastructures that are either currently active or planned throughout 2025-2027.

Geographic scope: all EU-27 Member States were considered; only support measures at **national level** have been included in the desk research and online survey (regional schemes have been excluded from the exercise).

In terms of **funding sources**, both EU funded measures (Recovery and Resilience Facility-RRF, European Regional Development Fund- ERDF), and measures financed from the national budgets have been considered relevant.

The mapping exercise considered **5G as the relevant technology**, in the form of support for roll-out of 5G infrastructure and/ or implementation of use cases. In Germany, a funding scheme supporting deployment of mobile telecommunications infrastructure is operational starting 2021; however, since the measure supports deployment of both 4G and 5G technologies, it has not been considered relevant for this study.

Finally, the support considered for deployment of 5G technologies could take the form of **grants and/or financial instruments**.

This study presents the key findings on public funding support for 5G roll-out across the 27 EU Member States. It is structured as follows:

- **Chapter I** presents a **quantitative and qualitative perspective on public funding support measures** throughout the two reference periods (retrospective view covering 2022-2024; forward looking perspective, addressing the period 2025-2027)
- **Chapter II** presents a repository of supported projects for both 5G use cases and 5G infrastructure roll-out

CHAPTER I: PUBLIC SUPPORT FOR 5G ROLL-OUT AT NATIONAL LEVEL ACROSS EU-27

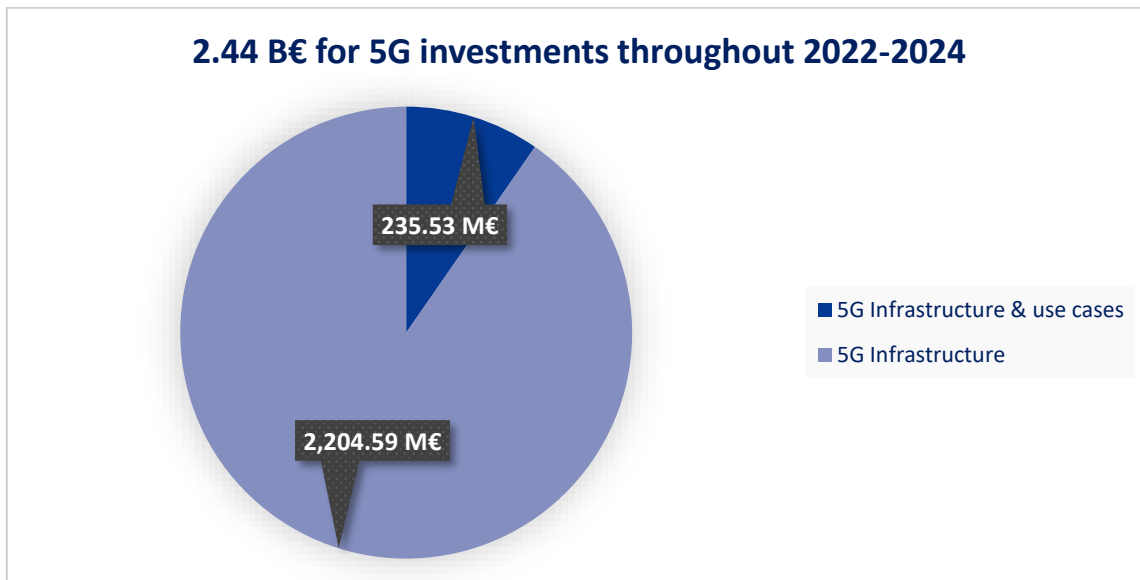
Retrospective view: public support for 5G roll-out throughout 2022-2024

Overall, out of the 27 Member States, only 10 countries implemented public funding schemes to support 5G infrastructure roll-out and/or 5G use cases at national level throughout 2022-2024. This section will present the key findings of the research, from a quantitative and qualitative perspective.

Quantitative findings

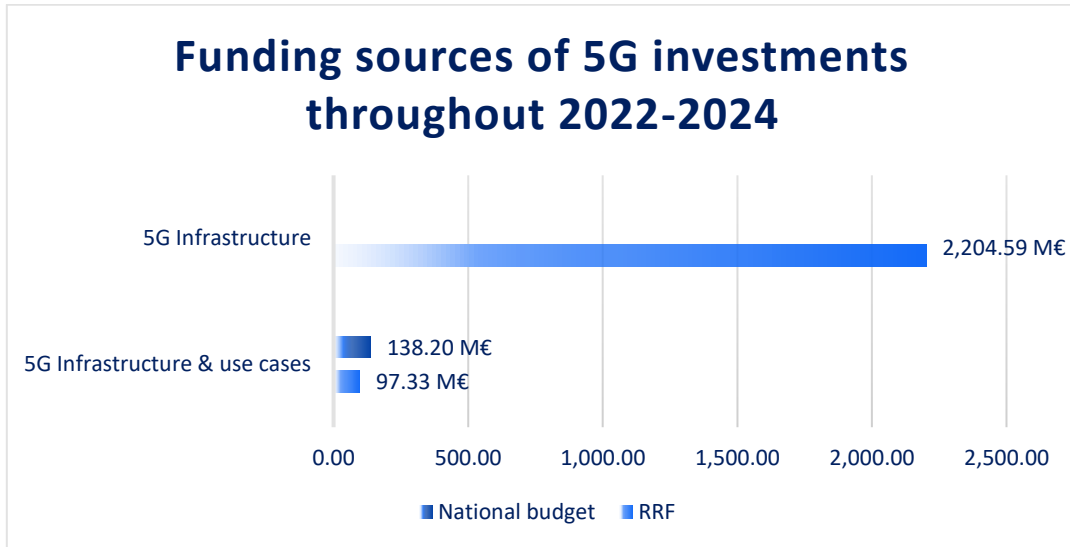
More than 2.4 B€ for 5G investments throughout 2022-2024

The **total budget** of the funding schemes/ measures supporting 5G investments at national level (infrastructure roll-out, as well as use cases) amounts to 2.44 B€. Of this, **90%** of the funds are earmarked for roll-out of **5G access and backhaul infrastructure exclusively**; only **10%** of these funds have been made available for implementation of **5G use cases** (as a standalone activity or together with roll-out of the necessary infrastructure).

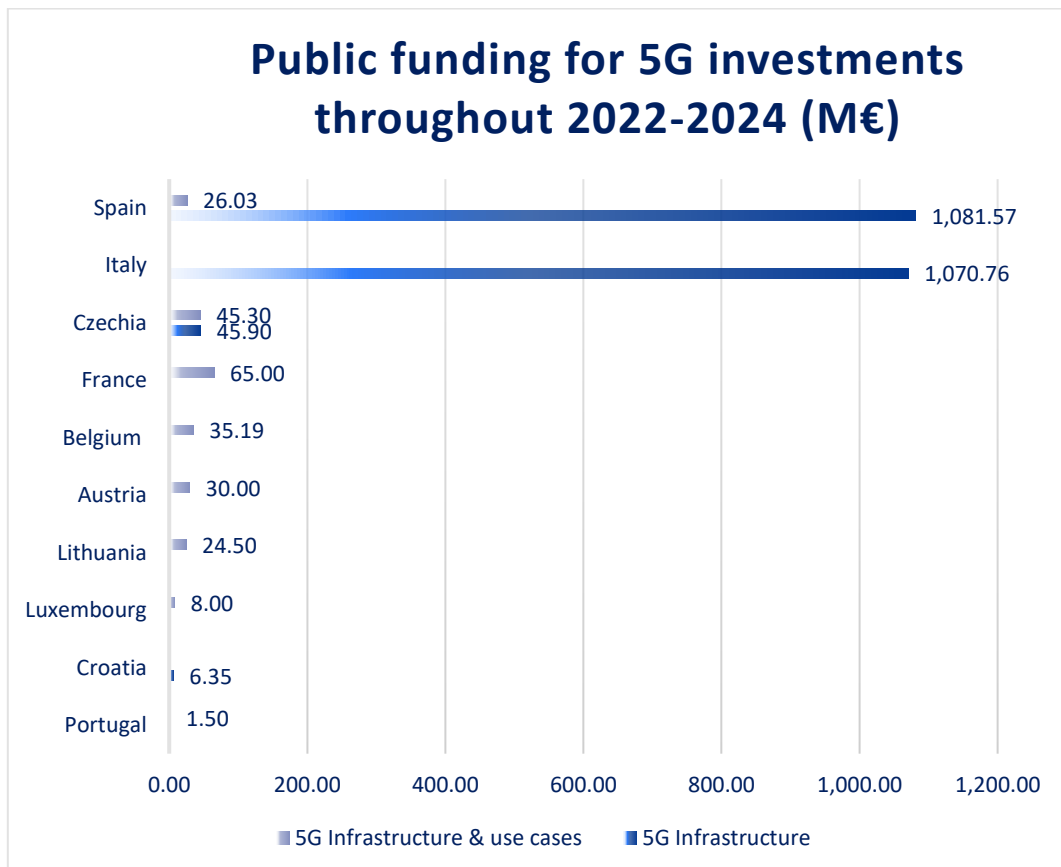


In terms of **funding sources**, the **Recovery and Resilience Facility (RRF)** stands out as the most important funding source in the 5G funding mix. This is particularly the case for **roll-out of 5G infrastructure** investments, where all identified measures are RRF financed. For implementation of use cases, on the other hand, the funding mix is more balanced, with almost **60% of the funds allocated to implementation of 5G use cases generating from national budgets**. This is the case of countries like Austria, Belgium, France and Luxembourg,

where 5G use cases are supported through national funds. In Czechia, Lithuania, Portugal, or Spain, RRF remains the principle funding source for use cases implementation.



The **countries** investing the biggest budgets for 5G investments are **Spain and Italy**, both with 5G total allocations going **beyond 1 B€**. All the other countries have invested less than 100 M€ for 5G related projects throughout 2022-2024. Only in **Spain and Czechia** funds are allocated for **both uses cases and infrastructure deployment**. In the other countries, funds are allocated either for **5G roll-out alone (Italy, Croatia)**, or for development of **use cases**, possibly in connection with deployment of 5G related infrastructure (**France, Belgium, Austria, Lithuania, Luxembourg, Portugal**).

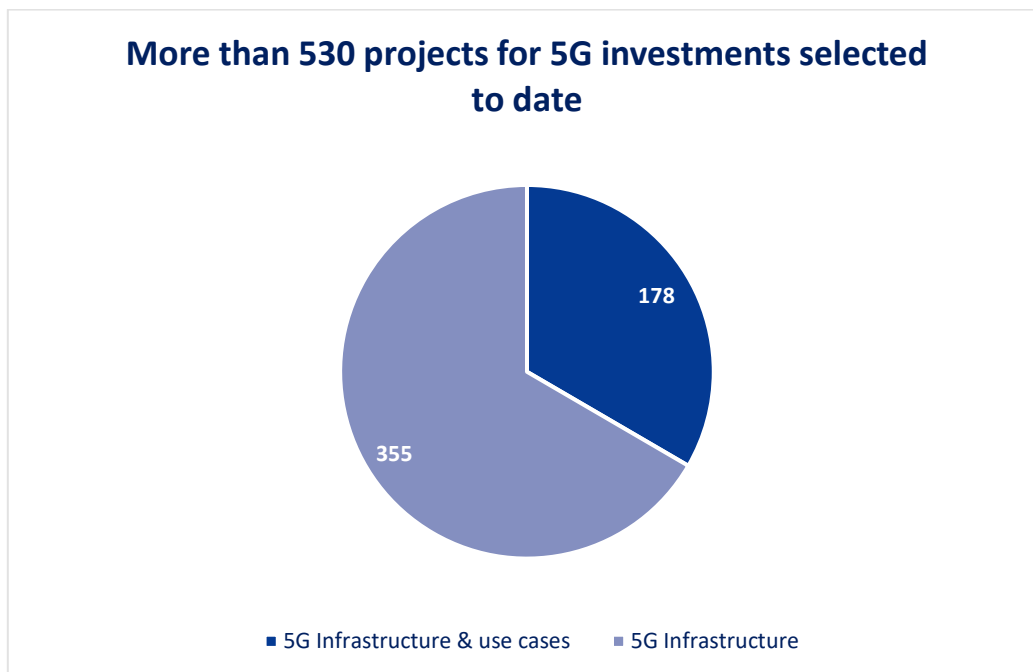


The budgets for **5G use cases projects** are generally scattered among several support schemes/ calls for proposals in the same country (such are the examples of Czechia, Austria, Belgium), while investments for **roll-out of 5G infrastructures** are in many cases concentrated in a limited number of higher budget schemes (in Italy, the 1.07 B€ budget was distributed through 2 calls for proposals, one for backhaul and the other one for access infrastructure).

When it comes to the **form of funding**, all identified funding measures provide support in the form of **grants**.

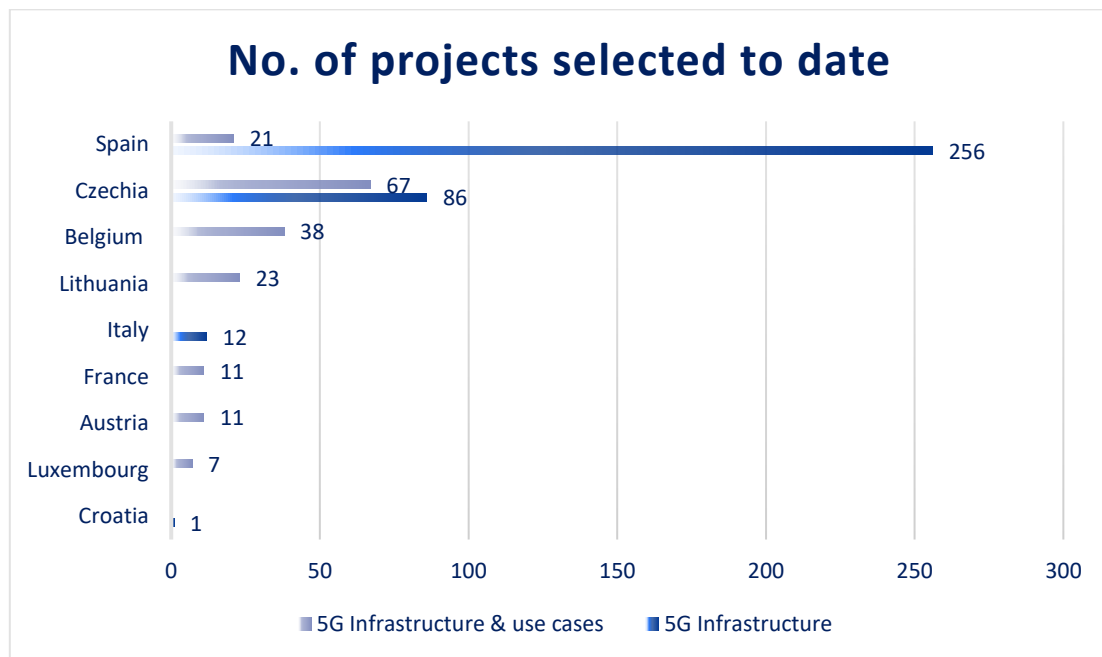
5G Projects & use case verticals

Overall, within the identified funding schemes, more than **530 projects¹ for 5G related investments** have been approved for funding to date. Of these, around **two thirds represent 5G infrastructure roll-out projects**, and the remaining **one third are projects dedicated to implementation of use cases** (stand alone, or together with deployment of the necessary 5G infrastructure).

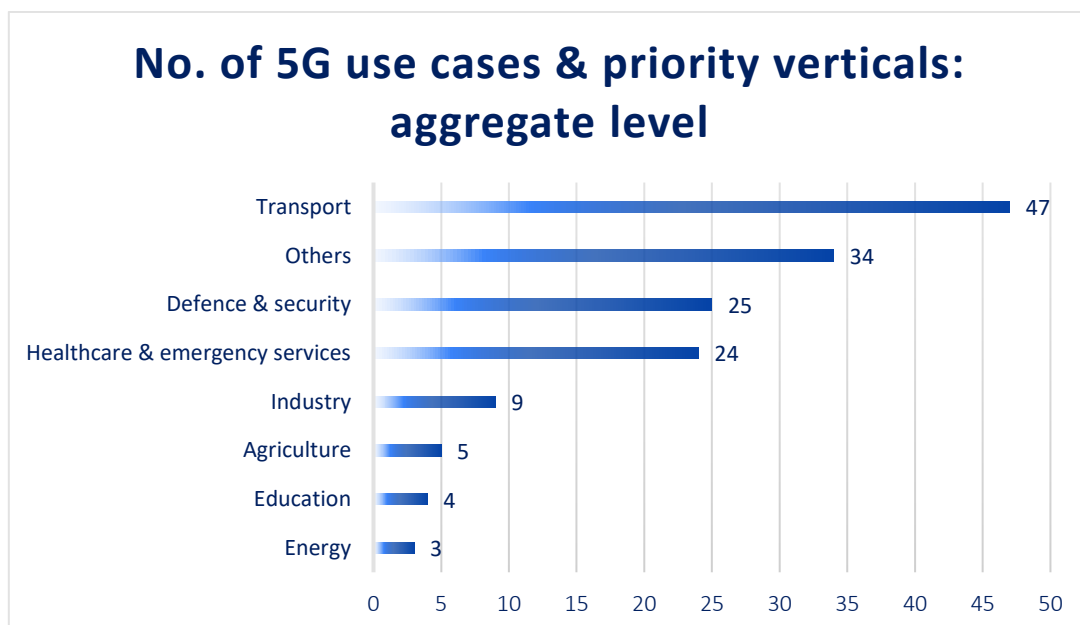


¹ This overview does not take into account the outcome of some selection procedures in countries like Czechia, Portugal, or France, where results of calls for proposals have not yet been published or are not publicly available.

Most of the projects are implemented in **Spain and Czechia**, where support is provided for both infrastructure roll-out and use cases. In **Italy**, one of the countries with the highest budgetary allocations for deployment of 5G infrastructure, funds are concentrated in a limited number of projects, covering the entire country.



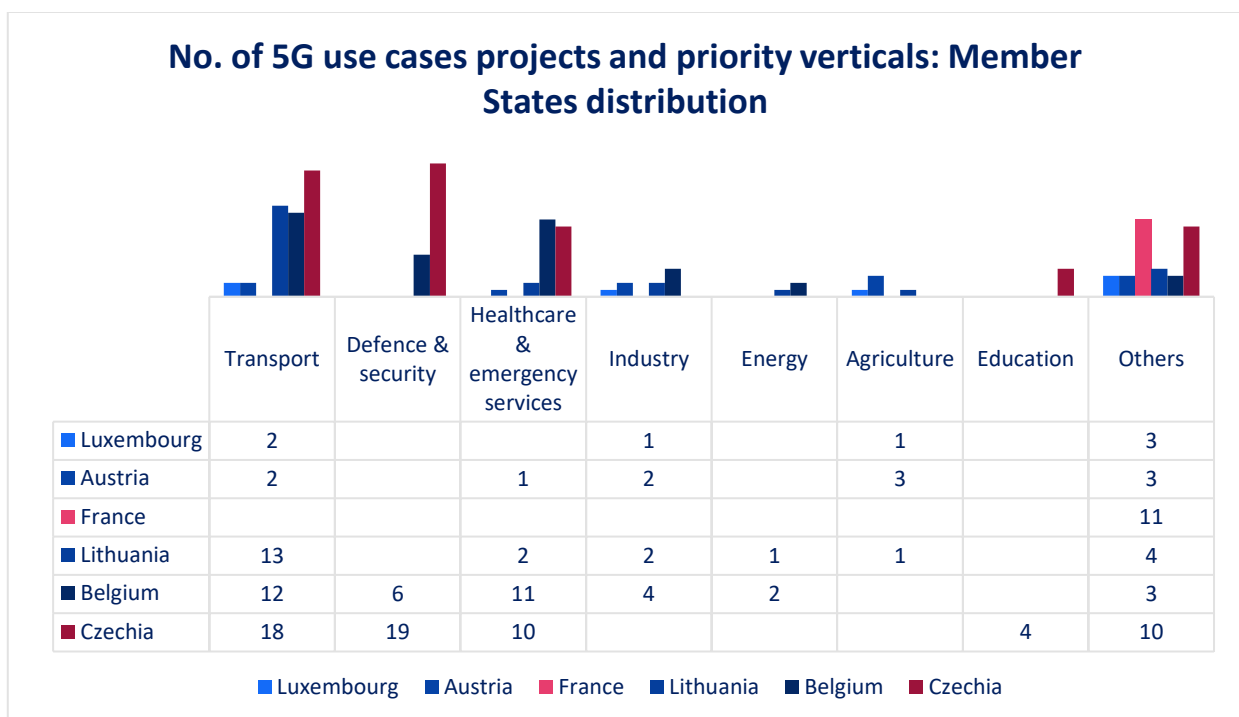
In terms of **use cases and verticals addressed** (in projects dedicated to 5G infrastructure and use cases), most of the projects address **transport, defence and security and the healthcare verticals**².



² This analysis excludes some 5G infrastructure and use cases projects in Czechia and Spain, where the scope of selected investments is not publicly available.

From a **country perspective, the different verticals** are represented in a balanced manner across the countries:

- **Transport** related use cases have been implemented with priority in **Czechia, Lithuania and Belgium**.
- **Defence and security** related projects have been identified in **Czechia and Belgium**.
- **Healthcare related 5G use cases** were proposed especially in **Belgium and Czechia**.
- **Use cases for industry, energy, agriculture, or education** are more limited in numbers and have been identified in Belgium, Lithuania, Austria and Luxembourg (industry 5G use cases); Belgium and Lithuania (energy related use cases); Lithuania, Austria and Luxembourg (agriculture use cases); and Czechia (education use cases).
- **A number of projects** have been proposed for various verticals, ranging from creative industries, connectivity networks and technology, to public administration or waste management.



Qualitative findings

The interviews with selected fund managers have allowed to get some additional information on the set up of the aid schemes for 5G Use cases. This has allowed to notably identify some differences with the Connecting Europe Facility Digital (CEF Digital) 5G Smart Communities calls:

- The average grant size is slightly below Euro 1 Million.
- In most countries access to spectrum is a requirement for the application process and therefore traditional operators have been common aid beneficiaries. However, in most cases the project applicants were not telecommunications operators, but rather entities such as SMEs or research institutes, with the telecommunication operators having a more passive role in the consortium as

infrastructure providers. The innovation was generally generated by other beneficiaries (in the case of Belgium this was actually imposed by the application guidelines).

- In most countries private companies are eligible for the aid, the SGEI restriction from CEF does not apply. In most cases this was possible through Section 4 of the GBER.

In all countries interviewed, an assessment of the funded projects is foreseen, but results of these assessments will not be available before the end of 2025. It might be useful to complement this study in early 2026 when the results are available and a more cross country impact assessment can be carried out.

Forward looking perspective: public support for 5G roll-out throughout 2025-2027

Continuation of support under existing schemes

Within already identified support measures operational throughout 2022-2024, **projects can still be submitted to receive support in Austria**, where the second BBA2030: GigaApp call remains open in 2025, until funds are exhausted. Under this call, the respondents to the survey have indicated approx. **11 M€ as remaining budgetary resources to support new projects for implementation of 5G use cases**.

In addition, in **Czechia** the national BCO has indicated during the interview that a new call for proposals may be re-opened to support **5G pilots in cities**, should not all funds be exhausted following the evaluation of projects under the 3rd call for proposals in the RRF funded scheme. However, no indicative remaining allocation is currently available.

For all other identified support measures, the application process is currently closed and no new projects can be submitted.

New support measures for 5G roll-out throughout 2025-2027

Seven BCOs representatives responding to the survey indicated the intention of their countries to launch new support measures for 5G roll-out throughout 2025-2027. Of these, in **two Member States** there is an intention to promote measures for **5G infrastructure and use cases roll-out**; in the other **five Member States**, support will be directed towards **roll-out of 5G network infrastructure** only.

Planned support for 5G infrastructure & use cases in Czechia and Romania

The **Czech** BCO indicated during the interview that discussions are currently on-going for set-up of a new measure supporting 5G infrastructure & use cases, potentially with ERDF funding. The budget and funding details have not yet been decided.

The **Romanian** BCO responding to the targeted survey has also indicated the intention to launch a support measure for 5G infrastructure & use cases, which is currently under preparation; no further details are currently available.

Ongoing and planned support for 5G infrastructure roll-out in Bulgaria, Slovenia, Spain, Estonia and Hungary

In **Bulgaria**, a **195.3 M€** funding scheme is currently operational. The RRF funded project, "Large-scale deployment of digital infrastructure in Bulgaria", aims to establish symmetrical Gigabit backhaul networks throughout the country, focusing on underserved areas, and facilitating connections to networks at the European level. The network's main technical specifications will ensure connectivity of 1 Gbps for end-users. The newly built networks will support **both fixed and mobile networks** that will serve end customers. A procedure has been launched in January 2025 for selecting candidates to deploy very high-capacity networks providing internet access, primarily in rural and sparsely populated areas, with funding amounting to BGN 390,714,710.83 excluding VAT. Each project proposal under this procedure must cover one of the 6 NUTS 2 planning regions, and applicants are required to provide an own contribution of at least 10%. Both Bulgarian and foreign companies can apply via the Information System for Management and Monitoring of EU Funds in Bulgaria 2020 (UMIS 2020). The deadline for submitting proposals is 11 April 2025. Further information is available on the [UMIS 2020 website](#).

In four other Member States support is being planned for roll-out of 5G infrastructure:

- In **Spain**, an aid scheme for the roll-out of 5G networks in highly rural areas is under preparation. Two calls are foreseen in 2026 and 2027 with a total budget of **€25 million** funded by ERDF and national budget.
- In **Estonia**, State aid approval is sought in 2025 to roll out 5G in transport corridors (additional towers in market failure areas along the transport corridor). The measure, which will help to support CAM use cases, will have an estimated budget of 18.72 M€ throughout 2025-2029, secured from ERDF. A mapping exercise and public consultation already [started](#) at the end of 2024.
- In **Hungary**, a 5G infrastructure support measure is expected to be launched by the end of 2025
- Finally, in **Slovenia**, a funding scheme for 5G infrastructure is also operational. A RRF co-financed tender with a budget of 4.2 M€ was published in January 2025 and supports construction of open base station infrastructure for 5G mobile networks in the areas affected after the floods of August 2023. Construction of infrastructure is planned in the area of municipalities where electronic communications operators have demonstrated damage to their networks after the floods in August 2023. Further information is available [here](#).

In addition, in response to the targeted survey, some BCOs have identified other, **non-financial measures** to support deployment of 5G investments in their countries.

By way of example, in **Ireland** the State is focused on streamlining processes and removing unnecessary barriers to commercial investment such as streamlining permitting processes, committing to timelines for licenses, extending planning exemptions for new technology, identifying suitable site locations which are owned by the State etc. Uniquely, the State has established a national taskforce chaired by two senior Ministers (the Minister for Communications and the Minister for Rural and Community Development) to address the existing barriers. Separately standalone 5G has not yet been deployed and the State is considering how best to promote the deployment of standalone 5G networks.

Similarly, in **Latvia**, administrative burden reduction measures have been identified to support of the development for 5G usage.

CHAPTER II: 5G PUBLICLY FUNDED PROJECTS IN EU MEMBER STATES

This chapter aims to provide the basis for a repository of publicly funded 5G investments across EU Member States. It gathers, into a single place, links to the databases of 5G publicly supported projects at national level, distinguishing between 5G use cases & infrastructure projects and 5G infrastructure roll-out projects.

For some countries, the information is only partially complete and depends on availability of data at national level. By way of example, in Czechia or France, the exact scope, beneficiaries, or public funding amount are not publicly available; these projects are therefore not reflected in this repository.

Publicly funded 5G use cases & infrastructure projects

Austria	BBA2030: GigaApp projects
Belgium	5G Pilot projects (2022) 5G Pilot projects (2023) 5G Pilot projects (2024)
Czechia	5G for Smart Cities (2022) 5G for Smart Cities (2023)
France	5G and networks of the future (2022-2023)
Lithuania	5G sandbox- consortia 5G sandbox- start-ups
Luxembourg	5G communication technology projects (2023)
Spain	UNICO sectorial 5G (2022) UNICO sectorial 5G (2023)

Publicly funded 5G infrastructure roll-out projects

Croatia	5G passive infrastructure
Italy	5G backhaul 5G densification
Spain	UNICO 5G backhaul UNICO 5G active networks (2023) UNICO 5G active networks (2024)
France	5G and networks of the future (2022-2023)
Lithuania	5G sandbox- consortia 5G sandbox- start-ups
Luxembourg	5G communication technology projects (2023)
Spain	UNICO sectorial 5G (2022) UNICO sectorial 5G (2023)