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**Subject: State Aid SA.104933 (2023/N) – Spain
RRF - Support for 5G equipment and infrastructure**

Excellency,

1. PROCEDURE

- (1) Following pre-notification contacts, on 31 March 2023, the Spanish authorities notified to the Commission the measure “*RRF – Spain – Support for 5G equipment and infrastructure*” (hereafter: “Measure”) pursuant to Article 108(3) TFEU.
- (2) The Spanish authorities supplemented their notification with subsequent submissions on 11 April 2023, 20 April 2023, 27 April 2023, 16 May 2023, and 17 May 2023.
- (3) By letter of 31 March 2023, Spain exceptionally agreed to waive its rights deriving from Article 342 TFEU in conjunction with Article 3 of Regulation 1/1958¹ and to have this decision adopted and notified in English.

2. DETAILED DESCRIPTION OF THE MEASURE

2.1 Context

- (4) The NextGenerationEU Communication² identifies as one of the key priorities of the Recovery and Resilience Facility³ (“RRF”) support for the digital transition

¹ Regulation No 1 determining the languages to be used by the European Economic Community (OJ 17, 6.10.1958, p. 385).

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through connectivity measures aimed, *inter alia*, at addressing market failures with respect to the deployment of performant networks. The RRF Regulation sets out that Member States should devote at least 20% of the allocated funding to measures fostering the digital transition⁴.

- (5) To channel these investments, the Spanish National Recovery Transformation and Resilience Plan (the “RRP”)⁵ was approved by the Council. This plan outlines the agenda for the modernisation of the Spanish economy using the economic resources that will come from the Recovery and Resilience Facility.
- (6) Broadband connectivity is of strategic importance for European growth and innovation in all sectors of the economy and for social and territorial cohesion⁶. It supports business efficiencies and growth, ensures that economies can remain competitive, and enables citizens and businesses to benefit from online services and offerings.
- (7) The 2025 Digital Spain Agenda⁷ aims to ensure adequate digital connectivity for the whole population, promoting the reduction of the digital divide between rural and urban areas.
- (8) As part of the 2025 Digital Spain Agenda and the 2026 Digital Spain Roadmap⁸, the Strategy to boost 5G technology⁹, approved on 1 December 2020 by the Spanish Council of Ministers, aims to support 5G deployment in population centres and on transport corridors, among others. Spain aims to foster the deployment of 5G technology and networks with the necessary capacity and performance for the provision of the new services and applications that can be enabled by this technology, by extending the coverage of performant mobile 5G networks throughout the territory, particularly in rural and less populated areas, helping to close the current social, economic, gender and territorial digital divide. According to the Spanish authorities, support to the provision of 5G services and infrastructure goes beyond the development of a new generation of mobile telephony. 5G networks can offer much higher speeds and capacity, lower latency, and an improved ability to connect many devices at the same location. 5G network virtualisation is expected to allow network hardware resources to be disaggregated

² Communication from the Commission COM (2020) 456 final to the European Parliament, the European Council, the Council, the European Economic And Social Committee and the Committee of the Regions of 27 May 2020, ‘Europe’s moment: Repair and Prepare for the Next Generation’.

³ Regulation (EU) 2021/241 of the European Parliament and of the Council of 12 February 2021 establishing the Recovery and Resilience Facility (OJ L 57, 18.2.2021, p. 17) (“RRF Regulation”) and Council Regulation (EU) 2020/2094 of 14 December 2020 establishing a European Union Recovery Instrument to support the recovery in the aftermath of the COVID-19 crisis (OJ L 433I, 22.12.2020, p. 23).

⁴ See Article 19(3)(f) and Annex VII of the RRF Regulation.

⁵ Information available here: https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility/spains-recovery-and-resilience-plan_en

⁶ See Communication from the Commission - Guidelines on State aid for broadband networks. OJ C 36, 31.1.2023, p. 1–42.

⁷ Information available here: https://portal.mineco.gob.es/RecursosArticulo/mineco/prensa/ficheros/noticias/2018/Agenda_Digital_2_025.pdf

⁸ Information available here: https://portal.mineco.gob.es/en-us/ministerio/estrategias/Pages/00_Espana_Digital.aspx

⁹ Information available here: https://portal.mineco.gob.es/RecursosNoticia/mineco/prensa/noticias/2020/201201_np_impulso5G.pdf

into separate functions while network slicing is expected to enable a more dynamic management of network resources that can be tailored for a specific purpose and allow the same hardware to serve different use cases with specific needs. Software-defined networking is expected to change the way networks are controlled and managed by decoupling hardware and software.

- (9) As these changes are expected to favour new uses and production models that will be essential for economic development in all territorial areas, Spain expects that 5G is likely to open new possibilities for industrial and social transformation. Facilitating the roll-out of performing 5G networks across all territorial areas is therefore a key task to accompany the country's economic development and digital transformation.
- (10) In the framework of the Spanish RRP, component 15 - 'Digital connectivity, boosting cybersecurity and 5G deployment' has among its objectives the promotion of digital transformation, focusing on the roll-out of 5G networks across the whole territory including in rural areas.
- (11) According to the Spanish authorities, the notified Measure will contribute to the above objectives by supporting the roll out in the target areas of the necessary equipment and infrastructure¹⁰ for 5G standalone networks¹¹ with certain advanced characteristics. The Measure will be implemented through the granting of State aid via several call for tenders in 2023 and in 2024.
- (12) In particular, the Measure will contribute to the fulfilment of the following sub-projects of Investment I6 of Component 15 of the Spanish RRP:
 - (a) The deployment of 5G with the objective of achieving coverage of 75 % of the population by 31 December 2025 in the 5G preference bands in Spain (i.e., 700 MHz, 800 MHz, 2.6 GHz, 3.5 GHz, 26 GHz, etc.). This Measure covers municipalities that will not be covered by coverage obligations imposed as a result of the granting of rights of use of spectrum.
 - (b) The deployment of 5G with the aim of ensuring coverage of the main transport corridors (roads and railways), both national (secondary corridors in certain areas) and cross-border (primary corridors) in Spain. This Measure covers secondary routes that are not and will not be subject to coverage obligations imposed as a result of the granting of rights of use of spectrum.

¹⁰ Throughout this Decision, "equipment" should be understood as active components of the network (e.g., transponders, routers and switches, active antennas, etc.), while "infrastructure" should be understood as broadband network without any active component and typically comprising physical infrastructure, as defined in Article 2, second paragraph, point (2), of Directive 2014/61/EU of the European Parliament and of the Council (e.g., ducts, poles, masts, dark fibres, cabinets and manholes, etc.). See section 2.2 of the Broadband Guidelines.

¹¹ 5G standalone networks, unlike 5G non-standalone networks that still rely on a 4G LTE core, use a dedicated 5G core that can unlock capabilities like faster upload speeds, ultra-low latency, ultra-high reliability and edge functions. As regards standardisation of 5G networks, the global mobile communications standards organization 3GPP released specifications for the non-standalone mode of 5G New Radio (NR) access a few months before the 5G standalone NR standards in order to respond to early market demand. The first wave of 5G networks (classed as non-Standalone) relied on the existing 4G infrastructure (and hence did not provide full 5G performances).

- (13) By virtue of previous aid schemes, as well as private investment, considerable progress in terms of connectivity has been made in Spain. However, according to the Spanish authorities, further improvement is needed as regards the availability of 5G services which are necessary to address end-users' current and evolving needs, with a particular emphasis on the needs of business users, in line with Spain's objectives, as also set out in its RRP.
- (14) The Measure continues and complements the aid measure for the deployment of fibre-based backhaul for mobile connectivity approved by the Commission decision of 17 October 2022 (in case SA.103451¹², the "backhaul measure"). The Measure and the backhaul measure are complementary and contribute to the same goal i.e., to deploy 5G networks covering at least 75 % of the population (see recital (12)), but do not provide double funding for the same network elements. As described in more detail in Section 2.5, under the Measure, in order to and insofar as necessary to ensure the deployment of the target 5G standalone networks and the provision of the target services in the target areas, support can be granted: to deploy where necessary new base stations ("BTSs"); to install the necessary equipment and infrastructure at eligible existing or new BTSs that benefit from the backhaul measure¹³; to deploy where relevant new BTSs (including the relevant equipment and additional infrastructure); and/or to deploy new equipment on other existing BTSs that have received no previous funding (not covered under the backhaul measure as already connected with a suitable fibre backhaul), in the same target areas as indicated under the backhaul measure, i.e. municipalities of less than 10 000 inhabitants, extra-urban roads and TEN-T corridors. Fibre-based backhaul connections are eligible under this Measure only if not covered by the backhaul measure (see also Section 2.20).

2.2 Legal basis and standstill obligation

- (15) The Measure is to be adopted within the framework established by the Royal Decree-Law 36/2020¹⁴ of 30 December on urgent measures for the modernisation

¹² Commission Decision C(2022)7394 final of 17 October 2022, State Aid SA.103451 (2022/N) – Spain RRF – Deployment of backhaul networks for mobile connectivity. OJ C 449 of 25.11.2022, p. 2.

¹³ See Commission Decision C(2022)7394 final of 17 October 2022, State Aid SA.103451 (2022/N), recital 11. Here the Commission indicates that eligible BTSs under the approved measure are those which do not have and will not have by 31 December 2025 a fibre-based backhaul and are situated in municipalities of less than 10 000 inhabitants, extra-urban roads and TEN-T corridors. Some existing eligible BTSs under the Measure can be the same as under the backhaul measure: these BTSs are those which do not have and will not have (by 31 December 2025 under the backhaul measure, extended to by 17 February 2026 under the present Measure, as supported by the mapping and public consultation carried out – see also Section 2.8) a fibre-based backhaul and are situated in municipalities of less than 5 000 inhabitants, extra-urban roads and TEN-T corridors. These BTSs can receive support under this Measure insofar as necessary to ensure the provision of the target services in the target areas, provided that they do not have this type of backhaul connection at that moment or its deployment is not financed by the backhaul measure. Pursuant to Article 3.2 of the draft legal basis establishing the Measure, no aid will be granted under the Measure to support the deployment of fibre backhaul connections in BTSs where such connections are already deployed or for those BTSs where backhaul connections will be financed by the backhaul measure. In accordance with Article 30.1 of the draft legal basis, the body in charge of the monitoring of the implementation of the Measure will monitor the costs attributed to the aided projects and will control the compliance of such projects with the conditions laid down in the draft legal basis.

¹⁴ Real Decreto-ley 36/2020, de 30 de diciembre, por el que se aprueban medidas urgentes para la modernización de la Administración Pública y para la ejecución del Plan de Recuperación, Transformación y Resiliencia. Boletín Oficial del Estado n. 341 de 31 de diciembre de 2020, páginas 126733 a 126793.

of the public administration and for the implementation of the Spanish RRP, as well as the RRF Regulation. Pursuant to Article 61 of the Royal Decree-Law 36/2020 an Order will be adopted laying down the conditions for the granting of aid for the provision of 5G equipment and infrastructure and establishing the conditions for a first call for applications. The Measure was notified based on a draft of the Order to be adopted (“the draft Order”).

- (16) The Spanish authorities indicate that, in the preparation and processing of the Measure, it has been taken into account that compliance with the principle of ‘do no significant harm’ must be ensured, so that beneficiaries will ensure full compliance with that principle as well as climate and digital labelling, in accordance with the provisions of the Recovery, Transformation and Resilience Plan and the RRF Regulation, in all phases of the design and execution of the projects and individually for each action¹⁵.
- (17) The present State aid decision is an integral part of the legal basis.
- (18) Pursuant to the First Additional Provision of the draft Order, no aid will be granted under the Measure before the notification of the Commission’s decision approving the Measure, in accordance with Article 108(3) TFEU and Article 3 of Council Regulation (EU) 2015/1589¹⁶.

2.3 Objective and design of the Measure

- (19) The objective of the Measure is to support the deployment in less populated areas of Spain of equipment and infrastructure to roll out 5G standalone networks with minimum download and upload speeds of, respectively of 100 Mbps and 5 Mbps under peak time conditions and with advanced characteristics of edge computing and network slicing (“the target 5G standalone networks”). The objective is pursued by awarding State aid via competitive selection procedures. According to the Spanish authorities, the networks must provide 5G standalone services with the added-value characteristics of edge computing and network slicing, and with minimum speeds of 100 Mbps download and 5 Mbps upload under peak time conditions (“the target services”). The Measure addresses the current and evolving needs of business end-users in less populated areas.
- (20) The areas targeted by the measure (“the target areas”) are identified as those areas situated in municipalities of less than 10 000 inhabitants and secondary roads (excluding those subject to any legal obligations, such as coverage obligations attached to the rights of use of spectrum, including in the 700 MHz frequency band), where it has been certified, via a detailed mapping and public consultation (see also Section 2.8), that there is no coverage with at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions¹⁷ current or credibly planned in the next three years, i.e. by 17 February 2026 and where private investors do not intend to invest to deploy equipment and

¹⁵ The Spanish authorities point out that, the contribution of component 15 to the digital transition is 100 % and that this Component connects directly with “Connect”, one of the seven emblematic areas that the European Union identified as essential areas where it encouraged Member States to steer their reforms and investments.

¹⁶ Council Regulation No 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (OJ L 248 of 24.9.2015, p. 9).

¹⁷ Peak time conditions are based on a cell load of at least 50%.

infrastructure for the deployment of the target 5G standalone networks and the provision of the target services by 17 February 2026.

- (21) In the target areas, insofar as needed to ensure the provision of the target services, the Measure aims to support the upgrade of existing Eligible BTSs (in particular through the installation of equipment as well as additional backhaul connections and other infrastructure as needed) and where necessary the construction of additional sites (including new BTSs, backhaul connections and other equipment and infrastructure as needed), as further explained in Section 2.5, in order to ensure the deployment of the target 5G standalone networks and the provision of the target services in the target areas. The roll out of 5G equipment and further backhaul and other infrastructure in the target areas is necessary to provide the target services with their advanced characteristics and speeds, which will in turn allow the provision of the innovative 5G services and applications whose availability is facilitated by the measure. In this regard, 5G equipment is a necessary element of 5G (both standalone and non-standalone) networks without which 5G services and applications cannot be provided in the target areas. Further, the Spanish authorities indicate that, mainly due to the investments carried out by mobile network operators and tower companies in deploying mobile passive infrastructure in the areas covered by 3G and 2G mobile networks, in Spain the deployment of 4G has required a higher investment in equipment than passive infrastructure (including backhaul). Spain expects that this would apply similarly to the roll-out of 5G networks. Spain submits that extensive passive infrastructure, including a high number of towers and backhaul connections, already exists or is being deployed in the target areas (including via the ongoing implementation of the backhaul measure), which is to a large extent sufficient for the roll-out of the target 5G standalone networks and the provision of the target services in the target areas. The geographical scope of the Measure is the whole territory of Spain. The intervention areas correspond to the 50 provinces in which the Spanish national territory is divided¹⁸. In each intervention area, certain target areas are identified (and regrouped). Competitive selection procedures are organised for each intervention area.
- (22) Concerning the material scope of the Measure (see also Section 2.5), the aid can be granted for equipment and infrastructure necessary to ensure the provision of the target services in the target areas, including: (i) mobile equipment both in existing and, where needed, new sites; (ii) fibre backhaul connections (including equipment), if needed, in target areas of less than 5 000 inhabitants (see also recital (14) and footnote 13); (iii) additional infrastructure necessary for the reinforcement of the passive physical infrastructure (towers, masts or poles) of existing BTSs and, (iv) passive physical infrastructure corresponding to new BTSs. The Measure only finances costs identified in Section 2.5. It does not finance other costs, such as costs related to the core networks, software required to enable network slicing or edge computing or cloud capabilities. The Measure will not finance fibre backhaul connections to those BTSs where such connections already exist or to those BTSs where backhaul connections will be financed by the backhaul measure. The body in charge of the monitoring of the implementation of the Measure will monitor the costs attributed to the aided projects and will control the compliance of such projects with the conditions laid down in the draft legal basis.

¹⁸ Except for Ceuta and Melilla because its only municipality has more than 10 000 inhabitants.

- (23) The Spanish authorities indicate that public financing under the Measure cannot be granted and cannot be used for the fulfilment of any legal obligations such as obligations linked to rights of use of spectrum. In this regard, Spain indicates that the coverage obligations related to rights of use concerning spectrum to be used in the provision of 5G mobile services do not cover the target areas (municipalities of less than 10 000 inhabitants). The three harmonised 5G bands in the Union are the 700 MHz band, the 3.5 GHz band and the 26 GHz band. In Spain, the coverage obligations imposed on operators with rights to use the 700 MHz band are: (i) for Orange and Vodafone, covering cities above 50 000 inhabitants, plus main roads, railway stations, airports, and ports; (ii) for Telefónica, covering cities above 20 000 inhabitants. These coverage obligations do not require the provision of 5G standalone services, edge computing, or slicing services. There are no coverage obligations linked to the exercise of the rights of use for the 3.5 MHz and the 26 GHz bands.
- (24) As rationale for the design of the Measure and its aim to foster the deployment of the target 5G standalone networks and the provision of the target services, the Spanish authorities point to a market failure in rural areas in Spain that are characterised by high dispersion of population, complicated orography that hinders mobile coverage, and lack of digital skills of the population. All these elements lead to low levels of performant mobile services uptake, which in turn negatively impacts investments and business activities. More precisely, the Spanish authorities indicate that the short to medium term incremental revenue from the provision of 5G mobile services to customers in rural areas is expected to be negligible. In this context, the Spanish authorities indicate that business penetration in Spain is determined by the availability of performant 5G mobile networks, education and digital skills, and financial resources. The objective of the Measure to provide 5G mobile standalone services (see recital (19)) will contribute to bridging the deficits and attract talent, entrepreneurship, and financial resources to rural areas in Spain.
- (25) The Spanish authorities therefore consider appropriate to support rolling out new performant mobile networks which address present and future business users' needs. The Spanish authorities consider that at the current stage of technological development, the target 5G standalone networks and the provision of the target services are necessary to address adequately the identified end users' needs in the target areas, by enabling the development of new use cases leveraging on ultra-reliability and low latency, which cannot be provided by the existing 4G mobile networks.
- (26) As regards the speed intervention threshold of 50 Mbps download speed under peak time conditions, the Spanish authorities consider it appropriate in view of the focus on the current and evolving needs of business end-users. While a lower speed threshold (e.g., 30 Mbps download speed) may provide adequate 5G services, the Spanish authorities consider that, to meet end users' needs in the target areas a higher speed intervention threshold is necessary. Spain considers that a lower speed intervention threshold would not be appropriate to achieve its objective of completing the roll out of 5G networks in rural and less populated areas of Spain thus contributing to reducing the existing digital divide and fight both depopulation and aging of population of rural areas and fostering new economic activities. Further, the Spanish authorities recall that the objective of the measure is the deployment of the target 5G standalone networks and the provision of the target services in the target areas to meet the identified end users' needs in these areas. The Spanish authorities indicate that 5G standalone with edge computing and

slicing enables additional 5G capabilities beyond high speed such as Ultra-Reliable Low-Latency Communication (URLLC) and virtual network functions, which will in turn, enable new 5G use cases, such as health-monitoring and emergency services, real-time control of factory machines, smart grids for renewable energy management, connected and automated mobility, precise fault detection and quick intervention. To be able to offer such services (and other similar ones) key factors are latency (5G with edge computing provides lower latency values), packet loss (5G allows to reserve the appropriate level of network resources end to end as well as computing resources, so the application's required packet loss can be guaranteed); and network slicing and programmability (network behaviour can be adapted to application requirements; slices can be created on-demand, allowing applications to request the appropriate resources when needed).

- (27) The Spanish authorities consider that the existing 4G mobile networks cannot provide the same overall performance as 5G standalone networks in terms of capacity, speed, latency, and reliability. The existing 4G mobile networks are not suitable to support performant new services and applications, including those enabled by 5G technology, in particular 5G standalone, since they are not scalable or upgradable to cater for future market developments and evolving end-users' mobile connectivity needs, as identified by the Spanish authorities. Many 5G native applications and services (including among others the services described in point (34)) require performances in terms of speed, latency, etc. which are not compatible with existing 4G mobile networks. The Spanish authorities consider that at the current stage of development of mobile technology, the target 5G standalone networks represent the only technical solution that can address end users' needs in the target areas. The roll-out of the target 5G standalone networks, with edge computing and network slicing, is necessary to enable the provision of performant new mobile services and applications and to cater for the expected exponential increase in mobile traffic, with sufficient scalability to meet the current and evolving mobile connectivity needs of Spanish end-users', in particular business users¹⁹ in the target areas.
- (28) The Spanish authorities therefore reiterate that simply improving the existing 4G mobile networks would not be sufficient nor would justify the use of public money as this would result in maintaining in the target areas mobile networks that are not future proof. This, according to the Spanish authorities, would be detrimental for the economic activities in the target areas such as industry, agriculture, tourism or connected mobility and would result in widening their economic and digital divide vis-à-vis the more populated and competitive areas of the country.
- (29) The Spanish authorities submit that operators have not invested, and are not planning to invest, in rolling out the target 5G standalone networks and providing the target services in the target areas by 17 February 2026. This is confirmed by the feedback given by the stakeholders in the mapping and the public consultation exercises (see also Section 2.8) according to which the provision of the target services in the target areas would not be economically viable absent public contributions.

¹⁹ The characteristics of such performant new mobile services include lower latency, higher transfer rate, higher speed, better mobility, improved capacity, and reliability and entail higher requirements in terms of number of terminals per km², the traffic to be managed per km², among others.

- (30) The Spanish authorities also indicate that, differently from the roll-out of 4G mobile networks, the mentioned 5G-relevant coverage obligations do not include the target areas.
- (31) The Spanish authorities point out that, absent the aid, they estimate that the roll out of 5G mobile networks with the required performances in the target areas will not take place before at least eight to ten years. This estimation is based on the experience with the roll-out of 4G mobile networks which started in 2010 in urban areas but arrived much later (eight to ten years) in rural and less populated areas, mainly because of the coverage obligations attached to the rights of use for the frequencies in the 800 MHz band which included these areas. The Spanish authorities indicate that this estimated timeframe for the roll out of 5G standalone networks in the target areas takes into account the lack of coverage obligations for the target areas imposing the deployment of 5G networks and the substantively higher investment needed to roll out 5G networks in the target areas, as compared to the investment needed to roll out 4G networks.
- (32) By comparison, in the rest of Spain, the Spanish authorities expect that 5G standalone networks supporting the provision of similar services to the target services will be available through private investments by mid-2025 in municipalities with more than 20 000 inhabitants (as well as in main roads, airports, railway stations and ports) and by mid-2029 in municipalities having between 10 000 and 20 000 inhabitants²⁰. Municipalities below 10 000 inhabitants (envisaged under the target areas) are expected to be covered progressively thereafter, estimating that this would take at least three additional years. Without any public intervention, Spain therefore considers that there is a high risk that the target 5G networks and the target services risk not be available in target areas and expect that this in any case will not happen earlier than in 2032.
- (33) The Spanish authorities consider that absent the Measure, the imbalance between rural and urban areas in the performances of the available mobile broadband risks being maintained or augmented. The Spanish authorities indicate that the ratio between download speeds at peak time conditions in urban and rural areas absent the Measure is around eight to one in 2023 and increases up to around twelve to one in 2028. By contrast, with the Measure, the ratio is around two and half to one in 2023 and increases to around three to one in 2028. Edge computing and slicing are not envisaged to be present in rural areas up to at least 2028. The Spanish authorities consider it necessary to address the identified market failures in the target areas, considering also that the current situation is and is likely to remain unsatisfactory in terms of market delivery and from the cohesion policy perspective, with a view to correct social or regional inequalities and to obtain a more desirable, equitable market outcome.
- (34) To further explain the impact the Measure is likely to have in fulfilling end-users' needs in the target areas, the Spanish authorities indicate that the Measure, by enabling the provision of more performant 5G standalone mobile services with the

²⁰ The Spanish authorities explain that the forecasts consider that covering cities above 20 000 inhabitants may take operators three and a half years, which is the time between the 700 MHz auction (the end of 2021) and the completion of its associated obligations (mid-2025). The Spanish authorities expect a similar timeframe therefore for coverage of cities above 10 000 inhabitants.

additional features of edge computing and network slicing, will in turn allow the provision of innovative services in sectors such as:

- (a) Digital health: with remote health assistance, users will benefit from real time medical care, treatments and even support to surgery in rural areas, without the need to move to a hospital in an urban area. 5G standalone ultra-low latency services will also enable high resolution images and high definition virtual consultations.
 - (b) The agri-food sector: 5G standalone services and applications will enable the use of wireless sensor networks for traceability and certification of products, as well as automation of packaging and palletizing.
 - (c) Smart farming: sensor measurement of watering, fertilization and crop yields, self-driving farming robots or monitoring drones will be based on 5G services and applications.
 - (d) Industrial sectors: 5G standalone will be essential for digitalised processes to optimize the production and operations.
- (35) The mentioned services require high-performing networks in terms of speed, capacity, latency, etc. Moreover, most of the mentioned services require to rely on performances on a guaranteed and not best-effort basis. Therefore, most if not all of the mentioned services cannot be provided by the 4G mobile networks present in the target areas.
- (36) In this sense, the Spanish authorities are currently developing, through pilot projects, 5G use cases, applications, and solutions (e.g., connected vehicles, remote driving, electric distribution networks, waste treatment plants, sensors to monitor maintenance, performance and safety in companies, telemedicine, precision farming or smart agriculture, etc.).
- (37) The Spanish authorities submit that the Measure can help to generate positive externalities not internalised by market operators as part of the ecosystem of applications developed on 5G standalone networks. The Spanish authorities consider that while mobile networks are key enablers for the provision of additional services and for innovation, the overall benefits are likely to be higher than the economic benefits they generate for the networks' investors, especially in rural regions or low-population-density or unpopulated areas. The market may therefore generate insufficient private investment in mobile networks, in particular in certain areas.
- (38) In their analysis of end users' needs, the Spanish authorities also rely on a survey by the Chamber of Commerce of Spain²¹ (the "Survey"). The Survey was directed at business users located in municipalities with less than 10 000 inhabitants who were asked questions about (i) their current technological endowment, (ii) their knowledge and perception regarding 5G and its related applications, (iii) their

²¹ Survey carried out by the Cámara de Comercio de España. The results of the survey are included in the report of March 2023 "*Percepción empresarial sobre los servicios 5G en zonas rurales – identificación de necesidades en materia de digitalización en establecimientos empresariales situados en zonas rurales con menos de 10 000 habitantes y anticipación del impacto que tendría a este respecto el despliegue de las nuevas tecnologías y servicios del 5G*".

interest to invest and use 5G applications and services, (iv) the impact that the deployment of 5G may have and, (v) the public measures they consider appropriate to facilitate the implementation of the 5G network. This information is published on the aid portal on the website the Ministry of Economic Affairs and Digital Transformation.

- (39) The Survey indicates that most of the undertakings consulted considered that the availability of 5G services in the areas where they are active would have a significant impact on factors related to their performances in those areas. The factors mentioned include: cybersecurity, productivity, costs reduction, improved working conditions, improved quality of products and services, business development and growth, reducing energy consumption and sustainability. All these benefits will have an impact not only on individual companies but also on the ecosystem. The percentage of undertakings consulted which have confirmed such positive impacts increases substantively if considering only undertakings (70.6% of the interviewed undertakings) who have knowledge and perception of what 5G technology is. The percentage further increases when considering only large business users.
- (40) Furthermore, the Spanish authorities indicate that, based on the results of the Survey, more than 50% of the business users consulted will likely invest and use 5G standalone applications such as autonomous and connected vehicles, industry automation and robotisation and high-definition virtual meetings. Approximately 50% of the business users consulted confirmed their interest in investing and using other 5G standalone applications such as drones, smart warehouse, and logistics management.
- (41) The Spanish authorities also indicate that, based on information submitted by several operators, also SMEs would benefit from the Measure by using some of the 5G applications that would be enabled by the target 5G standalone networks. The operators expect that businesses active in the target areas would each benefit from at least one of the innovative services and applications that can be supported by the new functionalities of the networks supported under the Measure.
- (42) Furthermore, during the public consultation concerning the Measure (see also section 2.8), some stakeholders provided information regarding the potential demand of 5G standalone applications and services in the target areas such as: the use of Internet of Things for the control of environmental parameters, forestry and habitat control (e.g., fire prevention), raw materials process automation, remote monitoring of wind and solar parks, remote maintenance of agricultural and manufacturing machinery, connected vehicles, 5G applications and services for wine producers, smart agriculture (e.g., fields monitoring, blockchain technology, smart irrigation), eHealth or health assistance in rural areas (e.g. specialists in rural areas, virtual reality for rehabilitation), e-learning, video surveillance, teleworking, drones, smart transport for business, etc.
- (43) The Spanish authorities further specify that the various indicators provided by international organisations and associations of companies in the sector show considerable expected growth, both in terms of number of users and terminals connected and in mobile traffic on the network, as evidenced between 2015 and 2021, which will continue its trend in the mid to long term. For example, the Spanish authorities indicate that based on the Survey (see recital (38)), 67.7% of the 350 companies surveyed in rural areas consider the deployment of the target 5G

standalone networks with the described characteristics very useful for the businesses in their environment.

- (44) According to the Spanish authorities, in conclusion, the data shows that there is a demand for applications requiring the target 5G standalone networks with the described characteristics which will remain unaddressed in the target area in the absence of aid.
- (45) Consequently, in view of private operators' confirmation that they are not willing to invest to deploy such networks in the next three years in the target areas, i.e., by 17 February 2026 (see also Section 2.8), the Spanish authorities consider that for such areas, there is no alternative to granting public funding in order to make available – by 17 February 2026 – mobile networks and services capable of satisfying users' current and evolving needs.
- (46) The Measure also contributes to meet the demographic challenge by promoting new economic activities, capable of attracting and maintaining inhabitants in areas suffering from depopulation. Likewise, by favouring access to administrative proceedings and acts via telematics and avoiding displacement, sustainable development is promoted, resulting in greater efficiency and energy savings.
- (47) the Spanish authorities expect significant benefits from the Measure as the Measure aims to increase the competitiveness and attractiveness for living and investing in the target areas and to stimulate economic growth through the development of a modern digital economy.

2.4 Duration, budget, and aid intensity

- (48) Aid can be granted under the Measure until 31 December 2025 and the deployment of the networks must be completed by 17 February 2026, by when the networks must enter into operation (i.e. the start of the provision of the target services on the networks).
- (49) The overall budget of the Measure amounts to EUR 680 million, funded entirely by the RRF.
- (50) The Measure will cover up to 90% of the eligible costs for the deployment of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas. This is the maximum aid intensity that the participants to the competitive selection procedure can request. The ultimate aid amount will be determined as a result of the tender and cannot in any case go beyond that aid intensity.
- (51) The Spanish authorities deem the 90% aid intensity appropriate considering in particular the low profitability of the target areas due to the low population density and the high operating costs of mobile networks (e.g., maintenance and electricity).
- (52) The abovementioned elements have an important impact on the economic viability of the investment needed. The Spanish authorities consider that an aid intensity of up to 90% is therefore necessary to ensure that the target 5G standalone networks will be rolled out and the target services will be provided in the target areas.

2.5 Material scope and Eligible costs

2.5.1 Material scope

- (53) According to the draft Order²², the eligible costs²³ must be limited to those falling in its material scope²⁴ i.e., those necessary for financing the relevant equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas.
- (54) The following are the elements that, according to the Measure, fall in its material scope and, therefore, define the boundaries to determine the eligible costs.
- (55) Equipment for the provision of 5G services²⁵: The Spanish authorities consider necessary to finance under the Measure the equipment necessary to provide the target services in the target areas, to be installed on existing BTSs or on new sites (see recital (62)). This equipment may include the following elements:
- (a) Baseband unit (BBU).
 - (b) Radio unit (RU).
 - (c) Antennas.
 - (d) Complementary elements.
- (56) The Spanish authorities consider that the roll-out of 5G equipment in the target areas is a necessary pre-condition to provide in the target areas the target services, i.e. 5G Standalone mobile broadband services with high performances in terms of speed and latency and with certain advanced characteristics of edge computing and network slicing. The existing 4G mobile networks, even presuming they would be upgraded (which is not the case, as the mapping and public consultation confirmed that no investment in more advanced networks is credibly planned – see also section 2.8), in any case would not be capable of providing the target services which require among others lower latency, network slicing, etc. Thus, they would not be adequate to address the current and evolving needs of business end-users in the target areas²⁶.
- (57) Backhaul fibre connections²⁷: The Spanish authorities indicate that it may be necessary to finance under the Measure some backhaul fibre connections insofar as necessary for certain sites that do not have this type of backhaul connection and its

²² See Article 6(4) of the draft Order.

²³ Article 14(1) of the draft Order defines eligible costs as: “(...) investments and expenses that are directly related and necessary for the completion of the project that is selected and that materialise in the period from the submission of the application to the date of completion of the project.” The same provision provides a list of the eligible costs.

²⁴ See Article 3(1) of the draft Order.

²⁵ See Article 3(1) of the draft Order.

²⁶ The Spanish authorities also indicate that considerable investment is needed to roll out 5G equipment in the target areas. According to the Spanish authorities the average cost per site of 5G equipment may range between EUR 45 000 and EUR 50 000, incremented by approximately EUR 50 000 if a new antenna is needed. Therefore, the Spanish authorities consider the cost is comparable to the cost for the construction of a new passive site which, according to the Spanish authorities, in the target areas is on average EUR 90 000.

²⁷ See Article 3(2) of the draft Order.

deployment is neither financed by the backhaul measure. This may be the case in particular for sites located in municipalities of less than 5 000 inhabitants, where fibre optic backhaul connections are necessary for the provision of the target services for which financing under the backhaul measure was not granted. The financed elements will be the physical infrastructure and the passive elements of a dark fibre deployment, as well as the equipment necessary for fibre lighting and for the management of data traffic generated by the connected BTSs. The eligible costs include²⁸:

- (a) Civil engineering works and facilities strictly necessary for the provision of backhaul connections, ensuring the necessary space in the ducts to provide backhaul services to a minimum of 4 operators.
 - (b) Passive elements required for the deployment of dark fibre from the point of delivery (“PdE”)²⁹ of the BTS’ traffic to the appropriate interconnection point based on the beneficiary’s project (“PdI”³⁰).
 - (c) Active elements necessary for fibre lighting.
 - (d) Active elements necessary for data traffic management.
 - (e) Complementary elements.
 - (f) Irrevocable rights of use (IRUs) for the connection of the BTSs to fibre backhaul³¹.
- (58) Additional infrastructure necessary for the reinforcement of the supporting elements (towers, masts or poles) of the existing Eligible BTSs³²: The Spanish authorities indicate that it may be necessary to finance under the Measure costs for such infrastructure, which are therefore also eligible when needed to accommodate the mentioned equipment (see recital (55)) in the site for the provision of the target services in the target areas.

²⁸ Costs linked to the set-up of irrevocable rights of use (IRUs) for the connection of the sites from which 5G services will be provided to the areas eligible for fibre backhaul will also be considered as eligible.

²⁹ The point of delivery of the site is defined as the point at which the traffic of operators active on the eligible site is sent for aggregation and transport to the appropriate interconnection point. Therefore, the delivery point will be located in the eligible location and will be specific to each type of wholesale service.

³⁰ An interconnection point means the point at which operators active on an eligible site collect the traffic corresponding to it for incorporation into their own transmission network or that of other wholesale fixed network operators with optical fibre presence providing transport services between the PdI and the operator’s own transmission network. A PdI can aggregate traffic from multiple PdE, i.e. from multiple sites. An IOP shall be considered appropriate if the traffic of all operators of electronic communications services can be transported on a fair, efficient, and non-discriminatory basis.

³¹ The IRU contract must provide the relevant services in compliance with the requirements and obligations laid down in the Legal basis in such a way that the objective of the project is met, as well as be maintained during the period of compulsory activity of the infrastructure from the end of the implementation of the project. These infrastructures must comply with the specific implementing rules. In particular, UNE 133100 applies: 2021 (parts 1 to 5).

³² See Article 3(3) of the draft Order.

(59) Costs for passive physical infrastructure corresponding to a new site³³: The Spanish authorities indicate that it may be necessary to finance under the Measure costs related to the construction of further physical infrastructure, in the event that no suitable existing sites are identified to cover some of the target areas. Therefore, provision of the necessary passive physical infrastructure corresponding to a new site may be included (and can be cumulated to support for equipment and for backhaul connectivity). This physical infrastructure includes any element necessary to house the equipment listed above (see recital (55)) of electronic communications operators providing services from that infrastructure. This infrastructure includes the following elements:

- (a) Towers, masts or poles.
- (b) Conduits, enclosures or construction elements to house the equipment of the access networks.
- (c) Power supply systems or networks connecting public energy networks.
- (d) Infrastructure protection elements and systems.
- (e) Access roads to infrastructures.
- (f) Complementary elements, excluding any equipment of the mobile access network for the end user.

2.5.2 Eligible costs

- (60) The eligible costs are defined by the draft Order³⁴ as the costs directly related and necessary for the completion of the projects falling in the material scope of the draft Order i.e., the costs related to and necessary for the deployment of the equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas (as described above in Section 2.5.1).
- (61) From a temporal perspective, eligible costs are costs that materialise in the period from the submission of the application to the date of completion of the project.
- (62) Projects for which investments or expenses have been committed or made prior to the submission of an application for the competitive selection procedure are not eligible under the Measure. The following items are the main costs considered eligible for aid as they are linked to the elements falling in the scope of the Measure, as described above in recitals (53) to (59)³⁵:
- (a) Equipment for the provision of 5G services.
 - (b) Additional infrastructure and civil works, such as backhaul connections or construction of new sites necessary for the purpose of the aid measure³⁶.

³³ See Article 3(4) of the draft Order.

³⁴ See Articles 6(4) and 14(1) of the draft Order.

³⁵ See Article 14 of the draft Order.

³⁶ The establishment of irrevocable rights of use (IRUs) for the connection of the BTSs from which the target services will be provided to the areas eligible for fibre backhaul shall also be considered as an eligible cost.

- (c) Equipment and other materials.
 - (d) Staff costs related to the deployment of the network in the target areas.
 - (e) Other necessary general or indirect costs, such as those relating to project development, permit management, measurement equipment strictly necessary to roll out the target 5G standalone networks and provide the target services, etc.
- (63) In no case indirect taxes, when they are susceptible to recovery or compensation, or personal income taxes can be considered eligible costs.
- (64) The Spanish authorities explain that, in any case, costs related to the fulfilment of legal obligations (e.g., investments needed to meet the coverage obligations attached to the rights of use of spectrum) cannot be covered by the Measure (see also section 2.3). The aided equipment and infrastructures will not be considered to meet any coverage obligations attached to rights of use of spectrum.

2.6 Intervention model

- (65) The Measure will be implemented by means of a gap funding model, through direct grants to the undertakings selected via a competitive selection procedure. The grants will be equal to a percentage of the overall amount of the eligible costs, as resulting from the competitive selection procedure. The aided equipment and infrastructures will be fully owned by the beneficiaries.

2.7 Beneficiaries

- (66) The aid beneficiaries are the undertakings that will be awarded the tenders for the deployment of the equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas included in the Measure.
- (67) To apply for aid under the Measure, the potential beneficiary must: (i) be authorised electronic communications operator, (ii) have been awarded the rights to use frequencies in one of the bands harmonised in the Union for terrestrial systems capable of providing wireless broadband electronic communications services, and (iii) have paid the fees for the attribution of the relevant frequencies.
- (68) The draft Order (see also Section 2.10) provides that the beneficiaries of the aid must provide other operators with access to the network, as described in Section 2.14.
- (69) Beneficiaries must also operate the aided infrastructures and provide the target services for at least ten years from the completion of each aided project, and for the entire lifetime of the equipment.
- (70) Aid will not be granted under the Measure to any undertaking that is subject to an outstanding recovery order following a previous Commission decision that declared an aid illegal and incompatible with the internal market nor to

undertakings in difficulty as set out in the Commission’s Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty³⁷.

2.8 Identification of target areas, mapping, and public consultation

- (71) The Spanish authorities indicate that the Measure is divided into fifty intervention areas (corresponding to the Spanish provinces³⁸) covering the territory of Spain. This corresponds to the identification of intervention areas also in the backhaul measure. The Spanish authorities have designed the Measure to comprise fifty intervention areas with a possibility of having more than one beneficiary per intervention area. The Spanish authorities indicate that each applicant to the competitive selection procedures must limit the geographical scope of its project to the relevant intervention area for which the tender is launched. The same applicant can submit only one project for each intervention area. Applicants are allowed to apply for more than one of the intervention areas up to all intervention areas. This approach aims to facilitate the participation of smaller operators in the tenders. At the same time, having more than one beneficiary per intervention area will also improve competition and facilitate the entry of new operators. Within the fifty intervention areas, aid can only be granted for the provision of the equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas.
- (72) To clearly identify the corresponding target areas in each intervention area for the application of the Measure, in December 2022, the Spanish authorities requested the providers of electronic communications networks to provide information regarding the areas where there is currently no coverage with at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions.
- (73) Based on the results of this first request for information, the Spanish authorities elaborated a preliminary list of target areas i.e., areas where by 30 November 2022 there was no mobile coverage with at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions, based on the information provided by MNOs.
- (74) In the mapping and public consultation, the Spanish authorities collected information at address level based on maximum 100 × 100 metre grids, using the methodology included in Annex I of the Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks (“the Broadband Guidelines”)³⁹. The performances of the networks were expressed at least in terms of download speeds that are or will be available to end users under peak-time conditions and any bottleneck that could prevent the achievement of those performances has been duly considered (concerning for instance further backhaul connections).

³⁷ Communication from the Commission — Guidelines on State aid for rescuing and restructuring non-financial undertakings in difficulty. *OJ C 249, 31.7.2014, p. 1–28.*

³⁸ Except for Ceuta and Melilla.

³⁹ Communication from the Commission – Guidelines on State aid for broadband networks (OJ C 36 of 31.1.2023, p. 1).

- (75) A general public consultation for the Measure took place between 17 February and 18 March 2023 and was published on the Ministry of Economic Affairs and Digital Transformation website⁴⁰. The consultation contained a comprehensive description of the planned Measure as well as the list of the preliminarily identified target areas. Stakeholders were specifically asked for their views on the proposed Measure and on the potential demand of new 5G services and applications in municipalities of less than 10 000 inhabitants. In the public consultation, the Spanish authorities also requested the stakeholders for their observations on the preliminary list of target areas, annexed to the public consultation, and on mobile networks present or credibly planned in the next three years in the target areas, i.e., by 17 February 2026 (at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions).
- (76) To finalise the mapping, all the information obtained via the contributions to the public consultation as well as via contacts with mobile operators was consolidated to obtain the final list of target areas in the fifty intervention areas. All the elements of the methodology and the underlying technical criteria used to map the target areas were made publicly available in the public consultation. The Spanish authorities also consulted the national regulatory authority on the mapping and on the proposed Measure including the text of the draft Order (see also Section 2.19).
- (77) A total of 51 submissions were received and assessed by the Spanish authorities.
- (78) The mapping and public consultation identified the target areas considering all mobile networks present and credibly planned by 17 February 2026. The results of the mapping and public consultation individuated 429 957 target areas covering 3 195 780 inhabitants and 119195 road sections. These areas do not have and will not have mobile coverage with at least a 4G mobile network providing download speeds of at least 50 Mbps by 17 February 2026. Mapping and public consultation confirmed that private investors do not intend to invest to deploy equipment and infrastructure for the target 5G standalone networks and the provision of the target services by 17 February 2026.

2.8.1 Observations on the Measure

- (79) Most of the respondents to the public consultation supported the design of the Measure as described in the consultation documentation. The main topics covered by the submissions received in the public consultation were the following:
- (a) **Aid for equipment for frequency bands of 700 MHz and 3.5 GHz:** some operators indicated that to provide 5G standalone services with the added value characteristics of edge computing and network slicing, and with minimum download and upload speeds of, respectively, 100 Mbps and 5 Mbps under peak time conditions, the aid should be granted in support of equipment for the frequency bands of 700 MHz and 3.5 GHz. According to these operators, population coverage jointly through these frequency bands is significantly higher than the coverage reached only with the 700 MHz band, even if the spectrum were mutualised (e.g., 2 x 30 MHz). Moreover, the operators consider that frequency mutualisation would only be possible in

⁴⁰ <https://portal.mineco.gob.es/es-es/comunicacion/Paginas/consulta-p%C3%BAblica-unico-5G-febrero-2023.aspx>

areas where no deployment in such frequency band has been made at a significant distance to the relevant sites. In addition, these operators considered that the 3.5 GHz band provides the best performances to reach a download speed of 100 Mbps under peak time conditions. Regarding this issue, the Spanish authorities indicate that the Measure does not impose any frequency band and that the beneficiaries can use one or several frequency bands to provide the target services to the greater number of inhabitants and road kilometres and ensure the coverage of the target areas.

- (b) ***Backhaul technology.*** Some respondents suggested that no aid should be granted in support of fibre backhaul and that no additional award points should be granted to applications including fibre backhaul deployments. According to these respondents, aid in support of fibre backhaul could distort competition and place companies that have invested in fibre backhaul at a disadvantage. Other respondents considered that, based on the technology neutrality principle, other backhaul technologies, such as radio-links connections, should also be considered for the purposes of the Measure. According to the Spanish authorities, however, based on the report “*Ámbito de aplicación 5G y análisis de las tecnologías de transporte en la red de agregación de la 5G-RAN*”⁴¹ referenced in the backhaul measure⁴², at the current stage of technological development, fibre-based backhaul networks are the only technological solution for backhaul that can enable the provision of performant new mobile services and applications, including those enabled by 5G technology, and cater for the expected exponential increase in mobile traffic, to address the Spanish end-users’ current and evolving needs, as identified by Spain and in line with the objectives of the Measure. The Spanish authorities clarify that aid in support of fibre backhaul will only be granted insofar as necessary for certain sites that do not have this type of backhaul connection and its provision is neither contemplated through the backhaul measure. In addition, aid to backhaul under the Measure is limited to BTSs located in municipalities of less than 5 000 inhabitants, where fibre optic backhaul connections are necessary for the provision of the target services.
- (c) ***Additional infrastructure necessary for the reinforcement of supporting elements:*** some operators suggested that the Measure should also cover, as eligible costs, the infrastructure necessary for the reinforcement of the existing sites to deploy the 5G standalone equipment. According to these operators, this would facilitate the use of existing infrastructure and reduce the environmental impact and the costs associated to the passive infrastructure. In consideration of this comment, the Spanish authorities consider it appropriate to add as eligible costs those costs associated to the additional infrastructure necessary for the adaptation of the supporting towers, masts, or poles in the existing sites, when required to install the equipment necessary for the provision of the target services in the target areas.

⁴¹ Prepared by the experts J. Antonio Portilla Figueras, Silvia Jiménez Fernández, Sancho Salcedo-Sanz and Luis Miguel Moreno-Saavedra of the ISDEFE-UAH: Observatorio en TIC e Inteligencia Artificial of the Universidad de Alcalá. The Spanish authorities also refer to BoR (20) 165; BEREC Guidelines on Very High-Capacity Networks; 1 October 2020.

⁴² SA.103451 (2022/N) – Spain RRF – Deployment of backhaul networks for mobile connectivity.

- (d) **Award criteria:** Some replies proposed to amend the award criteria (see also Section 2.10) in order to give more weight to population coverage, considering that the main goal of the Measure is to provide connectivity to users in the target areas so they can access public and private services and develop an economic activity. Furthermore, some respondents suggested simplifying the award criteria to accelerate the competitive selection process and to ensure that such process focuses on applications that prioritise the provision of services and the use of the existing equipment. The Spanish authorities consider that the award criteria aim to ensure economic efficiency in delivering the target services in the target areas. Based on award criteria 1⁴³ and 2⁴⁴, which represent 55 % of the total score, points will be given according to the percentage of population and kilometres of roads where the relevant service will be provided. More concretely, more points will be granted to the bids which plan the provision of the service to the largest population and the highest number of kilometres of roads. However, in view of the observations made concerning this point, the weight of award criterion 1 was increased by 10% with the aim to grant more weight to the objective of providing the target services to the highest percentage of population in the target areas. Furthermore, award criterion 4⁴⁵ was reduced by 5 points and the previously envisaged criterion number 5⁴⁶ was eliminated.
- (e) **Minimum coverage obligations:** Some operators suggested removing the minimum road coverage obligation contained in the draft Order. These operators also proposed to amend the obligation contained in the same provision, which imposed on the aid beneficiaries to reach a minimum coverage of target populated areas, and to impose instead an obligation to reach a minimum coverage of population. The Spanish authorities have amended the Measure as suggested by these stakeholders and will not impose a minimum coverage in the target roads, with the aim to ensure that viable bids can be submitted for all target areas in all intervention areas. The Spanish authorities have considered the differences among the geographic and orographic situation of the target areas in the different intervention areas (50 provinces in Spain).
- (f) **Number of lots awarded per company:** one operator proposed to limit the number of lots⁴⁷ into which the competitive selection procedure will be split that can be awarded to the same undertaking or consortium of undertakings in order to promote participation in the competitive selection procedure and to aim for a more equally distributive design of the Measure (see also Section 2.10). Another stakeholder also suggested that, to ensure an equitable distribution of the aid, a maximum threshold of the aid amount that can be granted to the same beneficiary should be set. Both responses proposed setting a 40% maximum aid amount per beneficiary. The Spanish authorities consider that such adjustments are not opportune as they could have a negative impact on the economic efficiency of the Measure (see also section 2.10). The Spanish authorities consider that the aid should be granted to those

⁴³ Objective of providing the target services to the highest percentage of population in the target areas.

⁴⁴ Objective of providing the target services to the highest number of kilometres of secondary roads.

⁴⁵ Objective of providing the target services to the highest number of kilometres of secondary roads, through the construction of new sites.

⁴⁶ Objective of providing fibre backhaul connections to base stations without such a connection.

⁴⁷ A lot corresponding to each of the 50 intervention areas.

bids maximising the provision of the relevant service both to population and road sectors in the target areas. However, to foster competition, if there are several applications for a bidding zone a maximum of 75 % of the maximum amount of aid will be awarded to the application that obtains the highest number of points (see also section 2.10). Furthermore, the Spanish authorities will ensure that the wholesale access obligations set out under the Measure will guarantee effective competition and the provision of services by all operators (see also Section 2.14).

- (g) **Eligible costs:** some operators proposed that the costs for the establishment of irrevocable rights of use or for the long-term contracts related to the use of the site or lease, as well as for software licenses, professional services, card extension, protection equipment and other equipment necessary to comply with the rules on prevention of occupational risks, should also be considered as eligible costs for the purposes of the Measure. The Spanish authorities indicate these costs are not eligible because not specifically related to the Material scope of the Measure (as described in Section 2.5). Moreover, some operators suggested considering as eligible the costs for operation and maintenance of the aided infrastructures. The Spanish authorities do not consider that the eligible costs should include operating and maintenance costs, in line with the requirements of the RRF Regulation.
- (h) **Wholesale access services:** some replies suggested that operators should be given the possibility to, where technically possible, enter into agreements concerning wholesale access products (either roaming or MOCN) to the aided infrastructure, allowing prices to be set in line with the market's reality. Regarding wholesale access to equipment by the non-beneficiaries, some stakeholders indicated that the draft Order should include additional wholesale access formulas, such as MORAN and MOCN, which would allow the network sharing agreements. In addition, they suggested that, when setting the prices for wholesale access products, the Spanish authorities should consider the maximum aid intensity, set at 90 %. According to the Spanish authorities, the Measure establishes that beneficiaries must provide, upon request from operators of electronic communications services, with transparent, fair and non-discriminatory access to the aided equipment, since effective wholesale access by third parties to State-funded networks is an indispensable component of any State aid measure, and that the aided infrastructure must therefore allow effective access to it (see also section 2.14). Wholesale access based on roaming is planned, as well as the further development of wholesale access products such as Multi-Operator Core Network (MOCN) and Multi-Operator-Access Network (MORAN), among others (as described in Section 2.14, recital (109)). The Measure includes wholesale access to the BTSs' resources, including the towers, and access obligations to the fibre backhaul connections. As regards prices for the wholesale access products, the Spanish authorities confirm that these prices will be included in the documents for the competitive selection procedure for the awarding of the aid under the Measure. The Spanish authorities have also confirmed that the Comisión Nacional de los Mercados y la Competencia (the Spanish regulator, "CNMC") has been consulted on this point and has produced a specific report on wholesale access terms and conditions, including wholesale access prices for roaming, wholesale access to poles,

masts, towers and ducts, and wholesale access to backhaul connections (see recital (117)⁴⁸.

- (i) ***Existing and evolving demand of 5G services and applications in the target areas***: several stakeholders provided information regarding 5G applications and services potentially relevant for end users in the target areas, including, among others, with regard to the use of Internet of Things for the control of environmental parameters, forestry and habitat control, raw materials process automation, remote monitoring of wind and solar parks, remote maintenance of agricultural and manufacturing machinery, connected vehicles, 5G applications and services of wine producers, smart agriculture, eHealth, e-learning, teleworking. The Spanish authorities took this information into account into the design of the Measure.

2.9 Granting authority

- (80) The granting authority is the Secretary of State for Telecommunications and Digital Infrastructures (hereafter: “the Granting Authority”). The Granting Authority will implement the Measure as explained in this decision, including as follows:
 - (a) it has carried-out both the mapping and the public consultation, as described in Section 2.8.
 - (b) it will decide on the granting of the aid following verification that the potential beneficiary fulfils the conditions and requirements provided in the call for tenders and the present State aid decision, as described in Section 2.10, and
 - (c) it will check that the aid will be implemented and used in compliance with the present State aid decision.

2.10 Competitive selection procedure

- (81) The beneficiaries will be selected through an open, transparent, and non-discriminatory competitive selection procedure. Pursuant to Article 16 of the draft Order, the award procedure must be conducted in accordance with the principles of publicity, transparency, objectivity, equality, and non-discrimination, and must be initiated ex officio by the Granting Authority. The Spanish authorities consider that the proposed design of the competitive selection procedure, based on fifty intervention areas that include target areas (see also Section 2.3), aims to foster the widest possible participation thus incentivising competition in the context of the tender.
- (82) The beneficiaries of the funds, as well as subcontractors, where applicable, have to comply with the applicable European and national rules, including the obligations arising from the RRF Regulation⁴⁹.

⁴⁸ The report available on the CNMC’s website <https://www.cnmc.es/sites/default/files/4626826.pdf>

⁴⁹ In particular: the principle of no significant harm, avoidance of conflicts of interest, fraud, corruption, lack of double financing, communication, transfer of data, rules on subcontracting, among others.

- (83) Each competitive selection procedure will:
- (a) comply with the relevant principles of EU⁵⁰ and Spanish public procurement rules, as well as with the principle of technological neutrality (see also Section 2.12).
 - (b) be published on the official website of the Ministry of Economic Affairs and Digital Transformation.
 - (c) ensure equal and non-discriminatory treatment of the interested parties as well as effective competition among them. Furthermore, it is designed in a way to foster the widest possible participation (e.g., through the number and design of intervention areas and target areas).
 - (d) require the provision of proof from each applicant that it has the status of an authorised operator under the sector specific rules and the rights of use for frequencies necessary for the implementation of the project. The applicant must also provide evidence of the technical and economic capacity necessary for the development of a project under the Measure⁵¹. In the case of a group of undertakings, the document attesting to the creation of the group, its representative or sole representative must be produced, as well as the information already indicated about the authorised operators, and
 - (e) consortia or other groupings of undertakings may participate in the competitive selection procedure, in accordance with the Spanish Public Procurement legislation and the principles imposed by EU Public Procurement rules.
- (84) In the assessment of the applications submitted, the following award criteria will be considered:
- (a) The proposed percentage of population in the target areas to which the relevant 5G services will be provided.
 - (b) The proposed percentage of road sections, in terms of number of kilometres, to which the relevant 5G services will be provided.
 - (c) The proposed percentage of population and road sections in the target areas to which the relevant 5G services will be provided through the deployment of new infrastructure.
 - (d) The degree to which the project intends to reuse existing infrastructure.
 - (e) Wholesale access products additional to the minimum wholesale access products established by the Measure.

⁵⁰ Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65).

⁵¹ The financial standing of the applicant must be deemed to be proven if the amount allocated in the call for funding of the projects applied for is less than the total sum of the annual investments for the last three financial years.

- (f) The technical solution proposed by the bidders⁵².
 - (g) The extent to which the project will result in net job creation in Spain, participation of SMEs, micro-SMEs, self-employed and start-ups, and territorial cohesion, and
 - (h) The quality and detail of the business plan.
- (85) Additional requirements must also be met for aid to be granted to a beneficiary. The following are the most relevant⁵³:
- (a) not having any debts for repayment of aid.
 - (b) having fulfilled any obligations to repay any other loans or advances previously granted from the General State Budget.
 - (c) not being granted any other aid, revenue, or resources for the purposes of the project for which the aid is proposed, from any public administration or private, national, European Union or other international organisation.
 - (d) a written commitment to grant the necessary rights and access to ensure that the European Commission, OLAF, the European Court of Auditors, the EPPO and the competent national authorities exercise their competences.
- (86) Award criteria a), b) and c) described above in recital (84) guarantee that the selection procedure complies with the requirement to select the most economically advantageous offer. The Spanish authorities indicate that awarding a substantive number of points on the basis of coverage with the same budget, results in favouring the best economic offer.
- (87) The Measure considers each of the fifty intervention areas as a bidding zone. The tender is split in 50 lots, one per each of the intervention areas. A maximum of EUR 30 million will be allocated to each of the lots per intervention area. Each project eligible for support must adjust its geographical scope of action to correspond to one of the fifty intervention areas. Each applicant may submit one project for each of the fifty intervention areas. According to the Spanish authorities, this favours the widest possible participation in the tender and facilitates the most efficient use of public resources. Based on the structure of the economic sector concerned, in particular the provision of mobile services, the Spanish authorities are of the view that there is no need to impose a cap on the number of bids awardable to the same operator at national level (in all intervention areas). Applicants are allowed to apply for more than one of the intervention areas up to all intervention areas. This is because the mobile sector in Spain is

⁵² The quality and concrete nature of the project will be assessed in terms of the technical solution proposed and the project implementation plan, with particular attention to the detail of the elements of the set of equipment and infrastructure provided, their location, the activities and resources involved, with particular attention to the participation of women in management positions, the identification of phases and milestones and the identification and management of associated risks (contingencies) and the inclusion of measures that make an extraordinary contribution to the environmental objectives of the Do No Significant Harm (DNSH) principle.

⁵³ Additional requirements are: (i) Not being subject to any of the prohibitions referred to in Article 13 (2) of Law 38/2003 of 17 November, in compliance with Articles 26 and 27 of the Regulation approved by Royal Decree 887/2006 of 21 July; (ii) Be up to date with tax and social security obligations.

characterised by the presence of four major MNOs, that compete on price and quality of services provided and are active both at the wholesale and retail level. Each of these operators holds rights of use of spectrum for the provision of 5G services. In addition, many tower companies and smaller communication operators currently own and operate sites. In this market context, imposition of a cap on the number of bids awardable to the same operator would negatively affect the possibility for reaching economies of scale and density (and, thus, efficiency in the use of public resources) that bidders could consider in their offers. However, to foster competition, if several bids are received for the same intervention area, only maximum of 75 % of the maximum amount of aid will be awarded to the bid that obtains the highest number of points, as described in recital (91).

- (88) The number and size of the intervention areas was set based on the following criteria:
- (a) the need to ensure efficient use of public resources by achieving adequate economies of scale and density, and, more broadly, the widest efficiencies in the deployment of the equipment and infrastructure, as well as the minimisation of the administrative costs; and
 - (b) the results of the mapping and public consultation exercises, to identify intervention areas and target areas not unduly fragmented and designed in such a way as to stimulate the widest participation in the tender.
- (89) The aid cannot exceed 90 % of the eligible costs (see recital (50)), as described in Section 2.5. The maximum amount to be received by each beneficiary per intervention area cannot exceed the maximum amount established per lot.
- (90) Offers received during the competitive selection procedures will be assessed using the qualitative award criteria established (see recital (84)) and published in advance by the Granting Authority. For each of the intervention areas, the offers that will achieve the highest scores based on the award criteria will be selected. The award criteria established will allow for the identification of projects that, with the available budget, will deploy the equipment and infrastructure under the best conditions as the most economic advantageous offers.
- (91) If as part of a competitive selection procedure several bids are received for an intervention area, a maximum of 75 % of the amount of aid will be awarded to the bid which meets the requirements described above (see recitals (84) and (85)) and obtains the highest number of points in the procedure. The remaining amount of aid will be for the financing of the second-best bid, once the eligible equipment and infrastructure covered by this application that provide service to eligible areas that coincide with the eligible areas covered by the winner application are excluded. If the maximum amount of aid after allocation to the first and second bids is not exhausted, the same allocation exercise will be applied to the remaining applications in the order of points obtained in the competitive selection procedure until the budget is exhausted.
- (92) If several bids reach an equal score, the tie will be solved considering the points obtained for each of the criteria, in order, starting with the first one until the tiebreak occurs (see recital (84)). In case of tie once exhausted the criteria, preference will be given to the bid submitted first.

- (93) The terms of the calls for tender impose on the successful bidders an obligation to ensure wholesale access (see also Section 2.14).

2.11 Use of existing infrastructure

- (94) The Spanish authorities confirm that in the planning process for the provision of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas, the Granting Authority has considered all existing infrastructure in the relevant intervention areas that can be re-used. Moreover, the reuse of existing infrastructures to reduce the cost of the Measure will be encouraged in the calls for tenders.
- (95) In this regard, to facilitate the reuse of existing infrastructure, any operator which owns or controls an existing infrastructure that could be used in the target areas, and which wishes to participate in the tender, will have to inform other bidders about the presence and availability of such infrastructure and the conditions for accessing it⁵⁴.
- (96) Moreover, the Spanish authorities also indicate that in 2008 the CNMC imposed on the incumbent operator (Telefónica) an obligation to give access to its existing physical infrastructures (with an obligation to provide an alternative solution and notably access to dark fibre, if access to physical infrastructure could not be granted), and to publish a Reference Offer for its use⁵⁵. Since then, Telefonica's MARCO offer constitutes a useful tool for other operators, and includes detailed cartographical information of existing infrastructure, access and use procedures as well as cost-oriented prices. This offer is widely known and used by all operators in Spain and will be available to all bidders in the competitive selection procedure under the Measure.
- (97) The Spanish authorities are in the process of setting-up a national database where all existing infrastructures that could be re-used for the deployment of broadband networks will be included. Once available, the database will be made public. The Spanish authorities also rely on the Single Information Point referred to in Article 4(2) of Directive 2014/61/EU.

2.12 Technological neutrality

- (98) The technological neutrality principle requires that State intervention must not favour or exclude any technology, both in the selection of beneficiaries and in the provision of wholesale access. This is without prejudice to the possibility for Member States to determine the desired performance, including the energy efficiency of the networks, before the procedure is launched and to grant priority points to the most suitable technological solution or mix of technology solutions based on objective, transparent and non-discriminatory criteria. A State-funded network must enable access under fair and non-discriminatory conditions to all access seekers irrespective of the technology used.

⁵⁴ For instance, in line with the provisions of articles 4 and 5 of Royal Decree 330/2016, of 9 September, regarding measures to reduce the cost of deploying high-speed electronic communications networks.

⁵⁵ Available at: https://www.movistar.es/operadores/ServiciosRegulados/ficha/PRO_MARCO

- (99) The Spanish authorities explain that the beneficiaries will be selected based on objective criteria. The Spanish authorities consider that the roll out of the target 5G standalone networks and the provision of the target services in the target areas is necessary to address the Spanish end-users' current and evolving needs in terms of mobile connectivity, as identified by Spain and in line with the Measure's objectives (see also Section 2.3). The Spanish authorities consider that 5G standalone connectivity is the main driver for digital transformation in virtually all sectors of the economy and society and the actual availability of 5G services will be crucial for the rapid development of new services and applications, in particular industry use cases, that have a high economic and social value. The Spanish authorities consider necessary to ensure a bigger change in quality of service and availability of services and applications than that triggered by the mere coverage of population with 5G (as per coverage obligations related to rights of use of spectrum). The network solutions provided by the Measure therefore guarantee additional functional capabilities such as ultra-low latency (edge), high reliability and the possibility to reserve part of the network for a particular use and guarantee a certain quality of service (network slicing). These network features can only be offered by 5G Standalone networks. Spain indicates that at the current stage of technological development, there are no other mobile technologies providing the same or similar performances as 5G standalone networks notably reliability and latency which are necessary to enable the provision of the target performant new mobile services and applications. Furthermore, the Spanish authorities explained that, at the current stage of technological development, fibre-based backhaul networks are the only backhaul network that can support the provision of the target services in the target areas, with high reliability to address the Spanish end-users' current and future needs in terms of mobile connectivity, as identified by Spain and in line with the objectives of the Measure.
- (100) Beneficiaries must also offer effective wholesale access to any access seekers who request it irrespective of the technology chosen by the access seekers, on open, transparent, fair and non-discriminatory terms. Spain committed to ensure that wholesale access will be offered on fair, open, non-discriminatory terms in line with the principle of technological neutrality.

2.13 Step change

- (101) The Spanish authorities indicate that the target 5G standalone networks will ensure a step change in comparison to the existing mobile network(s). Spain indicates that in the target areas there are only 4G mobile networks providing download speeds of up to 50 M bps under peak time conditions and there are no credibly planned networks that would on their own, provide similar performance to that of the planned State funded network within the same time horizon, i.e., by 17 February 2026, as demonstrated through the mapping and public consultation exercises (see also Section 2.8).
- (102) The Spanish authorities indicate that the target 5G standalone networks supporting the provision of the target services will ensure that a significant improvement is achieved by State-funded networks, bringing substantial new investments in the broadband networks and significant new capabilities to the market in terms of type of broadband services available, speed, latency or other relevant characteristics of the network linked to the standalone character of the network. According to the Spanish authorities, this is the case since the State-funded mobile networks, in contrast to the present network(s), will be based on 5G standalone technology and

will provide advanced performant services with the added-value characteristics of edge computing and network slicing, and with minimum speeds of 100 Mbps download and 5 Mbps upload under peak time conditions (see also Section 2.1).

- (103) The Spanish authorities explained that as an effect of the Measure, the BTSs in the target areas which are not and are not planned to be equipped with 5G equipment and infrastructure (such as fibre backhaul, as necessary) will be equipped with 5G equipment and upgraded as needed. Further sites may be built and equipped with 5G equipment if necessary to fulfil the objectives of the Measure (deployment of the target 5G standalone networks and provision of the target services in the target areas). The Measure will ensure the deployment of the target 5G standalone networks and the provision of the target services in the target areas. Spain explained that this constitutes an adequate step-change considering that the existing 4G networks do not provide the same overall performance as the target 5G standalone networks in terms of capacity, speed, latency, and reliability. Similarly, as concerns the further deployment of fibre backhaul insofar as needed to ensure the provision of the target services in the target areas, the Spanish authorities indicated that this also contributes to an adequate step-change due to the limited capacity and technological characteristics of the existing backhaul networks based on other technologies (copper, satellite or microwave-links based backhaul networks) which do not provide the same overall performance as fibre backhaul in terms of capacity, speed, latency and reliability. Moreover, Spain also indicates that at the current stage of technological development, there are no other technologies providing the same or similar performances as a fibre-based backhaul network and there are no other mobile technologies providing the same or similar performances as 5G standalone networks notably in terms of reliability and latency which are necessary to facilitate the provision of the new mobile services and applications, as described in Section 2.3.
- (104) The Spanish authorities also underline that a step change is present since the transition to each new IMT standard⁵⁶ is incremental, thus, 5G standalone is more performant than any 4G technology, whereas in the target areas only 4G mobile networks are present (and no more performant networks are planned). Moreover, as an effect of the public intervention, in the target areas not only the download speed will at least double compared to the speeds provided by the existing mobile networks, but the target 5G standalone networks, in particular given their added-value features, will have additional functionalities, such as ultra-low latency, high reliability and the possibility to reserve part of the network for a particular use and guarantee a certain quality of service (network slicing), that are not available through the existing or planned mobile networks.
- (105) The Spanish authorities consider that network slicing is of particular relevance for the provision of new services and applications as it makes possible to arrange for different network slices within the network tailored at specific services and/or users. It therefore allows the reservation of end-to-end network resources and, the possibility to manage services that need to rely on differential end-to-end performances. On the other hand, edge computing allows to bring service

⁵⁶ Mobile broadband systems (2G, 3G, 4G and 5G) are based on the International Telecommunication Union's International Mobile Telecommunication (IMT) standards. IMT standards are specifications and requirements for high-speed mobile broadband service based on the technological progress in the relevant time frame.

management platforms closer to the access node. This implies that latency between the end user terminal and those platforms is significantly reduced allowing the provision of differential services as explained above.

(106) This will render possible the provision of services such as those referred to in recital (34).

(107) On this basis, the Spanish authorities consider that these features will allow the target 5G standalone networks to support the provision of the target services, thereby ensuring a step change compared to the existing 4G mobile networks.

2.14 Wholesale access obligations, including pricing

(108) The Spanish authorities explain that aid beneficiaries must provide other electronic communications operators with passive and active wholesale access, in a transparent manner and on fair and non-discriminatory terms and at least under the minimum conditions identified in this Decision.

(109) To this end, the Measure⁵⁷ indicates that the following wholesale services and resources must be provided as a minimum by the beneficiaries of the aid:

(a) Effective wholesale access to equipment. The equipment to be installed must be able to provide in the target areas the target services. Effective access to the equipment must ensure the ability of access seekers to provide the target services in the target areas. This access will consist of at least roaming. The aid beneficiaries must offer wholesale products that provide RAN's resource sharing using active RAN sharing functionalities, namely Multi-Operator Core Network (MOCN), or Multi-Operator-Access Network (MORAN), or multitenancy techniques such as network slicing, if and as soon as they become available as standardised wholesale access products in Spain. The corresponding terms and conditions, including as regards pricing, will be subject to the approval of the NRA. In any case, should any of the beneficiaries make such a wholesale product available to any access seekers, the beneficiary will have to provide the wholesale product to access seekers under the same terms and conditions including but not limited to the same price conditions.

(b) Effective wholesale access to all existing and new site resources, including ducts, masts, towers, which must be fully dimensioned to ensure sufficient capacity for the provision of the target services, to accommodate the expected needs of all potential access seekers. Exceptionally, wholesale access to existing and new BTSs requires at minimum capacity for at least two MNOs. In presence of reasonable demand (see also Section 2.14.1) both the existing and new BTSs will need to be dimensioned to host more than two MNOs.

(c) Effective wholesale access to existing and new fibre backhaul connections, including at least one wholesale active product access and access to all the passive infrastructure, including ducts, poles, masts, dark fibre. Such infrastructure must be fully dimensioned to ensure sufficient capacity for the provision of the target services, to accommodate the expected needs of all

⁵⁷ See Article 7 of the draft Order.

access seekers, as necessary to ensure effective access under fair and non-discriminatory conditions and must be constructed in such a way that additional civil works are not subsequently required up to the site's traffic delivery point.

- (110) Effective wholesale access for all access products must be provided by the beneficiary of the aid as early as possible before starting to provide the relevant services and, where the network operator also intends to provide retail services, at least 6 months before the launch of those retail services⁵⁸. Such access must be provided for active access products for a minimum period of 10 years. As regards all passive wholesale access products, access must be provided for the lifespan of the network elements concerned.
- (111) For all new equipment and infrastructure, the equipment and infrastructure must be large enough to meet access seekers' current and evolving demand, with the only exception of existing and new BTSs which provide a minimum required capacity for at least two MNOs, to be supplemented upon reasonable demand, as described in Section 2.14.1. This is complementary and without prejudice to regulatory obligations that may be imposed by the NRA.
- (112) The same access obligations will be enforced irrespective of any change in ownership, management, or operation of the network.
- (113) The same access conditions will apply on the entirety of the network, including on the parts of such network where existing infrastructures have been used, e.g., existing pipeline, towers, poles and masts. Wholesale access must also be granted to parts of the network that have not been State funded or that may not have been deployed by the aid beneficiary if and as necessary to render the wholesale access effective and to enable the access seeker to provide its services.
- (114) The call for tenders expressly provides that the aid beneficiaries must commit in writing that the beneficiary will not report the deployment of the networks to fulfil legal obligations, such as coverage obligations attached to rights of use of spectrum.
- (115) Beneficiaries must operate the networks and provide the target services for a minimum of ten years from the end of the implementation period of each project, and for the entire lifetime of the equipment and infrastructure if it exceeds ten years.
- (116) The minimum terms, conditions and prices for the wholesale access products will be indicated in the documents of the competitive selection procedure and published on a comprehensive website, at national or regional level.
- (117) In this sense, Annex VIII of the draft Order contains the wholesale access conditions and prices as approved by the CNMC on 30 March 2023. The report of the CNMC including the list of prices for, among others, roaming services for active wholesale access, is available on the CNMC's website⁵⁹. Pursuant to Article 7.5 of the draft Order, the CNMC will also approve the prices for any other future wholesale access products as soon as they become available. The bidders are

⁵⁸ See also point 129 of the Broadband Guidelines.

⁵⁹ <https://www.cnmc.es/sites/default/files/4626826.pdf>

encouraged to provide further improved wholesale access conditions as part of their bid in the competitive selection procedure (see also Section 2.10).

- (118) Access prices for the wholesale access products are based on the pricing principles established by the CNMC or on the wholesale prices that it has set for the same or similar services⁶⁰. In the absence of an equivalent reference offer, the reference will be the average prices in Spain and, if there is no such reference, the cost-orientation criterion will be applied.
- (119) The CNMC will approve the wholesale access products, conditions and prices and resolve disputes between operators requesting access and operators receiving the aid, issuing instructions for the effective fulfilment of the access obligation referred to in this Decision, considering the regulatory framework, including recommendations issued by the Commission. In order to safeguard that wholesale access will be effective, the Spanish authorities committed to make sure that the CNMC will approve the wholesale access products, conditions and prices especially for the new access products (e.g. MOCN, MORAN, network slicing) within an appropriate timeframe that will ensure that the details of the wholesale access offer are available to interested operators at least six months in advance of the start of the commercial operation of the network by the beneficiary (see also recital (111)).
- (120) The aid beneficiary must provide access seekers with full and non-discriminatory access to information on the network deployed, wholesale access products and conditions, including prices.
- (121) The beneficiary must publish and keep up to date on its website the information regarding wholesale access to the network for each of the wholesale products included in the Measure, on available capacity, prices, terms and conditions and must communicate the corresponding reference offers and publication web link to the CNMC.

2.14.1 Access on reasonable demand to existing and new towers

- (122) The Spanish authorities explain that they have carried out a thorough assessment of the target areas to determine whether it is necessary to upgrade or consolidate the existing towers and to deploy new towers having capacity for at least four MNOs in order to guarantee effective access.
- (123) The Spanish authorities demonstrate with detailed and objective cost calculations, that it would be disproportionate in terms of cost to upgrade all the existing towers and to deploy new towers with sufficient capacity to host the equipment of all four MNOs active in Spain.
- (124) The Spanish authorities submit that, according to data provided by current operators active in Spain in the construction of BTSs (i.e., tower companies and MNOs), the cost to increase capacity of an existing tower so to allow up to four MNOs to place their equipment, is around EUR 35 000/tower on average. In addition, the Spanish authorities indicate that there are various situations where it would not be viable to intervene to expand the capacity of an existing tower so to

⁶⁰ Prices set by CNMC for services similar to the ones mandated must in any case be regarded as maximum prices.

make room for the equipment of four MNOs e.g.: towers with physical limitations that cannot be upgraded in any case and towers where available electric connections are not sufficient to cater for the electricity needs of equipment of four MNOs. In these scenarios, a new tower should be built to ensure capacity for four MNOs which would cost around EUR 90 000 per site. Such extra cost would not be counterbalanced by the extra revenues generated from selling hosting services to access seekers. The cost to build a new tower with capacity for two MNOs to place their equipment is around EUR 60 000/tower on average (whereas as indicated above, the cost to build a new tower with capacity for four MNOs is around EUR 90 000/tower on average). The Spanish authorities therefore consider that the extra cost to ensure access to more than two operators would be disproportionate and would not be counterbalanced by the extra revenues generated from selling hosting services to access seekers.

(125) In addition, it is unlikely that imposing access for more than two MNOs would deliver significant benefits in terms of increased competition. Spain argues that even if existing towers were upgraded to ensure sufficient capacity for more than two MNOs, such upgrade is unlikely to deliver significant benefits in this respect. The Spanish authorities clarified that, although there are four MNOs in Spain, most of the existing towers are not used by all four MNOs. The majority of target areas are small, remote rural areas, with low population density. Based on the current occupation of the existing BTSs by MNOs as well as on the competitive situation in the Spanish market, the Spanish authorities indicate that the likelihood that more than two operators will actually need access to the existing towers is limited. In the case of new towers that may be needed to provide coverage in areas that cannot be covered by existing sites, the Spanish authorities indicate that the likelihood that more than two operators will actually need access to these new towers is also expected to be very limited, as they will provide coverage to very remote areas with very little population, and taking into account the current occupation of the existing towers by MNOs as well as on the competitive situation in the Spanish market. The Spanish authorities therefore consider that the extra cost to ensure access to more than two operators systematically to all towers would be disproportionate and would not be counterbalanced by the extra revenues generated from selling hosting services to access seekers.

(126) Consequently, the Spanish authorities indicate that the minimum required capacity for existing and new towers must ensure access to the infrastructure for at least two MNOs and allow for further access to such towers upon reasonable demand being submitted by further access seekers. The Spanish authorities commit to ensure that access is granted to existing and new towers considering the current and evolving market structure in Spain. An access seeker's demand will be considered reasonable if: (a) the access seeker provides a business plan that justifies the development of the product on the network; and (b) no comparable access product is already offered in the same geographic area by another undertaking at prices equivalent to those in more densely populated areas. If the conditions are fulfilled, access to more than the minimum required capacity for existing and new towers will be granted within a period which is customary for the market in question. If an access request is reasonable, the additional cost of meeting the access request will be borne by the aid beneficiary. In any case, as this exception applies only to access to existing and new towers, access seekers can benefit from other access products, including active access products, which have to be granted regardless of the presence of a reasonable demand to any access seeker (see also recital (112) above). In case of disputes, the CNMC is the competent authority for dispute

settlement concerning wholesale access conditions and pricing (see also Section 2.19).

2.15 Claw-back mechanism and accounting separation

(127) Since the aid amount is estimated by the aid beneficiary on an ex-ante basis so as to cover the expected funding gap over the lifespan of the investment, Spain will closely monitor the implementation of each State-funded project and verify the existence of a possible over-compensation on a yearly basis, starting from the completion of each project, for the entire lifespan of the concerned equipment and infrastructure and for at least 15 years as of completion of each project⁶¹. The Spanish authorities have designed a mechanism that will allow the Granting Authority to clawback any amount exceeding a reasonable profit, to avoid over-compensation, for all projects where the amount of aid awarded through the tender exceeds EUR 10 million. The clawback mechanism will operate as follows⁶².

(128) For the competitive selection procedure, the bidders must also submit a financial plan, which will be considered in awarding the tender and will be used to apply the claw-back mechanism. The financial plan⁶³ must include:

- (a) the projected investments and the operating costs needed to deploy and maintain the aided equipment and infrastructure⁶⁴;
- (b) the profits expected over the lifespan of the aided equipment and infrastructure and for at least 15 years as of completion of each project; and
- (c) the aid intensity required as determined by the aid beneficiary on an ex-ante basis to cover the expected funding gap.

(129) Based on the above, the Spanish authorities will claw-back: (a) the difference between the costs estimated by the aid beneficiary in the tender and the actual costs of deployment of the aided equipment and infrastructure and/or, (b) the difference between the profits estimated by the aid beneficiary in the tender and the actual profits deriving from the operation of the aided equipment and infrastructure. To incentivise efficiency gains in the deployment of the aided equipment and infrastructure, the mechanism will allow the beneficiary to keep a reasonable profit and an additional incentive set at a maximum of 30% of the reasonable profit⁶⁵. Spain will not claw-back any extra profit below that threshold. Any profit exceeding the identified incentive threshold will be shared between the aid beneficiary and Spain, according to the actual aid intensity resulting from the

⁶¹ For each year the aid beneficiary will submit the final balance of costs and profits deriving from the aided project.

⁶² See Article 30 of the draft Order.

⁶³ The Granting Authority will use the weighted average cost of capital (“WACC”) currently in force for the integrated electronic communications operators with significant market power determined annually by CNMC.

⁶⁴ The Spanish authorities will check whether the costs estimated by the bidder to deploy the networks are comparable with the costs that an efficient operator would have incurred in deploying a comparable network.

⁶⁵ Reasonable profit is intended as the rate of return on capital that would be required by a typical company, considering the level of risk specific to the broadband sector and the type of services provided. The required rate of return on capital is determined by the WACC. Prices set by CNMC for services similar to the ones mandated must in any case be regarded as maximum prices.

tender (minimum 10% for the aid beneficiary and maximum 90% for Spain). The clawback mechanism will also consider other profits made from other transactions concerning the State-funded networks.

- (130) To allow the authorities to perform the checks, the aid beneficiary must ensure accounting separation so that the costs and revenues related to the deployment and the operation of the networks deployed with public funding are clearly identified.

2.16 Ex post evaluation plan

- (131) The Spanish authorities have notified, together with the Measure, an evaluation plan, considering the best practices recalled in the Commission Staff Working Document on a Common methodology for State aid evaluation. The main elements of the evaluation plan are described below.

- (132) The evaluation plan describes the objectives of the Measure and comprises evaluation questions that, through both quantitative and qualitative analysis, address the direct effects of the Measure, its proportionality and appropriateness, as well as a few indirect effects, including potential distortive effects on competition.

- (133) Proportionality and appropriateness of the Measure are assessed by checking whether the objectives of the Measure were achievable with a lower aid intensity.

- (134) The evaluation plan describes the result indicators that will be used to assess the degree of achievement of the Measure's objectives, and which are matched with the evaluation questions, as well as the methodology applied to identify the impact of the Measure.

- (135) The suggested methodology allows to separate the effect of the aid on selected outcome variables from other confounding factors and consider that intervention differ depending on the target area.

- (136) To assess the direct effects of the aid, Spain has committed to use evaluation methodologies from a group of quasi-experimental techniques belonging to the counterfactual evaluation methods. In the framework of the evaluation of the Measure, the difference-in-differences (DID) method will also be used. That method is the one that, exploiting the longitudinal nature of the data available, is considered more robust to the presence of unobservable differences between undertakings benefitting from aid under the evaluated aid scheme, and undertakings belonging to a control group, provided that these differences remain constant over time (parallel trend assumption).

- (137) In addition, Spain will also test the possibility of using Event Study Design methodology, which makes it possible to study the ex-post dynamics of the aid to analyse the speed with which impacts materialise. An Event Study is a generalisation of DID in which the set of units of the study group receives the intervention at different points in time. This method provides for the allocation of fictitious variables capturing the impact of the action before and after it occurs, which makes it possible to study the ex-post dynamics of the aid.

- (138) The Spanish authorities confirm that the final evaluation report will be published on the official website of the Spanish government.

- (139) The final report will be submitted to the Commission in December 2025 and will focus on the analysis of the compatibility of the calls for tender with the relevant principles of EU law as well as with the Measure as notified. Moreover, this report will contain a first assessment of the impact of the Measure, based on the data that will be available at that time.
- (140) The first additional evaluation report will present the results of the evaluation for the period 2024-2027 and will be submitted to the Commission at the latest on 30 June 2028. It will focus on the assessment of the direct and indirect impacts of the Measure in the medium term.
- (141) The Spanish authorities have committed to continue the evaluation beyond the implementation of the Measure and to submit before 31 December 2029 a second additional evaluation report. The report will assess the overall effectiveness of the Measure which will enter into operation by 17 February 2026.
- (142) The Spanish authorities indicate that as the feasibility of the evaluation plan depends on the implementation of the action on time and on the availability of data, if for any reason the implementation deviates from the plan, the Spanish authorities will notify the amendments to the Measure to the Commission. Moreover, the Spanish authorities also commit to contact the Commission as soon as possible to define an alternative evaluation strategy that is in any case aligned with the "Common methodology for State aid evaluation".

2.17 Transparency and reporting

- (143) The Spanish authorities ensure that: i) the granting of aid under the Measure will be subject to the publicity rules provided for in Article 34(2) of the RRF Regulation; and ii) for the entire duration of the Measure, all transparency requirements are met at each phase of its implementation. The relevant information about the aided equipment and infrastructure will be published on the website of the Ministry of Economic Affairs and Digital Transformation. On this website both operators and end-users will have easy access to all relevant acts and information regarding the Measure and its implementation.
- (144) The Spanish authorities will publish the following information⁶⁶:
- (a) the full text of the approved Measure, any provisions concerning its application, or a link to it.
 - (b) information on each individual aid award exceeding EUR 100 000, within 6 months from the date of award of the aid, including:
 - the aid beneficiaries' name and identifier.
 - the type of aid beneficiary (SME, large enterprise).
 - the region in which the beneficiary is located, at NUTS level II or below.

⁶⁶ Information will be updated every 6 months.

- the main sector of activity of each beneficiary at NACE group level.
 - the aid element expressed in full in EUR or, where different from the aid element, the nominal aid amount, expressed in full in EUR.
 - the aid element expressed in full in the national currency, and where different from the aid element, the nominal aid amount.
 - the aid instrument (grant/interest rate subsidy/debt write-off; loan/repayable advances/reimbursable grant; guarantee; tax advantage or tax exemption; risk finance; other (to specify); the date of award and date of publication; the objective of the aid).
 - the identity of the granting authority, and
 - the reference of the Measure, as stated in this Decision.
- (c) This information must remain published for at least ten years as from the granting of the aid and be available for the general public without restrictions.

(145) The beneficiaries will:

- (a) provide access seekers with comprehensive and non-discriminatory access to information on the aided equipment and infrastructures, and
- (b) publish detailed information concerning wholesale access conditions and prices.

(146) The Spanish authorities will report to the Commission about the application and the progress of the Measure every two years. The report will contain, besides the information already made public pursuant to recital (144) , the following key data concerning the Measure:

- (a) the total cost (or estimated total cost) for the deployment of the aided equipment and infrastructure.
- (b) the aid amount awarded and aid expenditure, as well as the aid intensity.
- (c) the sources of public financing.
- (d) the coverage rates and numbers (in terms of population and of populated areas) prior to, and after, the Measure (both in absolute and in percentage terms).
- (e) the date when the networks were put in use.
- (f) the technology deployed.
- (g) the characteristics of the services provided, including the description of (i) services being based on a standalone 5G network; (ii) services been based on the edge computing and/or network slicing functionalities offered by the

network, and (iii) minimum and average (upload and download) speeds under peak time conditions.

- (h) the wholesale access products offered, including conditions for access and prices.
- (i) the wholesale access products requested on reasonable demand, if applicable, and treatment of such requests.
- (j) the number of access seekers and service providers using wholesale access.
- (k) retail prices at national level and in the target areas after implementation of the Measure.
- (l) the take-up rates.

(147) The Spanish authorities also committed to submit to the Commission the annual reports required under Council Regulation (EU) 2015/1589⁶⁷ and Commission Regulation (EC) No 794/2004⁶⁸.

2.18 Monitoring

(148) Spain will monitor the Measure on an on-going basis over the lifespan of the aided equipment and infrastructure and for at least 15 years as of completion of each project. The scope of such monitoring will include: the competitive selection procedure, the deployment of the equipment and infrastructures, and the fulfilment of all requirements established at national level and under this decision, for the entire duration of the Measure. Spain will maintain detailed records regarding the Measure. Such records will include all information necessary to establish that all the compatibility conditions of the decision are fulfilled. Spain will maintain those records for ten years as from the date of award of individual support under the Measure and will send them to the Commission upon request within a period of twenty working days or such longer period as may be fixed in the request.

2.19 Role of the Comisión Nacional de los Mercados y la Competencia

(149) The Spanish authorities have consulted with the CNMC from the early stages on the design, implementation and monitoring of the Measure, including with respect to: the identification of target areas (mapping and public consultation), the identification of potential market failures, the fulfilment of the step change requirements, the wholesale access obligations conditions and prices, the availability and the access conditions of the existing infrastructures including those subject to *ex ante* regulation, the disputes resolution mechanisms.

(150) On 1 February 2023, the Granting Authority formally requested that the CNMC prepare a report aimed at analysing the draft Order and expressing its views on the Measure. On 28 February 2023 CNMC issued the report on the draft Order, which included the following main observations:

⁶⁷ Council Regulation (EU) 2015/1589 of 13 July 2015 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (OJ L 248, 24.9.2015, p. 9).

⁶⁸ Commission Regulation (EC) No 794/2004 of 21 April 2004 implementing Council Regulation (EU) 2015/1589 laying down detailed rules for the application of Article 108 of the Treaty on the Functioning of the European Union (OJ L 140, 30.4.2004, p. 1).

- (a) ***Geographical scope and identification of target areas***: according to the CNMC, considering that the coverage obligations imposed for the granting of the rights of use in the 700 MHz frequency band cover areas of more than 20 000 inhabitants, and that the target areas for the purposes of the Measure are municipalities of less than 10 000 inhabitants, there would remain areas of more than 10 000 but less than 20 000 inhabitants where there would be no coverage obligations or aids supporting connectivity. The CNMC considers that in those areas there would be a market failure and that, therefore, singular population entities of less than 10 000 inhabitants within municipalities of less than 20 000 inhabitants, where 4G mobile coverage does not provide download speed of 50 Mbps, should be considered as target areas for the purposes of the Measure. The Spanish authorities have decided to focus the measure in order to target as a matter of priority market failure areas in municipalities of less than 10 000 inhabitants where there is no coverage with at least a 4G mobile network current or credibly planned providing download speed of at least 50 Mbps under peak time conditions.
- (b) ***Backhaul technology***: based on the principle of technology neutrality, the CNMC recommends avoiding fibre as the only solution for the deployment of backhaul connections and allowing other technologies such as high-capacity radio-links or equivalent technologies to be alternative, if justified. The Spanish authorities consider, however, that based on the report “*Ámbito de aplicación 5G y análisis de las tecnologías de transporte en la red de agregación de la 5G-RAN*”⁶⁹ referenced in the decision of the Commission SA.103451⁷⁰, dated 17 October 2022, at the current stage of technological development, fibre-based backhaul networks are the only technological solution for backhaul that can enable the provision of performant new mobile services and applications, including those enabled by 5G technology, and cater for the expected exponential increase in mobile traffic, to address the Spanish end-users’ evolving needs, as identified by Spain and in line with the objectives of the Measure (see Section 2.3).
- (c) ***Characteristics of the service to be provided***: the CNMC proposes to define in more detail the characteristics of the service to be provided (reduction of asymmetry and the establishment of a maximum latency) and how the target speeds will be measured. In relation to this proposal, the Spanish authorities consider that the Measure includes, in an appropriate level of detail, the features of the service to be provided by the beneficiaries. In this sense, beneficiaries must provide the target services in the target areas, (i.e., 5G standalone services with the added value characteristics of edge computing and network slicing, and with minimum download and upload speeds of, respectively, 100 Mbps and 5 Mbps under peak time conditions).
- (d) ***Eligible costs and use of existing infrastructure***: the CNMC suggests providing more details in the draft Order about the eligible costs and encouraging the reuse of existing infrastructure in the target areas. According

⁶⁹ Prepared by the experts J. Antonio Portilla Figueras, Silvia Jiménez Fernández, Sancho Salcedo-Sanz and Luis Miguel Moreno-Saavedra of the ISDEFE-UAH: Observatorio en TIC e Inteligencia Artificial of the Universidad de Alcalá. The Spanish authorities also refer to BoR (20) 165; BEREC Guidelines on Very High-Capacity Networks; 1 October 2020.

⁷⁰ SA.103451 (2022/N) – Spain RRF – Deployment of backhaul networks for mobile connectivity.

to the Spanish authorities, eligible costs are listed in Article 14 of the draft Order in accordance with the applicable legal provisions⁷¹. Regarding the use of existing infrastructures in the target areas in both existing base stations and backhaul connections, the Measure supports the deployment of equipment and infrastructure in existing sites to provide the target services (with the added value characteristics of edge computing and network slicing, and at the required target speeds). The Measure will also support, in the absence of suitable sites, further deployment of equipment and infrastructure as necessary for the provision of the target services. Regarding backhaul connections, the draft Order contains provisions encouraging the use of the existing backhaul connections covered by the aid measure approved by the Commission decision SA.103451⁷².

- (e) **Wholesale access obligations:** the CNMC suggests that the Ministry should assess the possibility to extend the number of wholesale access products and to include in the draft Order more detailed information on both active and passive wholesale access products. The Spanish authorities consider however that the Measure provides for effective wholesale access to equipment and infrastructure (see also Section 2.14). First, active wholesale access must be ensured at least through roaming. The aid beneficiaries must offer wholesale products that provide RAN's resource sharing using active RAN sharing functionalities, namely Multi-Operator Core Network (MOCN), or Multi-Operator-Access Network (MORAN), or multitenancy techniques such as network slicing, if and as soon as they become available as standardised wholesale access products in Spain. Further, the Measure requires wholesale access to site resources. Exceptionally existing and new towers must host at least two equipment, and in presence of reasonable demand, the existing and new towers will need to be dimensioned to host more than two equipment. In addition, wholesale access to fibre backhaul connections, both to civil works and to the fibre network will be ensured. The terms, conditions, and prices, as set by the CNMC, for the wholesale access products are contained in Annex VIII of the draft Order, will be indicated in the documents of the competitive selection procedure and published on a comprehensive website, at national or regional level. The Spanish authorities will consult CNMC on the wholesale access products, conditions, and prices. CNMC will approve the wholesale access products, conditions and prices and resolve disputes between operators requesting access and operators receiving the aid, issuing instructions for the effective fulfilment of the access obligation referred to in this Decision, considering the regulatory framework and recommendations issued by the Commission.
- (f) **Award criteria:** the CNMC suggests amending the award criteria in order to give more weight to economic efficiency. The Spanish authorities consider that the award criterion 1 values the economic efficiency of the bids by giving more points to those bids covering, with the available budget, larger population, and a higher number of road kilometres. However, considering

⁷¹ Article 31 of the General Law 38/2003, of 17 November, on Subsidies. BOE 276 of 18 November 2003.

⁷² Commission decision C(2022)7394 final of 17 October 2022 in case SA.103451 (2022/N) – Spain – RRF – Deployment of backhaul; networks for mobile connectivity.

the CNMC's observation, the Spanish authorities have amended the draft Order and increased by 10% the weight of the award criterion 1.

(151) The CNMC is also the competent authority for dispute settlement concerning wholesale access conditions and pricing.

2.20 Overlap with other public support measures

(152) All beneficiaries will ensure accounting separation between the costs and revenues related to the deployment of the aided equipment and infrastructure and any other activities. Furthermore, the Spanish authorities will ensure that any aid granted under the Measure will not be cumulated with other State aid granted for the same eligible costs, including State Aid SA.103451 (see recital (22) and footnote 13).

3. ASSESSMENT OF THE MEASURE

3.1 Existence of the aid

(153) According to Article 107(1) TFEU, “any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the internal market”.

(154) It follows that in order for a measure to qualify as State aid, the following cumulative conditions have to be met: (i) the beneficiary of the measure has to be an undertaking, (ii) the measure has to be granted through State resources and be imputable to the State, (iii) the measure has to confer an economic advantage, (iv) which is selective, (v) and has an effect on trade and competition.

3.1.1 Undertaking

(155) Undertakings within the meaning of Article 107(1) TFEU are entities engaged in an economic activity, regardless of their legal status and the way in which they are financed⁷³.

(156) The deployment of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services on a commercial basis constitute economic activities within the meaning of Article 107(1) TFEU⁷⁴.

(157) The aid beneficiaries engage in activities consisting in offering goods and services on the electronic communications market against remuneration, including the deployment of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services.

(158) Hence, the aid beneficiaries are undertakings within the meaning of Article 107(1) TFEU.

⁷³ Judgment of 10 January 2006, *Cassa di Risparmio di Firenze SpA and Others*, C-222/04, EU:C:2006:8, paragraph 107.

⁷⁴ Judgment of 24 March 2011, *Mitteldeutsche Flughafen and Flughafen Leipzig/Halle v Commission*, T-455/08, EU:T:2011:117, paragraphs 90 and ff.

3.1.2 State resources and imputability

- (159) The concept of State aid applies to any advantage granted through State resources by the State itself or by any intermediary body acting by virtue of powers conferred on it⁷⁵.
- (160) As described in section 2.4, the Measure is financed with RRF funds assigned to Spain. These resources are subject to the Member State's control. The Measure is based on the legal acts provided in recital (15) and the Granting Authority (which is a public authority) will decide on the granting of the aid and will check that the aid will be used in compliance with the present Decision (see also Section 2.9).
- (161) Hence, State resources are involved, and the Measure is imputable to the State.

3.1.3 Economic advantage

- (162) An advantage, within the meaning of Article 107(1) TFEU, is any economic benefit which an undertaking could not have obtained under normal market conditions, in the absence of State intervention⁷⁶.
- (163) The overall amount of subsidies that will be awarded under the Measure for the deployment of the equipment and infrastructure amounts to approximately EUR 680 million. This will enable the aid beneficiaries to provide services in the target areas on conditions that would otherwise not be available under normal market conditions. Therefore, the Measure confers an advantage to the aid beneficiaries by expanding the coverage of their networks and services at a lower cost than they would have to bear under normal market conditions as compared to undertakings investing only based on private funds under the same technical, commercial, and legal conditions in the liberalised market.
- (164) Hence, the Measure grants an economic advantage to the aid beneficiaries, which they would not have had under normal market conditions.

3.1.4 Selectivity

- (165) To fall within the scope of Article 107(1) TFEU, a State measure must favour "certain undertakings or the production of certain goods".
- (166) The Measure is aimed at the beneficiaries which meet the conditions in Section 2.7 and, thus, targets undertakings that are active in one industrial sector (electronic communications sector), only in certain segments of the overall electronic communications sector (deployment of the equipment and infrastructures to be used for the provision of mobile services in the target areas in Spain) and must hold the rights of use for frequencies necessary for the implementation of the aided project, to the exclusion of other undertakings active in other segments of the overall electronic communications market or in civil engineering works and infrastructure operation that cannot meet the requirements set out in the Measure⁷⁷.

⁷⁵ Judgment of 16 May 2002, *France v Commission*, EU:C:2002:294, C-482/99.

⁷⁶ Judgment of 29 April 1999, *Spain v Commission*, C-342/96, EU:C:1999:210, paragraph 41.

⁷⁷ Judgment of 15 June 2006, *Air Liquide Industries Belgium*, Joined Cases C-393/04 and C-41/05, EU:C:2006:403, paragraph 31.

(167) In the context of this situation, the Measure has the effect of conferring an advantage on the beneficiaries over other undertakings active in other segments of the overall electronic communications market or in civil engineering works and infrastructure operation, which are in a comparable factual and legal situation.

(168) Hence, the Measure is selective.

3.1.5 Effect on trade and competition

(169) State measures fall within the scope of Article 107(1) TFEU in so far as they distort or threaten to distort competition and affect trade between Member States. According to the case-law of Union courts, the concept of “effect on trade between Member States” is linked to the notion of distortion of competition and both are often inextricably linked. In this regard, the Court has stated that “[i]n particular, where State financial aid strengthens the position of an undertaking as compared with other undertakings competing in intra-Community trade, the latter must be regarded as affected by that aid”⁷⁸.

(170) The Measure concerns the deployment of the equipment and infrastructures to roll out the target 5G standalone networks and provide the target services in the target areas in Spain. When looking at the communications sector in Spain, it must be concluded that there is significant private financing of the deployment of infrastructures used to provide mobile services all over the country. The Measure will ensure the availability of networks that would not be provided under normal market conditions. State support may deter other operators from setting up or developing their own networks under commercial conditions and may also encourage local undertakings to take advantage of electronic services offered through the Measure rather than other market solutions.

(171) The electronic communications sector is subject to significant intra-EU and international trade and competition, also by virtue of the process of liberalisation at the level of the Union. The deployment of the equipment and infrastructure under the Measure, as well as the granting of wholesale access, could also be delivered by an undertaking from another Member State having cross-border activities. By favouring certain operators and service providers, the Measure alters the existing market conditions and is liable to distort competition and affect trade between Member States.

(172) Hence, the Measure is capable of distorting competition and has an effect on trade between Member States.

3.1.6 Conclusion on the existence of aid

(173) In view of the above, the Commission concludes that the Measure constitutes State aid within the meaning of Article 107(1) of the TFEU.

3.2 Compatibility

(174) The Commission must assess whether the aid is compatible with the internal market.

⁷⁸ Judgment of 4 April 2001, *Regione Friuli Venezia Giulia v Commission*, T-288/97, EU:T:2001:115, paragraph 41.

- (175) According to Article 107(3) TFEU, “aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest” may be compatible with the internal market.
- (176) In its assessment, the Commission has considered the Broadband Guidelines which contain a detailed interpretation of Article 107(3)(c) TFEU as it applies to State aid measures facilitating the development of economic activities, consisting in broadband network deployment and related broadband network services, including mobile networks and services, while not adversely affecting trading conditions to an extent contrary to the common interest.
- (177) To be declared compatible, the aid must contribute to the development of certain economic activities or areas (first condition), and it must not adversely affect trading conditions to an extent contrary to the common interest (second condition)⁷⁹.
- (178) Under the first condition, the Commission assesses:⁸⁰
- (a) the economic activity facilitated by the Measure.
 - (b) the incentive effect of the Measure, that is: whether it changes the behaviour of the undertakings concerned in such a way that they carry out an additional activity which they would not carry out without the Measure or would carry out in a restricted or different manner or location, and
 - (c) the existence of a breach of any provision of Union law in relation to the Measure.
- (179) Under the second condition, the Commission weighs the positive effects of the Measure for the development of the activities that the aid is intended to support and the negative effects that the aid may have on the internal market, in terms of distortions of competition and adverse effects on trade caused by the aid. In this regard, the Commission assesses:
- (a) the positive effects of the aid.
 - (b) whether the aid is needed and targeted to addressing a situation where it can bring about a material improvement that the market cannot deliver itself, for example by remedying a market failure or addressing important inequalities.
 - (c) whether the aid is an appropriate policy instrument to meet its objective.
 - (d) whether the aid is proportionate and limited to the minimum necessary to attain its objective and stimulates additional investment or activity in the area concerned.

⁷⁹ Judgment of 22 September 2020, *Austria v Commission*, C-594/18 P, EU:C:2020:742, paragraph 19. See also point 30 of the Broadband Guidelines.

⁸⁰ See also point 31 of the Broadband Guidelines.

- (e) whether the aid is transparent. To measure and minimise the impact on the internal market, Member States, stakeholders, the public and the Commission must have easy access to information on the aid awarded, and
- (f) the negative effects of the aid on competition and trade between Member States.

(180) As a final step, the Commission balances the identified negative effects on the internal market of the Measure with the positive effects of the planned aid on the supported economic activities⁸¹.

3.2.1 First condition

(181) ***Economic activities facilitated by the Measure.*** Pursuant to the Broadband Guidelines, Member States must identify the economic activities that will be facilitated as a result of the aid⁸². The Measure finances the deployment in rural and less populated areas of Spain of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services (see also Section 2.3). The target 5G standalone networks and the target services would not be deployed/provided by private operators in the absence of the State support, as evidenced by the results of both the mapping exercise and the public consultation (see also Section 2.8). The Measure supports the deployment of mobile networks necessary to enable the provision of more performant and innovative retail mobile services and applications, and the provision of the target services that will address the current and evolving connectivity needs of citizens, businesses and public administrations in the target areas⁸³. Target areas are those areas where mobile connectivity is at a level that would not adequately fulfil the needs of end-users in terms of access to performant services and applications, as described in Section 2.8. In this regard, the Spanish authorities consider that performant 5G standalone networks providing high speeds and performances and with the added-value features of edge computing and network slicing) are necessary to facilitate in the target areas the provision of performant and innovative mobile services and applications, with sufficient scalability to meet the Spanish end-users' current and future mobile connectivity needs in terms of capacity, speed, latency and reliability and to cater for the expected exponential increase in mobile traffic (see also Section 2.3). The roll out of 5G equipment and further backhaul and other infrastructure in the target areas is necessary for the roll-out of the target 5G standalone networks and the provision of the target services in the target areas (see also Section 2.3). The Spanish authorities therefore consider that the Measure is necessary to ensure that the provision of the target services (see also Section 2.3) can reach rural areas thus increasing the competitiveness and attractiveness for living and investing in such areas, and thereby contributing to their economic development and to reducing the digital divide. The Measure aims to correct social and regional inequalities and generate positive externalities by overcoming market failures which jeopardise the ability of citizens, businesses, and public administrations in the target areas to have access to mobile services that address their needs, as identified by the Spanish authorities (see also Section 2.3). The Spanish authorities

⁸¹ See also point 32 of the Broadband Guidelines.

⁸² See also points 35-36 of the Broadband Guidelines.

⁸³ The connectivity needs have been identified and assessed by the Spanish authorities with the support of the Spanish Chamber of Commerce that has produced the Survey (see also Section 2.3).

consider that the Measure contributes to ensuring equal growth opportunities in the entire Spanish territory and provides a stimulus for the development of a modern digital economy in Spain. In conclusion the Commission acknowledges that the Measure contributes to the development of the economic activity of deployment of the target 5G standalone networks and provision of the target services in the target areas, in line with the Broadband Guidelines.

(182) ***Incentive effect.*** Pursuant to the Broadband Guidelines, aid can only be considered as contributing to the development of an economic activity if it has an incentive effect⁸⁴. To ensure an incentive effect, the Spanish authorities carried out a mapping exercise and a public consultation to seek the views of electronic communications network operators, other interested stakeholders and the wider public in general on the design of the Measure, the intervention areas and the target areas, as well as relevant private investment plans (see also Section 2.8). In that context, the operators communicated their plans, in particular in municipalities of up to 10 000 inhabitants where there are or will be in the next three years, i.e., by 17 February 2026 at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions. The Measure concerns only target areas that are not and will not – in the next three years, i.e., by 17 February 2026 – be connected to at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions. The Measure will not finance the costs related to investments needed to meet coverage obligations attached to the beneficiaries' respective rights of use of spectrum (see recitals (23) and (64)). On this basis, the Measure demonstrates an incentive effect to further develop the roll-out of the target 5G standalone networks and the provision of the target services to the benefit of consumers, businesses, and public administration in municipalities up to 10 000 inhabitants. The Measure will change the behaviour of potential beneficiaries in such a way that they carry out activities which they would not carry out without the Measure or would carry out in a restricted or different manner (see also Sections 2.3 and 2.8). In addition, projects for which investments or expenses have been committed or made before the submissions of an application are not eligible under the Measure. Spain has demonstrated that absent the Measure, the target 5G standalone networks will not be rolled-out and the target services will not be provided in a way which is adequate to address end-users' needs. Hence, the Measure has an incentive effect, in line with the Broadband Guidelines.

(183) ***Compliance with other provisions of Union Law.*** If a State aid measure, the conditions attached to it (including its financing method when that method forms an integral part of the aid measure) or the activity it finances entail a violation of a provision or general principles of Union law, the aid cannot be declared compatible with the internal market. The Commission has not received any information identifying any breach of Union law that would prevent the Measure from being declared compatible with the internal market. It does not result from the notification that the Measure or the conditions attached to it, or the economic activities facilitated by the measure, could entail a violation of a relevant provision of Union law⁸⁵.

⁸⁴ See also points 37-40 of the Broadband Guidelines.

⁸⁵ See also point 41 of the Broadband Guidelines with reference to Judgment of 22 September 2020, *Austria v Commission*, C-594/18 EU:C:2020:742, paragraph 44.

3.2.2. *Second condition*

3.2.2.1. *Positive effects of the aid*

- (184) Pursuant to the Broadband Guidelines, Member States must describe whether and, if so, how the aid will bring about positive effects⁸⁶.
- (185) The Spanish authorities will award aid for the deployment of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the areas of the Spanish territory where, based on the results of the mapping and the public consultation (see also Section 2.8), there is no coverage with at least a 4G mobile network providing mobile broadband services with download speeds of at least 50 Mbps under peak time conditions and where there are no private investment plans for the roll-out of at least such a network in the next three years, i.e. by 17 February 2026 (see also Section 2.3).
- (186) The Measure brings about a material improvement in the availability of high-quality mobile networks, by supporting the deployment of the target 5G standalone networks and the provision of the target services, which allow the provision of performant mobile services that form a part of the fundamental needs of a modern society. At the same time, considering that target areas are in less densely populated parts of Spain, the Measure is expected to contribute to correct social or regional inequalities in Spain. The Measure will ensure the availability of the target 5G standalone networks in the target areas and the provision of the target services, which are a pre-condition to facilitate the take-up by end-users of a number of applications and services (e.g. smart and connected vehicles, autonomous vehicles, collaborative robots, remote monitoring, enhanced experience, remote operations, surveillance and safety, services of telemedicine and connected ambulance), which will improve the digital transition and the further development of activities in related economic sectors (see also Section 2.3).
- (187) In addition, the Commission considers that the rules and conditions for wholesale access under the Measure (see also Section 2.14) will have positive effects on competition at the retail level in the target areas, since other mobile operators will be able to rely on wholesale access obligations set out under the Measure and to propose their retail offers on the market offering end-users enhanced services and performances that they would have not been able to provide absent the aid. The Measure will also contribute to the achievement of the Union's digital policy objectives and, more specifically, to reducing the digital divide across Spain. This can be seen against a wider ambition of the Union to achieve ambitious connectivity objectives throughout its territory, aiming at 5G coverage for all populated areas by 2030⁸⁷.

⁸⁶ See also points 42-43 of the Broadband Guidelines.

⁸⁷ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee the Committee of Regions of 9 March 2021, '2030 Digital Compass: the European way for the Digital Decade' (COM/2021/118 final). See also the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee the Committee of Regions of 19 February 2020, 'Shaping Europe's digital future' (COM/2020/67 final) and the Proposal for a Decision of the European Parliament and of the Council establishing the 2030 Policy Programme 'Path to the Digital Decade', COM(2021) 574 final, 2021/0293 (COD).

(188) Hence, the Measure is expected to have positive effects in the target areas, in line with the Broadband Guidelines.

3.2.2.2. *Necessity for State intervention*

(189) Pursuant to the Broadband Guidelines, State intervention may be deemed necessary where it can bring about a material improvement that the market alone does not deliver. State aid measures can, under certain conditions, correct market failures, thereby improving the efficient functioning of markets and enhancing competitiveness⁸⁸.

(190) A market failure exists if markets, left to their own devices, without public intervention fail to deliver an efficient outcome for society. This may arise, for instance, when certain investments are not being undertaken even though the economic benefit for society exceeds their cost. In such cases, the granting of State aid may produce positive effects and overall efficiency can be improved by adjusting the economic incentives for stakeholders. A market failure may exist in areas where there is no mobile network, in place or credibly planned to be deployed within the relevant time horizon, which can address end-users' needs.

(191) In the present case, the necessity for State intervention is supported by the following considerations:

- (a) Target areas are those areas where mobile connectivity is at a level that does not provide end users with sufficient quality of services to satisfy their current and evolving needs in terms of access to performant mobile services and applications. Only 4G mobile networks providing download speeds of less than 50 Mbps under peak time conditions are present in the target areas and no more performant networks are credibly planned in the next three years (see also Section 2.3), i.e. by 17 February 2026 (i.e. no planned 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions, no planned more performant networks, including no planned private deployment of the target 5G standalone networks and the provision of the target services).
- (b) The existing 4G mobile networks cannot provide the same overall performance as the target 5G standalone networks in terms of capacity, speed, latency and reliability. They are not suitable in the long term to support performant new services and applications, including those enabled by 5G technology, since they will likely not be scalable or upgradable in the future to cater for market developments and evolving end-users' mobile connectivity needs, as identified by the Spanish authorities. Many 5G native applications and services (such as those identified in recital (34)) require performances in terms of speed, latency, jitter, etc. which are not compatible with the existing 4G mobile networks. The Spanish authorities consider that improving the existing 4G mobile networks is not suitable since maintaining mobile networks that are not future proof may be detrimental for certain economic activities such as industry, agriculture, tourism or connected mobility (recitals (25), (28) and (55)). In any case, more performant networks are not planned to be deployed in the target areas via private investments (see

⁸⁸ See also points 44 and 45 of the Broadband Guidelines.

above point a). In light of this, Spain has designed the Measure to ensure that future proof, high-performance networks and services will be available in the target areas (i.e. the target 5G Standalone networks and the target services), that will provide the services and applications needed to meet the identified end-users' needs with the needed level of performance, in a suitable timeframe in line with Spanish objectives (i.e. by 17 February 2026), under conditions that would not have been possible without the Measure.

- (c) The Spanish authorities have demonstrated that operators have not invested and do not plan to invest in the equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas without support under the Measure. The cost of deploying the equipment and infrastructures to provide the target services in the target areas is significantly higher than the cost of deploying equipment and infrastructure necessary to provide similar services in urban and densely populated areas, because the target areas are located in topographically difficult, remote parts of Spain (see also Section 2.3). Moreover, the achievable revenue is likely to be limited in the target areas due to low population density.
- (d) The Spanish authorities carried out a detailed mapping and public consultation exercise aimed at identifying the areas where there is not and won't be in the next three years, i.e. by 17 February 2026, coverage with at least a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions (see also Section 2.8).
 - In this regard, in December 2022, the Spanish authorities requested the providers of electronic communications services to provide information regarding the areas where there is currently no mobile coverage with download speeds of at least 50 Mbps under peak time conditions. A public consultation for the Measure took place between 17 February and 18 March 2023 (see also Section 2.8) in line with the Broadband Guidelines⁸⁹. Spain published on the official websites the main features of the Measure and the results of the mapping exercise, including the list of the target areas identified, invited interested parties to comment and requested that stakeholders submit substantiated information regarding their current networks and those credibly planned to be deployed in the next three years, i.e., by 17 February 2026. The mapping exercise and the public consultation ensure that only areas where there is no current or future interest of the market players to undertake private investments are targeted under the Measure, thereby limiting risks of crowding-out private investments and distorting competition. This is supported by the following considerations:
 - Operators were invited to identify their current and future investment plans deploying 5G mobile networks in the target areas in the next three years, i.e., by 17 February 2026. Fifty-one operators submitted substantiated information regarding their current and credibly planned networks in the target areas as well as the coverage obligations attached to their respective rights of use of spectrum. Stakeholders were specifically

⁸⁹ See also point 76 of the Broadband Guidelines.

asked for their views on the proposed Measure and on the potential demand of new 5G services and applications in municipalities of less than 10 000 inhabitants. In the public consultation, the Spanish authorities also requested the stakeholders for their observations on the preliminary list of target areas, annexed to the public consultation. In the mapping and public consultation, the Spanish authorities collected information at address level on the basis of maximum 100 × 100 metre grids, using the methodology included in Annex I of the Broadband Guidelines. In the mapping and public consultation, the performances of the networks were expressed at least in terms of download speeds that are or will be available to end users under peak-time conditions and any bottleneck that could prevent the achievement of those performances has been duly taken into account (concerning for instance further backhaul connections) in line with the Broadband Guidelines⁹⁰. Considering the results of the mapping and public consultation, the Spanish authorities have consolidated all the relevant information into a final list of target areas in the fifty intervention areas (corresponding to the Spanish provinces⁹¹) covering the whole territory of Spain (see also Section 2.3). All the elements of the methodology and the underlying technical criteria used to map the target areas were made publicly available in the public consultation. The Spanish authorities also consulted the CNMC on the mapping and on the proposed Measure including the text of the draft Order, in line with the Broadband Guidelines⁹² (see also Section 2.19). The final list of target areas was therefore identified taking into account all comments received and, in particular, the fact that the operators declared that they did not intend to invest in those areas to deploy the equipment and infrastructures necessary to deploy the target 5G standalone networks and to provide the target services in the target areas in the next three years, i.e. by 17 February 2026 (see also Section 2.8). Thus, all target areas have been identified in an open and transparent manner through the mapping exercise and the public consultation, in line with the Broadband Guidelines⁹³.

- State aid cannot be granted to and cannot be used for the fulfilment of legal obligations, such as obligations linked to the rights to use spectrum (see also Section 2.3).
 - The design of the Measure, including with respect to the identification of the target areas and the intervention areas, was discussed in the public consultations and largely endorsed; relevant comments have been duly considered (see also Section 2.8).
 - The CNMC was consulted by the Granting Authority as from the early stages of the development of the Measure and its relevant recommendations were duly considered (see also Section 2.19).
- (e) The need for the target 5G standalone networks and the target services has been demonstrated by the Spanish authorities on the basis of an assessment of

⁹⁰ See also point 73 of the Broadband Guidelines.

⁹¹ Except for Ceuta and Melilla.

⁹² See also point 77 of the Broadband Guidelines.

⁹³ See also points 78-83 of the Broadband Guidelines.

the current and expected state of technological development of 5G mobile networks and services and of the current end users' needs and their expected evolution, which has been confirmed by the Survey on the needs of business users in target areas (see also Section 2.3). The roll-out of the target 5G standalone networks (including edge computing and network slicing) is necessary to enable the provision of performant new mobile services and applications and to cater for the expected exponential increase in mobile traffic, with sufficient scalability to meet the current and evolving mobile connectivity needs of Spanish end-users', in particular business users. The characteristics of such performant new mobile services include lower latency, higher transfer rate, higher speed, better mobility, improved capacity, and reliability and entail higher requirements in terms of number of terminals per km², the traffic to be managed per km², among others. According to the Spanish authorities, the Measure will ensure the availability of 5G standalone applications and services in areas such as: digital health (e.g. for remote health assistance), the agri-food sector (e.g. to enable the use of wireless sensor networks for traceability and certification of products, as well as robotization for packaging and palletizing), smart farming (e.g. sensor measurement of watering, fertilization and crop yields, self-driving farming robots or monitoring drones), industrial sectors (e.g. for digitalised processes to optimize operations). In this sense, the Spanish authorities are currently developing, through pilot projects, 5G use cases, applications and solutions (e.g. connected vehicles, remote driving, electric distribution networks, waste treatment plants, sensors to monitor maintenance, performance and safety in companies, telemedicine, precision farming or smart agriculture). In their analysis of end users' needs, the Spanish authorities also relied on the Survey (see recital (38)) which indicated that a majority of the undertakings consulted considered that the availability of 5G services will have a significant impact on different factors that may increase their performances in those areas (e.g. cybersecurity, productivity, costs reduction, improved working conditions, improved quality of products and services, business development and growth, reducing energy consumption and sustainability). Many 5G native applications and services rely on the network characteristics of 5G standalone networks, such as lower latency or slicing. Furthermore, the Spanish authorities indicate that, based on the results of the Survey, more than 50 % of the business users consulted will likely invest and use 5G standalone applications such as autonomous and connected vehicles, industry automation and robotisation and high-definition virtual meetings. Approximately 50 % of the business users consulted expressed their interest in investing and using other 5G standalone applications such as drones, sensors for machinery and production and smart warehouse and logistics management. The Spanish authorities also indicated that, based on information submitted by several MNOs, also SMEs would benefit from the Measure. The Spanish authorities have also indicated that during the public consultation concerning the Measure stakeholders provided information regarding the potential demand of 5G standalone applications and services in the target areas (see also Section 2.3). Without the Measure, Spain considers there is a high risk that that the target 5G standalone networks and the target services will not be available in target areas and estimates that in any case this will not happen before 2032 at the earliest (see also Section 2.3). The Spanish authorities have demonstrated that in absence of the Measure, and unlike for more populated areas, the target 5G standalone networks and the

target services will not be deployed in the target areas and the identified system-wide benefits would therefore not be unlocked in these areas.

- (f) The Measure will thus contribute to achieving Spain's objectives regarding the deployment of performant mobile networks with the objective of achieving coverage of 75 % of the population by 31 December 2025, which is necessary in order to bridge the digital divide and be prepared for the continued strong increase in global data usage in private and professional contexts as well as the ever-increasing performance of devices (see also Sections 2.1 and 2.3). In this regard, Spain has demonstrated that absent the Measure, the target 5G standalone networks will not be rolled-out and the target services will not be provided by 17 February 2026 (see also section 2.8). The Spanish authorities have indicated that there are no coverage obligations for the target areas for the 5G networks and the investment needed to roll out 5G networks in the target areas is significant.
- (g) The Spanish authorities have demonstrated that the Measure can help to generate positive externalities not internalised by market operators as part of the ecosystem of applications developed on 5G, in particular 5G standalone networks. According to the Broadband Guidelines, while mobile networks are key enablers for the provision of additional services and for innovation, the overall benefits are likely to be higher than the economic benefits they generate for the networks' investors, especially in rural regions or low-population-density or unpopulated areas. The market may therefore generate insufficient private investment in mobile networks, in particular in certain areas. By supporting the deployment of the target 5G standalone networks and the provision of the target services, the Measure will help address the current and evolving needs of end users in the target areas.
- (h) Therefore, the Measure's objectives are justified in view of the current and future challenges posed by digitalisation and mobile connectivity, especially in rural and remote areas in Spain. These objectives adequately take account Spain's objectives of ensuring equal opportunities for all citizens in terms of their ability to fully participate in the possibilities generated by digitalisation. The Measure contributes to meet the demographic challenge by promoting new economic activities, capable of attracting and maintaining inhabitants in areas suffering from depopulation. Likewise, by favouring access to administrative proceedings and acts via telematics and avoiding displacement, sustainable development is promoted, resulting in greater efficiency and energy savings. Considering the foregoing, the Measure also aims to increase the competitiveness and attractiveness for living and investing in the target areas and to stimulate economic growth through the development of a modern digital economy. The Spanish authorities expect significant benefits from the Measure. In particular, the Measure would facilitate equal growth opportunities in the entire Spanish territory through the availability of performant mobile networks, thereby increasing the economic competitiveness and attractiveness of the target areas.

(192) It can therefore be concluded, considering the specificities of the case, that the notified Measure addresses a market failure in the target areas. The Measure will enable the deployment of the target 5G standalone networks and the provision of the target services, which in the absence of the Measure would not be provided in the target areas by 17 February 2026. The Commission therefore considers that

considering the specificities of the case the notified measure is necessary to support the development of the economic activities at issue (the deployment of the target 5G standalone networks and the provision of the target services in the target areas), in line with the applicable conditions set out in the Broadband Guidelines⁹⁴.

3.2.2.3. *Appropriateness of the Measure as a policy instrument*

- (193) Pursuant to the Broadband Guidelines, the State aid measure proposed must be an appropriate policy instrument to address the problem of absence of market delivery due to market failure and to achieve the objectives pursued by the aid. State aid is not appropriate if the same outcome is achievable through other less distortive measures⁹⁵.
- (194) To be appropriate, the publicly supported mobile networks must provide significantly enhanced characteristics in comparison to existing networks. Thus, State funded mobile networks should ensure a step-change. A step-change can be demonstrated if, as the result of the public intervention, the new mobile network represents a significant new investment and brings significant new capabilities to the market in terms of service availability, capacity, speeds, and competition. For mobile networks, in certain circumstances Member States may demonstrate that investments in equipment may play an important role and that public support may be justified if the investment does not consist of merely incremental upgrades but constitutes an integral part of a significant new investment in the network, provided that all compatibility conditions are complied with⁹⁶.
- (195) The step-change is assessed by comparing the characteristics of the new networks to the highest performances of the existing networks, which in this case are 4G mobile networks providing download speeds of up to 50 Mbps under peak time conditions. Spain has demonstrated that in the target areas there are no credibly planned networks that would on their own, provide similar performance to that of the planned State funded network within the same time horizon, i.e., by 17 February 2026 (see also Section 2.8). As there were no credibly planned networks in the target areas providing similar performances, such networks cannot be taken into account for the assessment of the step-change (see also recitals (45) and (78))⁹⁷.
- (196) The Spanish authorities have demonstrated, as described in Section 2.3 and 2.13, that the proposed support for equipment and infrastructure for the deployment of the target 5G standalone networks and the provision of the target services represent a significant investment going beyond mere incremental updates. Installing 5G equipment in the BTSs covering the target areas is necessary to roll-out the target 5G Standalone networks and provide the target services in the target areas. The existing 4G mobile networks cannot provide the target services (see recitals (28) and (103)). Moreover, the considerable investment needed to roll out 5G equipment in BTSs covering target areas would not be carried out by private operators, due to the low profitability and low population density of the target areas, as shown in the mapping and public consultation (see also Section 2.8)). Therefore, the deployment

⁹⁴ See also points 44-52 and 60-66 of the Broadband Guidelines.

⁹⁵ See also points 95 and 96 of the Broadband Guidelines.

⁹⁶ See also point 97 of the Broadband Guidelines and the corresponding footnote 72; step-change criteria applicable to mobile access networks in points 109-111 of the Broadband Guidelines.

⁹⁷ See also point 98 of the Broadband Guidelines.

of the target 5G standalone networks represents a significant new investment, while the investment in equipment does not consist in a merely incremental upgrade but constitutes an integral part of that investment in the network.

(197) Because of the Measure, significant new investments will be made in 5G equipment and infrastructure to deploy the target 5G standalone networks, with their advanced characteristics, and to provide the target services, as opposed to the existing or credibly planned networks within the relevant time horizon. The BTSs in the target areas which are not and are not planned to be equipped with 5G equipment and infrastructure (such as fibre backhaul, as necessary) will be equipped with 5G equipment and upgraded as needed. Further sites may be built and equipped with 5G equipment. The Measure will also support further deployment of fibre backhaul insofar as needed to ensure the provision of the target services in the target areas, which also contributes to ensure an adequate step-change due to the limited capacity and technological specificities of the existing backhaul networks using other technologies (copper-based, satellite or microwave-links based backhaul networks) which do not provide the same overall performance as fibre backhaul in terms of capacity, speed, latency and reliability. Moreover, Spain also indicates that at the current stage of technological development, there are no other technologies providing the same or similar performances as a fibre-based backhaul network and there are no other mobile technologies providing the same or similar performances as 5G standalone networks notably reliability and latency which are necessary to facilitate the provision of the target performant new mobile services and applications.

(198) The new networks will bring significant new capabilities to the market in terms of type of broadband services available, speeds, latency and other relevant features linked to the characteristics of the target 5G standalone networks. A step change is present since the transition to the new IMT standard is incremental, thus, 5G standalone is more performant than any 4G technology⁹⁸. The achievement of an adequate step-change is further supported since in the target areas not only the download speed will at least double compared to the speeds provided by the existing mobile networks, but the Measure will ensure the deployment in the target areas of the target 5G standalone networks and the provision of the target services with the described enhanced characteristics and functionalities (minimum speeds of 100 Mbps download and 5 Mbps upload under peak time conditions, ultra-low latency, high reliability, edge computing, network slicing, among others, as mentioned at section 2.3). The Spanish authorities consider that network slicing is important in the availability of new services and applications as it makes possible the provision of different network layers or slices within the network tailored at specific services and/or users. It therefore allows the reservation of end-to-end network resources and, the possibility to manage services that need to rely on differential end-to-end traffic performances. On the other hand, edge computing allows to bring service management platforms closer to the access node. This

⁹⁸ As noted in point 110 of the Broadband Guidelines, since providing new capabilities requires more capacity, new IMT standards normally require awarding new frequencies to MNOs based on an auction or other competitive selection procedure and is subject to fees. It can therefore be expected that, when a new IMT standard is implemented because of the spectrum assignment process, mobile networks using this technology will provide significant new capabilities compared to the existing mobile networks. Mobile service providers are only willing to accept significant upfront costs for obtaining new rights of use of spectrum if they expect that the new, superior capabilities of the new IMT standard would give them a return on their investment over time.

implies that latency between the end user terminal and those platforms is significantly reduced allowing the provision of differential services as explained above. Such features are not available through the existing 4G mobile networks (and no more performant networks are planned in the next three years, i.e., by 17 February 2026). These enhanced characteristics are necessary to facilitate the provision of performant new mobile services and applications (e.g., digital health, remote maintenance and control, automation processes, e-learning, connected vehicles, etc. See recitals (31) et seq.).

(199) Hence, in view of the specificities of the case and considering the significantly enhanced characteristics of the target 5G standalone networks in comparison to existing networks in the target areas, the Measure allows for a step change in line with the Broadband Guidelines⁹⁹.

(200) State aid is not the only policy instrument available to Member States to boost investment in the deployment of 5G standalone networks. Member States can use alternative instruments, such as mobile coverage obligations attached to rights to use spectrum and demand-side measures. As described in recital (23), the Measure cannot in any case finance the costs triggered by the need to comply with the coverage obligations. Moreover, the target areas are defined in a way that they do not overlap with areas falling under the relevant coverage obligations (i.e., municipalities with more than 20 000 inhabitants). Accordingly, the coverage obligations set out in Spain cannot result in the deployment of the target 5G standalone networks and provision of the target services in the target areas. Public financial support is necessary to incentivise the deployment of the networks in the target areas. The Spanish authorities expect that 5G standalone networks supporting the provision of similar services to the target services will be available through private investments by mid-2025 in municipalities with more than 20 000 inhabitants (as well as in main roads, airports, railway stations and ports) and by mid-2029 in municipalities having between 10 000 and 20 000 inhabitants (see recital 32). Thus, the Measure is necessary to reduce the digital divide between the target areas and these areas and to avoid further negative demographic and economic consequences in the target areas. Furthermore, demand-side measures are not appropriate means to develop the economic activity of deploying backhaul networks. The necessary equipment and infrastructure do not yet exist, and their deployment would not be economically viable for private investors.

(201) Hence, the Measure is an appropriate policy instrument for deploying the target 5G standalone networks and the provision of the target services in the target areas in line with the Broadband Guidelines.

3.2.2.4. Proportionality of the Measure

(202) Pursuant to the Broadband Guidelines, the Member States must demonstrate that the aid is proportionate to the problem tackled, essentially showing that the same change in behaviour (as per the incentive effect) would not be obtained with less aid or fewer distortions. Aid is considered proportionate if its amount is limited to the minimum necessary and the potential distortions of competition are

⁹⁹ See also points 109-111 of the Broadband Guidelines.

minimised¹⁰⁰. In this respect, the following elements in the design of the Measure are of relevance.

(203) ***Competitive selection procedure.*** To ensure that aid is proportionate and limited to the minimum amount necessary, without prejudice to the applicable public procurement rules, the aid must be granted based on open, transparent and non-discriminatory competitive selection procedures in line with the principles of public procurement¹⁰¹ and must also respect the principle of technological neutrality. State aid is deemed proportionate and limited to the minimum amount necessary if it is granted through a competitive selection procedure attracting enough participants to guarantee an adequate degree of competition and an efficient outcome. Member States must also ensure that the most economically advantageous solution is selected by establishing objective, transparent and non-discriminatory qualitative award criteria and specifying the relative weighing of each criterion in advance. Moreover, the Measure has also structured the competitive procedure so to foster competition by ensuring that, if there are several applications for a bidding zone, a maximum of 75 % of the maximum amount of aid will be awarded to the application that obtains the highest number of points (see also section 2.10). The remaining amount of aid will be for the financing of the second-best bid. If the maximum amount of aid after allocation to the first and second bids is not exhausted, the same allocation exercise will be applied to the remaining applications in the order of points obtained in the competitive selection procedure until the budget is exhausted. Based on the information provided by the Spanish authorities (see also Section 2.10), the Measure complies with these requirements in line with the Broadband Guidelines¹⁰²:

- (a) the successful tenderers are selected through an open and non-discriminatory competitive selection procedure, in line with the principles of public procurement, to ensure the efficient use of public resources. The calls for tenders (see also Section 2.10) ensure equal treatment of the interested parties, regardless of their legal status, as well as effective competition among them.
- (b) the call for tenders is designed in a way to foster wide participation, including through the split of the Spanish territory into fifty intervention areas corresponding to the Spanish provinces¹⁰³.
- (c) the aid beneficiaries must provide passive and active wholesale access as explained in this Decision (see also Section 2.14).
- (d) the call for tenders expressly provides that the aid beneficiaries must commit in writing that they will not report the deployment of the networks to fulfil legal obligations, such as coverage obligations attached to rights of use of spectrum.

¹⁰⁰ See also point 115 of the Broadband Guidelines.

¹⁰¹ Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (OJ L 94, 28.3.2014, p. 65), and Directive 2014/23/EU of the European Parliament and of the Council of 26 February 2014 on the award of concession contracts (OJ L 94, 28.3.2014, p. 1).

¹⁰² See also points 116-121 of the Broadband Guidelines.

¹⁰³ Except for Ceuta and Melilla.

- (e) temporary groupings of horizontal or vertical undertakings, consortia or other groupings may participate in the competitive selection procedure, in accordance with the Spanish Public Procurement legislation and the principles imposed by EU Public Procurement rules.
- (f) the Spanish authorities will ensure compliance with transparency obligations (see also Section 2.17);¹⁰⁴
- (g) the eligible costs are limited to those related the deployment of certain equipment and passive infrastructure necessary for the roll out of the target 5G standalone networks and the provision of the target services (see also Section 2.5.1).
- (h) the award criteria are defined in advance and objective, transparent and non-discriminatory (see also Section 2.10). The award criteria established will allow for the identification of projects that, with the available budget, will deploy the equipment and infrastructure under the best conditions as the most economic advantageous offers.
- (i) the aid cannot in any case exceed 90 % of the eligible costs (see also Section 2.5.) and the maximum amount to be received by each beneficiary per intervention area cannot exceed the maximum amount established per lot.

(204) ***Technological neutrality***. Public intervention must not favour or exclude any technology, both in the selection of beneficiaries and in the provision of wholesale access. As different technological solutions exist, the call for tender must not favour or exclude any technology or network platform. Bidders should be entitled to propose the provision of the required services using or combining whatever technology they deem most suitable. This is without prejudice to the possibility for the Member States to determine the desired performance. A State-funded network must enable access under fair and non-discriminatory conditions to all access seekers irrespective of the technology used¹⁰⁵.

(205) Based on the information provided by the Spanish authorities (see also Section 2.12), the Measure is technologically neutral, in line with the Broadband Guidelines:

- (a) The Spanish authorities explained that the beneficiaries will be selected based on objective criteria. The decision of the Spanish authorities to support the deployment of the target 5G standalone networks is duly reasoned. In particular, the Spanish authorities have demonstrated – also with the support of the Survey of business users’ preferences and needs in the target areas (see recital (38) and (38)) – that, at the current stage of technological development, the target 5G standalone networks are the only technological solution that can address end-users’ needs in target areas and fulfil the Measures’ objectives of reducing the digital divide between rural areas and more populated and economically developed areas in the country. The Survey has highlighted that a substantive portion of business users in the target areas considers 5G standalone services important for the future

¹⁰⁴ See footnote 42.

¹⁰⁵ See also point 125 of the Broadband Guidelines.

development of their businesses. This is due to the fact that, differently from 4G or non-standalone 5G, the target 5G standalone networks and the target services bring improvements not limited to increasing speeds and capacity of the mobile networks compared to the existing ones. The target 5G standalone networks and the target services can cater for the expected exponential increase in mobile traffic and allow users to have access to all 5G native services and applications. These innovative services and applications (see also Section 2.3) are necessary to address the Spanish end-users' current and future needs and, more importantly, to help addressing the digital, social and economic divide that still exists in Spain between rural and more developed areas (see also Section 2.3). The network solutions provided by the Measure therefore guarantee additional functional capabilities such as ultra-low latency (edge), high reliability and the possibility to reserve part of the network for a particular use and guarantee a certain quality of service (network slicing) and network scalability. At The network features offered by the target 5G standalone networks, notably as concerns the reliability and latency are necessary to enable the provision of the target services. The Spanish authorities also explained that at the current stage of technological development, fibre-based backhaul networks are the only backhaul networks that can support the provision of the target services in the target areas and cater for the expected exponential increase in mobile traffic, to address the Spanish end-users' current and future needs, as identified by Spain and in line with the objectives of the Measure (see also Section 2.12).

- (b) Furthermore, under the Measure, wholesale access will be offered on open, transparent, fair, and non-discriminatory terms in line with the principle of technological neutrality. Access seekers will be able to use the new networks via wholesale access to offer their own services to end-users, independent of the access seekers' choice of technology (see also Section 2.14).

(206) ***Use of existing infrastructure.*** Pursuant to the Broadband Guidelines, the use of existing infrastructure is one of the main factors that can contribute to reducing the cost of deployment of a new broadband network and limiting the impact on the environment¹⁰⁶. Member States should encourage operators willing to participate in a competitive selection procedure to use any available existing infrastructure and to provide detailed information on the existing infrastructures that they own or control in the planned intervention area; that information should be provided in due time to be taken into account when preparing the bids.¹⁰⁷ Finally, Member States must make accessible all information at their disposal on existing infrastructure that could be used for rolling out broadband networks in the intervention area; Member States are encouraged to rely on the Single Information Point set up pursuant to Article 4(2) of Directive 2014/61/EU.¹⁰⁸ Based on the explanations provided by Spain (see also Section 2.11), the Commission considers that the Measure contains sufficient incentives for the use of the existing infrastructure by the aid beneficiaries in line with the Broadband Guidelines. In particular, the call for tenders expressly encourages bidders to consider the use of existing infrastructures in the planning and implementation of the intervention. Moreover, as part of the competitive selection procedure, in order to be considered eligible to participate,

¹⁰⁶ See also point 126 of the Broadband Guidelines.

¹⁰⁷ See also point 127 of the Broadband Guidelines.

¹⁰⁸ See also point 128 of the Broadband Guidelines.

any operator that owns or controls existing infrastructure in the target areas and which wishes to participate in the tender, is required to: (i) provide all relevant information, such as the presence and availability of such infrastructure and the conditions including the prices for accessing the existing infrastructure¹⁰⁹ to the Granting Authority and to the other bidders at a point in time which would allow the latter to include such infrastructure in their bid; and (ii) provide a commitment to offer fair, non-discriminatory access to their existing infrastructure. Moreover, the reuse of existing infrastructures to reduce the cost of the Measure will be encouraged in the calls for tenders. The Spanish authorities also confirm that in the planning process for the provision of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services in the target areas, the Granting Authority has considered all existing infrastructure in the relevant intervention areas that can be re-used¹¹⁰. The Spanish authorities are in the process of setting-up a national database where all existing infrastructures that could be re-used for the deployment of broadband networks will be included. Once available, the database will be made public, in line with the Broadband Guidelines. The Spanish authorities also rely on the Single Information Point referred to in Article 4(2) of Directive 2014/61/EU.

(207) **Wholesale access.** Broadband Guidelines stipulate that the networks must offer effective wholesale access under fair and non-discriminatory conditions to all operators who request it, since wholesale access enables third party operators to compete with the selected bidder and, thus, to develop competition in the target areas in the longer term, providing customers at the retail level with more and better services and prices.¹¹¹ The provision of effective wholesale access amplifies the positive effects of aid measures and contributes to the aid being less distortive, limiting risks of creating regional service monopolies. At the same time, an increased choice of wholesale access products is set to increase the beneficiaries' revenues, thus likely increasing the profitability, and thereby decreasing the amount of aid needed to close the funding gap. Based on the information provided by the Spanish authorities (see also Section 2.14), the Measure complies with these requirements, in line with the Broadband Guidelines:

- (a) Effective and comprehensive wholesale access must be ensured to all access seekers irrespective of the technology of their choice, on open, transparent, fair and non-discriminatory basis, in accordance with the conditions detailed in this Decision (see also Section 2.14).
- (b) The beneficiaries must ensure effective wholesale access to the equipment so to allow access seekers to provide, among others, the target services in the target areas. This access to equipment will consist of at least roaming. The aid beneficiaries must offer wholesale products that provide RAN's resource sharing using active RAN sharing functionalities, namely Multi-Operator Core Network (MOCN), or Multi-Operator-Access Network (MORAN), or multitenancy techniques such as network slicing, if and as soon as they

¹⁰⁹ For instance, in line with the provisions of articles 4 and 5 of Royal Decree 330/2016, of 9 September, regarding measures to reduce the cost of deploying high-speed electronic communications networks.

¹¹⁰ The Spanish authorities are in the process of setting-up a national database where all existing infrastructures that could be re-used for the deployment of broadband networks will be included. Once available, the database will be made public. The Spanish authorities also rely on the Single Information Point set up pursuant to Article 4(2) of Directive 2014/61/EU.

¹¹¹ See also Section 5.2.4.4 of the Broadband Guidelines.

become available as standardised wholesale access products in Spain. The corresponding price terms and conditions will be subject to the approval of the NRA. In any case, should any of the beneficiaries make such a wholesale product available to any access seekers, the beneficiary will have to provide the wholesale product to any access seeker under the same terms and conditions including but not limited to the same price conditions.

- (c) The beneficiaries must ensure effective wholesale access to all existing and new site resources (including ducts, masts, towers).
- (d) The beneficiaries must ensure effective wholesale access to existing and new fibre backhaul connections, including at least one wholesale active product access and access to all the passive infrastructure, including ducts, poles, masts, dark fibre.
- (e) Effective wholesale access for all access products must be provided as early as possible (at least six months) before the date of the entry into service of the network and before the launch of retail services by the beneficiary (per each project) for active access products for a minimum period of 10 years and for all passive access products for the lifespan of the network element concerned.
- (f) The same access conditions will apply on the entirety of the network, including on parts of such network where existing infrastructures have been used. Wholesale access must also be granted to parts of the network that have not been State funded or that may not have been deployed by the aid beneficiary if and as necessary to render the wholesale access effective and to enable the access seeker to provide its services.
- (g) The wholesale access obligations will be enforced irrespective of any change in ownership, management, or operation of the networks.
- (h) The aid beneficiaries must design the network in order to ensure sufficient capacity, as described in Section 2.14:
 1. Wholesale access to all existing and new site resources (including ducts, masts, towers), must be fully dimensioned to ensure sufficient capacity for the provision of the target services and to accommodate the expected needs of all potential access seekers.
 2. To ensure an appropriate balance, exceptionally, the wholesale access to existing and new towers provides a minimum required capacity for at least two MNOs. Exceptionally, as regards wholesale access to existing and new towers, the Spanish authorities have demonstrated on the basis of objective cost calculations that requiring existing and new towers covering target areas to ensure sufficient capacity for more than two MNOs would entail disproportionate costs without delivering significant benefits in terms of increased competition. To ensure sufficient access where needed, in presence of reasonable demand (see also Section 2.14.1) the existing and new towers will need to be dimensioned to host more than two access seekers. An access seeker's demand will be considered reasonable if: (a) the access seeker provides a business plan that justifies the development of the product on the network; and (b) no comparable access product is

already offered in the same geographic area by another undertaking at prices equivalent to those in more densely populated areas. If the conditions are fulfilled, access will be granted within a period which is customary for the particular market and the additional cost of meeting the access request will be borne by the aid beneficiary. In case of disputes concerning wholesale access conditions, including prices, the CNMC is the authority competent to solve such disputes (see Section 2.19).

3. As regards wholesale access to existing and new fibre backhaul connections, this includes at least one wholesale active access product and access to all the passive infrastructure, including ducts, poles, masts and dark fibre, which must be fully dimensioned to ensure sufficient capacity for the provision of the target services, to accommodate the expected needs of all access seekers under fair and non-discriminatory conditions, and must be constructed in such a way that additional civil works are not subsequently required up to the site's traffic delivery point.
4. For all new equipment and infrastructure, the equipment and infrastructure must be large enough to meet access seekers' current and evolving demand, except for existing and new towers which provide a minimum required capacity for at least two MNOs, to be supplemented upon reasonable demand (as described in Section 2.14.1). This is complementary and without prejudice to regulatory obligations that may be imposed by the NRA.
 - (i) The terms, conditions and prices for the wholesale access products will be indicated in the documents of the competitive selection procedure, based on the report of the CNMC of 30 March 2023 (this includes the list of prices for, among others, roaming services¹¹², whereas the CNMC will also approve the prices for any other future wholesale access products as soon as they become available). The access prices for the wholesale access products are based on the pricing principles established by the CNMC or on the wholesale prices that it has set for the same or similar services¹¹³. In the absence of an equivalent reference offer, the reference will be the average prices in Spain and, if there is no such reference, the cost-orientation criterion will be applied. The terms, conditions and prices for the wholesale access products will be published on a comprehensive website, at national or regional level, that allows access to the public without any restrictions, including prior users' registration. The bidders are encouraged to provide further improved wholesale access conditions as part of their bid in the competitive selection procedure.
 - (j) The Spanish authorities will continue to consult the CNMC with regard, inter alia, to wholesale access products, conditions, and pricing. The CNMC is also in charge of resolving disputes between operators requesting access and operators benefiting from aid (see also Section 2.19). The CNMC will approve the wholesale access products, conditions and prices and resolve disputes between operators requesting access and operators receiving the aid,

¹¹² Also available on the CNMC's website <https://www.cnmc.es/sites/default/files/4626826.pdf>

¹¹³ Prices set by CNMC for services similar to the ones mandated must in any case be regarded as maximum prices.

issuing instructions for the effective fulfilment of the access obligation referred to in this Decision, considering the regulatory framework and recommendations issued by the Commission.

- (k) The aid beneficiaries must provide access seekers with full and non-discriminatory access to information on the network deployed, wholesale access products and conditions, including prices¹¹⁴. The beneficiaries must publish and keep up to date on its website the information regarding wholesale access to the network for each of the wholesale products included in the Measure, on available capacity, prices, terms, and conditions and must communicate the corresponding reference offers and publication web link to the CNMC.
 - (l) The wholesale access conditions, open to all service providers, also ensure that negative effects on competition and on trade in the markets for the granting of wholesale access to such networks are limited.
- (208) **Clawback.** Pursuant to the Broadband Guidelines¹¹⁵, in order to limit risks of overcompensation and distortions of competition, it is important that Member States closely monitor the implementation of a measure for the entire lifespan of the aided networks and set a claw-back mechanism (if the aid amount of an individual project is above EUR 10 million), making it possible to properly take into account information that the aid beneficiary did not take into account in the original business plan when applying for State aid. mechanism for the lifespan of the aided infrastructure. The Member States must set out the rules of the clawback mechanism transparently and clearly in the competitive selection procedure's documentation. The claw-back mechanism should be designed in a way to consider and balance two objectives: (i) it should allow the Member State to recuperate amounts that exceed a reasonable profit; and (ii) it should not endanger the incentives for operators to participate in a competitive selection procedure and to strive for cost efficiencies when rolling out the network. To achieve a suitable balance between the two objectives, Member States should incentivise efficiency gains, without however reducing the quality of the services provided. The incentive amount must be set to a maximum of 30 % of the reasonable profit. Member States should not clawback any extra profit equal to or below that threshold (that is to say, the reasonable profit increased by the incentive amount). Any profit in excess of the 30 % threshold must be shared between the aid beneficiary and the Member State, on the basis of the aid intensity resulting from the outcome of the competitive selection procedure. Based on the information provided by the Spanish authorities (see also Section 2.15), the Measure complies with these requirements, in line with the Broadband Guidelines
- (a) Since the aid amount is estimated by the aid beneficiary on an ex-ante basis so as to cover the expected funding gap over the lifespan of the investment, Spain will closely monitor the implementation of each State-funded project and verify potential over-compensation on a yearly basis, starting from the completion of each project for the entire lifespan of the concerned equipment

¹¹⁴ The beneficiary must publish and keep up to date on its website the information regarding wholesale access to the network for each of the wholesale products included in the Measure, on available capacity, prices, terms and conditions and must communicate the corresponding reference offers and publication web link to the CNMC.

¹¹⁵ See also points 153-159 of the Broadband Guidelines.

and infrastructure and for at least fifteen years as of completion of each project¹¹⁶. The Spanish authorities have designed a mechanism that will allow the Granting Authority to clawback any amount exceeding a reasonable profit, to avoid over-compensation, for all projects where the amount of aid awarded through the tender exceeds EUR 10 million. The clawback mechanism will operate as follows¹¹⁷:

- (b) For the competitive selection procedure, the bidders must submit a financial plan, which will be considered in awarding the tender and will be used to apply the claw-back mechanism. The financial plan¹¹⁸ must include:
 - 1. the projected investments and the operating costs needed to deploy and maintain the aided equipment and infrastructure¹¹⁹;
 - 2. the profits expected over the lifespan of the aided equipment and infrastructure and for at least 15 years as of completion of each project; and
 - 3. the aid intensity required as determined by the aid beneficiary on an ex-ante basis to cover the expected funding gap.
- (c) Based on the above, the Spanish authorities will claw-back: (a) the difference between the costs estimated by the aid beneficiary in the tender and the actual costs of deployment of the aided equipment and infrastructure and/or, (b) the difference between the profits estimated by the aid beneficiary in the tender and the actual profits deriving from the operation of the aided equipment and infrastructure. To incentivise efficiency gains in the deployment of the aided equipment and infrastructure, the mechanism will allow the beneficiary to keep a reasonable profit and an additional incentive set at a maximum of 30% of the reasonable profit (see also Section 2.15)¹²⁰. Spain will not claw-back any extra profit below that threshold. Any profit in excess of the identified incentive threshold will be shared between the aid beneficiary and Spain, according to the actual aid intensity resulting from the tender (minimum 10% for the aid beneficiary and maximum 90% for Spain). The clawback mechanism will also consider other profits made from other transactions concerning the State-funded networks.

(209) **Accounting separation.** Pursuant to the Broadband Guidelines, to ensure that the aid granted under the Measure remains proportional and does not lead to overcompensation or cross-subsidisation of non-aided activities, all beneficiaries

¹¹⁶ For each year the aid beneficiary will submit the final balance of costs and profits deriving from the aided project.

¹¹⁷ See Article 30 of the draft Order.

¹¹⁸ The Granting Authority will use the weighted average cost of capital (“WACC”) currently in force for the integrated electronic communications operators with significant market power determined annually by CNMC.

¹¹⁹ The Spanish authorities will check whether the costs estimated by the bidder to deploy the networks are comparable with the costs that an efficient operator would have incurred in deploying a comparable network.

¹²⁰ Reasonable profit is intended as the rate of return on capital that would be required by a typical company, taking into account the level of risk specific to the broadband sector and the type of services provided. The required rate of return on capital is determined by the WACC. Prices set by CNMC for services similar to the ones mandated must in any case be regarded as maximum prices.

must ensure accounting separation so that the costs and revenues related to the deployment and the operation of the networks deployed with public funding are clearly identified¹²¹. As described in Section 2.15, the Measure ensures such accounting separation, in line with the Broadband Guidelines. Furthermore, if a beneficiary under other State aid measures will be among the beneficiaries of the Measure, the Spanish authorities will check that there will be no undue transfer between the funds allocated to the Measure and the funds allocated to other measures and there is no cumulation of aid for the same eligible costs. In particular, the Spanish authorities committed to ensure that there is no cumulation between the backhaul measure and this Measure for the same eligible costs and they have put a monitoring mechanism in place for this purpose (see also Section 2.20).

(210) ***Role of the Comisión Nacional de los Mercados y la Competencia.*** Pursuant to the Broadband Guidelines¹²², Member States are encouraged to systematically involve NRAs in the design, implementation, and monitoring of State interventions, and in particular but not limited to, in (a) the identification of target areas (mapping and public consultation), (b) the assessment of the fulfilment of the step change requirements, and (c) the conflict resolution mechanisms, including in the event of disputes in relation to any of those aspects. As described in Section 2.19, the Spanish authorities have ensured an appropriate consultation of the CNMC, in line with the Broadband Guidelines. The Spanish authorities have consulted with the CNMC from the early stages of the Measure on the design, implementation and monitoring of Measure, including with respect to: the identification of target areas (mapping and public consultation), the identification of potential market failures, the fulfilment of the step change requirements, the wholesale access obligations conditions and prices, the existing infrastructures including those subject to ex ante regulation, the conflict resolution mechanisms, including in the event of disputes in relation to any of those aspects.

(211) ***Transparency, reporting and monitoring.*** Pursuant to the Broadband Guidelines, Member States must comply with the transparency, reporting and monitoring requirements laid down in Section 7 of the Broadband Guidelines¹²³. As described in Sections 2.17 and 2.18, the Measure ensures appropriate transparency, reporting and monitoring mechanisms, in line with the Broadband Guidelines:

- (a) The Spanish authorities committed to comply with the publicity rules provided for in Article 34(2) of the RRF Regulation. For the entire duration of the Measure, all of the relevant information about the Measure will be published on the official website of the Ministry of Economy and Digital Transformation, where both operators and end-users will have easy and unrestricted access to all relevant acts and information regarding the Measure and its implementation. In particular, the Spanish authorities will publish the information listed in recital (144) after the approval of the Measure and ensure its availability for the following ten years. The beneficiaries will provide access seekers with comprehensive and non-discriminatory access to information on the aided equipment and infrastructures and will publish detailed information concerning wholesale access conditions and prices.

¹²¹ See also point 160 of the Broadband Guidelines.

¹²² See also points 161-164 of the Broadband Guidelines.

¹²³ See also Point 167 and Section 7 of the Broadband Guidelines.

- (b) The Spanish authorities will report to the Commission about the application and the progress of the Measure every two years. The report will contain, besides the information listed in recital (145), the additional key data mentioned in recital (147) and (146).
- (c) The Spanish authorities also commit to submit to the Commission the annual reports required under Council Regulation (EU) 2015/1589 and Commission Regulation (EC) No 794/2004.
- (d) The Spanish authorities also commit to monitor the Measure on an on-going basis over the lifespan of the aided equipment and infrastructure and for at least 15 years as of completion of each project. The scope of such monitoring will include: the competitive selection procedures, the deployment of the equipment and infrastructures and the fulfilment of all requirements under the national legislation and in this decision, for the entire duration of the Measure. Spain will maintain detailed records regarding the Measure. Such records will include all information necessary to establish that all the compatibility conditions of the decision are fulfilled¹²⁴.

(212) ***Ex post evaluation plan.*** The Broadband Guidelines stipulate that, in order to further ensure that distortions of competition and trade are limited, the Commission may require schemes to be subject to an ex post evaluation in order to verify (a) whether the assumptions and conditions which led to the compatibility decision have been realised; (b) the effectiveness of the aid measure in the light of its pre-defined objectives; (c) the impact of the aid measure on markets and competition and that no undue distortive effects arise throughout the duration of the aid scheme that are contrary to the interests of the Union¹²⁵. Ex post evaluation will be required for schemes with large aid budgets, or containing novel characteristics, or when significant market, technology or regulatory changes are envisaged¹²⁶. The Spanish authorities have submitted an evaluation plan in the context of the notification as an integral part of it, in line with the Broadband Guidelines:

- (a) The objective of the evaluation plan is to demonstrate, by means of both quantitative and qualitative analyses, the direct effects of the Measure, its proportionality and appropriateness; as well as several indirect effects including potential distortive effects on competition.
- (b) The Commission considers that the notified evaluation plan contains all the necessary elements to fulfil the objectives identified : the objectives of the Measure to be evaluated, including the evaluation questions; the result indicators; the envisaged methodology to conduct the evaluation; and the proposed timing of the evaluation including the date of submission of the final evaluation report (see also Section 2.16)¹²⁷. The Commission notes that:

¹²⁴ Spain will maintain the mentioned records for ten years as from the date of award of individual support under the Measure and will send them to the Commission upon request within a period of 20 working days or such longer period as may be fixed in the request.

¹²⁵ See also Section 8 of the Broadband Guidelines.

¹²⁶ See also point 211 of the Broadband Guidelines.

¹²⁷ As regards direct effects, the evaluation plan must check whether the measure is suitable to increase the uptake of 5G, possible incentives for operators to increase investment, possible increase in the use of fibre backhaul and improvements in the performance of networks (speed, latency and reliability). As regards indirect effects, it will be necessary to measure the impact of the aid on the level of

1. The scope of the evaluation is defined in an appropriate way. It comprises a list of evaluation questions with matched result indicators. Moreover, the evaluation plan explains the main methods that will be used in order to identify the impact of the Measure¹²⁸.
 2. The Spanish authorities commit that the evaluation will be conducted by an independent evaluation body in accordance with the criteria laid down in the notified evaluation plan;
 3. The proposed modalities for the publication of the evaluation results are adequate to ensure transparency.
 4. The commitment made by Spain to submit to the Commission a final report by December 2025, a first additional evaluation report by 30 June 2028 and a second additional evaluation report before 31 December 2029 is appropriate as the mentioned reports will contain the relevant information about the application and the progress of the Measure as well as the data relevant for the assessment of the effectiveness of the Measure.
 5. The commitment made by Spain to notify the amendments to the Measure to the Commission and to contact the Commission as soon as possible, should for any reason the implementation deviates from the plan, to define an alternative evaluation strategy that is in any case aligned with the "Common methodology for State aid evaluation" is appropriate.
- (c) The Commission notes that Spain must communicate to the Commission any difficulty that could significantly affect the agreed evaluation to identify and implement possible solutions.
- (d) Moreover, the Commission notes that the Measure must be suspended if the final evaluation report is not submitted in good time or is not of sufficient quality.

(213) ***Overall conclusion on proportionality.*** In light of the above considerations, the Commission considers that the State aid involved and the potential distortions of competition to which it could give rise are limited to the minimum necessary, in line with the Broadband Guidelines. Hence, the aid is proportional.

3.2.2.5. *Negative effects on competition and trade*

(214) Aid for the deployment of mobile networks may have negative effects in terms of market distortions and its impact on trade between Member States. The Commission has carefully assessed the significance of the distortion of competition and effect on trade of the Measure in terms of its actual and potential effects on competitors, in line with the Broadband Guidelines¹²⁹.

competition, reduction of digital divide and energy consumption. The proportionality and appropriateness of the measure is assessed by verifying that the same objectives cannot be achieved with a lower aid intensity and an alternative tool.

¹²⁸ The plan indicates that it is based on the best practices referred to in the Commission's *Staff working document on common methodology for state aid evaluation*.

¹²⁹ See also points 168-169 of the Broadband Guidelines.

(215) In this regard, it cannot be excluded that private operators may see the profitability of their prior investments decrease because of the aid, or that they may decide to reduce their own future investment, withdraw from the market altogether or decide not to enter a new market or a geographic area. The public support may also encourage local service providers to have recourse to the equipment and infrastructure deployed under the Measure rather than other market solutions. Finally, considering the design of the Measure, it cannot be excluded that the Measure may affect the market position of the mobile operators in Spain.

3.2.3 Weighing the positive effects of the aid against the negative effects on competition and trade

(216) A carefully designed State aid scheme should ensure that the overall balance of the effects of the Measure is positive in terms of avoiding adversely affecting trading conditions to an extent contrary to the common interest.

(217) Based on the information provided by the Spanish authorities, the Commission is of the view that the positive effects of the Measure outweigh its negative effects, in line with the Broadband Guidelines¹³⁰, for the following reasons:

- a) The Spanish authorities proved that the Measure contributes to the development of the supported economic activities, in particular the deployment of equipment and infrastructure to roll out the target 5G standalone networks and provide the target services (including the added-value characteristics of edge computing and network slicing), compared to what would happen in the absence of the public intervention in the target areas. The Measure has various positive effects for end-users but also for competition in the intervention areas (see also section 2.3). The Measure will ensure the availability of very high-quality mobile networks (the target 5G standalone networks) in the target areas and the provision of performant mobile services to end-users (the target services), satisfying their current and evolving needs at conditions that would not be available under normal market conditions. It will thereby provide better choice for consumers, higher quality and innovation and help reduce inequalities and digital divide in the intervention areas. The Measure addresses a market failure (see also Section 2.3). Absent the Measure, the necessary investments would not be made in the target areas to deploy the target 5G standalone networks and provide the target services or will be made in a restricted or different manner. It also represents a step change as it provides a significant improvement in comparison to existing and credibly planned mobile networks in the target areas (see also Section 2.13). Moreover, the Measure is in line with the connectivity objectives set at the EU level (see recitals (10) and (189) and (186).
- b) The Measure is necessary, appropriate, and proportionate (as discussed in Sections 3.2.2.2, 3.2.2.3 and 3.2.2.4). Its design ensures that the aid is limited to the minimum necessary and that its negative effects on competition and on trade in the markets for the deployment of the target 5G standalone networks and the provision of the target services and for the granting of wholesale access to such networks are limited. The Measure is designed to limit

¹³⁰ See also points 170-173 of the Broadband Guidelines.

crowding out private investment and its effects are confined to areas of the Spanish territory which are municipalities of less than 10 000 inhabitants and secondary roads (excluding those covered under any legal coverage obligations), where it has been certified, via a detailed map of coverage and a public consultation (see also Section 2.8), that there is no coverage with a 4G mobile network providing download speeds of at least 50 Mbps under peak time conditions¹³¹ current or credibly planned in the next three years, i.e. by 17 February 2026 and where private investors do not intend to invest to deploy equipment and infrastructure for the deployment of the target 5G standalone networks and the provision of the target services by 17 February 2026 (see also Section 2.8). All stakeholders, including potentially affected private operators have been publicly consulted before the start of the implementation of the Measure on its design, its legal bases, its target areas and their planned investments by 17 February 2026 and their comments have been taken into account in the final design of the Measure (see also Section 2.8). The design of the Measure ensures no overlap with legal obligations such as coverage obligations related to rights of use of spectrum (see recital (23)). The overall aid intensity is limited to the minimum necessary as the award criteria will ensure the selection of the offers that will deploy the equipment and infrastructure under the best conditions as the most economic advantageous offers. The aid cannot in any case exceed 90 % of the eligible costs (see also Section 2.5.) and the maximum amount to be received by each beneficiary per intervention area cannot exceed the maximum amount established per lot (see also Sections 2.8 and 2.10). Any financial support under the Measure will be awarded through a competitive selection procedure in line with public procurement rules (see also Section 2.10). By ensuring effective wholesale access to the networks to interested parties, the Measure aims at incentivising competition in the intervention areas (see also Section 2.14). The Measure features an adequate claw-back mechanism (see also Section 2.15). The Measure ensures transparency, reporting and monitoring obligations will be complied with (see also Sections 2.17 and 2.18). As described in Section 2.16, Spain submitted an adequate ex post evaluation plan. The plan will allow the Commission to verify: (i) whether the assumptions and conditions which led to this decision have been realised; (ii) the effectiveness of the Measure considering its predefined objectives; (iii) the impact of the Measure on markets and competition; and (iv) that no undue distortive effects arise throughout the duration of the Measure that are contrary to the interests of the Union.

(218) In light of the above, the positive impact of the Measure in developing the economic activity at issue outweighs any potential negative effects on competition and trade. On balance, the Measure is in line with the objectives of Article 107(3)(c) TFEU as it facilitates the deployment of the target 5G standalone networks and provision of the target services in the target areas, in line with the Broadband Guidelines. Moreover, such aid does not adversely affect competition to an extent contrary to the common interest. The overall impact on competition is deemed to be positive. The negative effects on competition, if any, would be very limited.

¹³¹ Peak time conditions consider a cell load of at least 50%.

4. CONCLUSION

The Commission has accordingly decided not to raise objections to the aid on the grounds that it is compatible with the internal market pursuant to Article 107(3)(c) TFEU.

If this letter contains confidential information which should not be disclosed to third parties, please inform the Commission within fifteen working days of the date of receipt. If the Commission does not receive a reasoned request by that deadline, you will be deemed to agree to the disclosure to third parties and to the publication of the full text of the letter in the authentic language on the Internet site: <http://ec.europa.eu/competition/elojade/isef/index.cfm>.

Your request should be sent electronically to the following address:

European Commission,
Directorate-General Competition
State Aid Greffe
B-1049 Brussels
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Yours faithfully,

For the Commission

Margrethe VESTAGER
Executive Vice-President

