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PUBLIC VERSION

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**Subject: State Aid SA. 59574 (2021/N) – Deployment of high-performance mobile infrastructure in Germany-DE**

Sir,

I am pleased to inform you that the Commission has assessed the measure "high-performance mobile infrastructure roll-out in Germany"<sup>1</sup> as notified by Germany and described in this decision and decided not to raise objections.

## 1. PROCEDURE

- (1) Following pre-notification discussions, on 24 March 2021 the German authorities notified the European Commission of a support scheme to promote the deployment of terrestrial public mobile electronic communications networks ("mobile networks") in Germany.

## 2. DETAILED DESCRIPTION OF THE MEASURE

### 2.1. Objective and design of the measure

- (2) Unlike fixed networks, mobile networks offer the end user the option of continuously changing the location while communicating. There currently exist four generations of mobile communications technology with the fourth generation (4G) being based on LTE<sup>2</sup>. A new fifth generation (5G) is currently in the process of being rolled out. While all mobile communications technology generations

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<sup>1</sup> Based on the Directive "Mobilfunkförderung" designed by the Federal Ministry of Transport and Digital Infrastructure.

<sup>2</sup> Long-Term Evolution (LTE) is a standard for high-speed wireless communication for mobile devices and data terminals.

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allow for mobile voice services, only the newer generations also allow for the provision of performant mobile data services. Mobile communications technology generations are different in many aspects but their most important differentiating factor being the increased overall capacity (newer generations provide for lower latency and higher transmission capacities). The latest generation (5G) will have additional functional capabilities, 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. These features will allow 5G networks to support new services (for instance, 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).

- (3) In the digital age, access to services that rely on mobile networks has become essential for businesses and consumers. These services have become an indispensable part of everyday life for citizens. The performance of mobile communications technologies is developing so rapidly that they have become key technologies for the digital transformation in business and society. However, currently mobile network coverage does not meet everywhere the continuously growing expectations of business and society. Apart from existing mobile network coverage gaps, in particular frequent disrupting disconnections, as well as capacity and speed limitations reduce the user experience. In order to achieve the benefits of the Gigabit society, mobile voice and data services should be available everywhere - in households and for businesses, on roads, railways, waterways and tourist attractions as well as on agricultural areas. Thereby the provision of mobile voice and data services has to guarantee unrestricted mobility of the users.
- (4) The objective of the measure is to close such gaps in mobile coverage in Germany. To this end, the German Authorities aim at supporting the rolling out of passive infrastructure for mobile networks that will only be used to provide high-performance mobile voice and data services (“mobile passive infrastructure”). The aided mobile passive infrastructure should be capable to support the roll out of at least 4G mobile networks which can provide a wireless connection delivering a data rate of at least 50 Mbps download per antenna sector<sup>3</sup> with a latency of no more than 150 milliseconds.
- (5) The intervention area will consist of areas in Germany where mobile networks have not been deployed or where only mobile networks capable of supporting 2G mobile services (based on GSM<sup>4</sup> technology) and below are available and where there are no private plans to invest in deploying 4G (and above) mobile networks

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<sup>3</sup> For a target of 50 Mbps per antenna sector, the Bundesnetzagentur assumes that a 10 Mbps access speed can be made available reliably to an end user in that sector even in peak-time periods.

<sup>4</sup> Global System for Mobile Communications (GSM) is a standard developed by the European Telecommunications Standards Institute to describe the protocols for second-generation (2G) digital cellular networks used by mobile devices such as mobile phones and tablets.

in the coming three years (“target areas”). Technically unavoidable overlaps<sup>5</sup> on a very limited scale with existing coverage or coverage obligations are permitted.

- (6) The scheme may also support the upgrading, replacement or rebuild of masts that are currently used exclusively for the supply of 2G.
- (7) The scheme may also support backhaul (ducts and dark fibre)<sup>6</sup> deployment: (i) up to a suitable point of interconnection (“PoI”), and (ii) only insofar as strictly necessary for the implementation of the scheme in the target areas.
- (8) A PoI is considered suitable if the traffic of all mobile network operators (“MNOs”), and in particular of the MNOs who have committed in the preparatory procedure to use the site, can be transported on a fair and non-discriminatory basis. An investment in backhaul is considered as strictly necessary if a new mast has to be connected (no backhaul exists) or when an existing 2G mast is upgraded and the existing backhaul is not enough to support 4G services or above. Existing ducts and dark fibre supporting the needed capabilities will not be overbuilt.
- (9) The scheme would help address the digital divide in Germany, increase the attractiveness for living and investing in the rural areas, stimulate economic growth and maintain and create jobs in structurally weaker regions. In this respect, living conditions would be aligned with those in better-served regions. The problems posed by the lack of a mobile service in emergency situations would equally be reduced. This national target is in line with the European Union’s current objective that there should be access to mobile data connectivity throughout the territory, in all places where people live, work, travel and gather.<sup>7</sup>

## 2.2. Context

- (10) By virtue of existing mobile coverage obligations, by the end of 2019, 97% of the households in each Federal State in Germany had to be covered with mobile networks providing at least 50Mbps per antenna sector. By the end of 2022, at least 98% of households per Land have to be covered with mobile networks providing at least 100 Mbps per antenna sector. In addition, 1000 5G base stations and 500 4G base stations with at least 100 Mbps are to be put into operation in "white spots" by the end of 2022.
- (11) In Germany, once the coverage obligations are fulfilled and taking into account the planned private and public investments, by the end of 2024 there will still remain 0.25% of households and 2.5% of territory (approximately 4.400 gap areas) unsupplied by mobile services of 4G and above. The scheme will provide support exclusively in these mobile coverage gaps (“gap areas”) in Germany.

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<sup>5</sup> An overlap is technically unavoidable if it is necessary in order to allow for a fluent handover between cells and a sufficient quality of supply at the periphery of cells.

<sup>6</sup> In exceptional circumstances, where technical difficulties do not allow for a fibre backhaul connection, the backhaul may only consist of fixed wireless access technology not fibre optic.

<sup>7</sup> As set out in the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Connectivity for a Competitive Digital Single Market: Towards a European Gigabit Society, COM(2016) 587 final, (“Gigabit Communication”)

Germany estimates that a number of up to 4700 gap areas will need to be deployed in order to fulfil its objective namely comprehensive coverage of the underserved households and territory.

- (12) Areas and transport routes which are the object of coverage or contractual obligations are excluded from support. Such obligations tend to focus on larger transport routes (e.g. motorways, federal and state roads, waterways and railways) and on areas where there is a higher density of unserved households. This demarcation will further reduce potentially eligible areas so that the aid is concentrated in remote rural and, consequently, extremely uneconomic areas.

### **2.3. Legal basis**

- (13) The notified measure is described in the directive ‘Mobilfunkförderung’<sup>8</sup> (the “Directive”) designed by the Federal Ministry of Transport and Digital Infrastructure (“BMVI”) and it is based on Articles 23 and 44 of the Federal Budget Law (*Bundeshaushaltsordnung, the BHO*).<sup>9</sup>
- (14) The current Decision is also part of the legal basis.

### **2.4. Standstill obligation**

- (15) The German Authorities have confirmed that the granting of the aid is conditional upon the authorisation of the Commission on the notified measure. Pursuant to the standstill clause of Article 108(3) TFEU, and to Article 3 of Council Regulation (EU) 2015/1589<sup>10</sup>, new aid measures must not be put into effect before the Commission has notified the decision not to raise objections to Germany.

### **2.5. The Granting Authority**

- (16) The competent granting authority is the Mobile Infrastructure Company (Mobilfunkinfrastrukturgesellschaft mbH or the “Granting Authority”) which is a subsidiary of Toll Collect GmbH and a fully state owned company. The Granting Authority was established on 12 January 2021 and its role is to accelerate the deployment of mobile networks in Germany.
- (17) The Granting Authority will, among others, be in charge with planning and implementing the scheme. In particular, it will: (i) conduct the mapping and the public consultation in order to ensure intervention in target areas only, and (ii) crosscheck with the coverage obligations of all MNOs (resulting in an exclusion of all regions which are part of those obligations) and with other mobile funding schemes (especially on Länder level<sup>11</sup>, resulting in an exclusion of all regions

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<sup>8</sup> Available at: [www.bmvi.de/mobilfunk](http://www.bmvi.de/mobilfunk)

<sup>9</sup> <https://www.gesetze-im-internet.de/bho/>

<sup>10</sup> 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.

<sup>11</sup> Such schemes were approved by Commission decisions in cases: SA.48324 – Mobile networks Bavaria, SA.55578 – Mobile networks Hesse; SA.54684 – High-capacity mobile infrastructure roll-out

which are part of a funding process). Further, the Granting Authority will: (iii) invite the MNOs to show interest in providing the target areas with at least 4G services; (iv) establish the conditions for aid allocation and grant the aid once the conditions are fulfilled, and (v) check if the aid was correctly spent. The Granting Authority will also prepare the contracts template with landowners for the renting/purchase of the necessary land, and with the infrastructure operators (such as electricity suppliers), and will obtain all necessary public permits.

- (18) To this end, the Granting Authority will have access to the funds allocated for the scheme and will conduct the process independently within the framework given by the Directive and on the basis of the tasks assigned to it by the BMVI.<sup>12</sup>
- (19) The Granting Authority will have a supervisory board with representatives of the BMVI, the Federal Ministry for Economics and Energy (BMW<sub>i</sub>), the Federal Ministry of Finance (BMF), Toll Collect and a representative of the German Association of Towns and Municipalities. The Granting Authority will also be supported by an advisory board composed of representatives of the Federal Government, the Länder, members of Parliament and municipalities.
- (20) The members of the supervisory board have the right to request information, reports and order verifications upon the Granting Authority.
- (21) In addition, the German Court of Auditors is responsible for auditing the overall budgetary and economic management in the context of the funds allocation that are the object of this scheme.

## **2.6. Budget and duration**

- (22) The support measure consists of a scheme in the form of a grant of up to EUR 2.1 billion and has a duration until 31 December 2024.
- (23) The maximum aid intensity provided by Germany under the scheme is, as a general rule, limited to 90 % of the eligible costs. In principle, the beneficiary's own contribution must reach at least 10% of the eligible costs. Only in exceptional cases, the aid intensity may reach up to 99 % if necessary to close the funding gap. Exceptional cases may occur when the costs for the realisation of the mobile sites or fibre backhaul connections and their operation are disproportionately higher than the income generated from the renting out of the mobile sites, for example due to topological or geological difficulties or longer backhaul connections in rural areas.
- (24) The funding comes from the overall budget of Germany.
- (25) Funding may only be granted for projects that have not yet started or that were not already planned (under private or public initiative) within the next three years. The same area may receive funding only once under this scheme.

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in Brandenburg-DE, or SA.56426 – Deployment of high-performance mobile infrastructure in Lower Saxony-DE.

<sup>12</sup> A management contract concluded between the BMVI and the Granting Authority will specify the Granting Authority's tasks and set out the necessary supervisory and control mechanisms to ensure a successful implementation of the scheme.

- (26) Overlaps with funding from other programmes at Länder or federal level for the same measure are excluded. To this end, the Granting Authority will contact the Länder which have in place individual funding schemes, inform them about the planned measure and enquire about their funding activities. Areas in which municipalities or companies have applied for or have been granted funding at the Länder level will be excluded from the federal scheme. The Granting Authority may decide to postpone its intervention in certain areas for a later point and may take action only if funding on Länder level has not led to a closure of all identified gap areas.
- (27) The Granting Authority will observe and check if the fundamental prohibition of double funding is respected. In case this prohibition is infringed, the funding pertaining to this scheme will be returned to the Granting Authority.

## **2.7. Beneficiaries**

- (28) The direct beneficiaries are the undertakings that build and operate the elements of the mobile passive infrastructure under the scheme (e.g. the masts, ducts, dark fibre) and may include MNOs, specialised construction companies (such as the tower companies) and fibre optic companies. Municipal companies may also participate if the public ownership does not grant them unfair advantage in the competition. To this end, municipal companies commit not to engage in competition at the retail level and to ensure an accounting separation between the funds used for the operation of the networks deployed as part of this scheme and the other funds at their disposal.
- (29) The direct beneficiaries will be selected following an open, transparent, non-discriminatory competitive funding procedure (described below).

## **2.8. Investment and business model**

- (30) The support will consist of a grant, calculated on the basis of a percentage of eligible costs.
- (31) As part of the application process, interested companies must present to the Granting Authority: (a) their expected costs for the construction and development of the mobile site (no operation costs), plus (b) the on-going expenditure necessary for the provision of the site, minus (c) the expected income from the rental of the site. This would constitute the profitability gap that, following the competitive funding process, would amount in the granted aid.
  - (a) The costs for the construction and development of the site include the design and construction of the access, power supply, foundations, masts or support structure, technical rooms and structural security measures, as well as the purchase of the necessary components and premises. The expenditure also includes connections with ducts, including dark fibre up to a suitable PoI. The mobile site shall be sized in such a way that it can be used by all interested MNOs.
  - (b) The on-going expenditure necessary for the provision of the mobile site (not for the operation of active technology) includes, in particular, rent for the use of the property and expenditure on any utility media, servicing, maintenance and security.

- (c) Revenues arising from renting the site to the interested MNOs shall be deducted. If the beneficiary is itself an MNO and has its own technology installed on the site, it will have to pay a fictitious rent. This must be the same as the rent paid by the other MNOs at the same location.
- (32) Aid for active equipment and data connections between the supported passive infrastructure and the infrastructure owned by the MNOs using the newly established passive infrastructure is excluded.<sup>13</sup>
- (33) The relevant period for calculating the profitability gap is seven years. The infrastructure built will be in the property of the company that receives funding following the competitive funding procedure.
- (34) The direct beneficiaries will build the passive infrastructure (e.g. foundation, masts, electricity connection, ducts, dark fibre and access routes). They are obliged to offer all interested MNOs access to the mobile passive infrastructure on fair, open, non-discriminatory terms. This also applies to the backhaul infrastructure (including ducts and dark fibre). The access obligations are independent of any change in ownership, management or operation of the subsidised infrastructure.
- (35) If the direct beneficiaries are present both on the market at wholesale and retail level, they will provide for commitments in order to prevent undue discrimination or other hidden indirect advantages towards access seekers or other service providers. The Granting Authority ensures a non-discriminatory access by including and monitoring open access regulations, by setting a fixed fee for usage of passive infrastructure and by determining a suitable PoI.

## **2.9. Target areas**

- (36) The scheme will provide support exclusively in areas in Germany where no mobile network is available or where only mobile networks providing 2G capabilities and below are available, and where no private investors are planning to deploy a 4G (and above) infrastructure within the next 3 years.
- (37) Supported infrastructure will not be taken into account to meet the coverage obligations attached to the rights of use radio spectrum for MNOs and will therefore not be reported as such to the Federal Network Agency (*Bundesnetzagentur*, “BNetzA”). MNOs using the supported infrastructure must commit in this regard and confirm it in writing to the Granting Authority. This written commitment will be sent to the BNetzA together with a documentation of (i) the current situation, and (ii) the planned situation following construction of the mobile passive infrastructure and activation of stations in the target areas. This mechanism ensures that the aid scheme will in fact complement the existing mobile coverage obligations imposed on the MNOs. Sanctions in case of breach of this commitment will be included in the preliminary contract and the grant agreement. Potential sanctions include the exclusion of access seekers from target areas or fines designed to deter such behaviour and to compensate direct beneficiaries for potential reclaims of funding.

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<sup>13</sup> Any VAT paid by network providers for the upgrading of existing passive infrastructure forms part of the eligible costs only insofar as such VAT paid cannot be deducted from input tax.

- (38) Following the identification of the potential target areas, the MNOs will be asked to express their interest in providing mobile services of 4G and above in the potential target areas and the Granting Authority will conclude a preliminary contract with at least one MNO in order to ensure that the mobile site(s) to be deployed will be used. In order to allow all MNOs to make an informed decision the Granting Authority will proactively and non-discriminatorily provide all information gathered in the preparatory procedure. The Granting Authority will identify as target areas only those areas for which at least one MNO has concluded a preliminary contract to guarantee the use of the mobile site to be deployed. An aid procedure will therefore only be initiated if at least one preliminary contract with an MNO can be concluded for the use of the potentially subsidised mobile site.

## **2.10. Mapping**

- (39) Any funding under the scheme will be based on a map of mobile coverage in Germany.
- (40) To this end, the Granting Authority will develop an enhanced database Geographic Information System (“GIS” Tool), on the basis of the existing databases to map mobile coverage in Germany and to identify the gap areas. The new database will incorporate the data and functions of the existing Infrastructure Atlas and the German Broadband Atlas and add further datasets und functionalities. Especially the data concerning State owned properties and buildings, mobile network planning and civil works will be added. The GIS-Tool aims at mapping and presenting to entitled users the historical, current and future mobile and fixed broadband coverage and related infrastructure in one integrated database. The GIS-Tool will provide an overview not only of the mobile but also of fixed existing and planned infrastructures. The mobile network map will be presented on the basis of a grid layer of 100x100 meters. The GIS Tool will be updated continuously with available data.
- (41) The resulting map will be available to all interested parties, and potential direct beneficiaries, for planning, authorization and granting procedures. Safeguards will be put in place to protect business secrets while ensuring that all interested parties receive non-discriminatory access to the needed information.

## **2.11. Public consultations**

- (42) The general public consultation for the scheme took place between 1 and 31 August 2020 and was published at the federal level on the BMVI website<sup>14</sup>. The consultation contained a summary of the planned support measure and a description of the potentially targeted areas.
- (43) A total of 15 comments were received from the Länder, municipal associations, MNOs and special construction companies, of which 13 agreed to be published. The comments have been taken into account in the process of further shaping the programme. Following the public consultation, BMVI extended the deadlines for various process steps, clarified misleading statements and clarified that the fixed

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<sup>14</sup> [www.bmvi.de/mobilfunk](http://www.bmvi.de/mobilfunk)



wireless access will only be allowed as backhaul in duly justified cases (see recital (67) and footnote (6)). In addition, the mobile passive infrastructure will be designed in such a way to allow access to all interested MNOs. Initially, access was only ensured to the MNOs that showed interests in the preparatory phase plus to one extra MNO. BMVI published a detailed summary of statements along with further explanations and clarifications.<sup>15</sup> Furthermore, an additional study addressed questions concerning open access fees and the PoI.<sup>16</sup>

- (44) The German Authorities also committed to organise project-specific public consultations focusing on the specific target areas. These consultations will be published on the website of the Granting Authority.<sup>17</sup> In the framework of these project-specific public consultations, all interested parties will be invited to comment and be requested to inform the Granting Authority of their development plans in the target areas in the three coming years starting from the date of the initiation of the specific public consultation.
- (45) The project-specific public consultations are carried out in advance of the individual funding projects. They have a duration of 8 weeks and are a prerequisite for a subsequent aid application. These project-specific public consultations will ensure that existing and planned (within the next 3 years) mobile networks development projects (covering infrastructure such as ducts, dark fibre or masts in the target areas) are taken into account and thus ensure effective protection of investment and competition.
- (46) The Granting Authority will be responsible for carrying out the public consultation. In view of the roll-out of the passive mobile infrastructure, that also includes the roll-out of ducts and fibre (the backhaul), the public consultation for the mobile support programme will also include existing and planned (within the next 3 years) fixed broadband infrastructure.

## **2.12. Competitive selection procedure**

- (47) The selection procedure is designed as a competitive funding procedure.
- (48) It begins with a call for applications, which includes all information gathered by the Granting Authority in the preparatory phase. This includes: (i) the location and dimension of the target areas, (ii) the suitable PoI to be used for backhaul connections, (iii) the MNOs willing to provide coverage from the individual mobile sites, and (iv) the fixed fee for open access to the aided infrastructure.
- (49) This aims at providing applicants with all necessary information in order to calculate the profitability gap. All calls for applications, the detailed information as well as the results of the calls will be published on the central website of the Granting Authority.<sup>18</sup>

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<sup>15</sup> [https://www.bmvi.de/SharedDocs/DE/Anlage/DG/bmvi-auswertung-der-stellungnahmen.pdf?\\_\\_blob=publicationFile](https://www.bmvi.de/SharedDocs/DE/Anlage/DG/bmvi-auswertung-der-stellungnahmen.pdf?__blob=publicationFile)

<sup>16</sup> [www.bmvi.de/mobilfunk](http://www.bmvi.de/mobilfunk)

<sup>17</sup> [www.netzda-mig.de](http://www.netzda-mig.de)

<sup>18</sup> [www.netzda-mig.de](http://www.netzda-mig.de)

- (50) Applicants will be granted a period of at least four weeks in order to submit their applications.
- (51) Following the deadline, the Granting Authority will evaluate the applications and checks if all formal eligibility conditions are fulfilled. Once the application review process is successfully completed, a grant agreement will be signed.
- (52) In cases where the competitive funding procedure leads to a very high funding gap<sup>19</sup>, the Granting Authority will perform an in-depth analysis of the application(s), in particular regarding cost calculations. Germany submitted that given the transparent cost structure and the fixed fee for open access, the Granting Authority will typically be able to conduct this analysis by itself. A third party support will be required only in exceptional circumstances.

### **2.13. Economically most advantageous offer**

- (53) The German Authorities confirmed that the competitive funding procedure will ensure the selection of the economically most advantageous offer.
- (54) Offers received in the course of the competitive selection procedures will be assessed using qualitative award criteria established and published in advance by the Granting Authority.
- (55) To this end, the Granting Authority will define minimum standards for the infrastructure to be built. This includes, *inter alia*, the sizing of ducts and of the mobile sites to ensure the use of the mobile passive infrastructure by all interested parties in a fair, open, non-discriminatory manner.
- (56) The applicants need to provide a detailed cost-benefit analysis to be able to participate in the process. To this end, the elements necessary for the implementation of the project and their costs must be set out, together with the potential for demand and the revenue to be expected from it.
- (57) Award criteria are, for instance: technical specifications, timeframe for deployment, costs for the construction and operation, including the maintenance of the rolled-out infrastructure, as well as the impact of the proposed solution on competition. The qualitative criteria have to be weighed against the requested aid amount. In order to minimise the amount of aid, at similar if not identical quality conditions, at the overall assessment of a bid, the bidder who requires the lowest State aid amount will receive most priority points. Bidders proposing a wholesale-only model may receive additional points.
- (58) Other criteria could include additional benefits that exceed the requirements while maintaining a competitive profitability gap (such as additional space for active components).

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<sup>19</sup> In excess to what the following studies established: “Versorgungs- und Kostenstudie Mobilfunk” ([www.bmvi.de/SharedDocs/DE/Artikel/K/mobilfunkstrategie.html](http://www.bmvi.de/SharedDocs/DE/Artikel/K/mobilfunkstrategie.html)) and “Gutachterliche Betrachtung ausgewählter anreizwirksamer Parameter aus der Konzeption der Mobilfunkförderung” ([www.bmvi.de/mobilfunk](http://www.bmvi.de/mobilfunk))

## **2.14. Step change**

- (59) The German Authorities confirmed that the measure will ensure a "step change" in that the investments in (at least) 4G networks will bring significant new capabilities to the market in terms of mobile service availability, capacity, speeds, latency and competition, compared to existing as well as concretely planned commercial network roll-outs.
- (60) A significant improvement of the mobile coverage is achieved by providing 4G (and above) capabilities where there is currently no mobile coverage or only 2G and below.
- (61) In terms of mobile data services, 2G technology allows for speeds merely up to 53.6 Kbps. The aim of the measure is to provide 4G capabilities of at least 50 Mbps download per antenna sector (1MBit=1000 Kbit). This means that the implementation of the planned scheme will reach thousand times the data rates currently available (both download and upload).
- (62) In terms of latency, i.e. the time it takes to transmit data, a 2G network can have a latency of up to 1000 milliseconds. A 4G network under optimal conditions can ensure a latency between 20 and 50 milliseconds. The scheme will therefore allow an up to 50 times better latency than currently available, which is key for time-critical applications.
- (63) This allows for the provision of services currently unavailable to the citizens living, working or travelling in the target areas. These include, for example, the possibility of accessing frequently used applications such as navigation apps, news portals, e-mail retrieval and applications that are even more data-intensive, such as streaming services.
- (64) The measure will also support backhaul deployment in areas where no backhaul is present or where it is not suitable for enabling at least 4G capabilities as indicated in recitals (7) and (8) above. The backhaul capabilities will therefore also significantly improve.

## **2.15. Technological neutrality**

- (65) German Authorities confirmed that the beneficiaries will be selected on the basis of objective criteria. Any provider capable of rolling out mobile passive elements of network infrastructure allowing the roll out of public terrestrial mobile networks supporting speeds of at least 50 Mbps download per antenna sector and latency of max. 150 milliseconds are eligible as beneficiaries.
- (66) Also, wholesale access will be offered on fair, open, non-discriminatory terms in line with the principle of technological neutrality. Additional on-site capacities can therefore be used for other mobile standards and other radio-based solutions. This includes, for example, facilities of public authorities and organisations with security tasks, but also business models in the area of Internet of Things. However, technical radio solutions that do not allow mobility of users (in particular WLAN) are excluded from funding.
- (67) Although, as a rule, the backhaul of the subsidised target areas is to be achieved by means of sustainable fibre connections, the capacity to install fixed wireless access is also foreseen for exceptional cases. Exceptional situations may occur in

areas where technical difficulties do not allow for a fibre backhaul connection, for example in unsuitable terrain that is difficult to access, such as high mountains or islands. Legal reasons may include difficulties in obtaining the rights of way for a fibre backhaul connection, for example in nature-protected habitats or on private property. In addition, an exceptional situation may occur when the costs of establishing a fibre backhaul connection to a suitable PoI are exceptionally high and cannot be justified in regard to the scope, the purpose and the availability of funds for the scheme.

## **2.16. Use of existing infrastructure**

- (68) All existing mobile masts in Germany can be viewed on the BNetzA's website database.<sup>20</sup> Existing backhaul infrastructure such as fibre and duct networks can be accessed by registered market participants on the Infrastructure Atlas and it will be available in the GIS Tool.
- (69) In the planning process for the construction of the mobile passive infrastructure, the Granting Authority will take into account all existing infrastructure in the relevant target areas that can be accessed and re-used.
- (70) To this end, following the identification of the existing fixed backhaul, the Granting Authority will identify the suitable PoIs taking into account in particular the needs of all MNOs that committed themselves to operating the funded mobile site by signing a preliminary contract.
- (71) According to the German Authorities, almost 2 500 gap areas are in close proximity (less than 1 km, on average less than 500 meters) to a publicly funded fixed backhaul, with another 1 200 areas in less than 2 km distance to a publicly funded fixed backhauls. Since these fixed backhauls offer comprehensive open access requirements and excess capacity, they could be suitable PoIs. Existing infrastructure from vertically-integrated MNOs can also be used, provided the access is granted in a fair, non-discriminatory manner, including at a reasonable pricing.
- (72) Given that the access to existing infrastructures is necessary for the interested MNOs<sup>21</sup> to establish backhaul connections to core networks, the Granting Authority will determine suitable PoIs that allow for non-discriminatory use of existing infrastructures. To this end, the Granting Authority will address owners of existing infrastructures in the preparatory procedure, seeking formal commitments concerning non-discriminatory access and pricing. A PoI will only be determined as suitable if the owner of the existing infrastructure will: (i) commit in writing to grant all interested MNOs access to its existing infrastructure on fair, non-discriminatory terms, and (ii) clearly state the terms

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<sup>20</sup> <http://emf3.bundesnetzagentur.de/karte/>

<sup>21</sup> Only the access seekers to the aided infrastructure (the MNOs) will have to pay the fair, non-discriminatory price for accessing the existing infrastructure (fixed backhaul). The direct beneficiaries receive the aid for the rolling out of the mobile passive infrastructure from the PoI to the actual mobile site; they do not need to pay for access to existing infrastructure.

and conditions (including pricing) for fair and non-discriminatory access to its existing infrastructure.

- (73) In case the owner of the existing infrastructure refuses to undertake the commitment, the PoI to the respective existing infrastructure will not be considered as suitable. The German Authorities explained that Germany is willing to establish a longer connection in order to ensure that a suitable PoI can be reached. The results of the preparatory phase including the determined PoIs along with the formal commitment of owners of existing infrastructure to provide fair, non-discriminatory access to existing infrastructure will be published in the public call for applications. In case of disputes concerning the access and conditions for access to the existing infrastructure, the Granting Authority shall aim at mediating them. If the disputes persist, the BNetzA shall take a decision.
- (74) Any operator that owns or controls existing infrastructure (irrespective of whether it is actually used) in the target area and which wishes to participate in the competitive selection procedure, shall (i) inform the Granting Authority about the existence of that infrastructure, (ii) provide all relevant information including the prices for accessing the existing infrastructure to the Granting Authority in the preparatory procedure, and (iii) provide a commitment to offer fair, non-discriminatory access to their existing infrastructure.

#### **2.17. Wholesale access conditions**

- (75) The German Authorities will ensure that the direct beneficiaries will provide wholesale access to the aided infrastructure on an open, fair, non-discriminatory basis. This access will include at least access to electricity connections, ducts, dark fibre, masts, equipment rooms or technical cabinets, the suitable PoI, and all passive equipment supported by aid. Access to ducts and dark fibre is also granted to all interested third parties that are not active in the market as MNOs.
- (76) The German Authorities consider that a fixed rate for wholesale access is best suited to ensure fair, open, non-discriminatory use of the mobile sites and to reduce the administrative burden for the operators. Such a fixed rate shall be based on a commissioned Study, opinion of the BNetzA, and public consultation with market participants.
- (77) The wholesale access price will be set at a level to encourage mobile site operators to participate in the support measure. It will however be lower than that in competitive areas to reflect the uneconomical nature of the development for MNOs in the subsidised remote rural areas and also to act as an incentive to use the mobile sites in this respect. The BMVI has committed to give the companies active on the market an opportunity to comment on the charging model. The proposal will be published by BMVI on its website<sup>22</sup>. In addition, market participants and trade unions will be actively addressed. All access seekers, including the direct beneficiaries if active on this level, will always pay the same rental fee per year per mobile site, irrespective of the location, to be divided equally among the MNOs active at the particular mobile site. This fixed fee will cover the access to the mast structure, the space for hardware as well as backhaul

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<sup>22</sup> [www.bmvi.de/mobilfunk](http://www.bmvi.de/mobilfunk)

access to either dark fibre or duct, starting at the mobile site and ending at the suitable PoI. The service provided by the MNO does not influence the pricing model. The fixed fee is independent of the distance to the PoI in order to provide equal chances for all MNOs.

- (78) Operation of the subsidised mobile passive infrastructure will be ensured for at least seven years (earmarking period). Access to the funded infrastructure will be granted for an unlimited amount of time. In case of sale of the mobile passive infrastructure the sales contract will include an obligation on the buyer to allow for continued open, fair, non-discriminatory access to the mobile passive infrastructure also in the future. Failure to do so will result in a reclaim of funding.
- (79) This applies to all passive infrastructure, both new masts and existing GSM masts, which are upgraded for use with at least 4G, LTE technology.
- (80) All information concerning the wholesale access, including the rental fees will be permanently available on the website of the Granting Authority<sup>23</sup>.

### **2.18. National Regulatory Authority**

- (81) The BNetzA has been informed of the planned support scheme and was given the possibility to comment. It did not raise any concerns.
- (82) The BNetzA assumes a dispute settlement role in the implementation of open access and access to existing infrastructure including pricing.
- (83) Also, the BNetzA will ensure that no mobile sites from the support programmes or other contractual obligations are reported under the coverage obligations. This mechanism ensures that the support programme is indeed complementary to the existing mobile network coverage and is not used to comply with the coverage obligations attached to spectrum use.

### **2.19. Claw-back and monitoring mechanism**

- (84) The Granting Authority will monitor the correct use of the funds. In case of improper use, the Granting Authority will recover those funds in accordance with the general principles of administrative law. The Granting Authority will monitor in particular the competitive funding processes and the construction of the mobile passive infrastructure as well as the improvement of the mobile coverage in the target areas.
- (85) The Granting Authority will also implement a claw-back mechanism. The claw-back mechanism will be linked to unanticipated gains by the direct beneficiaries. To this end, after the end of the earmarking period, the Granting Authority must check with the direct beneficiaries whether rental income has increased beyond the level that the beneficiary indicated to BMVI as part of its application in the competitive selection process.

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<sup>23</sup> [www.netzda-mig.de](http://www.netzda-mig.de)

- (86) If after 7 years the income from the provision of the subsidised infrastructure is higher than the amount assumed in the calculation of the approved profitability gap, the excess shall be recovered if it exceeds a *de minimis* threshold of EUR 500.
- (87) The Granting Authority must document its assessment no later than six months after the expiry of the earmarking period.

## **2.20. Transparency and reporting of the measure**

- (88) The German Authorities will ensure, for the entire duration of the project, that all transparency requirements are met at each phase of the project. The relevant information about the mobile network expansion will be published on the website of the Granting Authority<sup>24</sup> that will allow easy access to all relevant acts and information regarding the project.
- (89) The following information will be published: the full text of the approved aid scheme and its implementing provisions, the date of granting, the name of the aid beneficiaries, aid amounts and aid intensities as well as the technology used. This information must remain published for at least ten years and be available for the general public without restrictions.
- (90) The Granting Authority as well as the beneficiaries are obliged to provide entitled third parties with comprehensive and non-discriminatory access to information on the mobile passive infrastructure (including ducts, dark fibre, electricity connection, foundation, access routes and masts) deployed under the measure, which will facilitate other operators' access to the infrastructure.
- (91) The Granting Authority and the beneficiaries will also publish detailed information concerning wholesale access conditions and prices.
- (92) The German Authorities will report to the Commission about the application and the progress of the measure every year. The report will contain the following key data concerning the aid project: the information already published in accordance with the transparency requirements (as above); the date on which the networks are expected to become operational; the wholesale products and access conditions and pricing; the number of parties seeking access and service providers in the network; information regarding any disputes regarding the project, if any, and in particular concerning wholesale access, as well as how such disputes were resolved.

## **2.21. Evaluation of the scheme**

- (93) The evaluation will assess a range of direct and indirect effects of the scheme, including appropriateness and adequacy of the scheme.
- (94) Concerning direct effects, the evaluation will primarily analyse how the infrastructure projects of the aid recipients have been designed. The central aspect here is their contribution to achieving the goal of rolling out mobile passive

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<sup>24</sup> [www.netzda-mig.de](http://www.netzda-mig.de). The aid granted to the beneficiaries selected in the competitive selection procedure above EUR 500 000 will be also recorded in the Transparency Award Module (TAM).

infrastructure in the target areas. It will be examined whether the subsidised projects have led to a sustainable, efficient and cost-effective passive infrastructure. In addition, it will be investigated whether a distortion of competition by the aid granted has been successfully avoided.

- (95) Concerning indirect effects, the evaluation will assess how mobile coverage in Germany would have changed in the period under review without corresponding aid measure and the additional structural effects that the aid scheme had on the assisted areas.
- (96) The German authorities have proposed an adequate list of indicators to address the evaluation questions.
- (97) The BMVI will support an evaluation panel in collecting and processing the data required for the evaluation. The Granting Authority will support the independent evaluation both with data from the programme administration as well as with interviews and insights into the granting processes.
- (98) Quasi-experimental methods are used to determine the causal effect of the aid on the aid recipients. At the current stage and given the programme design, the German authorities have proposed the difference-in-difference (DiD) method as the approach that will be used to assess the impact of the scheme on the aid recipients. Depending on the actual implementation of the scheme, DiD could be supplemented by propensity score matching (PSM). However, PSM is considered less suitable due to the limited number of enterprises involved.
- (99) The German authorities will submit to the Commission an interim report, tentatively in Q1 2022. In the interim report, Germany will provide an update on the implementation of the system and check whether the assumptions for the application of the proposed methodology (DiD with PSM) are being adhered to. In the event that the methodology could not be applied, the report will also contain a chapter explaining the suggestion of an alternative methodology for the evaluation. The proposed alternative methodology will aim to assess the causal impact of the aid on the beneficiaries and will be in line with the Common Methodology for State Aid Assessment. The methodology for the evaluation will be discussed and agreed with DG COMP.
- (100) The final report of the evaluation will be sent to the Commission by 31 December 2024 and successively published by the BMVI and in any other appropriate form. As far as legally possible, the data obtained will be made available to interested third parties. Trade and business secrets or data on critical infrastructures will be protected.
- (101) The evaluation will be carried out by an external company, which is to be determined in the context of an EU-wide competitive procurement procedure.

### **3. ASSESSMENT OF THE MEASURE**

#### **3.1. Existence of aid**

- (102) According to Article 107(1) of the Treaty on the Functioning of the European Union (TFEU), "[s]ave as otherwise provided in the Treaties, 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."

- (103) 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*

- (104) 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 financed.<sup>25</sup>
- (105) The construction of mobile passive infrastructure with a view of its future commercial exploitation constitutes an economic activity. The operation of an electronic communication network, even if limited to the provision of passive network elements, is an economic activity within the meaning of Article 107(1) TFEU.<sup>26</sup> The direct beneficiaries engage in activities consisting in offering goods and services on the electronic communications market i.e. construction and operation of mobile passive infrastructure. They are thereby considered undertakings within the meaning of Article 107(1) TFEU.

### 3.1.2. *State resources and imputability*

- (106) 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 it.<sup>27</sup> As described in recital (24), the measure is financed from the budget of Germany. The financing is allocated to the beneficiaries under the control of the Granting Authority, which, as shown in recital (16), is a fully state owned company and as shown in recitals (16) and (17) it has been designated by the State to administer the scheme.
- (107) Hence, State resources are involved and the measure is imputable to the State.

### 3.1.3. *Economic advantage*

- (108) 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, that is to say in the absence of State intervention.<sup>28</sup>

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<sup>25</sup> Judgment of the Court of Justice of 10 January 2006, *Cassa di Risparmio di Firenze SpA and Others*, C-222/04, ECLI:EU:C:2006:8, paragraph 107.

<sup>26</sup> Judgment by the General Court of 24 March 2011, *Mitteldeutsche Flughafen and Flughafen Leipzig/Halle v Commission*, T-455/08, ECLI:EU:T:2011:117, paragraph 90 and following.

<sup>27</sup> Case C-482/99 *France v Commission* (hereafter: "*Stardust Marine*") ECLI:EU:C:2002:294.

<sup>28</sup> Judgment of the Court of Justice of 29 April 1999, *Spain v Commission*, C-342/96, ECLI:EU:C:1999:210, paragraph 41.

- (109) Direct beneficiaries will be granted direct grants amounting up to EUR 2.1 billion for the rolling out of mobile passive infrastructure in Germany. This enables the direct beneficiaries to provide goods and services in the target areas on conditions that would otherwise not be available.
- (110) The measure thus confers an advantage as compared to companies investing only on the basis of private funds under the same technical, commercial and legal conditions i.e. in the liberalised market.
- (111) It is hence considered that Germany grants an advantage to the direct beneficiaries which would not have occurred in normal market conditions.

#### *3.1.4. Selectivity*

- (112) To fall within the scope of Article 107(1) TFEU, a State measure must favour "certain undertakings or the production of certain goods". In the case at hand, the measure is aimed at the direct beneficiaries (recital (28)).
- (113) The measure thus targets only certain undertakings that are active in the electronic communications sector, in particular MNOs and construction companies or fibre optic companies specialised in the provision of passive infrastructure for mobile networks. It excludes, in principle, other electronic communications network and service providers, such as other construction and fibre companies active rather in the general industrial or other sectors of the construction industry, when these cannot provide mobile communications services.
- (114) As concerns the identification of the particular legal framework against which selectivity can be assessed, it is noted that the construction and operation of mobile networks is a liberalised economic activity usually conducted by commercial operators on the basis of private investments in the market. In such a framework, economic activities normally do not receive subsidies. Indeed, the deployment and operation of mobile passive infrastructure in the target areas is not justified by the nature of the liberalised market and the regulatory framework. In any event, the features of this legal framework cannot provide any justification for the granting of subsidies.
- (115) The measure is moreover territorially selective. Although the scheme covers the whole Germany, it is set up with the aim of rolling out mobile passive infrastructure only in the target areas in Germany.
- (116) The measure is therefore selective.

#### *3.1.5. Effect on trade and competition*

- (117) As regards the construction of infrastructure, the Commission considers that an effect on trade between Member States or a distortion of competition is normally excluded in cases where at the same time (i) an infrastructure typically faces no direct competition, (ii) private financing is insignificant in the sector and Member State concerned and (iii) the infrastructure is not designed to selectively favour a specific undertaking or sector but provides benefits for society at large.
- (118) The present case concerns the development of mobile passive infrastructure to be used only for the provision of mobile services in target areas in Germany. When looking at the mobile communications sector in Germany in general, it must be

concluded that there is significant private financing of the deployment of mobile passive infrastructure all over the country.

- (119) Also, the markets for deployment and operation of and access to mobile passive infrastructure, and the provision of mobile voice and data services are open to competition between operators, which generally engage in activities that are subject to trade between Member States. Also, the construction and operation of the mobile passive infrastructure may be delivered by a company from other Member States having cross-border activities.
- (120) It must therefore be considered that the support scheme in question is capable of distorting competition and has an effect on trade between Member States.

### 3.1.6. Conclusion

- (121) The Commission concludes that the notified support scheme constitutes State aid within the meaning of Article 107(1) TFEU.

## 3.2. Compatibility

- (122) The Commission has to assess whether the aid can be found compatible with the internal market.
- (123) Given the specificity of mobile networks (as opposed to the fixed networks which do not allow for the provision of voice and data services “on the move”<sup>29</sup>), the measure is not assessed under the Broadband Guidelines.<sup>30</sup> Therefore, the Commission assesses the compatibility of the scheme with the internal market pursuant to Article 107(3)(c) TFEU and in analogue application of the Broadband Guidelines, where appropriate.<sup>31</sup>
- (124) Article 107(3) TFEU provides for certain exemptions to the general rule set out in Article 107(1) TFEU that State aid is not compatible with the internal market. In particular, pursuant Article 107(3)(c) TFEU it may be considered compatible: "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

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<sup>29</sup> Performance gaps persist between fixed and mobile technologies in terms of capabilities (speed, latency, sensitivity to external electromagnetic and meteorological interferences). Therefore, mobile broadband was found to be complementary (not substitutable) to fixed broadband. See Study prepared for the European Commission DG Communications Networks, Content & Technology by WIK Consult, “Future electronic communications product and service markets subject to ex-ante regulation Recommendation on relevant markets, Final report” page 29-33, (“WIK Study”) available at: <https://ec.europa.eu/digital-single-market/en/news/study-future-electronic-communications-product-and-service-markets-subject-ex-ante-regulation>. The Commission reach a similar conclusion underlining also differences in price, stability on the network connection and secured access, in merger case M.8864 Vodafone / Certain Liberty Global Assets, paragraph 53, available at: [https://ec.europa.eu/competition/elojade/isef/case\\_details.cfm?proc\\_code=2\\_M\\_8864](https://ec.europa.eu/competition/elojade/isef/case_details.cfm?proc_code=2_M_8864)

<sup>30</sup> Communication from the Commission – EU Guidelines for the application of State aid rules in relation to the rapid deployment of broadband networks, OJ C 25, 26.1.2013, p.1 (hereafter the "Broadband Guidelines").

<sup>31</sup> See also State Aid SA.48324 (2018/N) – Germany Mobilfunk Bayern available at: [https://ec.europa.eu/competition/state\\_aid/cases/275029/275029\\_2029861\\_118\\_2.pdf](https://ec.europa.eu/competition/state_aid/cases/275029/275029_2029861_118_2.pdf).

extent contrary to the common interest". Thus, in order to be declared compatible, first, the aid must be intended to facilitate the development of certain economic activities or of certain economic areas and, second, the aid must not adversely affect trading conditions to an extent contrary to the common interest.<sup>32</sup>

(125) Under the first condition, the Commission examines whether the aid is intended to facilitate the development of certain economic activities. Under the second condition, the Commission weighs up the positive effects of the planned aid 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, and also by analogy with the Broadband Guidelines, the Commission assesses whether the aid remedies market failures or important inequalities, is appropriate as a policy instrument, and is necessary as well as proportionate.

### *3.2.1. Contribution to the development of an economic activity*

(126) The German Authorities have submitted that the scheme supports the development of an economic activity consisting in the deployment and operation of mobile passive infrastructure for the provision of high-performance mobile voice and data services of 4G and above in the target areas. To this end, the private operators will be incentivised to deploy elements of mobile passive infrastructure such as foundations, masts, electricity connections, ducts, dark fibre or access routes and also contribute with parts of the costs in areas where they would have not invested otherwise. The MNOs would be also incentivised to provide high-performance mobile voice and data services in areas which they would have not served otherwise.

(127) Indeed, as shown in section 2.9, the scheme would facilitate the development of the above mentioned economic activity in areas where such activity was either not present or only ensured at a level that would not fulfil the needs of a modern society.

(128) As shown in section 2.11, to ensure an incentive effect for the development of the indicated economic activity, operators in the German market will be asked if they intend to invest in mobile passive infrastructure in the scheme's potential target areas during the next three years. Also, German Authorities will ensure that the target areas would have not been supplied on the basis of the coverage obligations attached to spectrum use. Only in case such investments are not foreseen in the target areas can the aid be granted.

(129) The Commission therefore considers the aid scheme to have an incentive effect to further develop this economic activity in a manner that promotes connectivity and access to high-performance mobile voice and data services by citizens and businesses in the Union.

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<sup>32</sup> Judgment of 22 September 2020, Case C-594/18 P, Austria v Commission (Hinkley Point C), ECLI:EU:C:2020:742, para. 19.

3.2.2. *Weighing the positive effects of the aid with any the negative effects in terms of distortions of competition and adverse effects on trade*

3.2.2.1. Positive effects of the aid

- (130) The scheme will facilitate access to high-performance mobile voice and data services which forms a part of the fundamental needs of a modern society. As shown in recital (11), in Germany, once the coverage obligations are fulfilled and taking into account the planned private and public investments, by the end of 2024 there will still remain approximately 4.400 gap areas by mobile services of 4G and above. The scheme will provide support in these gap areas, taking into consideration the results of the mapping and the public consultation.
- (131) Many Europeans own a smartphone but cannot always use its full potential given the gaps in mobile coverage or poor service quality. This also holds true for the aid scheme's potential target areas. The measure will allow for people living, working or travelling in the target areas to receive access to high-performance mobile voice and data services. This will also allow people entering and moving through such areas to continue communicating seamlessly. It will also facilitate the work of emergency doctors serving the target areas. Indeed, the abrupt termination of telephone conversations when being into an area without mobile coverage or the lack of access to internet for devices such as the cardiac pacemakers can have serious consequences for patients. In addition, the scheme may also support projects such as automated driving or smart farming.
- (132) All this can be seen against a wider ambition of the European Union that there should be access to mobile data connectivity throughout the territory, in all places where people live, work, travel and gather.<sup>33</sup> The European Electronic Communication Code also identifies the general objective of promoting connectivity and access to, and take-up of very high capacity networks, including mobile networks, by all citizens and businesses of the Union.<sup>34</sup>
- (133) Therefore, public intervention for rolling out mobile passive infrastructure would be beneficial in the target areas.

3.2.2.2. Limited negative effects: the aid measure does not unduly affect trading conditions to an extent contrary to the common interest

- (134) Article 107(3)(c) requires the assessment of any negative effects on competition and on trade in the relevant product markets, that is, in this case, concerning the deployment and operation of and access to mobile passive infrastructure, and the provision of mobile voice and data services.

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<sup>33</sup> Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions – Connectivity for a Competitive Digital Single Market: Towards a European Gigabit Society, COM(2016) 587 final, (“Gigabit Communication”) page 8.

<sup>34</sup> See Article 3 (2) (a) and (d) of Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code.

(135) When designing the measure, German Authorities ensured that the negative effects of the measure are limited. Indeed, German Authorities ensured intervention in market failures areas only, and ensured that the State aid is (a) necessary, (b) appropriate as a policy instrument, (c) proportionate and (d) transparent. An (e) evaluation report will assess if the scheme reaches its goal.

(a) Necessity of the aid: absence of market delivery due to market failures or important inequalities

(136) A market failure exists if markets, left on their own, without 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 the cost.

(137) Existing and future applications of the Gigabit society rely on performant mobile networks that are available on a balanced geographical basis. The need for mobility but also for having access to information “on the move”, together with the development of new forms of economic activity and ways of working which rely on seamless online access, require both data and voice mobile services with increasingly higher performance. In the potential target areas there is either no mobile network or only a 2G network, which cannot satisfy the above mentioned needs.

(138) As shown by the current mapping and verified in the public consultation, private companies do not find it profitable to invest in remote or less densely populated areas of Germany. Also, the target areas fall outside of the coverage obligations attached to spectrum use. Indeed, as shown in recital (37), the MNOs will not report subsidised infrastructure to the BNetzA under their coverage obligations arising out of their spectrum rights of use. Furthermore, potential fixed broadband services in those areas cannot meet the needs covered by mobile services, namely to provide access to voice and data mobile services "on the move". Fixed broadband was found to be complementary (not substitutable) to mobile broadband.<sup>35</sup>

(139) It can therefore be concluded that the notified measure contributes to address a market failure in sparsely populated and topographically difficult areas of Germany where private operators do not provide mobile services with technologies above 2G and are not willing to invest on a commercial basis in the near future, resulting in a positive development of the economic activity at issue.

(b) Appropriateness of State aid as a policy instrument and the design of the measure

(140) It should also be assessed whether State aid is an appropriate policy instrument to further develop the economic activity at issue or whether there are alternative, better-placed instruments. Alternative instruments include mobile coverage obligations attached to spectrum licenses and demand-side measures.

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<sup>35</sup> See WIK Study, page 29-33 and Merger case M.8864 Vodafone/Certain Liberty Global Assets, paragraph 53.

- (141) Mobile coverage obligations aiming at promoting further mobile coverage of the German territory have been attached to spectrum rights of use assigned to the mobile operators. As shown in recital (10) compliance with the coverage obligations will not provide full geographical coverage and, thus, will not be able to ensure a proper development of this economic activity within the target areas.
- (142) Furthermore, demand-side measures are not appropriate means to develop the economic activity. In fact, the required mobile passive infrastructure for the provision of mobile services on 4G (or above) networks in the target areas does not yet exist and its construction would not be economically viable for network providers due to the low population density in these areas.
- (143) The Commission therefore considers the aid scheme to be an appropriate policy instrument for developing the economic activity by closing gap areas in Germany.

(c) Proportionality: aid limited to the minimum necessary

- (144) The German Authorities have designed the scheme in such a way as to minimise the State aid involved and potential distortions of competition arising from the public intervention. In this respect, and by analogy with the Broadband Guidelines<sup>36</sup> (see also recital (123)) the Commission notes the following elements in the design of the State aid scheme:
- (145) **Detailed mapping and public consultation:** Germany will identify all potential target areas in a map displaying the mobile coverage in Germany (see section 2.10). Also, the main characteristics of the measure have been made public in the public consultation of 1 August 2020, as described in recitals (42) and (43). The specific target areas will be identified following specific public consultations (see recitals (44) to (46)). The Commission considers this to be sufficient to ensure proper publicity and identify which geographic areas will be covered by the measure.
- (146) **Competitive selection process and most economically advantageous offer:** Competitive selection processes as described in recitals (47) to (52) ensure that there is transparency for all investors wishing to bid for the rolling out and operation of the subsidised projects.
- (147) The beneficiaries will be chosen in a fair, transparent and non-discriminatory selection procedure. On the basis of the detailed explanation in recitals (53) to (58) above, the Commission is satisfied that all participants will be assessed according to pre-established qualitative award criteria that will be weighed against the price offered in the bid.
- (148) The Commission considers this to be sufficient to ensure for a competitive selection processes and the most economically advantageous offers.
- (149) **Step change:** A step change can be demonstrated if, as the result of the public intervention: (1) significant new investments are undertaken by the beneficiaries and (2) the subsidised infrastructure brings significant new capabilities to the market in terms of service availability, capacity, speeds and/or competition. As

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<sup>36</sup> See in particular recital 78 of the Broadband Guidelines.

mentioned in recitals (59) to (64), the measure allows for significant new investments capable of providing high-performance voice and data mobile services in areas where there is currently no mobile coverage or only 2G and below. It also allows for upgrading the backhaul infrastructure to provide for high-performance voice and data mobile services. The aid therefore allows for a step change.

- (150) **Technological neutrality:** As described in recitals (65) to (67), any technology capable of supporting the provision of mobile broadband services at speeds of at least 50 Mbps download per antenna sector and latency of max. 150 milliseconds is eligible. Also, wholesale access will be offered on open and non-discriminatory terms in line with the principle of technological neutrality.
- (151) At the current stage, 4G (which is based on the LTE technology) and above are capable to offer the required speed and latency per antenna sector. LTE-based mobile networks and the following generations offer a superior performance for the combination of the essential qualitative criteria of voice and data transmission as well as unrestricted mobility. Namely, the LTE and following generations of mobile networks fulfil the following requirements: (i) they enable operators to provide services of advanced voice communication and high-speed data transmission, (ii) allow the use of a single device widely available for receiving both types of services, (iii) allow a wider range of roaming possibilities and (iv) can operate on the basis of increasingly more available (also re-farmed) spectrum allocations.<sup>37</sup>
- (152) In view of the requirements of Germany, other possible wireless technologies do not seem generally capable of offering an access equivalent, in terms of its characteristics and quality, to the access provided by mobile networks.
- (153) WIFI technologies are, as a general rule, not equivalent as they do not provide full mobility. LTE technology networks (and above) offer much more coverage and wider reach than WIFI solutions, which force users to depend upon hotspots in each area and to switch after a short distance to another hotspot and possibly provider. With (at least) LTE technology, on the other hand, users will be afforded seamless wide-area connectivity. In other words, whilst users would have to log in to a new WIFI network once they are leaving their current network, connectivity with LTE technology is not interrupted when moving into another antenna sector.
- (154) WIFI networks are also inferior in terms of online security, which is particularly important for business users. Whilst LTE (and above) networks offer enhanced privacy, security, and safety, WIFI solutions do not, especially on mobile devices. Finally, WIFI solutions have much higher latency and varying quality of the services offered.

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<sup>37</sup> The envisaged deployment of LTE corresponds to the requirement laid down in Article 6(3) of the Commission's Radio Spectrum Policy Programme (Decision No 243/2012/EU of the European Parliament and of the Council of 14 March 2012, establishing a multiannual radio spectrum policy programme, OJ L 81, 21.3.2012, p.7) to foster network upgrades to the latest most efficient technology.



- (155) As regards satellite technology solutions, whilst being a full mobile solution from the technological point of view<sup>38</sup>, it has become in practice rather a substitute for fixed-line electronic communications services since the devices are of larger size and weight than mobile devices, which makes them unsuitable for the use as mass market mobile device in the gigabit society. A user using a mobile device with one of the nation-wide mobile networks, who enters one of the target areas, would not be able to use that device by connecting to the satellite. He would therefore not be able to continue communicating seamlessly if a satellite connection were the only one available in the target area. Finally, in addition to their much higher latency, mobile satellite services and devices are generally also much more expensive than LTE services and devices, which raises issues of affordability.
- (156) The Commission considers this to be sufficient to ensure the respect of the principle of technology neutrality.
- (157) **Use of existing infrastructure:** As stated in recitals (68) to (74), the German Authority ensures access to a suitable PoI which allows for fair and non-discriminatory access to the necessary existing infrastructure.
- (158) In the planning process for the deployment of the mobile passive infrastructure, the Granting Authority will take into account all existing infrastructure in the relevant target areas that can be accessed and used to realize synergies. Also, the option of upgrading existing masts will be duly considered in each single project.
- (159) The Commission considers that this approach allows for finding the best and most cost-efficient solution and for avoiding unnecessary duplication of infrastructure.
- (160) **Wholesale access and pricing:** As explained above in recitals (75) to (80), all interested parties will have fair, transparent and non-discriminatory access to the subsidised mobile passive infrastructure. The rent for using the mobile passive infrastructure is a fixed fee and it is the same for all interested MNOs. The establishing of suitable PoIs will also ensure for non-discriminatory use of existing infrastructures by all MNOs.
- (161) Effective wholesale access to the mobile passive infrastructure will not be limited in time. The same access conditions will apply on the entirety of the network including where existing infrastructure will be used. The access obligations shall be enforced irrespective of any change in ownership, management or operation of the subsidised infrastructure.
- (162) The Commission considers this to be sufficient to ensure for a fair, transparent and non-discriminatory access to the subsidised mobile passive infrastructure.
- (163) **Monitoring and clawback mechanism:** As shown in recital (84), the Granting Authority will closely monitor the implementation of aid schemes during the entire duration of the projects.

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<sup>38</sup> Mostly used in areas not covered by mobile communications services, for example on oceans, in deserts and other regions without human settlement.

(164) Concerning the clawback, as shown in recitals (85) to (87), the German Authorities will implement a clawback mechanism. This will guarantee that direct beneficiaries cannot generate excessive profits.

(d) Transparency and reporting

(165) The German Authorities shall publish on a central website the necessary information as indicated in recitals (88) to (91). Direct beneficiaries are obliged to provide entitled third parties with comprehensive and non-discriminatory access to information on their infrastructure deployed under the aid scheme. Furthermore, as indicated in recital (92), for the duration of the aid scheme, the German Authorities will consolidate key information on the individual aid projects and report every year to the Commission.<sup>39</sup> These are important tools to minimise the scheme's impact on the internal market since stakeholders or the Commission will be able to react against possible unlawful aid.

(e) Evaluation

(166) The Commission can require that aid schemes with large budgets be subject to an evaluation. As this is the case for the present State aid scheme, the German authorities notified an Evaluation Plan.

(167) As described in recitals (93) to (101), the Commission considers that the notified evaluation plan contains the necessary elements: the objectives of the aid scheme to be evaluated, the evaluation questions, the result indicators, the envisaged methodology to conduct the evaluation, the data collection requirements, the proposed timing of the evaluation including the date of submission of the final evaluation report, the description of the independent body conducting the evaluation or the criteria that will be used for its selection and the modalities for ensuring the publicity of the evaluation.

(168) The Commission notes that the scope of the evaluation is defined in an appropriate way. It comprises a list of evaluation questions with matched result indicators. Data sources are individually defined for each question. Moreover, the evaluation plan sets out and explains the main methods that will be used in order to identify the impacts of the scheme.

(169) The Commission acknowledges the commitments made by the German authorities that the evaluation will be conducted according to the notified evaluation plan by an independent evaluation body selected as indicated in recital (101). The procedures envisaged for selecting such evaluation body are appropriate in terms of independence and skills. Moreover, the proposed modalities for the publication of the evaluation results are adequate to ensure transparency.

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<sup>39</sup> Such information should at least include besides the information already made public on the central website, the date when the supported infrastructure is put into use, the number of mobile network providers using it, the number of houses covered by the mobile communications networks, take-up rates.

- (170) The Commission notes the commitment made by Germany to tentatively submit an interim report in Q1 2022 and a final evaluation report in by 31 December 2024 at the latest.
- (171) The scheme has to be suspended if the evaluation report is not submitted in good time and sufficient quality.
- (172) The Commission can apply the procedure concerning existing aid foreseen by the Procedural Regulation.

#### 3.2.2.3. Conclusion on limited negative effects

- (173) As shown above, the aid scheme is designed to avoid crowding out private investment and its effects are confined to areas in Germany that are characterized by mobile coverage gaps, i.e. areas where no high-performance voice and data mobile services are available currently or within the following three years.
- (174) In the light of the above arguments, it can be concluded that negative effects of the aid scheme on the markets concerning the deployment and operation of and access to mobile passive infrastructure, and the provision of mobile voice and data services, if any, are limited. Thereby, the aid measure cannot unduly affect trading conditions to an extent contrary to the common interest.

#### 3.2.2.4. Weighing the positive effects of the aid with any negative effects in terms of distortions of competition and adverse effects on trade

- (175) 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.
- (176) As shown in section 3.2.2.1., the subsidised mobile passive infrastructure will enable the provision of high-performance voice and data mobile services to end-users, and bring about significant mobile network capabilities in terms of availability and capacity in the target areas. It will thereby help reducing the inequalities and digital divide, allow for seamless communication and reduce obstacles in emergency situations. The measure will deliver broadband access “on the move”, better choice for consumers, higher quality and innovation. Hence, consumers' access to mobile voice and data services in these areas will be strongly improved.
- (177) Also, as shown in section 3.2.2.2, the German Authorities have designed the notified measure in such a way as to minimise the potential distortion of competition arising from the measure.
- (178) Furthermore, by granting access to the supported mobile passive infrastructure to all interested parties as described in recitals (75) to (79), the measure avoids the creation of local monopolies and aims at creating additional competition in target areas. The overall impact on competition is deemed to be positive. The negative effects on competition, if any, would be very limited.
- (179) In light of the above, the positive impact of the aid 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 and operation of mobile passive infrastructure and the provision of high-performance mobile voice and data services of 4G and above. Moreover, such aid does not adversely affect competition to an extent contrary to the common interest.

#### 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) of the Treaty on the Functioning of the European Union.

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  
[Stateaidgreffe@ec.europa.eu](mailto:Stateaidgreffe@ec.europa.eu)

Yours faithfully,

For the Commission

Margrethe VESTAGER  
Executive Vice-President