



THE STATE OF RURAL DIGITALISATION IN EUROPE

Draft briefing

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INTRODUCTION

The creation of a Digital Single Market (DSM) was listed among the ten priorities of the mandate of the 2014-2019 Juncker Commission. A strategy to develop the DSM was adopted in May 2015. It aims to ascend the free movement of people, services and capital into the virtual realm. This will ensure that both businesses and individuals can access and engage in online activities, whilst maintaining fair competition, with a strong enforcement of consumer and personal data protection. An absolute prerequisite for this achievement is the provision and take-up of very high-capacity networks to successfully diffuse the use of products, services and applications as outlined in the Digital Single Market. In the spirit of this acknowledgement — and in support of the DSM — the European Commission committed to supplying every European household with broadband of at least 30 Mbit/s by 2020, and half of European households with connectivity rates of more than 100 Mbit/s.

In September 2016, the Commission expanded these broadband objectives by announcing their strategy on Connectivity for a European Gigabit Society. The three new main strategic objectives for 2025 are:

- Gigabit connectivity for all of the main socio-economic drivers;
- Uninterrupted 5G coverage for all urban areas and major terrestrial transport paths;

- Access to connectivity rates of at least 100 Mbit/s for all European households.

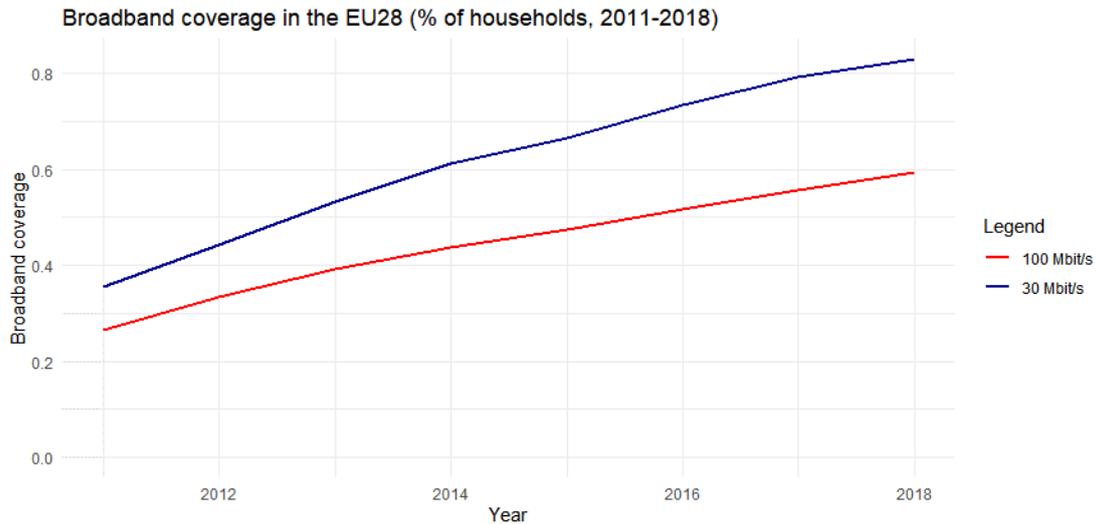
This briefing document takes stock of the digital connectivity of European households, specifically rural households. In the following sections, a comparison between the connectivity of households in rural areas across Europe is shown, based on figures from 2011 to 2018 at NUTS 3 level. The briefing also illustrates the progress towards the achievement of the EU's broadband objectives.

1. THE GAP BETWEEN URBAN, INTERMEDIATE AND RURAL AREAS

Significant progress has been made over the past couple of years regarding the objectives defined in the Digital Agenda for Europe. In 2016, 51% of European households had access to broadband connectivity rates of at least 100 Mbit/s, surpassing its benchmark with a 4-year margin. Despite significantly higher growth rates, the goal of providing every single European household with 30 Mbit/s access had not yet been reached as of 2018. Hitting this target requires the identification of specific problem areas which cannot be determined by the aggregate case depicted in Figure 1. As it is suspected that lower connectivity is related to geographical features, in the following sections, a disaggregated analysis of European regions by remoteness is provided.



Figure 1: Broadband coverage in the EU28 (2011-2018), as expressed by the share of households enjoying high-speed broadband access of at least 30 Mbit/s and 100 Mbit/s, respectively.



Source: UGent, based on data from Point-Topic (2019).

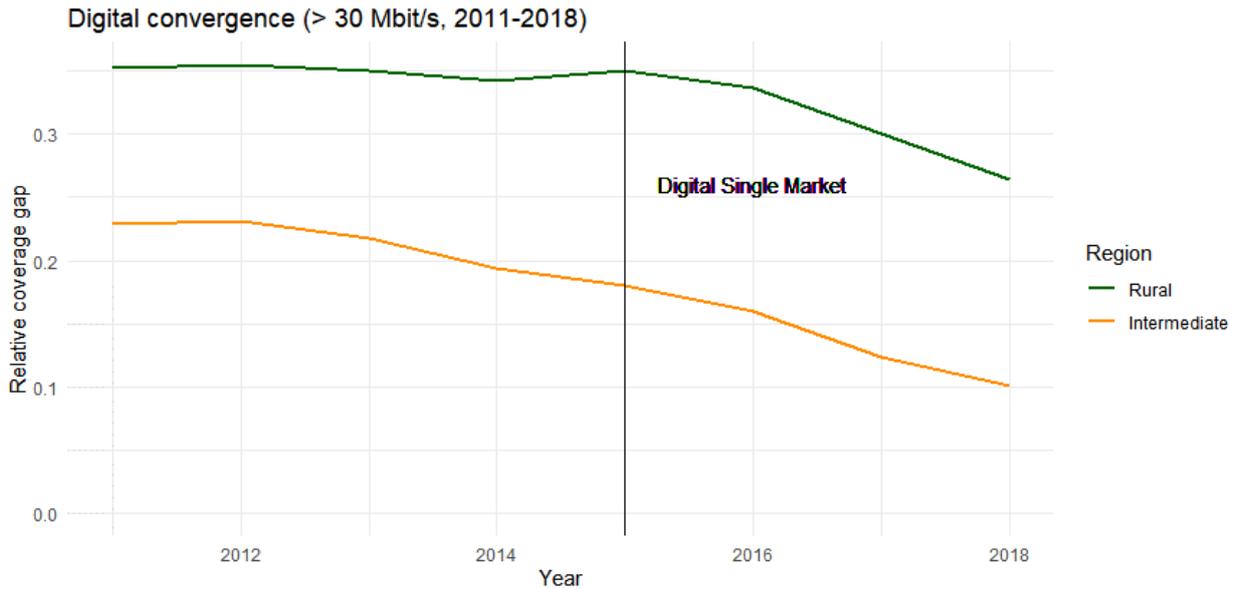
Figures 2 and 3 disaggregate the time series above according to Eurostat's urban-rural NUTS 3 typology. Regions are either classified as predominantly urban, predominantly rural, or intermediate, based on data for 1 km² population grid cells and the presence of main cities. In each graph, the differences in broadband coverage between rural/intermediate and urban areas is depicted. The announcement of the Digital Single Market and its subsequent broadband objectives had immediate positive effects on Europe's 30 Mbit/s network coverage. European rural areas had always lagged behind relative to their urban and intermediate counterparts, and this coverage gap remained stable around its peak until 2015 prior to the introduction of the DSM strategy. Afterwards, rural areas began to catch up with urban regions in terms of network coverage as measured by the proportion of households having access

to high-speed broadband of at least 30 Mbit/s. Intermediate regions were already closing down the gap since 2012, but saw a significant acceleration of this digital convergence process after the DSM adoption.

However, the divide remains large. While urban areas were well on their way to reaching the objective of 100% household coverage in 2020 (91% as of 2018), only an estimated 65% of rural households enjoyed access to broadband speeds of at least 30 Mbit/s in 2018. Although the circumstances in rural areas concerning high-speed access of no less than 100 Mbit/s seem even less favourable (the difference with predominantly urban regions became larger after the DSM announcement), rural areas were closer to reaching their 2020 target compared to the 30 Mbit/s objectives. In 2018, 40% of households in rural regions were covered by these high-speed networks.

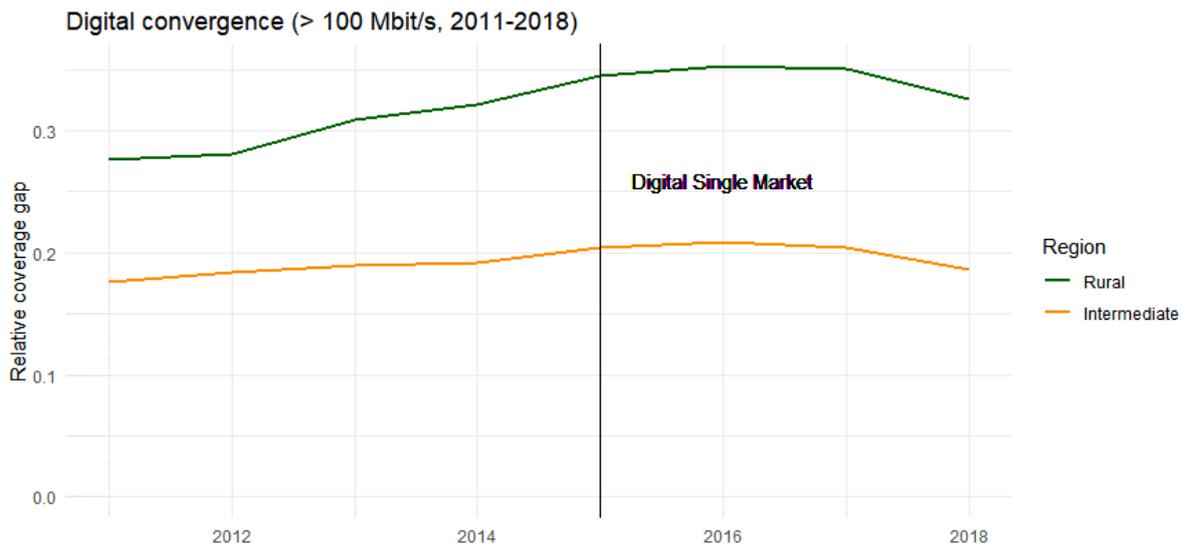


Figure 2: The broadband coverage gap (network speeds > 30 Mbit/s) in predominantly rural and intermediate EU28 regions, as expressed by the percentage-point difference in aggregate household coverage towards predominantly urban areas (2011-2018).



Source: UGent, based on data from Point-Topic (2019).

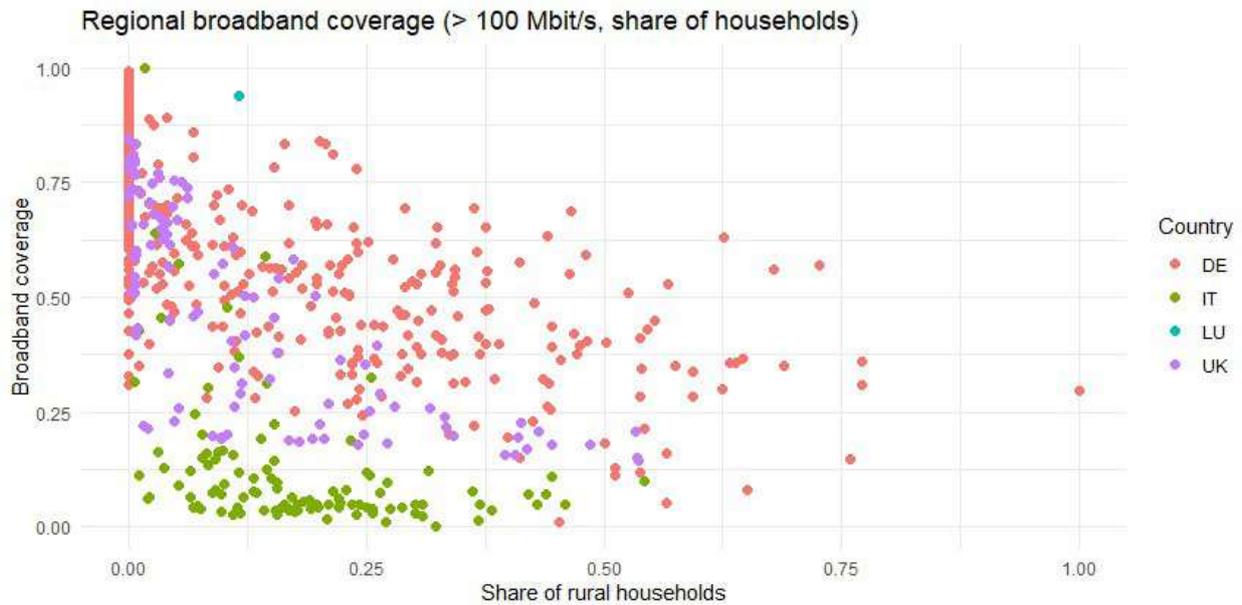
Figure 3: The broadband coverage gap (network speeds > 100 Mbit/s) in predominantly rural and intermediate EU28 regions, as expressed by the percentage-point difference in aggregate household coverage towards predominantly urban areas (2011-2018).



Source: UGent, based on data from Point-Topic (2019).

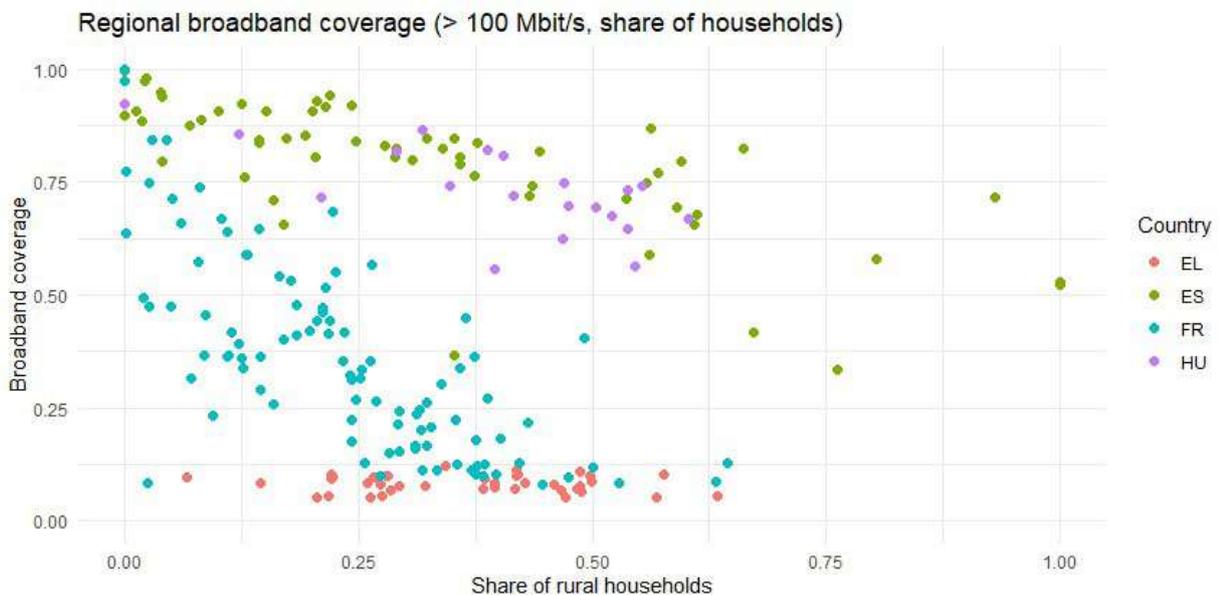


Figure 5: The share of rural households within specific NUTS 3 regions in Germany, Italy, Luxembourg and UK, and their respective broadband coverage (100 Mbit/s). The urban-rural distinction is further deepened by utilising population grid cells to more accurately estimate the share of rural households in every region. As a result, all NUTS 3 regions are included.



Source: UGent, based on data from Point-Topic (2019).

Figure 6: The share of rural households within specific NUTS 3 regions in Greece, Spain, France and Hungary, and their respective broadband coverage (100 Mbit/s). The urban-rural distinction is further deepened by utilising population grid cells to more accurately estimate the share of rural households in every region. As a result, all NUTS 3 regions are included.



Source: UGent, based on data from Point-Topic (2019).

3. THE SOCIO-ECONOMIC EFFECTS OF RURAL DIGITALISATION

A strategically coordinated push could lift these regions out of their digital poverty traps. If Europe wants to be on the right track towards its 2025 broadband commitments, it will need to define a structural solution for the continuous lagged digital state of rural areas. Rural regions seem to be finally catching up in terms of 30 Mbit/s, but the digital divide with regards to high-speed broadband access of at least 100 Mbit/s continued to widen until 2017. In this regard, the definition of the 2025 broadband objectives are not more ambitious than their predecessors. It is explicitly stated that uninterrupted 5G coverage is a priority only in urban areas, and when access to 100 Mbit/s networks will finally become the norm in rural areas, it can be expected that most of the urban areas will have already moved on towards higher speeds.

Digitalisation is an increasingly rapid phenomenon, and the basic requirement for preventing a digital divide is to ensure simultaneous access to these latest technologies both in rural and urban areas. This will enable both to develop and evolve from the same starting point, at an equal pace towards a shared future. Pinpointing specific regions that are heavily lagging

behind, as illustrated by the graphs above, is a necessary first step towards this vision. However, before being able to deal with specific lagged regions and countries, it is equally important to be aware of the specific socio-economic effects and consequences of digitalisation in urban and rural areas. This will be the main subject of the presentation at the first meeting of the Rural Digitalisation Forum, for which this briefing document serves as a short introduction.

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