Digital Transformation

Insights from the European Broadband Community

A Workshop report with contribution of the European Broadband Community participating in the "Governmental Day" Workshop in the frame of the FTTH Conference 2019, Amsterdam

atene KOM

Invalidenstraße 91 | 10115 Berlin
Tel. +49 (0)30 / 22183-0
Fax +49 (0)30 / 22183-1199

Magdalena Jähler
Dr. Peyman Khodabakhsh
Project Manager
Tel. +49 (0)30 / 22183-3113
p.khodabakhsh@atenekom.eu

Interreg North Sea Region CORA
European Regional Development Fund
EUROPEAN UNION

1 Executive Summary

atene KOM hosted the fifth “Governmental Day” Workshop on the 12th of March 2019 in the frame of the FTTH Conference in Amsterdam, The Netherlands. The purpose of this Workshop was to provide an interactive platform for broadband stakeholders in the EU with a strong focus on addressing the challenges of broadband deployment and digitisation for municipalities, regions and their public administrations. The approach was not only to inform stakeholders about policy developments on the European and Member States’ level, but also to present best-practice solutions to given challenges, and to support the establishment of a strong community of all actors involved in the digitisation process. About 150 participants from the public (national, regional and local authorities), private and academic sector all over Europe joined the “Governmental Day” Workshop this year.

The opening keynote by the European Commission gave an update on broadband policy, including strategic objectives for 2025 and the current regulatory and financial framework. In their inspirational speeches, two winners of the European Broadband Awards 2018 introduced local broadband deployment initiatives from Wales and Sweden. Ensuring a fine-tuned and adjusted regulatory framework for electronic communications, a member of BEREC explained how markets in different geographical areas depend on different competitive conditions and are thus subject to different market analysis. The Finnish national broadband objectives and connectivity aims were introduced by the Finnish Ministry of Transport and Communication. Successful planning of broadband can be supported by mapping tools for effective implementation and monitoring of infrastructure roll-out – an approach presented by atene KOM GmbH. The last presentation picked up on the three main dimensions to bring about digital transformation: Digital infrastructure, digital services and digital skills. In the EU-funded Interreg project “CORA – **CO**nnecting **R**emote **A**reas with digital infrastructure and services”, partners from seven EU Member States develop a digital transformation ecosystem model, which provides a comprehensive set of guiding measures towards digitalisation in rural areas.

Special feature of the “Governmental Day” Workshop is the interactive session where participants can express their views and talk about their experiences. In this fifth Workshop edition, participants came together in three working groups to identify measures that speed up broadband infrastructure development, solutions to support the uptake of digital services and approaches for improving the level of digital skills amongst communities.

This report summarises the Workshop presentations and the outputs of the interactive session expressed by Workshop participants.

2 Background and objectives of the Workshop

The European Commission's strategy on Connectivity for a European Gigabit Society adopted in September 2016 sets the vision of a Europe, where availability and take-up of high-capacity networks enable the widespread use of products, services and applications in the Digital Single Market. The strategy states that by 2025 all schools, transport hubs and main providers of public services as well as enterprises should have access to internet connections with download/upload speeds of 1 Gbps and uninterrupted 5G coverage for all urban areas and major terrestrial transport paths. All European households, rural and urban, should have access to networks offering a download speed of at least 100 Mbps, which can be upgraded to 1 Gbps. The European Electronic Communications Code facilitates the roll-out of very high capacity networks through increased competition and predictability for investment.

Geographically segmented areas (i.e. remote and rural areas) are facing severe difficulties resulting from their limitations in broadband connectivity. Infrastructural investment in these areas is not adequately delivered due to e.g. high financial burdens for private investors. Associated with the lack of high-speed broadband infrastructure, digital skills and the use of digital technologies, businesses, communities and public administrations fail to meet a certain level of progress. Local authorities are often not aware of their current and future-coming digital needs and end-users have limited skills to create an effective level of demand.

The "Governmental Day" Workshop addresses these issues by

- informing stakeholders about policy developments on the European and Member States' level (keynote by European Commission, presentations from Finnish Ministry),
- introducing possible solutions to given challenges (presentations from winners of European Broadband Awards 2018),
- presenting a European interregional cooperation project which develops measures towards digitalisation in rural areas, and
- facilitating a fruitful exchange between all participants coming from different EU Member States thus knowing different regional situations in order to consolidate a robust broadband stakeholder community.

The aim of the interactive session was to discuss the different dimensions for digital transformation, especially in rural areas, and to exchange ideas and potential solutions to overcome the rural digital divide. By means of exchanging experiences and views, participants had the chance to learn from each other and benefit from ideas that may be transferred to their regions or applied in a different context.

3 Presentations

In her keynote, **Alexandra Rotileanu, Policy Officer Unit B5 at DG CONNECT**, gave an update on broadband policy by the European Commission. Alexandra Rotileanu provided a thorough insight into the strategic connectivity objectives for 2025 set within the "European Gigabit Society" and the European Electronic Communications Code. She emphasised the financial support for broadband under the current multiannual financial framework (MFF) and especially outlined the telecoms strand under the Connecting Europe Facility (CEF) that also includes the Connecting Europe Broadband Fund (CEBF) and the WiFi4EU initiative. The new MFF 2021 to 2027 allocates 3 billion EUR to CEF DIGITAL and also looks e.g. for synergies with transport and energy networks to enable the digital transformation. Alexandra Rotileanu was satisfied with the success of the WiFi4EU program – the vouchers for European municipalities to be applied for the installation and purchase of Wifi equipment were exhausted within the first hour after the opening of the first call for funding. The next call is expected in spring 2019.

Figure 1 Alexandra Rotileanu, Policy Officer Unit B5 at DG CONNECT, European Commission. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Two winner projects of the European Broadband Awards 2018 presented their local initiatives.

In her speech, **Carina Dunk** introduced the **Michaelston-y-Fedw Internet Community Interest Company, UK** – a project that gained start-up capital from the local community and provides broadband to a small region in Wales. The project is a great example of installing a gigabit up- and download FTTP network. Any profits generated by the broadband services are reinvested back into the services and infrastructure, or in further community-level projects, identified by the shareholders of the community interest company.

Figure 2 Carina Dunk, Project Manager Michaelston-y-Fedw Internet Community Interest Company, UK. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Figure 3 Kristina Lundberg, Business manager at Sunne Municipality. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Kristina Lundberg presented the **Welcoming Sunne in Sweden to the Network of the Future**-project. In this project, the old copper network was replaced with fibre and mobile networks in this Swedish municipality. Thanks to the successful collaboration of the municipality with the internet provider Telia, all residents benefit from a modern communication infrastructure with download speeds of up to 1 Gbps. Besides the infrastructure, the municipality and internet service provider Telia launched an educational initiative “More Digital”, as a key part of helping seniors take their first steps to become digitally literate.

Fine-tuning the regulatory framework based on **different geographical areas and market and competitive conditions** was the topic of **Jorge Infante Gonzalez**’ presentation. The Co-Chair of the Market & Economic Analysis Experts Working Group at BEREC explained how the Body of European Regulators for Electronic Communications ensures independent, consistent, high-quality application of the European regulatory framework for electronic communications markets for the benefit of Europe and its citizens. Thereby, the concept of geographical segmentation aims to differentiate market definition or imposition of remedies in different geographical areas depending on different competitive conditions. Geographical differences can occur for example in the coverage of alternative networks, retail or wholesale market shares of the incumbent or economies of scale.

Figure 4 Jorge Infante Gonzalez, BEREC. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Finland's Presidency of the Council of the European Union begins on 1 July 2019. On this occasion, the Member State was selected to present their broadband and connectivity aims in the frame of the Workshop. Represented by **Maija Ahokas, the Ministry of Transport and Communications Finland** determines the objective of access to at least 100 Mbps for all households by 2025, which is in line with the objectives of the European Commission. As an outstanding fact: Finland is the top European user of mobile data and benefits from a 3G/ 4G network coverage of over 99%. Finland's aim is to be amongst the international leaders in testing, developing and introducing 5G networks.

Figure 5 Maija Ahokas, Ministry of Transport and Communications, Finland. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Christian Zieske emphasised in his presentation that **successful broadband roll-out can be supported by a geo-information system (GIS)** – the visualisation of data in GIS facilitates analyses, decisions and planning processes of the public sector. The Federal Funding Programme in Germany makes use of the Geonode tool visualising network components. An initiative by the German head Chamber of Industry and Commerce and atene KOM GmbH provides regional industry and chambers of industry and commerce with information on where broadband development is planned in commercial or industrial zones. Also the Broadband Competence Centre in the federal state of Schleswig-Holstein uses Geonode as a new Broadband Information System.

Figure 6 Christian Zieske, atene KOM GmbH. Photocredit: Florian Schuh, atene KOM GmbH 2019.

In the last Workshop presentation, **Peyman Khodabakhsh (atene KOM GmbH) and Wouter Degadt (Interkommunale Leiedal)** took up the three main dimensions to bring about digital transformation: Digital infrastructure, digital services and digital skills. In the EU-funded **Interreg NSR Project "COnnecting Remote Areas with digital infrastructure and**

services (CORA), 18 partners from seven EU Member States develop a digital transformation ecosystem model, which provides a comprehensive set of guiding measures towards digitalisation in rural areas. CORA partners will help local authorities to identify their common challenges and empower them to exchange experiences, test innovative solutions and create an advanced digital environment. To do so, CORA emphasises the main components of digital divide, namely lack of digital infrastructure, services and skills. The presented CORA pilot projects illustrated the diversity of the digital transformation.

- In Leiedal (Belgium), an intelligent business park with open access optical fiber infrastructure is part of the project. There, the data collected with the help of sensors and cameras are used for measuring the air quality and for ensuring the safety of the business park.
- The THINK project at the University of Lincoln (UK) is about bringing people and technology together in a meaningful way to raise interest, initiate learning, and drive innovation in the Lincolnshire area.
- In Syddjurs (Denmark), a digitally equipped bus is part of the project. Together with four project team members, the bus helps patients and families to learn more about dementia.
- The collective municipality Hüttener Berge (Schleswig-Holstein) has developed a digital citizen portal used by the municipalities of the rural region.

As part of CORA, a free of charge e-learning course is now available that gives local communities and decision-makers a better understanding of the possibilities and implementation of digital infrastructure, digital skills and digital services.

Figure 7 Peyman Khodabakhsh, atene KOM GmbH. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Figure 8 Wouter Degadt, Interkommunale Leiedal. Photocredit: Florian Schuh, atene KOM GmbH 2019.

atene KOM Interreg North Sea Region CORA European Regional Development Fund EUROPEAN UNION

Figure 9 Moderator of the "Governmental Day" Workshop: Tony Shortall, Director of Telage. Photocredit: Florian Schuh, atene KOM GmbH 2019.

All presentations can be retrieved from

- https://atenekom.eu/company/events/governmental-day-workshop-2019-amsterdam/?lang=en
- https://www.ftthconference.eu/programme/conference-programme/12-march

4 Promoting the main dimensions of digital transformation

All workshop participants were offered the chance to get actively involved, express their views and exchange ideas and experiences with fellow stakeholders concerning the digital transformation process. This interactive session dealt with the three main dimensions of digital transformation, namely digital infrastructure, digital services and digital skills and competences. Precisely, participants were asked to come together in three working groups to (1) identify measures that speed up broadband infrastructure development, (2) solutions to improve the uptake of digital services and (3) approaches for improving the level of digital skills within communities.

Figure 30 Working groups at interactive session. Photocredit: Florian Schuh, atene KOM GmbH 2019.

Figure 41 Participants of the interactive session. Photocredit: Florian Schuh, atene KOM GmbH 2019.

4.1 Digital infrastructure

The EU and the national governments support broadband development and the creation of the Gigabit society with a number of initiatives. Most importantly, a substantial amount of public money is allocated to different funding pools that support broadband expansion projects as well as research and development activities for accelerating new technologies. The proposed EU budget for the 2021-2027 period includes a priority on strategic infrastructure, digital transformation and the Single Market. Additionally, the EU set up a network of the Broadband Competence Offices (BCOs) that connects national and regional authorities supporting broadband deployment across the EU.

The session emphasises the **main measures that really help speeding up broadband development** and the **reasons why Europe still lacks behind despite of these favourable initiatives**. The participants of this working group came up with the following important measures:

- Financial, administrative and advisory support by regional authorities, national governments and the EU, especially for small municipalities that do neither have the financial capacities or the experience to deal with the challenges of broadband development
- Guaranteeing open access networks and other minimum rules in order to qualify for EU funding
- Determination of standards and recommendations by governments for infrastructure deployment
- Promotion of competition amongst sub-contractors on the active layer to ensure the best prices for end users and the development of innovative digital services
- Implementation of positive business cases can supersede public funding
- Overcoming the lack of knowledge to diminish the most crucial barrier in many remote areas

Figure 52 Haakon Gjems, Grue Municipality Norway presenting the outcomes of the working group on digital Infrastructure. Photocredit: Florian Schuh, atene KOM GmbH 2019.

4.2 Digital services

Take-up means the regular internet and e-services used by people, enterprises and administration. This indicator is used to estimate how and if the use of internet has become a tool of everyday life. In this context, main barriers for local authorities, enterprises and citizens to increase the take-up of digital services are for example a lack of knowledge and skills, affordability, accessibility as well as lack of awareness. During the session participants discussed different **solutions and approaches**, which local and regional authorities can implement **to improve the level of availability and take-up of digital services** in their region!

The participants of this working group came up with the following important measures:

- Successful pilot projects for the take-up of digital services should be implemented at larger scale – this especially includes “advertising” pilots and communicating the successful projects
- Ensuring a return-on-investment for digital services – positive business cases are key
- Dissemination and further development of readily accessible digital services connected to personal/ social/ emotional experiences (e.g. Skype video calls with family and friends or on-demand streaming of big sport events).
- Digital skills need to be further developed in order to exploit the networks and improve the level of availability and take-up of digital services. Limited digital literacy is closely connected with a lack of take-up, but actually presents a key driver for new business models, applications and services to be developed.

Figure 63 Wouter Degadt, Interkommunale Leiedal and Christian Zieske, atene KOM GmbH working together with the participants on digital services. Photocredit: Florian Schuh, atene KOM GmbH 2019.

4.3 Digital skills and competences

Awareness raising and training of citizens is key to enable a digital society and successfully exploit al-ready existing networks, to ensure the future expansion and use of digital technologies. Measures need to be in place to improve a range of basic to advanced digital skills of different socio-economic groups of the society. One of the questions would be, whether an enhanced level of skills will have a direct influence on the demand for very high-speed networks and fibre, and in how far it presents a wheel to speed up the pace of broadband development?

In this session, different **solutions and approaches** were discussed, which local and regional authorities can use **to improve the level of digital skills within communities**.

The participants of this working group came up with the following important measures:

- Awareness raising and training of citizens is key and should be supported to exploit already existing networks and to ensure the future expansion of the network.
- Children should teach adults or elderly people how and for what to use the internet (e.g. online banking, shopping, research, etc.)
- Digital learning centres (e.g. in libraries) should be set up – also in rural areas, such centres should be easy to reach for all people
- Support of community-led local development of initiatives to enhance the level of digital skills amongst the people
- Promotion of innovation and business development through a higher level of digital skills and competences (not only basic digital skills)

Figure 74 Jens Myrup Pedersen, University of Aalborg presenting the outcomes of the working group on digital skills. Photo-credit: Florian Schuh, atene KOM GmbH 2019.

5 Conclusions and outlook

This fifth edition of atene KOM's "**Governmental Day" Workshop** has been once more a fruitful platform for all actors involved in broadband expansion in Europe. Especially the interactive session disclosed the big variety of digitisation challenges and actions to take here and now to get the digital transformation off the ground. Continuation is planned in the frame of the next FTTH Conference taking place in Berlin from 21-23 April 2020.