CORA Concept

The rural digital transformation ecosystem

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1 CORA - the rural digital transformation

CORA targets the rural digital divide as a shared concern in Europe. In order to improve and empower rural areas to enhance the use of digital services towards improving the living and working qualities and growths, a digital ecosystem is required to be created. The one comprising of the main dimensions of digital transformation, namely digital infrastructure, digital services and digital skills and competences. CORA takes these factors in to account and emphasizes on empowering rural areas towards digital transformation. It aims to enable local authorities to to bridge digital divide, improve public services delivery and create an environment stimulating digital innovation in rural areas. CORA concept comprises of three main steps namely identifying the common local chal-lenges, testing solutions to overcome the challenges and streamlining and knowledge trans-fer. The aim is to first identify the exiting challenges in the local context and deliver respon-sive solutions to overcome these challenges accordingly. The abstract conceptual solutions and approaches shall be tested and the impacts to be analysed. Such an experiemental ap-proach, provides new views in terms of barriers towards digital transformation in rural areas.

To do so, the process has started with developing a survey guide and carrying our regional surveys to identify local digital baselines and demonstration of common transnational challenges among local and regional participating partners. Built on the findings, the CORA Model has been developed comprising on guiding measures, good exmples as well as selective training materials for the main target groups namely local communities, authorities and enterprises in three main dimensions including the digital infrastructure, digital services and digital skills (Figure 1).

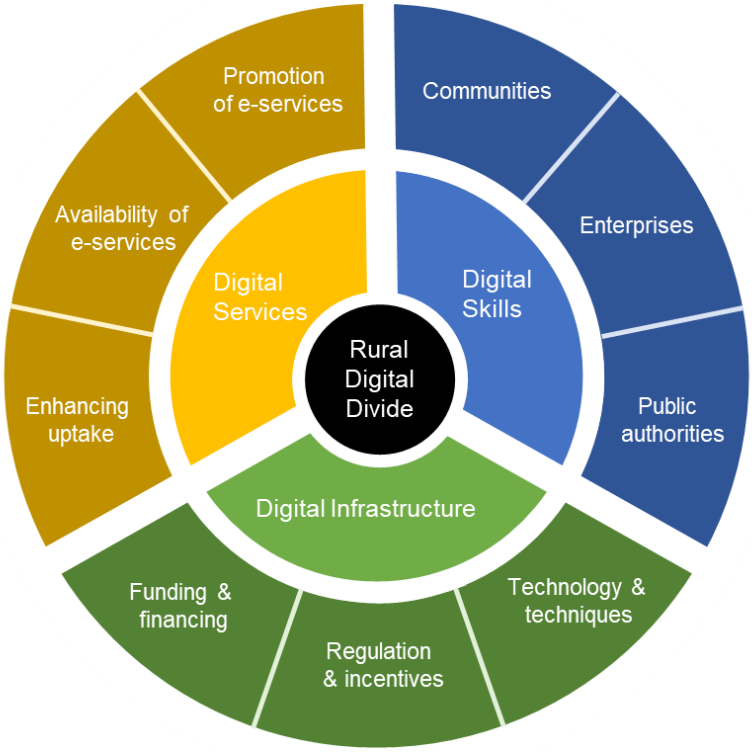

Figure 1. CORA concept – the rural digital transformation ecosystem (Source: atene KOM)

1.1 Dimension 1: Digital Infrastructure

The infrastructure dimension revolves around the development of superfast broadband infra-structure and its quality. Access to fast broadband-enabled services is a necessary condition for regional competitiveness especially in rural areas. To guarantee a future proof and complete coverage of superfast broadband services, several factors play fundamental role. These include; fare competition, demand stimulation and uptake level, the availability of state aid and financial instruments, a decent regulatory framework, as well as access and use of future proof technologies.

TECHNOLOGY & TECHNIQUES

The availability of different broadband technologies is an important factor for a fast and qualitative expansion of broadband infrastructure, meeting different local needs occurring form topography and population structure. With DSL, cable access, the optical fibre technology, radio broadcasts and new mobile standards, a variety of technologies is available on the market that ensure reliable broadband services. However, it is important to choose a technology that is best for the individual region. In this context, many of the EU member states are aiming for a full coverage of fibre network, which is considered to be the future-proof technology.

REGULATION, INCENTIVES & LEADERSHIP

A crucial factor in broadband development is that the responsible actors (usually at local level) feel that they are attached to the strategic targets and fully involved. Generally speaking, the involvement of local actors is especially important in rural areas, where there is a need for demand aggregation and bottom-up initiatives. Besides leadership, regulation plays a major role in facilitating the NGA roll-out. Examples are regulatory measures for increased use of alternative methods of deployment (e.g. micro- and mini-trenching, aerial deployment etc.), aggregated demand via special purpose associations or financial incentives such as vouchers or tax deductions.

FUNDING AND FINANCE

Although there is still significant private investment across Europe and the number of white spots decreases on a daily basis, some areas will hardly be commercially viable. Alternative funding schemes such as community based initiatives as well as public intervention are therefore often needed to close the digital divide. In this context, the European funds are an important cornerstone of many broadband projects and help to develop ICT-infrastructures, especially within rural areas with low commercial interest. Rural areas have to provide appropriate incentives and means for increasing investment whilst local actors and the ICT industry need to make use of these instruments.

1.2 Dimension 2: Digital Services

Access to adequate broadband services has crucial importance to the economic and social development. The digital public services dimension emphasizes on the digitisation of public services, focusing on eGovernment and the social infrastructures. Modernisation and digiti-sation of public services can lead to efficiency gains for the public administration, citizens and businesses alike as well as to the delivery of better services for the citizen. The Use of Internet services accounts for the variety of activities performed by citizens already online. Such activities range from consumption of online content (videos, music, games, etc.) to modern communication activities, e-shopping and banking as well as a government services.

ENHANCING UPTAKE

Take up means the regular internet and e-services use 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 Next-Generation-Access (NGA) are for example lack of knowledge & skills, affordability, accessibility as well as lack of awareness. In response, local and national digital agendas are already setting supportive measures designed to enhance the awareness of target groups for the increased use of internet and digital services.

AVAILABILITY OF E-SERVICES

As traditional administrative processes are often linked to burdensome procedures, there can be a strong incentive to use digital services instead. To achieve a proper and massive use of e-Services a common objective must be shared by all public administrations when planning for the future of public service delivery. There are various ways to deliver more valuable e-services. Public administrations must become “citizen driven” in order to become more user-oriented. Multi-channel service delivery and need-oriented e-services development for specific target groups such as elderly, business agents, young people etc. are key for successful e-services development.

PROMOTION OF E-SERVICES

Adoption of e-services must be pushed through effective communication. To enhance the use of e-services, target groups must be aware of the new facilities and services public administration brings to them. Local and regional government must adopt strong strategies and action plans to promote e-services in order to make users perceive the use of ICT as an advantage. It is a challenge for many organizations to increase the uptake and effective use of e-services. Therefore, one of the main conditions to succeed is to guarantee an effective communication amongst the actors concerned. This includes improved interoperability and increased awareness of citizens and businesses.

1.3 Dimension 3: Digital Skills

Limited access and use of digital technologies in rural areas are accompanied with a lack of digital skills of different social groups (e.g. elderly people) and in businesses. This includes basic digital skills and competences, which enable individuals to interact online and consume digital goods and services as well as advanced skills, which empower the workforce to take advantage of technology for enhanced productivity and economic growth. Digital literacy and the awareness of the possibilities digitalisation offers is a key driver for new business mod-els, applications and services to develop and contributes to the social cohesion and eco-nomic prosperity in Europe.

COMMUNITIES

Awareness raising and training of citizens is key to enable a digital society and successfully exploit already 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. These include digital literacy and basic digital skills for disadvantaged social groups, basic and advanced digital skills for students with high learning capacities and advanced digital skills for special target groups such as professional workforces.

ENTERPRISES

Small and Medium Sized (SMEs) enterprises shall be supported and empowered to benefit from the opportunities offered by digital technologies. Digital competences of enterprise employees need improvements with the aim of increasing the use of digital technologies in the process of design, service and product delivery. While recent years have shown a growing trend towards buying ICTs as a service, SMEs lag behind in their adoption of cloud computing and other sophisticated digital technologies.

PUBLIC AUTHORITIES

Awareness, leadership and interest of public administrations and politicians is key to successful and sustainable digital transformation in rural areas. Public authorities as the main providers of public services need to improve their compatibility and skills in planning, provision and delivery of advanced digital services to citizens and enterprises. As the main provider of public and welfare services, local and regional authorities require adequate knowledge and skills for future-proof development of their regions. This includes a certain level of awareness to develop future oriented digital strategies as well as competences to develop digitally enabled services in a responsive design manner for communities and businesses.