



Broadband Good Practices 2023



The European Broadband Awards

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This brochure presents the winners and finalists of the 2023 European Broadband Awards.

Through the European Broadband Awards, the European Commission wishes to highlight good practices in European broadband projects that show innovative ways of achieving the Digital Decade objectives. The aim of the Awards is to identify, give recognition to, and share good practices in planning, management and implementation of high-capacity networks in Europe.

In this annual competition, the European Commission selects the most successful broadband projects applying from across the EU. The Awards are open to all types of projects regardless of the size, location or technologies used. The competition targets national, regional and local public authorities, as well as large and small privately funded projects, that adopt innovative models of investment, business or financing structure, such as financial instruments.

Candidate projects apply and are assessed by a jury composed of five experts in broadband. Winners and finalists are selected in each of the five Award categories. The winners are announced and awarded by the European Commission.

Application and assessment

Projects are submitted, assessed and awarded under five award categories:

Innovative models of financing, business and investment

Projects under this category are assessed according to the effectiveness and innovation of the models of financing, business and investment applied.

Cost-reduction measures and co-investment

Projects under this category are assessed according to the measures applied exploiting the synergies between different infrastructures, and the cooperation among relevant stakeholders in building and investing in infrastructure.

Socio-economic impact in rural and remote areas

Projects under this category are assessed according to the direct and indirect socio-economic impacts achieved and the substantial improvement of connections for remote and rural areas.

Demand generation and take-up of connectivity

Projects under this category are assessed according to the measures implemented to stimulate demand and to increase the take-up of a wide range of fixed and/or wireless/mobile, including 5G, services and applications.

Cross-border and international connectivity

Projects under this category are assessed according to the focus on cross-border or multi-country contexts both within the EU and/or interlinking the EU with other non-EU countries or world regions.

Who can apply?

All types of projects are encouraged to apply, irrespective of size, location or technologies and whether led by public or private organisations. The competition's target groups are public entities such as municipalities, regions and Member States' administrations, as well as communities, private actors such as network and service operators, utilities and other project promoters that are actively involved in building high-capacity infrastructure. At the time the application is submitted, at least 65% of the project must be completed.

How to apply?

Once the call for applications opens, candidates:

- download the application form from the [European Broadband Awards webpage](#)
- submit their applications by email before the deadline
- receive a confirmation email

The dates are communicated in the lead-up to the call for applications.

Who selects the finalists and winners?

A jury composed of five experts in broadband with different professional backgrounds and from different Member States assesses all projects and selects finalists from each of the award categories.

The finalists are informed and announced on the European Commission's Digital Strategy website and social media. The winners are announced and awarded by the European Commission at an awards ceremony in Brussels.

The finalists and winners are then featured in the European Commission's website and social media.



Fjodor Gütermann

Fjodor Gütermann works as Head of Unit of Telecommunications Policy and ICT Infrastructure in the Ministry for Finance in Austria. He studied Economics in Vienna and has worked in Athens and Brussels. In his current role, he acts as a national contact point for the CEF Digital programme and represents Austria in the European network of Broadband Competence Offices (BCOs).



Gerald Marxer

Gerald Marxer has been the CEO of Liechtensteinische Kraftwerke (LKW) since 2007. As Liechtenstein's national electricity supplier (power plants, grids, electricity trading), LKW is also responsible for the telecommunications networks. LKW has expanded a nationwide fibre-optic network from 2017 to 2023 and leases it on a non-discriminatory basis to all internet service providers operating in Liechtenstein. Gerald has a master's degree in civil engineering from the Swiss Federal Institute of Technology in Zurich and, before joining LKW, worked in various functions in the construction of infrastructure facilities and in business development for a large industrial company.



Tony Shortall

Tony Shortall is Director of Telage, a consultancy in the field of telecommunications economics and regulation. He is an economist specialising in the regulation of network industries and is an acknowledged expert in the area of telecommunications policy and regulation. Tony previously worked as senior economist at the European Commission and the Irish Competition Authority. Tony also has experience in the telecommunications industry, having worked with both fixed and mobile operators. He has written extensively on these matters and has advised governments, regulators and firms. He holds degrees in economics (M.A.) and computers (B.A.) from the University College Cork in Ireland and an LLM from the BSC in Belgium.



David Lamb

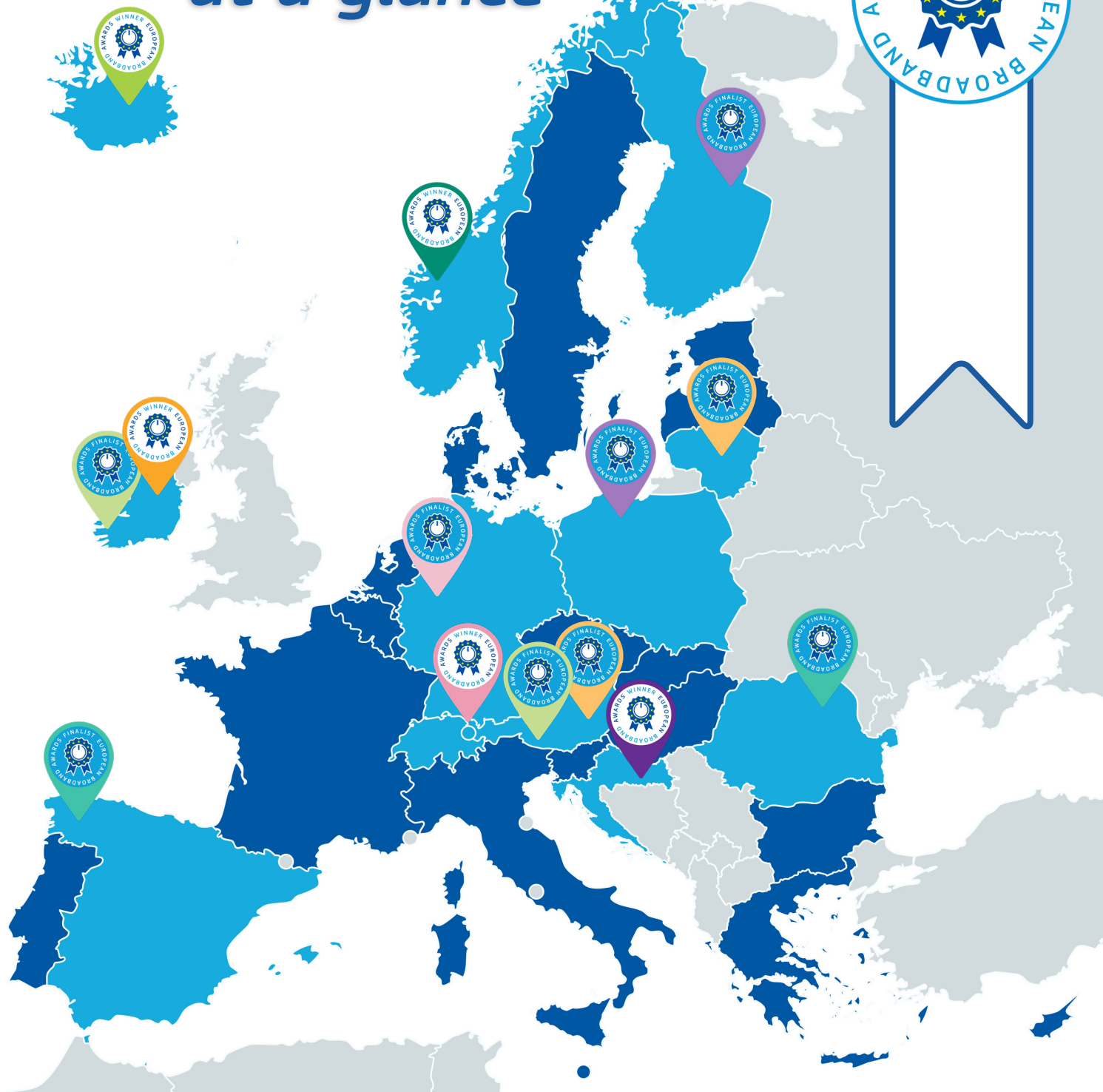
David Lamb is Team Leader of the CAP Implementation Contact Point, part of the EU CAP Network. David has over 20 years of experience, which started in the food & drink sector manufacturing and marketing in 1997. From 2003, David led the Food & Drink Team within Scotland's Rural College (SRUC), managing their specialist advisory & consultancy activity. In 2012 he helped create and then managed the Think Local programme – the Scottish Government's first local food and drink development programme. He has also worked on European and International projects on rural entrepreneurship, market research, agritourism and on cooperation in agriculture. Since 2014 he has been based in Brussels leading networking across Member States, developing links with EU level stakeholder organisations and supporting the development and implementation of CAP Strategic Plans and developing peer to peer exchanges. David is an experienced facilitator, lecturer and trainer.



Marco Forzati

Marco Forzati is a scientist, technology expert, society analyst, manager and entrepreneur. In the past, he has worked for over twenty years as a researcher in the fields of digital communications, socio-economic analysis and business modelling for Ericsson, and RISE Research Institutes of Sweden, and has assisted the European Commission with several studies and assessments on broadband projects and smart specialisation. He is the lead author of the European Commission's Guide to Broadband Investment and is currently working on an updated edition.

The projects at a glance



Innovative models of financing, business and investment

Cost-reduction measures and co-investment

Socio-economic impact in rural and remote areas

Demand generation and take-up of connectivity

Cross-border and international connectivity

Ireland

Iceland

Norway

Croatia

Austria, Germany,
Liechtenstein, Switzerland

Austria
Lithuania

Austria
Ireland

Romania
Spain

Finland
Poland

Germany

Meet the 2023 European Broadband Awards Winners and Finalists



Ireland
SIRO Network Expansion

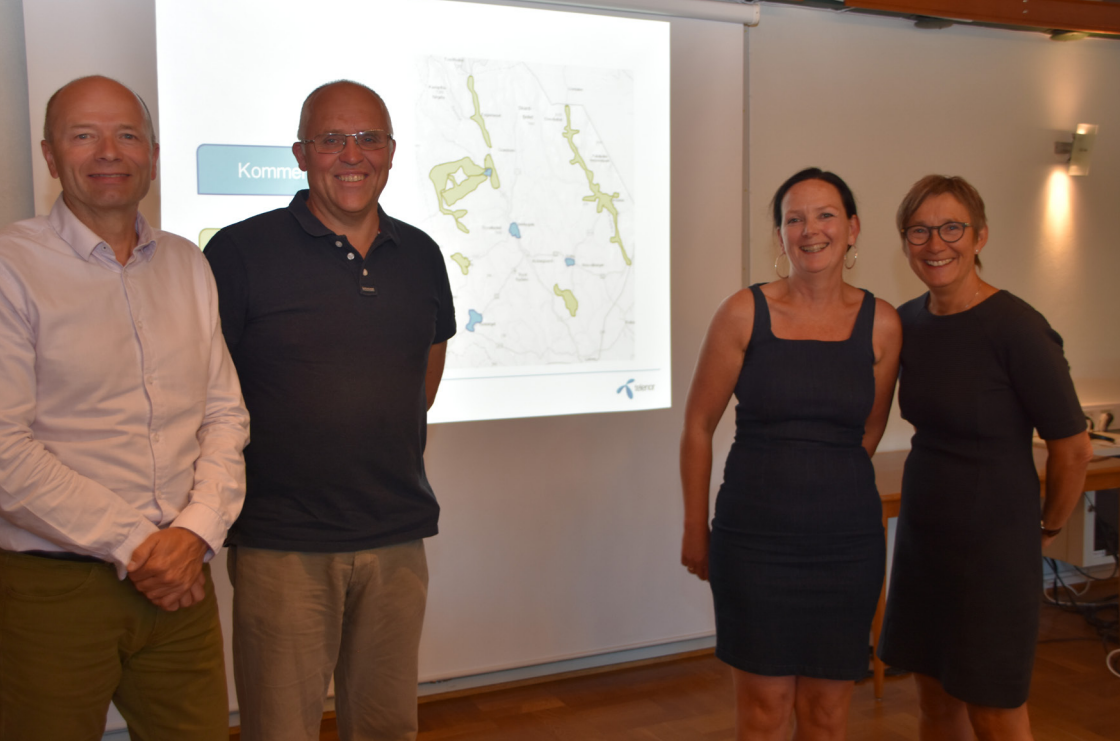


Iceland
The race against
Fagradalsfjall:
effective laying of fibre
during an active
volcanic eruption



LJÓSLEIÐARINN





Norway
Trysil
Broadband for everyone



Croatia
Broadband4Everyone
Broadband
Infrastructure
Development Plan for a
sustainable City of Solin





Austria, Germany,
Liechtenstein, Switzerland
Rheintal Internet
Exchange
Project 'Around Lake
Constance'





Austria
nöGIG Phases 2 and 3:
innovative PPP financing
to supply rural areas
with sustainable FTTH



unser netz. unsere zukunft.



Lithuania
Development of Next
Generation Access
Infrastructure



Austria
Hermes - Merger of
Energie AG Telekom
and Fibre Service
Oberösterreich
Infrastructures



Ireland
Strategic Connection
Points (SCPs)
Programme



Rialtas na hÉireann
Government of Ireland



Romania
Ro-NET: Building a
national broadband
infrastructure in
disadvantaged areas
using European
Structural Funds



Spain
UNICO: Demanda Rural





Finland
Territorial
community TV for the
Pohjois-Satakunta area
(optical fibre TV)



Poland
INTERNET.GOV.PL -
Information System on
Fixed Internet Access



internet.gov.pl



Germany
Introduction of Fixed
Wireless Access services



WINNER

Innovative models of financing, business and investment



Ireland

SIRO Network Expansion

Launched in 2015, SIRO's core mission is to provide full-fibre broadband connectivity to regional and rural Ireland.

Its aim is to bridge existing digital divides, empower local communities with reliable, resilient, and future-proofed broadband, and bolster Ireland's climate change objectives.

SIRO emerged as a **joint venture** between the publicly-owned Irish electricity operator, ESB, and the global telecom, Vodafone. This partnership, unique in both Irish and European contexts, **united a state utility and a private telecom entity**. SIRO had the innovative approach of utilising the ESB's existing electricity infrastructure, such as poles and ducting, both above and below ground in order to deploy a full-fibre network across Ireland.

This ingenious approach aligns with the **EU circularity principles** of repurposing existing infrastructures rather than constructing new ones (European Cost Reduction Directive and Gigabit Infrastructure Act).

So far, SIRO's presence has been established in **135 Irish towns**, benefiting **over 520,000 premises**, with a notable emphasis on regional and rural areas.

The fact that SIRO's project focuses mainly in extending high-speed internet access in smaller towns across Ireland not only propels local businesses to thrive and grow but also fosters **sustainable communities**, rendering these regions more appealing for residence, work and investment.



Unique characteristics

Further distinguishing SIRO is its funding model. The success of SIRO's full-fibre broadband project has been made possible through a collaborative effort involving key stakeholders.

ESB and Vodafone, the joint venture parents, provided initial seed capital and continue to offer technical expertise, forming an integral part of SIRO's board. But **instead of relying on a single source, SIRO secured financing from a diverse range of public and private institutions, both national and international**, which have played a pivotal role in funding the project, ensuring its growth and expansion.

Those are the European Investment Bank and Macquarie, as well as leading institutions, including Allied Irish Banks, ABN AMRO, BBVA, Danske Bank, La Banque Postale Asset Management, NatWest, NIBC Bank and Société Générale.

SIRO's entry into the Irish market played a pivotal role in transforming the availability of fibre broadband, driving competition, and motivating other broadband providers to invest in fibre networks. The **support from government bodies**, such as the Department of the Environment, Climate Action, and Communications, **and local authorities**, has been instrumental in facilitating the permits and licenses necessary for the development of a large-scale telecoms network.



Results and impact

In its first phase (2016-21), SIRO connected **425,000 premises** in over 64 towns to its full-fibre broadband network. In 2021, the company initiated plans for the next phase, aiming to reach a total of **700,000 premises by 2026**. This expansion, with an investment of €1 billion, will encompass **25% of all premises in the Republic of Ireland, predominantly situated in regional and rural areas**, marking a significant milestone in addressing Ireland's digital connectivity disparities.

By enabling people to live and work in rural areas, SIRO seeks to **reduce migration** to larger urban centres, **stimulate job creation**, encourage **economic investment**, and promote **balanced regional development**. Access to gigabit connectivity lies at the heart of these goals, facilitating a more sustainable and connected way of life for Irish citizens.

WINNER

Cost reduction measures and co-investment



Iceland

The race against Fagradalsfjall: effective laying of fibre during an active volcanic eruption

In early 2021, Iceland faced an unprecedented threat to its national fibre optic cable backbone ring when a volcanic eruption began in Fagradalsfjall on the Reykjanes Peninsula.

The eruption posed an immediate danger to the sole backbone ring, which connected to vital data centres, rural areas and international submarine cables.

RFN's new multi-duct pipe was not only a **protective measure** but also a **forward-looking investment** in the nation's fibre backbone.

The pipe was already in place when the existing fibre backbone ruptured in June of 2021.

It was also guarded from lava as it was laid deeper in the earth than usual and was protected from the heat with steel plates and steel wool.

The project serves as a **model for addressing imminent threats to critical infrastructure** and showcases the importance of effective collaboration.

Because Iceland is connected by two submarine cables with only one fibre backbone around the island, the country is sensitive to ruptures in areas with a single point of failure, like the northern part of Reykjanes peninsula.

Reykjavík Fibre Network (RFN) took swift action, laying a new multi-duct pipe for optic fibre further from the eruption to secure connectivity.



Unique characteristics

The project's uniqueness lies in its **proactive, rapid and collaborative response** to a natural disaster threatening critical national communication infrastructure.

Reykjavík Fibre Network (RFN) worked with agility to deploy the project over 9 months, in collaboration with experts, stakeholders and government bodies, including Míla, Orkusfjarskipti, HS Orka, Iceland's Department of Civil Protection and Emergency Management, the University of Iceland, and consulting engineers Efla and Verkís.

As an island in the north Atlantic, reliable and resilient interconnections with the outside world are imperative. These consist of two submarine cables on the south and east coasts, with a third initially planned to land less than 10 km from the eruption site on the Reykjanes Peninsula.

RFN's initiative to lay a new multi-duct pipe south of the eruption minimised downtime during the cable transition. The project not only **preserved Iceland's national communications** but also **enhanced the security of its international connections, data centres, and the connections of its rural communities.** It serves as a valuable model for addressing imminent threats to essential infrastructure.



Results and impact

The project's success is invaluable in terms of enhancing the security and resilience of national communications, international connections and data centres, as well as those of the Reykjanes Peninsula itself. **To ensure redundancy and minimise the risk of complete network failure, the new multi-duct pipe is equipped to accommodate optical fibres from different providers.**

By co-building the newly laid pipe and fibre with several actors, connecting the new 100 km fibre optic network to the existing one, and re-using existing network routes, the **capital expenditure was reduced by 45%.**

In addition, the project contributed to knowledge on the impacts of lava flow on infrastructure and demonstrated the value of quick and cooperative responses to natural threats.

WINNER

Socio-economic impact in rural and remote areas



Norway

Trysil - broadband for everyone

The Trysil municipality is home to 6,600 permanent residents spread over 3,000 km², and the decline of its population threatens its financial stability.

In an effort to **avoid further depopulation and ensure equal opportunities for everyone**, the municipality deployed this project, aiming to provide high-speed internet access for the majority of the population.

Through a multidisciplinary approach, the project aims to address critical environmental issues while also improving service quality and accessibility.

By developing its digital infrastructure, the municipality will have the potential to offer **remote working** possibilities and **public-services' automation**, as well as beginning its **green transition**.

The project is funded by public grants from the Norwegian State, Innlandet county municipality and Trysil municipality, combined with investments from Telenor Norge AS.

The project has deployed **600 km of fibre**, resulting in gigabit broadband access for **99.7% of the households and businesses** in Trysil.

As a result, several businesses have reported that they can now continue to be located in rural areas in Trysil, and the municipality aims to increase the number of jobs and achieve economic growth.



Unique characteristics

Trysil's distinctiveness lies in its **demographic challenges and expansive geography**. With just **3,200 households**, of which 60% are situated outside the municipal centre, dispersed across the region, infrastructure development is challenging.

Trysil is Norway's largest ski tourism municipality, attracting over 50,000 winter visitors annually. The region boasts more than 7,000 frequently used holiday cottages, with inadequate broadband connectivity usually delivered through Fixed Wireless Access (FWA), due to geographic constraints.

The vast scale of the project, involving **over 600 km of fibre cable installation**, required **meticulous planning and efficient logistics**. Competitive contracts with Telenor Norge AS were instrumental, with the municipality taking a central role in overseeing the project's execution. Regular project meetings and active local engagement facilitated a **constructive dialogue between residents and developers**.

Furthermore, the project made efficient use of existing poles, both previously used for carrying copper cables (owned by Telenor) and currently used for power cables (owned by Elvia AS).



Results and impact

The decision to make fibre connections available to all residents, regardless of their location, has been a pivotal success factor, markedly transforming the municipality. Today, **close to 100% of Trysil's residents now benefit from stable gigabit-speed broadband, even in the most remote areas**.

High-capacity broadband has **invigorated local businesses**, allowing them to prosper in rural areas, and the initiative even **triggered commercial broadband development** in densely populated areas.

Trysil's commitment to digital infrastructure aligns with broader sustainability goals. Enhanced connectivity paves the way for a **transition to products and services with reduced environmental impacts**. This is a crucial step in addressing climate and environmental challenges. It also opens up opportunities such as **education via distance learning, less commuting and preventing further depopulation**.

WINNER

Demand generation and take-up of connectivity



Croatia

Broadband4Everyone

Broadband Infrastructure Development Plan for a sustainable City of Solin

Of the City of Solin's **5,043 addresses**, nearly **40% have no high-speed broadband access**. This project is a collaboration between A1 Hrvatska and the City of Solin, aiming to bridge the digital divide and establish a well-connected, sustainable and resilient digital landscape for the city and its residents.

To do so, the project has established a **Fibre-to-the-Home (FTTH)** network, combined with mobile networks, such as **LTE and 5G**, in peripheral and hard-to-reach areas. FTTH, the primary technology used, offers several advantages, including **ultra-fast internet speeds, enhanced reliability, and support for future technologies** like virtual reality and 8K streaming.

The decision to implement FTTH is particularly significant in rural areas, where it ensures consistent high-speed access.

LTE and 5G networks come into play in regions with lower population density or challenging terrain, where deploying FTTH is economically unfeasible.

New or existing antenna poles and receivers, along with optical fibres for those near fixed networks, are used to construct the mobile network. Microwave connections are employed when no fixed network infrastructure is available nearby.

It is an open network: every end user will have the right to connect with an operator of their choice.

The project was co-financed by the EU through the **European Regional Development Fund**.



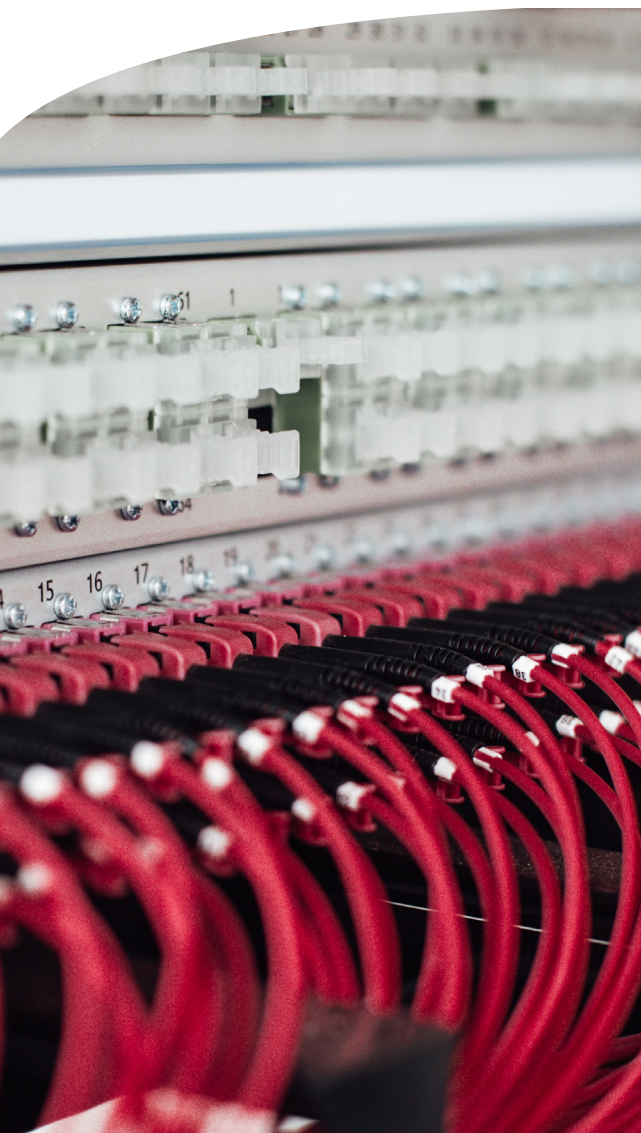
Unique characteristics

The uniqueness of this project lies in its **comprehensive approach to demand generation and adoption of high-speed connectivity**. Apart from having direct and indirect socio-economic impacts, the project stimulates the demand side and increases the take-up of a wide range of fixed and, in smaller part, mobile services.

By extending high-speed broadband to rural regions that lack commercial interest for such investments, it not only enhances local services but also reduces the digital divide, promotes economic growth, and aligns with European objectives.

In addition, the project incorporates a green component by employing green technology and the **installation of solar panels on a base station where electric power supply is not available, in order to support uninterrupted operation with renewable energy**.

This forward-thinking approach aligns with sustainability goals, and leads to savings of 9 tons of CO₂ annually.



Results and impact

The project will provide **ultra-fast broadband internet access to 2,904 users**, comprising private individuals, businesses and public institutions.

The Solin area is home to a variety of **businesses**, from micro-enterprises to larger companies, which stand to benefit significantly from improved internet access. The project offers new opportunities for businesses to **increase online sales, cross-border transactions, and the use of advanced technologies like cloud services**, contributing to digital transformation and expanding business horizons. Additionally, the project's presence in a tourist area enhances communication, business capabilities and overall customer experience.

By enabling the use of information and communication technology for **city management**, it will lead to the development of **smart city systems, including public transport, environmental monitoring, and resource optimisation**. This aligns with the goals of the Digital Decade on digitalising public services.

WINNER

Cross-border and international connectivity



Austria, Germany, Liechtenstein, Switzerland Rheintal Internet Exchange Project ‘Around Lake Constance’

The Rheintal Internet Exchange is a neutral Internet Exchange Point in the Rhine Valley and Lake Constance region with locations in **Austria, Liechtenstein, Germany and Switzerland**.

Operated by the non-profit Rheintal IX Association, its goal is to provide a neutral regional platform for the exchange of internet network traffic within the region.

Situated where Germany, Switzerland, and Austria meet, this public hub aims to serve areas in these four neighbouring countries and offers the advantage of **saving cost-intensive data distances** by finding shorter and faster routes, instead of using larger Internet nodes, for example in Frankfurt, Zurich or Vienna.

As Lake Constance and the Rhine Valley have historically been a region with many enterprises, it is important to secure good connectivity in the area.

Internet providers and companies in the Liechtenstein, Vorarlberg and Swiss Rhine Valley region have few options for exchanging Internet traffic directly with each other. In most cases, the only option is to arrange a “private peering” between providers or to transfer the traffic via leased lines to Zurich and other metropolitan areas, which indirectly creates ongoing costs for the parties involved.

Although larger internet exchange points are indispensable for regional providers, there is an additional need to be able to exchange traffic locally between providers in the region.

In addition to closing this gap with a public Internet Exchange Point, Rheintal IX keeps local traffic local, increasing the quality of services.



Unique characteristics

A unique element of this project is that the Rheintal Internet Exchange is a **non-commercial internet exchange point for a four-country region**.

It is a **public infrastructure, free of charge**, that facilitates peering between providers without incurring ongoing costs for the participants. The cost of delivering Internet traffic is minimised for the participants and the **availability and performance of services is increased**.

The project is realised through the dedication of a **voluntary team** of engineers and tech enthusiasts with a common vision of digitally transforming the region. The Rheintal IX Association is a non-commercial, **community-led organisation**, founded in 2011 as a registered association in Liechtenstein.

In order to operate a public Internet Exchange, private individuals as well as companies should be able to participate in the project and operation. Everyone who wants to actively support an Internet Exchange in the region is welcome.



Results and impact

Better inter-connection within the region leads to **increased quality of service, better resilience and economic advantages**. The project contributes to solving the **infrastructure gap** and **improving the quality of broadband connectivity** in the region.

For companies and end customers, the advantages of the Rheintal IX are reflected in **short connection paths, low packet transit times and high data throughput** between different Internet providers in the region. The data traffic processed via the Rheintal IX is not exchanged via large data exchange points abroad but directly via the project's infrastructure in the region, which is a clear advantage especially with regard to resilience and in the event of a disaster (such as failure of the connections to Frankfurt, Zurich or Vienna).

FINALIST

Innovative models of financing, business and investment



Austria

nöGIG Phases 2 and 3: inovative PPP financing to supply rural areas with sustainable FTTH

The nöGIG project's core mission is to deploy open fibre access (FTTH) throughout rural Lower Austria, creating opportunities for **economic growth, new businesses, and an influx of young families** into these regions.

The project is a significant milestone in **bringing private capital into the Lower Austrian broadband market**. By creating a mutually beneficial situation for both the public and private sectors, the project aims to ensure the long-term viability of Lower Austria's business landscape.

The **mediated wholesale-only business model**, featuring a clear separation of physical, active, and service provider roles, ensures sustainable broadband solutions. The **involvement of the National Regulatory Authority (NRA)** from the project's inception underscores its commitment to adhering to industry standards and ensuring transparency.

The project safeguards key aspects of an open and public network, particularly a focus on rural areas to **prevent cherry-picking**, expansion only in response to specific demand (a minimum of 42%), and close collaboration with local municipalities.

It is an attractive prospect for private investors as it enjoys strong public support and benefits from well-prepared building areas. The project's detailed planning and documentation processes are highly automated, and a professional team of experts on the public side ensures smooth execution. Leveraging state-of-the-art 'Software as a Service' (SaaS) tools contributes to a high degree of digitalisation.

By adopting a wholesale-only business model, nöGIG encourages private investment while maintaining **open, non-discriminatory network access in underserved rural areas**, fostering **competition among service providers**.

Unique characteristics

nöGIG's investment model for its second and third phases is based on a **Public-Private Partnership (PPP)**. The public sector supports this initiative through **demand aggregation, approval procedures and public backing**.

Results and Impact

Implementing wholesale-only FTTH networks in rural areas has numerous positive effects, particularly in enhancing **sustainability** and fostering healthy **competition**.

The successful pilot phase, which reached **35,000 households**, paves the way for subsequent phases involving private partners, targeting an additional **100,000 and 200,000 households**, respectively. This ambitious endeavour will eventually cover over 55% of all Lower Austrian households with a wholesale-only FTTH network, while private telecommunication companies have also begun deploying FTTH networks in denser areas.

This project highlights **the importance of demand aggregation, particularly in rural areas** where there is a pronounced need for broadband services.



FINALIST

Innovative models of financing, business and investment



Lithuania

Development of Next Generation Access Infrastructure

The primary objective of the “Development of Next Generation Access Infrastructure” project is to extend access to the next generation network in areas currently lacking such infrastructure, with no scheduled plans for its expansion over the next three years.

The project was carried out by the public institution “Plačiajuostis internetas” in cooperation with the Ministry of Transport and Communications of the Republic of Lithuania. “Plačiajuostis internetas” is a non-profit organisation under the Ministry of Transport and Communications, established with the aim

of creating modern electronic communication infrastructure and providing high-quality wholesale broadband services. Prior to this project, “Plačiajuostis internetas” had already completed five broadband development projects in commercially unattractive rural areas of Lithuania.

The project’s success is based on the **deployment of different technologies, such as optical fibre-optic networks, passive GPON technology, telecommunication towers, and more.**

Unique characteristics

During the course of the project, **1235 km of fibre-optic cables** were installed, **25 communication towers** were built, **310 existing infrastructure sites** were connected to the network, **13,330 passive network GPON access points** have been installed and the necessary network equipment for the provision of wholesale communication services was installed. Also, for the first time, **telecommunications towers were built in commercially unattractive areas to provide wholesale communication services.**

A success factor was that **operators were involved from the project’s preparatory stage**, they participated in the **identification of white areas, selection and ranking of objects to be connected.** The entire process of project preparation and implementation was transparent and open.

Results and Impact

In 2017, only 38.74% of Lithuania’s total territory had access to next-generation internet and 7% of the households were left out of the private investors’ plans. Rural areas were especially affected.

The project’s impact is notable, with **more than 43,000 households** now having access to next-generation broadband. The network’s extension plays a pivotal role in ensuring **future growth and sustainable development in rural communities.**

The project was funded by the **European Regional Development Fund.**



FINALIST

Cost reduction measures and co-investment



Austria

Hermes - Merger of Energie AG Telekom and Fibre Service Oberösterreich Infrastructures

At the onset of Hermes project, two independent FTTH infrastructure companies embarked on the mission to build fibre networks in distinct regions. Energie AG Telekom GmbH focused on urban areas, while Fibre Service OÖ GmbH was dedicated to expanding in rural regions. This situation created a complex scenario for communities and citizens with two separate but similar companies serving different areas.

The Hermes project's aim was to create a new, **unified company with expertise that encompassed both urban and rural areas.**

This merger presents a single partner for local communities, simplifying interactions.

Simultaneously, aiming for a transition to an **open-access, wholesale-only network increases operational efficiency and ensures a more inclusive and competitive environment,** with the collaboration of approximately 20 Internet Service Providers (ISPs).

Unique characteristics

A fully integrated network operator underwent a remarkable shift, transitioning into a **wholesale-only, open-access, layer 2 operator.**

With a dedicated focus on rural and remote areas, this initiative has not only propelled local communities forward but has also provided a **digital infrastructure backbone to support holistic development across various sectors, from businesses and schools to facilitating remote working opportunities.** The deployment of FTTH infrastructure aims to bridge the digital divide, ensuring that **even the most remote residents can access true symmetrical gigabit bandwidths.**

Furthermore, the **European Cost Reduction Directive** is included in the business models of both companies, and **synergies with other civil engineering works** are being employed.

Results and Impact

The merged company, 'BBOÖ Breitband Oberösterreich GmbH', is now established.

With the successful implementation of a wholesale-only, open-access network model, the project offers **unified internet service products with symmetrical speeds of up to 1 Gbps,** all while fostering **collaboration with approximately 20 ISPs** on the project's expansive network infrastructure.

In comparison to its parent companies, BBOÖ is on a mission to extend its reach, **projecting a remarkable 75% increase in open-access connections.**



FINALIST

Cost reduction measures and co-investment



Ireland

Strategic Connection Points (SCPs) Programme

The Strategic Connection Points (SCPs) programme is a visionary initiative that is part of the National Broadband Plan's fibre roll-out. It comprises two key components: **Broadband Connection Points (BCPs)** and **school SCPs**.

Its primary objective is to ensure equitable access to high-speed broadband across Ireland, surging ahead of the National Broadband Plan's timeline.

BCPs, strategically located in **places of community significance**, provide **free public Wi-Fi**, fostering **online participation** and the establishment of **digital work hubs**.

These hubs, found in community centres, sports clubs and tourist sites, cater to diverse needs, from **remote working initiatives** to **digital skills training**.

School SCPs are the key to unlocking the digital potential of **students and educators** by providing robust connectivity, enabling the schools to fully embrace the digital age. The project aims to provide **every school across the country** with the necessary infrastructure to engage with digital technologies in teaching and learning.

Unique characteristics

What makes this project unique is the availability of high-speed broadband for local communities in advance of the main Fibre-to-the-Home roll-out in their areas. It is an **early wave of connectivity** that unlocks a multitude of possibilities.

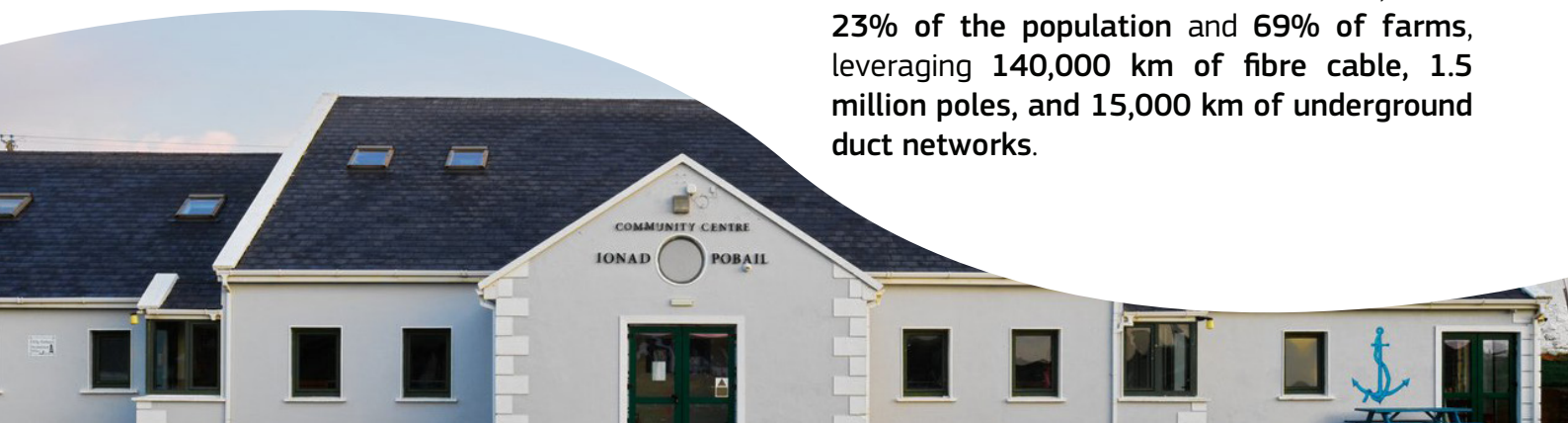
Diversity in site selection is a cornerstone of this programme, encompassing places of community significance, primary and special schools, and agricultural markets. Its geographic reach extends to **even the most remote areas, including offshore islands**, ensuring equitable access to high-speed connectivity for all.

Results and Impact

With **up to 283 public BCPs, 10 agricultural market BCPs, and 672 primary and special schools SCPs**, the project is expanding connectivity in remote and rural areas and advancing broadband access for schools.

These Connection Points offer more than connectivity: they **host over 270 of the 500 eduroam (education and roaming) hotspots across Ireland**, enhancing the appeal for students, researchers and university staff, with 169,750 successful eduroam access requests recorded.

The National Broadband Plan, including SCPs, will reach **96% of Ireland's landmass, serve 23% of the population and 69% of farms**, leveraging **140,000 km of fibre cable, 1.5 million poles, and 15,000 km of underground duct networks**.



FINALIST

Socio-economic impact in rural and remote areas



Romania

Ro-NET: Building a national broadband infrastructure in disadvantaged areas using European Structural Funds

The Ro-NET project has built distribution infrastructures to address the digital gap in the Danube Delta area. These are comprised of **6 radio towers** and approximately **5,000 km of fibre**.

The project targeted **695 localities in rural white areas** with the aim of establishing the essential broadband infrastructure needed to stimulate economic growth and job creation.

Ro-NET also sought to create conditions conducive to a **competitive broadband services market** by offering **open access infrastructure** in the designated areas.

The Romanian Ministry of Research, Innovation and Digitalisation leads the project, with **private operators as the concessionaires entrusted with designing, permitting, constructing, and operating the network** for a minimum of 18 years.

This development has positively impacted key DESI Report indicators where Romania has exceeded the EU average.

Unique characteristics

The project adhered to a **design-build-operate (DBO) model**. The Ministry of Research, Innovation and Digitalisation retained ownership of the infrastructure, entrusting its construction and management to selected operators through an open tender. **Network access is open and non-discriminatory, fostering fair competition**. Concessionaires pay a reasonable fee and retain revenues from the network's operation, aligning with European Commission State aid guidelines. A claw-back mechanism further safeguards against excessive economic benefits.

The project's **meticulous preparation** mitigated the risk of contested selection procedures. Tender specifications and concession contracts required **extensive use of existing infrastructures**, whether state-owned, belonging to administrative-territorial units, privately owned, or operated by other entities.

This requirement, embedded in Ministry-approved technical projects, significantly reduced investment costs, with over 30% of existing infrastructure thoughtfully integrated into the project.

Results and Impact

The project has the capacity to benefit approximately **120,000 households**, extending its reach to **over 346,000 residents, nearly 7,200 private businesses, and 2,332 public institutions**. This achievement is a testament to the efficient implementation of the broadband electronic communications infrastructure, characterised by one of the **lowest costs per kilometer of network**.

The network can deliver **download speeds of up to 10 Gbps** at the local points (cabinets) established within the project, surpassing the 1 Gbps requirement set by the European Commission for 2030.



FINALIST

Socio-economic impact in rural and remote areas



Spain

UNICO: Demanda Rural

The Secretary of State for Telecommunications and Digital Infrastructures in Spain has initiated a transformative measure to expedite access to **high-performing fixed broadband services in certain remote and rural areas at affordable prices**. This measure guarantees minimum download speeds of **100 Mbps**, bridging the digital divide and enabling residents in remote regions to harness the benefits of connectivity.

In areas where the available service is currently below the 50 Mbps threshold, it will use **satellite connectivity** to upgrade this to **100 Mbps** download speeds.

The project combines both **supply-side and demand-side measures**, by ensuring that the aided wholesale price in the target areas is comparable to the prices charged for access products in more profitable areas, while also imposing a maximum retail price and covering end users' access costs. It offers a pivotal solution in accelerating access to high-speed fixed broadband services, **aiming to reach 100% of the population**. It will especially benefit rural areas where the **lack of connectivity was the main barrier to growth and development**.

Unique characteristics

Operating on the **Operator Subsidy Model**, the programme boasts **swift deployment, streamlined contractual arrangements**, and a **risk-sharing approach with operators**.

The Ministry of Economic Affairs and Digital Transformation provides essential **Recovery and Resilience Facility (RRF) funding**, bridging the financial gap between viable pricing and actual service costs.

Transparency and stakeholder engagement are pivotal, with a **public consultation** enabling valuable input into the measure's design. The competitive selection procedure ensures the service provider aligns with the diverse business models, optimising service delivery.

Results and Impact

This innovative programme brings Spain **on the cusp of achieving the goal of universal connectivity**. It addresses the remaining 2% of areas that traditional schemes couldn't cover, while fostering future investments in connectivity beyond the 100 Mbps threshold.

Importantly, it remains inclusive, accommodating all service requests without financial or operational hindrance.



FINALIST

Demand generation and take-up of connectivity



Finland

Territorial community TV for the Pohjois-Satakunta area (optical fibre TV)

In the rural area of Pohjois-Satakunta, an innovative **optical fibre community TV initiative** has been established, offering **the first community-produced TV channels in Finland**. This project empowers ordinary citizens to become content creators, offering two extendible community-produced TV channels.

Pohjois-Satakunta has **very good optical fibre coverage**, but also has a **very low population density** spread over large distances, and suffers from **depopulation**.

Within this project, the community TV serves as a digital testbed, exploring **cost-efficient technological solutions to engage the community**, encouraging active participation from citizens of all backgrounds.

It also provides a **free platform for NGOs, SMEs, public administration, educational institutions, events, and individual citizens** to disseminate information effectively and economically. It fosters a sense of community, inspires the young to engage with their territory, and enhances the overall vibrancy of the region.

Unique characteristics

The project has successfully identified innovative, cost-efficient technical solutions for local television channel broadcasting in a region without a territorial private or public TV channel.

Both the local population and businesses will benefit from the community TV initiative, marking a unique context in Finland.

The operator, Pohjois-Satakunnan Seutuverkko Oy (Pssv Oy), in support of this venture, has set up a **studio space accessible to all**, allowing individuals to produce programmes or conduct interviews for the TV channel. The studio space is available with the assistance of Pssv Oy personnel or independently for those with the necessary technical skills.

Results and Impact

Supported by the EU's Leader programme, the project covers **700 households and public entities** so far.

The project operates in a subregional context, spanning across **2,095 km²**, primarily encompassing **rural heartland areas** within the Satakunta and Pirkanmaa regions in southwestern Finland. The population density in this region is exceptionally low, standing at **8 inhabitants per square kilometer**, significantly below the Finnish average.

The project's cost-efficiency stemmed from internal research conducted by the applicant organisation, utilising its skilled personnel and volunteers.



FINALIST

Demand generation and take-up of connectivity



Poland

INTERNET.GOV.PL - Information System on Fixed Internet Access

The Ministry of Digital Affairs, in partnership with the National Institute of Telecommunications - National Research Institute, introduced the initiative of INTERNET.GOV.PL. This innovative system acts as a **synergistic hub uniting citizens, local governments and telecommunication entrepreneurs** in a shared mission: to ensure broadband Internet access for all.

The project's primary objective is the creation and deployment of a **database delivering real-time information on the availability of broadband services while enabling reporting of vacant slots and service demands.**

An **interactive map allows citizens to locate Internet Service Providers (ISPs) and express their demands, allowing telecommunication entrepreneurs to align their investments with the real needs of local communities.**

For **local governments**, this system serves as a valuable **planning and development tool** too, as it helps identify gaps and enhance broadband infrastructure.

This collective effort fosters a robust foundation, propelling the broadband sector's dynamic growth and competitiveness in Poland.

Unique characteristics

INTERNET.GOV.PL stands as a pivotal **user-friendly tool, fostering collaboration and engagement** among all stakeholders, and ultimately **driving improved Internet access across the country.**

By promoting competition, **the system propels telecommunication providers to enhance their services, pricing structures and overall customer experiences.** It levels the playing field, allowing various providers to showcase their offerings.

The end users are rewarded with expanded choices, improved service quality, and potentially more cost-effective plans.

Results and Impact

INTERNET.GOV.PL boasts impressive statistics, having been **visited over 8.5 million times** to-date, and hosting **22,971 registered citizens.**

The system covers **over 7 million address points with broadband networks**, including **fibre-optic internet for almost 5.4 million address points**, **Fixed Wireless Access (FWA) for nearly 2.8 million address points**, and **other cable internet options for over 2.6 million address points.**

These numbers reflect the system's substantial impact and contribution to bridging the digital divide.



FINALIST

Cross-border and international connectivity



Germany

Introduction of Fixed Wireless Access services

In this project, Geuzenet, an established provider of fixed wireless services in the Netherlands, expanded its operations to include Germany, introducing **fixed wireless access as a managed service for businesses**.

The project primarily addresses areas where fibre infrastructure is either unavailable, still in development, or is economically unviable. It also serves as a redundancy option for businesses with critical applications.

The provision of high-speed internet access is expected to enable businesses and enterprises to take full advantage of cloud-based technologies, potentially enhancing their competitiveness and innovative capacity.

Germany currently faces challenges in **integrating digital technology into business activities**. The introduction of high-speed internet access in regions lacking fibre infrastructure is expected to **promote the use of cloud technology among German businesses and improve their overall operations**.

Unique characteristics

What sets this project apart is its approach: providing **fixed wireless access as a service over the public 4G and 5G networks**, allowing rapid deployment and delivery of business-grade services. Enhancements include the incorporation of features such as **fixed public IP addresses, support for both IPv4 and IPv6, and layer-2 connections**.

Fixed wireless access is a reliable solution for high-availability internet access, particularly critical for business operations. For fixed wireless access services, there is no need to lay fibre in the ground. Instead, the project installs a 4G/5G outdoor unit on the rooftop or outer wall of the building.

Results and Impact

Through the involvement of GFT Unternehmensverbund Telekommunikation, the project can reach out to **200 major IT companies** to sell, support and/or install services in Germany.

The project has already delivered the first fixed wireless connections, and various fixed wireless implementations in small scale (single site) and large scale (hundreds of locations) are ongoing.

The services are provided in the **Netherlands, Germany and on a case-by-case basis in eight other European countries (France, Belgium, Denmark, Finland, Sweden, Poland, Czech Republic, and Romania)**.





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good practices from
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