

# The Impact of Digital Inclusion

case study

## Best for...

- Meridiam's expertise in digital infrastructure
- Providing services to underserved communities
- Increasing resilience and supporting economic growth



## Digital infrastructure has become a new essential service as countries around the world put it at the heart of plans to drive economic growth in underserved regions and create access to opportunities for citizens.

Meridiam has stepped up its focus on this critical segment, building out a team of skilled professionals to access investments in high-speed fibre and data across developed and emerging markets. This is a high-growth, high-priority sector that can deliver benefits for countries, communities and individuals alike.

The pandemic illustrated how critical digital infrastructure can be for linking communities to other essential services, such as healthcare and education, as well as the rising importance of data security and sovereignty. Policymakers around the world also see how access to high-quality digital infrastructure can boost economic growth by creating opportunities for growing businesses to trade and develop new ways of working. Among **the European Commission's six priorities is a "Europe fit for the digital age"** as the region seeks to become more competitive on the global stage, while at a national level, Germany's new coalition government identifies nationwide **Fibre-To-The-Home (FTTH) and 5G networks as a priority goal by 2025.**

While governments are motivated, the path to digital inclusion is not smooth and straight, however. In the race to digitalise, the biggest and most globalised centres are taking the lead, meaning that rural communities and emerging economies risk getting left behind. Unesco figures show that **in sub-Saharan Africa, 89% of pupils do not have household computers and 82% lack**



Internet connectivity is already a critical public service, and that **need will only grow.** In rural areas, the quality of networks can be poor, so investment can help them **compete economically.**

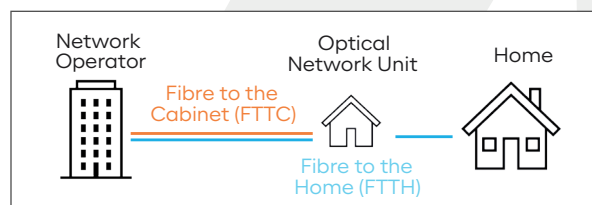
Stephan Wehrmann, Business Development Director, Germany, Meridiam

**internet access.** Across this broad and rapidly growing sector, Meridiam is partnering with local authorities and aligning with government programmes to ensure that people and regions can benefit from digital inclusion and that investors access strong and stable investments.

### Our Investments

At Meridiam, we are exploring themes across digital infrastructure that can help level the playing field for people and communities around the globe, while building futureproof digital networks and providing the capacity for secure and accessible data as our lives become ever-more connected. Our investments currently centre on two areas:

- **Fibre-To-The Home (FTTH) in underserved regions in Europe**
- **Data storage and security in Africa**



### Resilient Fibre-to-the-Home Networks in Europe

Europe's large-scale ambitions require significant investment. According to a study from Boston Consulting Group and European Telecoms association ETNO, **some €300 billion of investment will be needed until 2027 to fully deploy fibre and 5G across Europe.**

While, some countries are relatively well advanced in their rollouts, such as Norway where over 90% of homes are connected to high-speed fibre. Others such as Germany and Austria lag behind (Germany only has 10% Fibre-To-The-Home (FTTH) coverage) and furthermore face challenges in bringing connectivity to more remote regions. Meanwhile, decades of underinvestment in parts of Central and Eastern Europe require not only capital and capital markets expertise, but also high operational standards to roll out systems that can aid the region's ongoing convergence with the rest of Europe.





## The Importance of Partnerships

Delivering high-quality digital infrastructure that maximises inclusion for people requires close cooperation with public authorities. In some regions, such as Liezen, delivering fibre to the remotest areas needs remuneration models backed with subsidies to be economically viable. In other, more densely populated areas like Montabaur or Bucharest, entirely privately funded networks are feasible. Nevertheless, strong buy-in from municipalities is essential to ensure that financial targets and impact goals are met.

In Montabaur, the **public authorities** – comprised of the city and smaller municipalities – hold a **10% stake in the project**. This facilitates full alignment on the roll-out plans and timetable, as well as control over costs and budget. A **30-year contract** between the partners and anchor tenant Vodafone, which includes an open access obligation, further ensures ongoing operational

investment and fair access for **ISPs**, as well as well-priced quality services for customers.

Partnerships also enable Meridiam to be aligned with the goals of municipalities, such as promoting and positioning regions as attractive places for businesses and residents. These are key considerations in Montabaur and Liezen, where local authorities are keen to stem the flow of inhabitants to larger cities, or even appeal to new residents with a better work-life balance.

We also **build and maintain infrastructure** that helps cities to be more resilient and competitive for the long-term. Network upgrades need to take account of potential growth over many decades and facilitate new revenue and development opportunities for local authorities with other providers. Our investment in Netcity includes ducts built so they can carry more fibre cables in the future, as well as agreements for city to use the networks.

## Montabaur, Rhineland-Palatinate, Germany

- 24 municipalities Western Germany
- 10% partnership stake for Montabaur Regional Authority
- Total investment of €45 million
- 17,000 households and 42,000 people to be connected
- First home due to be connected in H1 2022
- 100% coverage in target area
- Expected completion in 2024

## Our Impact

### SDG 8 - Decent Work and Economic Growth

- Community benefits around hiring of long-term unemployed, apprentices and local workforce
- Promotion of Montabaur region as commuting and working centre between Frankfurt and Cologne

### SDG 9 - Industry, Innovation and Infrastructure

- Support social cohesion with every customer and public facility connected to the internet





## Liezen, Styria, Austria

- 29 municipalities in Central Austria
- 50,000 homes to be connected
- 50-year contract to roll-out, finance, operate and maintain fibre network
- Total investment of €100 million
- Construction due to start in 2023, completion in 2025
- Network to be laid under already-constructed roads and paths, and in existing duct infrastructure to minimise disruption

## Our Impact

### SDG 8 - Decent Work and Economic Growth

- Make Liezen more attractive to new businesses by accommodating work-from-home trends
- Reduce need to commute to Graz and Linz for work and reduce brain-drain in the region

### SDG 9 - Industry, Innovation and Infrastructure

- Support local industries and communities with faster and higher quality internet
- Boost economic development and improve inhabitants' quality of life

## Netcity, Bucharest, Romania

- Partnership with regional infrastructure and utilities group E-Infra
- Accelerate and get the roll-out of fibre networks across Romanian capital back on track
- Bring investment and capital markets expertise into emerging European market
- 30,000 buildings already connected and 1,700km installed equating to 25-30% coverage
- Target to double coverage by 2025
- Install total of 3,800km of fibre longer term

## Our Impact

### SDG 8 - Decent Work and Economic Growth

- Improved digital connectivity for city residents and businesses
- More resilient and safer networks by replacing overhead cables at risk of damage
- Removal of unsightly cables that detract from city's appeal to tourists and locals

### SDG 9 - Industry, Innovation and Infrastructure

- Bring additional revenues to local budget
- Increased control over infrastructure support for telecoms

### SDG 11 - Sustainable Cities and Communities

- Improved network robustness for local telecoms groups
- Optimal coverage and fast support, ensuring infrastructure meets city's needs

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Modern digital infrastructure is not only important but also valuable to the Bucharest city authorities. We are bringing the investment and knowledge needed to **make networks resilient and futureproof.**”

Hazar Bekaroglu, Senior Associate, Meridiam



## Low Carbon Data Centres for Africa

Data is growing at exponential rates. Some projections estimate that the amount of data created over the next five years will be more than double the amount created since the advent of digital storage. The explosion of that information is raising questions of how to store it safely and easily, as well as concerns about the environmental impact of large data centres with extensive cooling systems.

The situation is particularly acute in Africa with national data often stored off the continent, particularly for smaller countries outside the major economies of Nigeria and South Africa. This in turn raises issues over latency, as well as the sovereign's ability to protect online information and users. Our first Raxio data centre in Uganda enables the government to apply national data security rules, while filling a need among businesses such as financial institutions and local internet service providers for secure, reliable and economically attractive data storage.



COVID proved that the internet is much more than leisure and entertainment, it's the backbone of so much economic activity.

That's why **investment that supports digital infrastructure in Africa is so essential.**

**Marvin Bell,**  
East Africa Director, Meridiam



## Raxio, Pan-Africa

- Tier III international standard data centres across Africa
- Average 1.5MW IT load at each data centre
- First data centre opened in Kampala in May 2021
- Data centres in planning or construction phases in Democratic Republic of Congo and Ethiopia
- Targeting 10 data centres in use or construction by 2023

## Our Impact

### SDG 8 - Decent Work and Economic Growth

- More than 200 local jobs created in construction and fit-out, with high levels of knowledge transfer to workers
- Long-term job opportunities in digitisation of African economies

### SDG 9 - Industry, Innovation and Infrastructure

- Fit-to-market, modular design suited to emerging economies in sub-Saharan Africa
- New critical infrastructure currently unavailable in many developing countries

### SDG 11 - Sustainable Cities and Communities

- Low carbon impact using renewable energy sources and adiabatic cooling systems
- Power usage effectiveness of 1.3-1.35, in line with data centres in many developed markets

# Engaging with Communities to Explain the Benefits

Engagement with stakeholders is an important aspect of any infrastructure development. With the installation of underground fibre, the long-term disruption is temporary. Indeed, the impact may be positive with the replacement of unsightly and potentially unsafe overhead cables a key positive for people and the public authorities of Bucharest.

Negative voices tend to be minor in regions that have been underserved by digital infrastructure. However, it is important to recognise that there are various groups with communities with different interests.

- People who do not care about faster connections
- Individuals who are interested and see how it can add value to their properties
- Those who actively champion the projects and want to bring other people on board

Data centres have more of a long-term footprint but can be located in city suburbs to minimise negative impacts on rural areas. Engagement with communities also ensures that local people are hired, trained and given high-value skills. Local businesses can also be clear beneficiaries by moving data storage offsite. They can routinely make savings of 40-60% on IT expenses, mainly stemming from reduced power costs.

## Conclusion

The trend towards digitalisation and greater penetration of technology into work, commerce, education and health was accelerated by COVID-19, but was in place long before the pandemic started. While individual technology companies may see a reduction in demand as restrictions end and countries seek to return to normality, many digital services are now embedded in people's day-to-day lives. And that growth in the digital economy will require extensive new infrastructure to cater for rising demand now and well into the future.

Digital infrastructure is a competitive space, particularly in cities and countries with high penetration and demand for internet services. However, by focusing on countries and regions that are underserved for services and digital capacity, and by partnering with local authorities, Meridiam is identifying and executing attractive investments more off the beaten track. These projects align closely with local authority and government objectives to boost economic growth and make regions more competitive, and can deliver extensive benefits to individuals and local communities through the power of digital inclusion.



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