Schréder

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Smart Trier

Free WiFi to empower and connect the community

City challenges

- Placing the needs of citizens and businesses at the heart of the decision making process to shape and design services

- Making the transition to clean, renewable technologies and using energy resources more efficiently

- Digital transformation of the city administration's processes and culture

The city of Trier is the oldest city in Germany. While the city centre exudes a quaint ambiance, with its treasure trove of Roman ruins, Roman emperors and later bishops have made this city what it is today. A forward-thinking city that is continuously using technology to improve the quality of life for its citizens and the many tourists who flock to discover its famous Christmas market!

The city's commitment to deliver a better quality of life while taking into account financial and environmental factors is at the heart of its digital transformation. The city has launched a series of smart initiatives in line with this digital strategy that are 'people-centred' while significantly reducing the amount of resources the city consumes to massively reduce CO_2 emissions and dependency on fossil fuel.

Citizens at the centre

SWT Stadtwerke Trier is responsible for implementing the city's smart initiatives, which are in line with the Digital Strategy launched in 2014.

The SWT does not see technology as an end in itself, but considers it a tool, to help them deliver better services and improve the quality of life for everyone in their city.

They have implemented a number of initiatives and have many forward-looking pilot projects in the pipeline.

Free WiFi

For the SWT, free WiFi connectivity was an essential foundational layer for their smart city. Modern citizens expect to be connected at all times, especially the 20,000 students who live in the city! The success of a free WiFi pilot project during the 2015 Christmas market reinforced the SWTs' conviction.

As reported by the European Commission, 15% of Europeans do not have access to the Internet. Free WiFi thus helps to bridge the digital divide. People who may not have reliable access to online services are able to go online for education, job searches, or to communicate.

It is also a great advantage for the 2 million tourists who visit each year. They can enjoy an internet connection without roaming charges, which encourages them to stay longer, boosting the local economy.

The city now provides free WiFi on all bus routes. This has had a huge impact on the customer experience as all passengers can now surf, connect with family and friends or get some work done on their commute. In addition, the city is using the opportunity to collect data on passengers so that it optimise the service, such as providing more frequent location updates.

❝ We aim to create a smart city where our citizens enjoy the highest quality of life by using the latest innovations and an efficient resource management. With people more digitally connected than ever before, free WiFi empowers the community to connect and engage more effectively. ❞
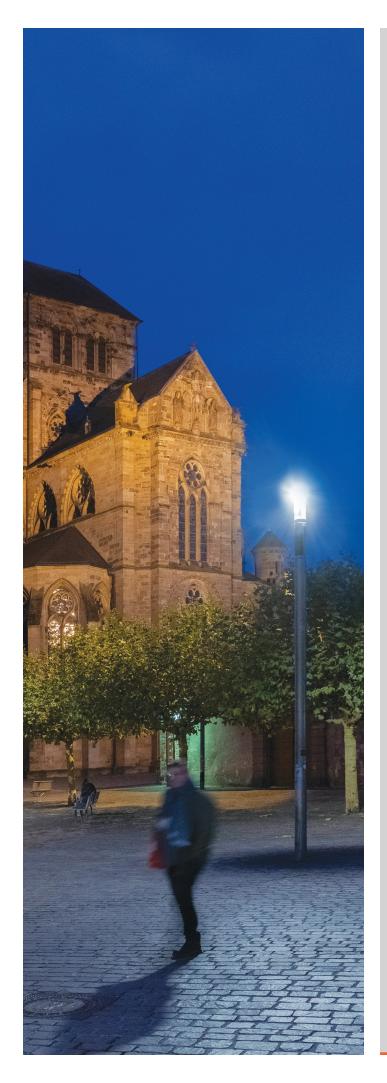
**Christian Rauen
SWT Stadtwerke Trier**

The city also offers a free WiFi service in the city centre, in the area around Hauptmarkt, the large market square. All residents and visitors can connect here for an hour each day. On average, more than 8,000 people take advantage of this free service every day, with notable spikes when tourist buses arrive. Residents can have up to 4 hours free if they download the city app. No tracking is carried out on the app in compliance with GDPR regulations.

The WiFi access points are integrated in Shuffle columns located throughout the city centre. As well as providing an energy-efficient lighting for the city centre, the Shuffle provides a reliable and secure infrastructure for the WiFi, which ensures the necessary bandwidth and quality of service for a perfect surfing and communication experience, 24 hours a day, 7 days a week.

In addition, by integrating the access points in the Shuffle, the city avoided having to dig up ground around the UNESCO sites.

The SWT plans to extend the free WiFi to other areas of the city in the near future.

Christian Rauen

Operations Department
Manager
SWT Stadtwerke Trier

In your opinion, what is Trier's smart city motto, in a few words?

Quality of life, resource efficiency and overall social inclusion. Our vision is to significantly reduce the amount of resources the city consumes while at the same time maintaining social cohesion and continuing to offer a very high quality of life to all inhabitants.

What role does technology play in this vision?

We are using technology to continuously improving experiences for everyone in our city. We are focusing on three areas. First, hyper-connectivity. Free WiFi was a good starting point. It helps creates a more vibrant community by connecting citizens, businesses and visitors.

Next come data driven services. We want to gather data to see how we can improve everyday life. Our smart parking network, for example, not only makes life easier for citizens but also reduces the amount of cars looking for spaces, reducing pollution. Which leads us to our third goal of becoming a carbon neutral city. We are implementing a number of initiatives that are starting to pay off. Through our water waste treatment plants, we have already reduced energy consumption by 50% in the past 4 years.

What has been the public reaction to these initiatives?

Well, the free WiFi in the city centre is a huge success as you can imagine! Initially, this was a pilot project - we had installed free WiFi for 4 weeks during the Christmas market, back in 2015. It was such a hit that people wanted it permanently. We had to go back to the drawing board and analyse what was the best way to move forward with it. At the same time, we were thinking of replacing the street lights in the city centre with the ModulLum from Schréder. But as luck would have it, Schréder had just launched the Shuffle, which was ideal for what we wanted to do.

We have had great feedback, with people really impressed by the quality of the connection. in fact, we have even been told that it is better than at home! The fact that we could integrate the WiFi into the lampposts has also pleasantly surprised a few people. It's great to see infrastructure that can integrate so many services, and in a nice design too!

Lighting the way

The city considers street lighting as a key pillars of its smart city strategy. It has already upgraded part of its infrastructure to LED technology.

The luminaires are managed by a control system, which can individually control the intensity of the light and dim them when necessary, for example, depending on traffic patterns.

In addition, they send automatic updates on their operating status and alerts when maintenance is required.

Smart parking

With 40% of traffic in city centre areas caused by drivers looking for parking spaces, causing congestion, noise and pollution, it has a negative impact on the quality of life.

To tackle the problem, the city recently implemented a smart parking system. Sensors are used to indicate free parking spaces reducing wasted time, facilitating traffic flow and reducing pollution from the cars.

With the data obtained from the parking patterns, city officials will be able to analyse and improve urban mobility.

Fuel efficiency

By 2050, Trier aims to become carbon neutral. The city has made a good start by reducing its energy consumption by 50% in the past 4 years. We are focused on sourcing our energy supply from renewable sources, be it solar or wind energy.

Other areas of focus include capturing energy as water flows through the city's pipes, creating hydro-power. Indeed, we need a lot of electricity to supply the city with water from the Kyll River. We are aiming to produce all the necessary electricity on-site at our plants.

Charging ahead

While each city has its own history and culture, Trier is convinced that innovation will be the engine of growth. The city is continually developing approaches to help it face the challenges of decreasing resource consumption while ensuring a high quality of living. With a wide range of smart city projects under way, the future is certainly promising for the citizens of this city.