5G campus network

Approx. 80,000 m² area

Railway siding available

Elbe port Torgau in

immediate vicinity

Easement for Stadtwerke Torgau for medium-voltage and low-voltage lines

Easement for Stadtwerke Torgau for heating line

No contaminated sites

Redesign of the park according to your requirements

Close cooperation with local business development

Company-owned 5G campus network

Efficiency improvement

Process monitoring

Central control

Predictive Maintenance

Real-time maintenance work via remote access

Autonomous plant traffic

Data security

Real-time data exchange

Flexibility & speed



A self-sufficient in-house mobile network on your own premises is able to fulfill all your operational network demands both today and in the future. Connect all machines, sensors and end devices simply and directly via a 5G-capable SIM card slot and start monitoring, controlling and exchanging data from your PC. Track the movement of your products in real time, secure your production against unautho-

rised access and use this digitalisation boost for your company at the MRK industrial park in Torgau through the 5G campus network. Secure. Faster. 5G.

5G for the SME sector

Advantages and potentials

5G brings a digitalisation boost to companies, from large to small Both in production, logistics, transport and surveillance and classical communication

Advantages

Increase of efficiency in many processes.

- Process monitoring - Central control
- Predictive maintenance
- Real-time maintenance work via remote access
- Autonomous factory traffic

- Real-time data exchange Independence from previous systems such as WLAN

Connection of machines to digital infrastructure

and public mobile communications - Bundling of previous data communication

in a superordinate system

Data security - A highly secure network, developed

according to its own needs

Flexibility - Free configuration of the network according to your own needs

Speed and real time

- Very short response times up to 1 ms

Mobile broadband

- Data rates up to 20 Gbit/s in download

Bridging a shortage of skilled workers and process automation

Simple connection, partly by using SIM cards in modern devices or replacing of modules

Supply - Where large amounts of data

Potential

have to be transmitted

Availability - Where WLAN and other radio communications

cannot reach, on the premises as well as in buildings

Connection - Vehicles, forklifts, mobile phones, tablets, drones, cameras, sensors, robotic arms,

Tracking

Security

- Positioning and live tracking of material, goods and vehicles



Use-Cases

Use case for industrial estates and innovation parks Involved parties:

- Technology Innovation Park (TIP) Nordheide - Trade and local press

- Ministry of Economics of Lower Saxony

This use case will be carried out in Nordheide.

its functionality will be presented. Benefits for the customer include: - Positioning the Nordheide TIP as a driver of innovation.

- Increasing the attractiveness of the TIP for potential tenants

The Media Broadcast 5G Blue Box and its components, as well as

- Possibility of participating in funding programmes

Use case for drone control

Based on the 5G network of Media Broadcast and the 5G Blue Box, drones will be tested in a 5G environment. The drones will be controlled from a control centre via the 5G network.

This use case will be developed and implemented in cooperation with Globe UAV for industrial applications. Industrial applications developed and executed.

Benefits for the potential customer: - Stable control and data/video transmission. - Transport of medical goods on campus

Use Case MRK 5G Construction Kit

Proof of Concept for SMEs in Germany

business models

- Potential studies for SMEs

Application-oriented consulting for small and medium-sized enterprises in the context of 5G in existing infrastructures, the "brownfield approach", brings about a realignment and expansion of business models.

- Surveillance of larger areas even in the event of a disaster

- Modular approach as a solution for new business areas Building, testing and hardening specific concepts in the approach of the 5G Lab in Torgau

5G-based consulting approaches for the expansion and realignment of

Objectives - Increasing competitiveness by: - Saving costs

- Digitalisation, reorientation and development of new business models

Expertise based on "MRK 5G construction kit" for clients

Care and harvesting in the agricultural context of crops is a major cost factor in the agricultural industry. An increase in the effectiveness of these operations can be implemented by using automated robots in closed infrastructure.

pus networks in the agricultural enterprise

MRK's own campus network in Torgau (North Saxony)

Concept of applications "5x5G

MRK offers the following services:

harvesting potential through robotics - Cost and time savings compared to conventionally deployed temporary workers - Conception and development of 5G-based solutions and implementation in cam-

- Ensuring the temporary and short-term required maintenance and

Outlook: Automation in the maritime environment

- Test setup and validation of the concept on dedicated brownfield approaches in

Climate change, with low water levels and other external influences, increasingly hinders shipping in inland waters and results in considerable direct and indirect economic effects.

We offer advice on the automation and digitalisation of the maritime environment:

Modern solutions for loading, unloading and transport are therefore necessary.

loading and unloading - Deployment of a large number of autonomously operating vessels of flexible size in areas with a low water level.

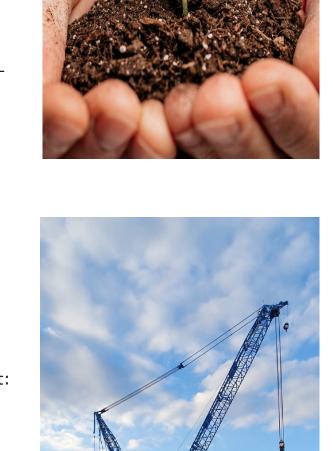
- Autonomous handling operations at small and medium-sized port facilities for

- Review and collaboration in maritime research networks.











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