siticom

Innovation platform 5G for the industry

Use Cases, Application Profiles and Services by siticom

siticom GmbH - 2020

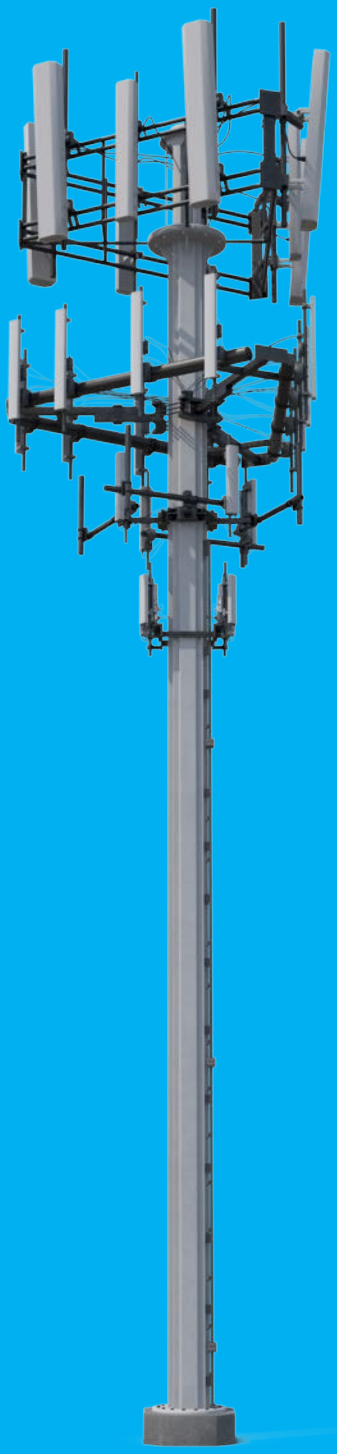
ALWAYS PRESENT CLOSE TO YOUR NEEDS.

In our office locations and competence centers, our employees ensure that your projects are implemented in the highest quality possible.

Office-Locations
Weiterstadt, Cologne, Munich, Bruchsal, Dresden

Competence Center
Hamburg, Berlin, Ratingen, Stuttgart, Wolgast

5G AS THE KEY TO DIGITAL TRANSFORMATION.



5G is not only another cellular standard, but also the key to digital transformation of entire areas. It will have a positive impact on our live- as well as our work surroundings.

More specifically, fifth-generation wireless opens up new business models and provides new ways of working.

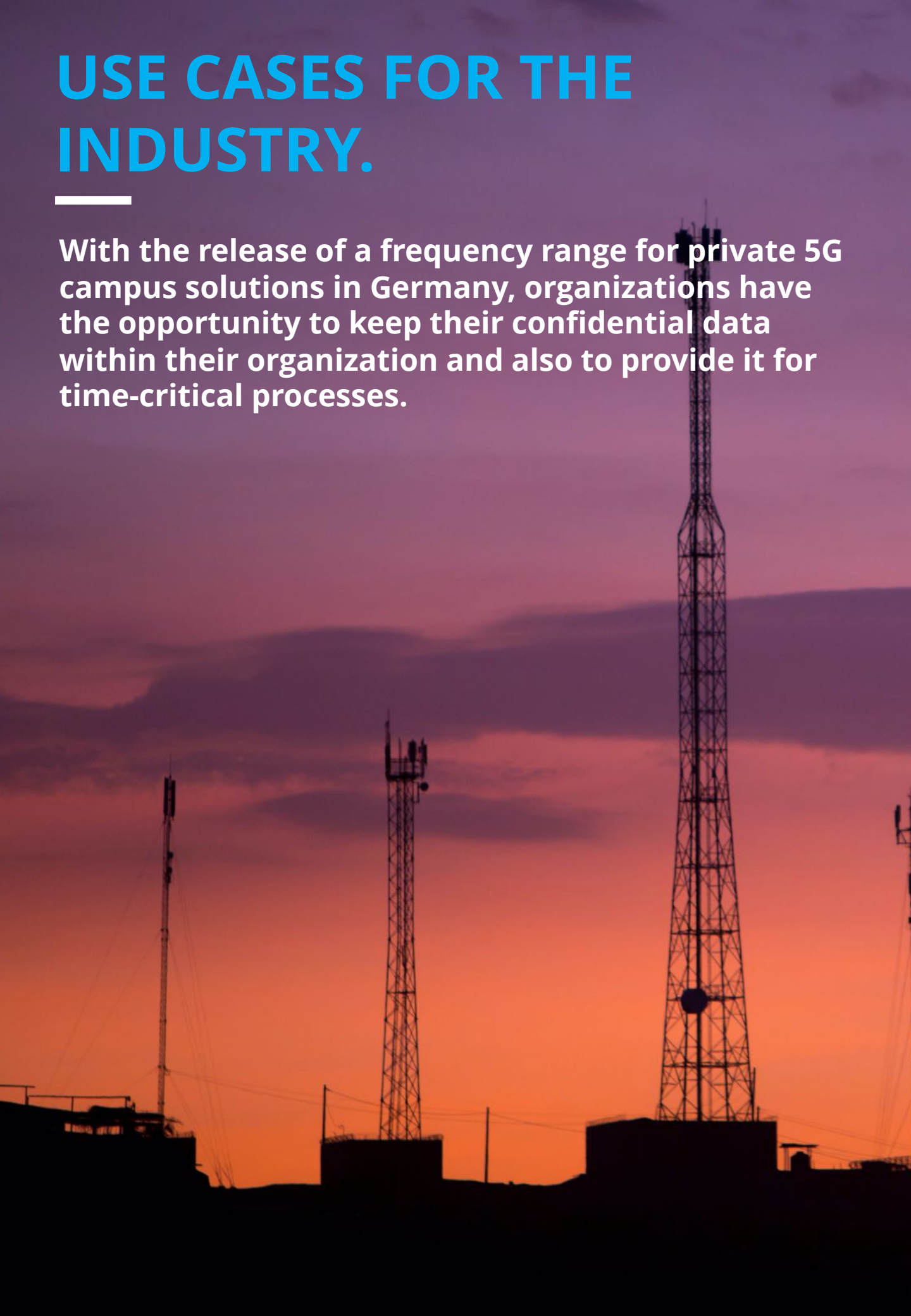
5G AS THE KEY TO DIGITAL TRANSFORMATION.

With the release of a frequency range for private 5G campus solutions in Germany, enterprises have the opportunity to drive their initiatives for Industry 4.0 and to force the Digital Transformation.

Band 28	700 MHz		Provider frequency
	2,4 GHz		WiFi frequency
Band 42	3,4 – 3,7 GHz	100 MHz Block A 100 MHz Block B 100 MHz Block C	5G frequency band for campus networks
Band 43	3,7 – 3,8 GHz	40 MHz Block D 20 MHz Block E 10 MHz Block F / G	5G frequency band for enterprises
	5 GHz		WiFi frequency
Band x	26 GHz		5G in preparation

USE CASES FOR THE INDUSTRY.

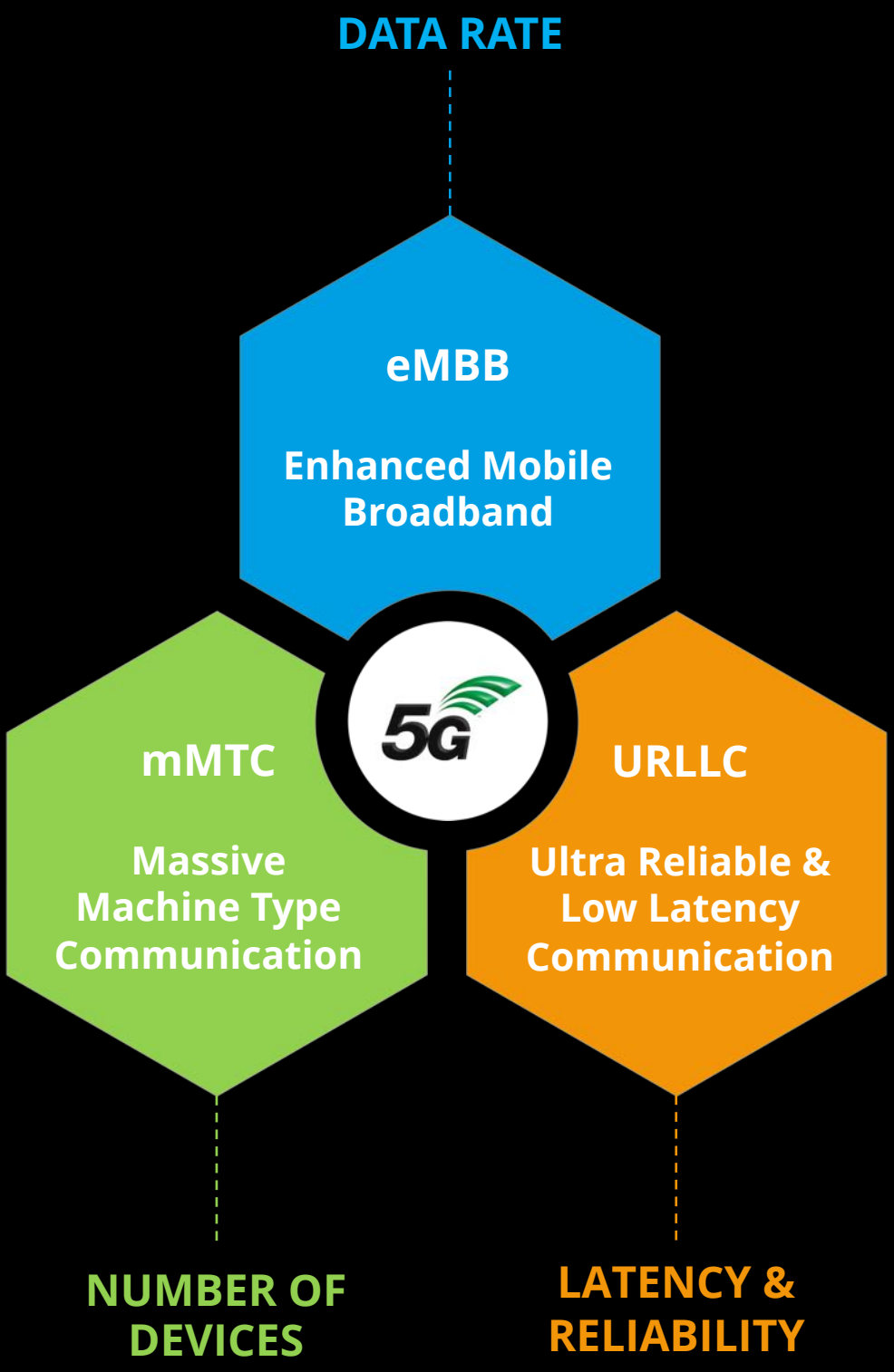
With the release of a frequency range for private 5G campus solutions in Germany, organizations have the opportunity to keep their confidential data within their organization and also to provide it for time-critical processes.



INDUSTRY BUSINESS CASES WITHIN 5G TECH.

- Time-critical process optimization within the factory to support error-free production
- Remote maintenance and control to optimize operating costs while decreasing down time
- Seamless, powerful and secure communication within the company to increase efficiency
- 5G mobile network is not only a wireless local area network
- Monitoring of any device or asset distributed in large areas to allow optimization in regards to ecological sustainability
- Efficient coordination and steering of activities across the entire value chain to optimize productivity

THE THREE CENTRAL APPLICATION PROFILES.

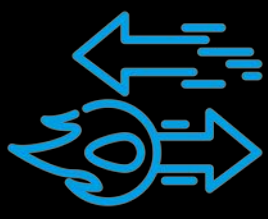


PROFILE 1:
eMBB.

Enhanced Mobile Broadband (eMBB) is one of three primary 5G New Radio (NR) use cases defined by the 3GPP as part of its SMARTER (Study on New Services and Markets Technology Enablers) project.

Among other things eMBB will enable the following topics:

- Up to 20 Gbit/s data rate
- More than 100MBit/s data rate at the edge of a radio cell
- Ultra high-resolution streaming offers
- Mobile cloud-computing
- 360° Video Streaming, Next Generation Augmented and Virtual Reality



PROFILE 2:
mMTC.

Massive Machine Type Communication (mMTC) is the in-between cornerstone of the 3GPP release and greatly enhances NB-IoT and LTE-M with the arrival of new 5G NR specifications.

Among other things mMTC will enable the following topics:

- Up to 106 connections per square kilometer (Mobile IoT and Massive IoT)
- Low power consumption up to 10 years battery life cycle via Power Save Mode (PSM)
- Smart Metering allows for intelligent Energy-Management
- Portable gadgets e.g. Location Badges transform Logistics, Travel and Tourism

PROFILE 3:
URLLC.

Ultra Reliable & Low Latency Communication (URLLC) is the third pillar of the 3GPP release and covers critical communications and allows for new mission critical applications.

Among other things URLLC will enable the following topics:

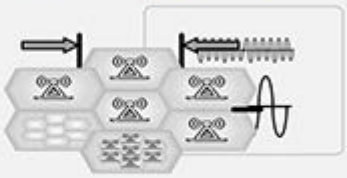
- Fast data processing with approx. 1ms latency with very low error rate
- Industrial automation, Machine to Machine Collaboration
- Fast communication for smart vehicles with autonomous driving technologies
- Smart Grids redefine the generation, storage and consumption of energy
- Remote Diagnosis, Surgery and Emergency Response

KEY ENABLERS FOR YOUR 5G INTRODUCTION.

5G is not only about radio. EDGE Computing, NFV, SDN, Software Development and Network Slicing are key elements to enable the full usage of a 5G private network.

Component #1

Small Cells



MIMO – Multiple In Multiple Out
New Radio

Component #2

EDGE COMPUTING

Component #3

Network Functions Virtualization

Software Defined Networking

Open Source Apps

Network Softwarization and Slicing
SDN – Software Defined Networking
NVF – Network Virtual Functions

Component #4

Agile Software Development
Service Bases Architecture

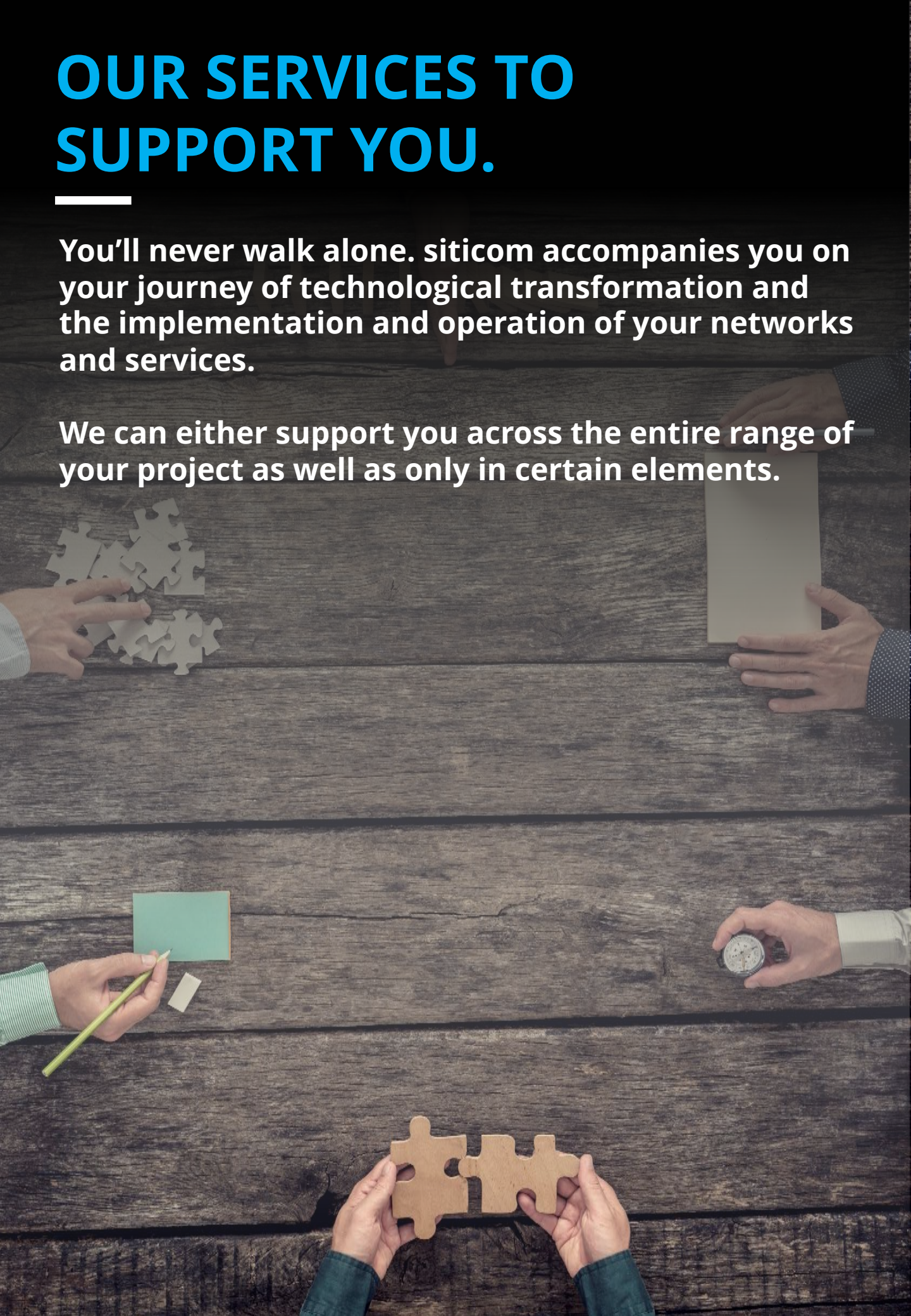
Component #5

HetNet – Heterogenous Networks
(LTE, WiFi, 5G)

OUR SERVICES TO SUPPORT YOU.

You'll never walk alone. siticom accompanies you on your journey of technological transformation and the implementation and operation of your networks and services.

We can either support you across the entire range of your project as well as only in certain elements.



TECHNOLOGICAL TRANSFORMATION.

INITIALIZATION

- Identification of possible fields of action
- Analysis of specific target groups via survey
- Setting up a structure and first evaluations
- Analysis of potential skills
- Creation of use cases

ANALYSIS

- Consideration of the use case
- Description of requirements
- Definition of framework conditions
- Development of technical feasibility
- Creation of the business case

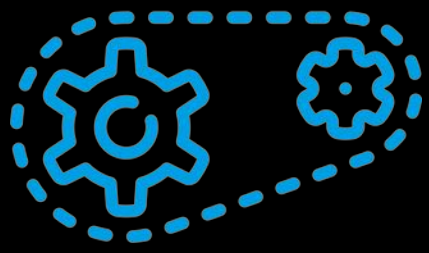
TECHNOLOGICAL TRANSFORMATION.

CONCEPTION

- Specification of IT architecture and -systems in general and detail and end user requirements
- Testing of specification and concepts
- Operating selected solutions specification
- Concept studies for prototyping and piloting
- Rollout concepts
- Definition of internal cost allocation concepts

TENDER MANAGEMENT / CONTRACT NEGOTIATION

- Identification the procurement strategy
- Creation of technical and commercial specifications
- Elaboration of recommended actions and contract negotiations including the optional preparation and execution of an auction
- Creation of the contract ready for signature
- Selection of potential providers
- Call for tenders (RfX)
- Evaluation of the answers



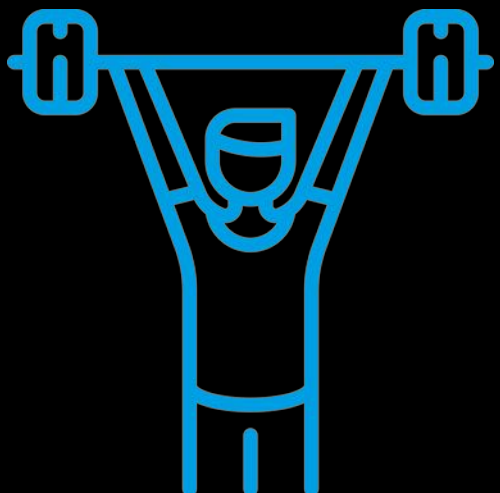
TECHNOLOGICAL TRANSFORMATION.

PILOTING

- Development of the pilot application
- Application of the 5G test license
- Setting-up the solution
- Execution of the acceptance cases
- Evaluation of results
- Decision about further steps

IMPLEMENTATION AND ROLL OUT

- Creation of the rollout plan
- Application for licenses
- Commissioning of the solution
- Installation and civil works
- Execution of acceptance tests
- Final acceptance



CRITICAL NETWORK & CLOUD OPERATIONS.

OPERATION

- Service management based on ITIL v3 and v4
- Set up and reporting of useful KPIs
- Analysis of resource utilization
- Creation of service catalog
- Continuously service improvement

IMPLEMENTATION AND ROLL OUT

- Invitation and execution of steering board meetings
- Project management across all phases
- Supplier management
- Provision of technical and commercial benchmarks
- Assurance and improvement of quality

INTERESTED? CONTACT US.

You can talk about anything. We're even looking forward to it! We are happy to answer any further questions about our services by email, telephone or in a video chat session.

CHRISTIAN FREUND

MANAGER 5G BUSINESS

+49 176 15915160

www.siticom.de

christian.freund@siticom.de

siticom