

5G für die Digitalisierung von Schlüsselbranchen

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Megatrend AI - Compute and 5G / 6G are essential enablers!

COMPUTE
DRIVING AI

Device
Edge
Cloud

5G / 6G
ENABLING NEW POSSIBILITIES



Higher Speed



Low Latency

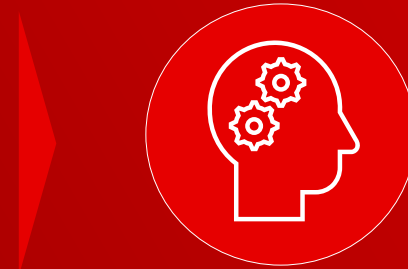


Capacity and Reliability



Slicing & Private Networks

+



Cars



Train



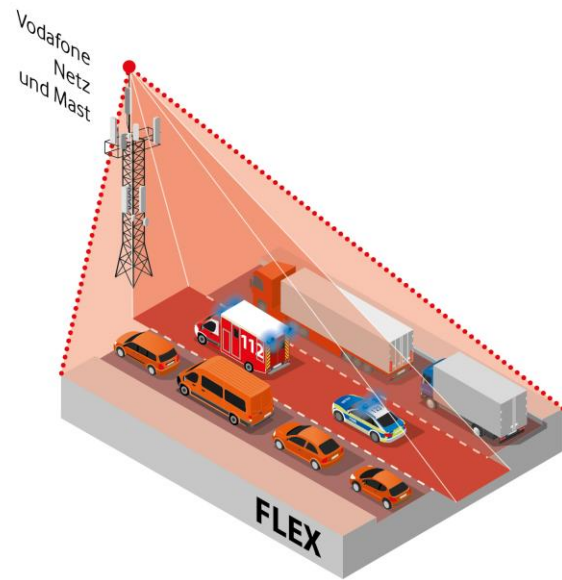
Drones



Health

Campus Flex

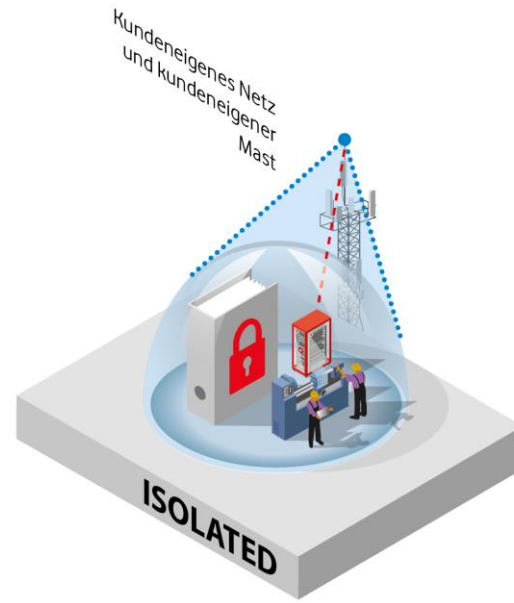
MPN Slice



Slice in Vodafone public network

Campus Isolated

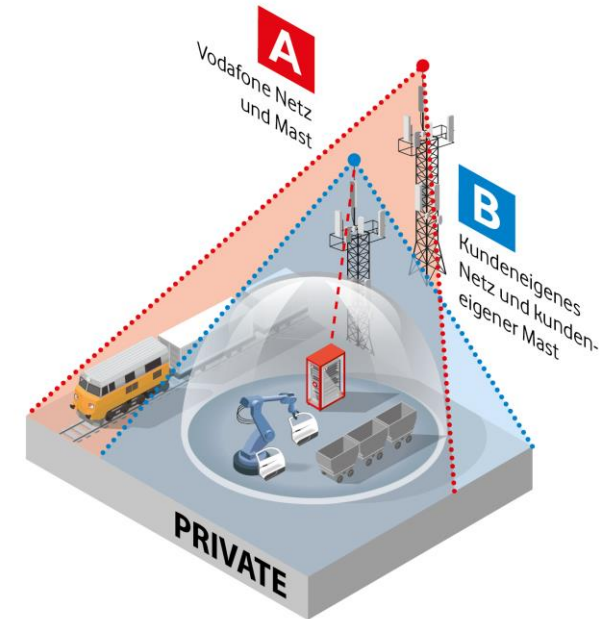
Private Mobile Network (MPN)



Dedicated private mobile network with customer (Industry-) frequencies

Campus Private

MPN with RAN-Sharing

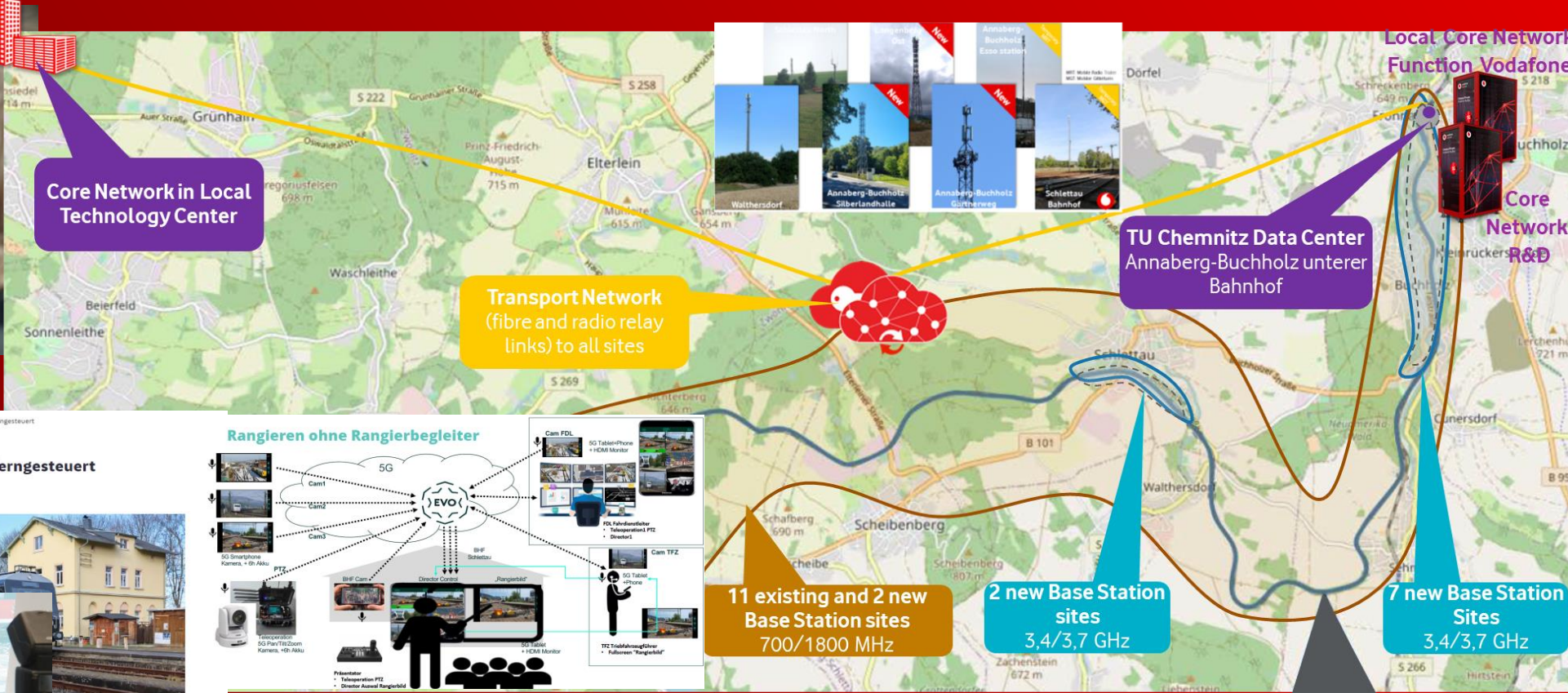


Public and private network separated via RAN-Sharing

Connected Mobility *Trains*



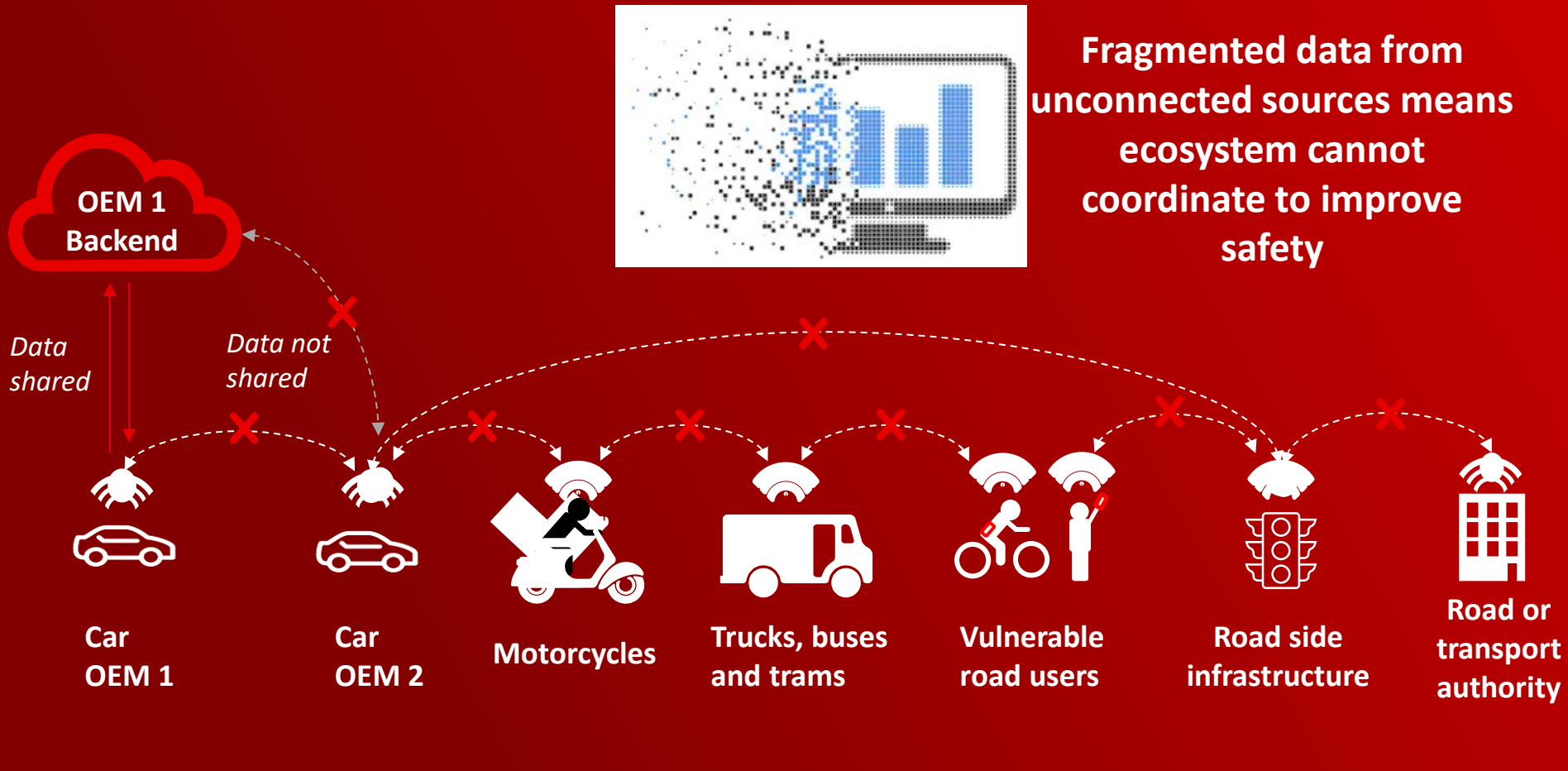
Smart Rail Connectivity Campus in Annaberg: 5G testbed for digitalization of railways



Connected Mobility *Cars*



Data fragmentation currently limits the benefits that connectivity services can bring to road safety



STEP – Safer Transport for Europe Platform



Vodafone is committed to make European Roads safer for all

STEP aims to scale – Starting in the V2X / Connected Mobility space and using it for all types of real-time data broker applications

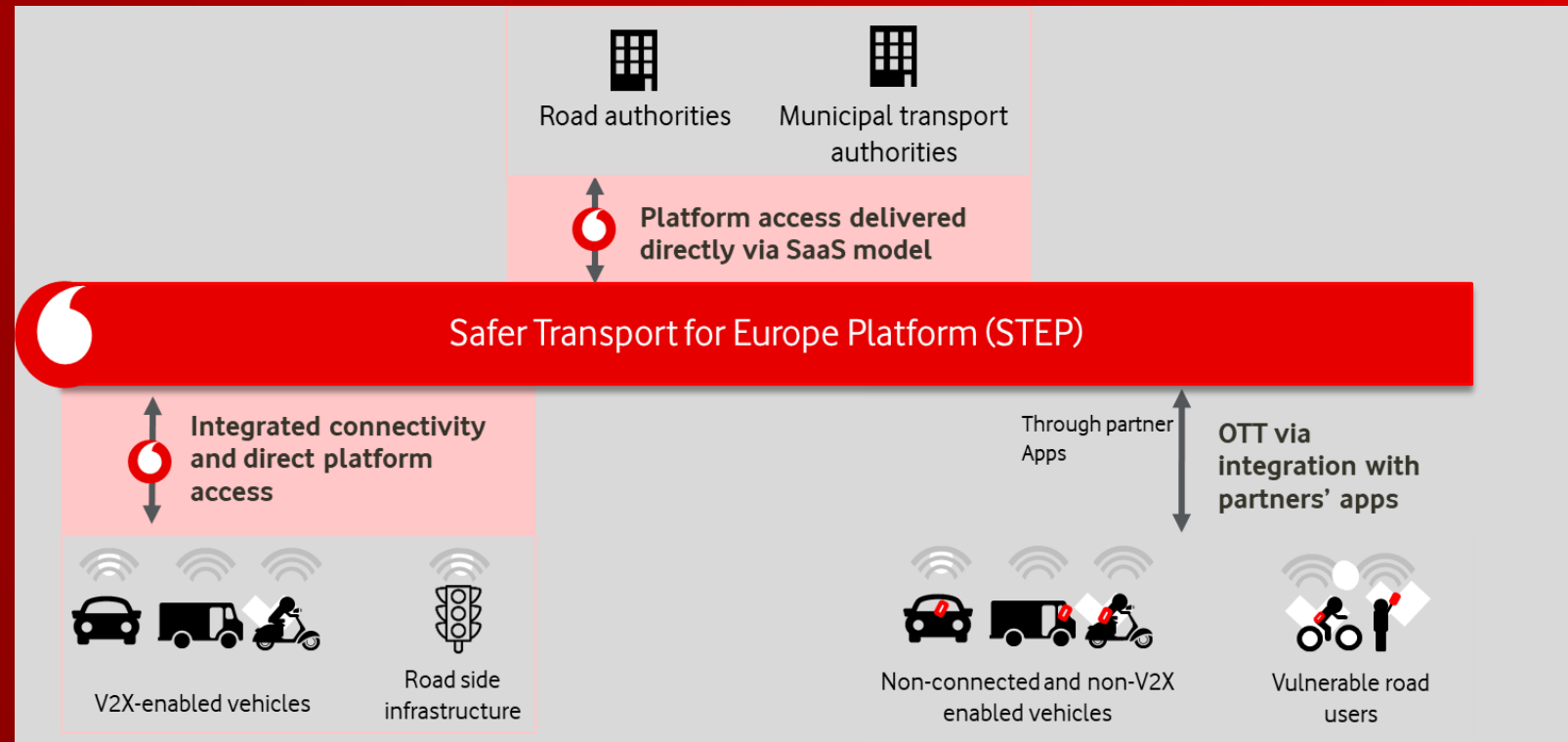
Platform to distribute, broker and validate V2X messages in real-time leveraging 5G and Edge Cloud

Hazard Warnings

VRU Assistance

Infrastr. to Vehicle

Vehicle Probe Data



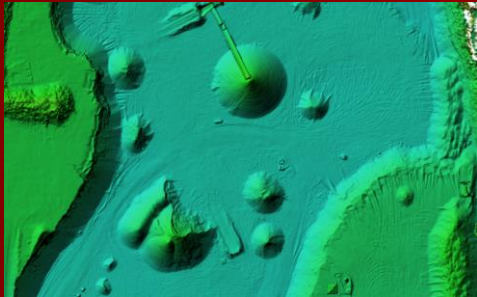
Connected Mobility *Drones*



5G – the base *DroNet Hub and AI applications*

DroNet Hub – our platform for efficient drone missions

Monitoring of construction sites



- Supervision of construction progress
- Survey of excavation
- Counting of construction vehicles
- Measurement of construction sites

Inspection of bridge constructions



- Registration of condition of bridge constructions
- Damage analysis
- Creation of damage report

Monitoring of Highways



- Visual assessment of highway segments for damages or abnormalities
- Parking Analysis for highly frequented truck parking lots.



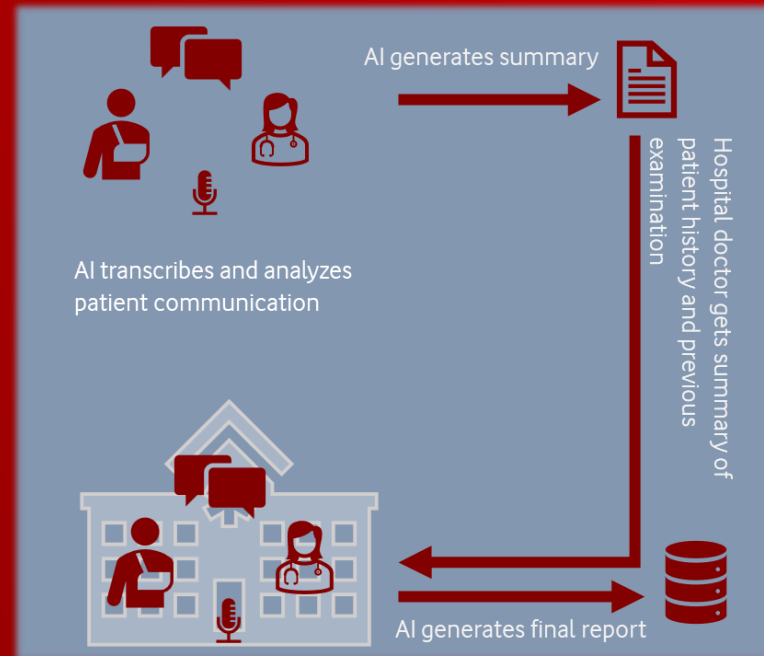
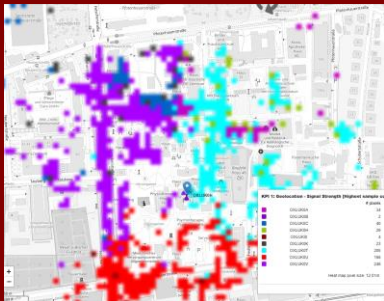
AI plays a crucial role analyse content created by the drone Mission

Source image:
<https://www.tag24.de/nachrichten/unfall/staumeldungen/kilometerlanger-stau-auf-der-a4-bei-dresden-das-ist-der-grund-3305498>

Connected Hospital and Patients



Healthcare digitisation: Blueprints developed in collaborative projects SEMECO & 6G-HEALTH



VDE Recommendation

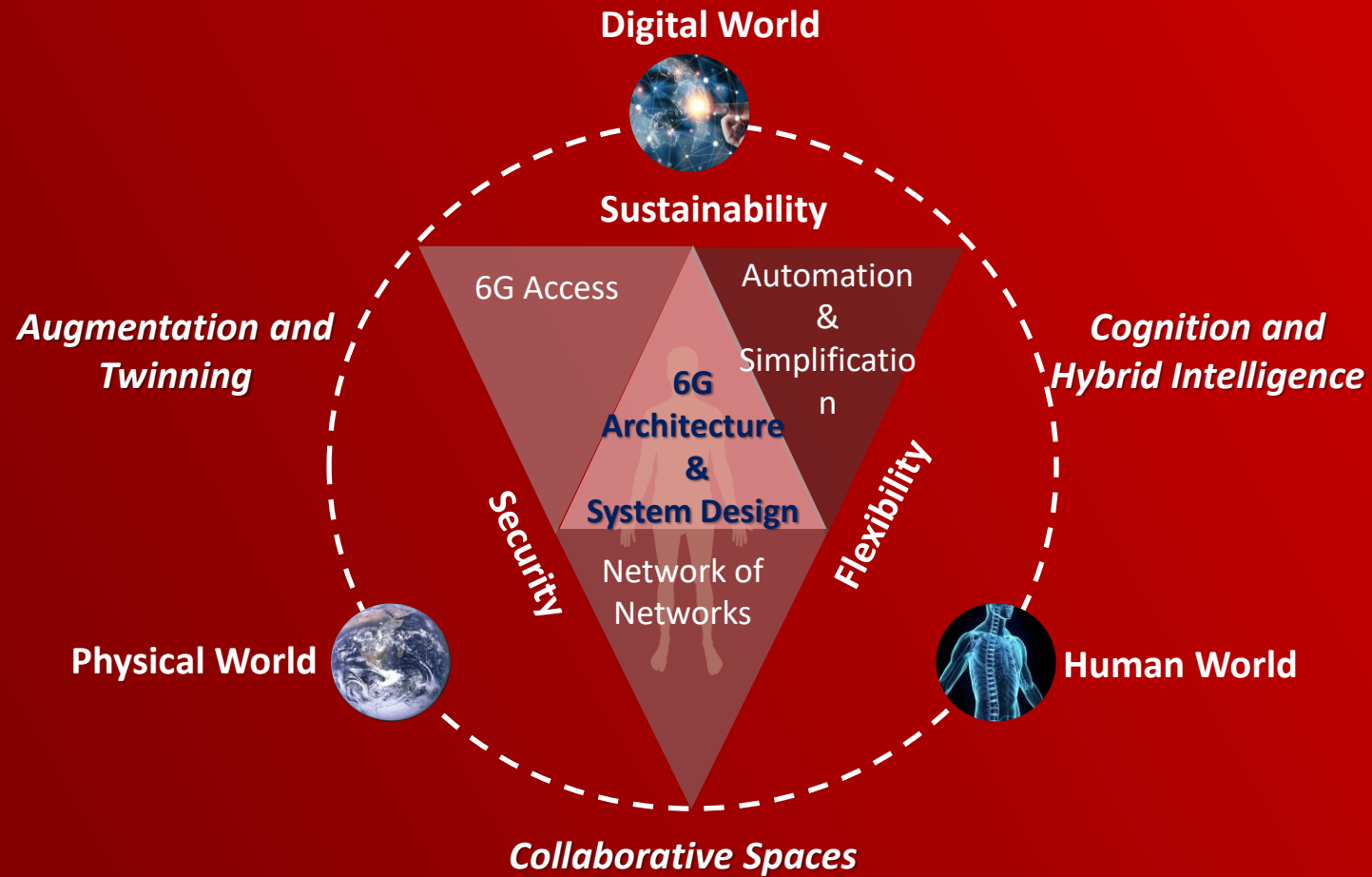
MD Comp

A practical framework to integrate non-medical devices and medical devices in a compliant way

VDE DGBMT

Road Towards 6G

SHAPE THE FUTURE OF 5G+ AND BEYOND!



Source: 6G-ANNA (project funded by BMBF).

Vodafone Tech Innovation Center Dresden





Together we can