It takes dedication to adopt 5G

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Ongoing revolutions in ABB domains

The Energy Revolution

The Fourth Industrial Revolution

The eMobility Revolution

Utilities

Industry

Transport & Infrastructure
Customer value through digital for mining - Optimizing mining processes in real-time

ABB remote control center

Customer operations center

30 – 50% energy savings in mine ventilation

5% uptime improvement of mine hoists and gearless mill drives

$5 mn / underground mine / year savings today through services and automation
### The scene

#### Process automation and manufacturing
- Reliability – robust and resilient systems
- QoS and latency – deterministic systems
- Cyber security & safety, privacy – critical infrastructure
- System integration
- Manageability

#### Plant networks – KISS
- OT ↔ IT
- Segmented
- WSN
- On premise
- Local → Simple → Robust
Private network and local spectrum values

Responsibility & Liability

- Makes responsibilities clearer – 5G will be an integrated part of the plant
- Liability cost
Private network and local spectrum values

Responsibility & Liability

Freedom to digitalize

• Tool for verticals to digitalize in non-urban areas
Private network and local spectrum values

Responsibility & Liability
Freedom to digitalize

Privacy
• Control of data and processes
• Control of Infrastructure
• On premise
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Dedicated spectrum values

**Private network and local spectrum values**

- Responsibility & Liability
- Freedom to digitalize
- Privacy

**New business offerings**
- Enables innovation on new offerings & business models
Private network and local spectrum values

Responsibility & Liability
Freedom to digitalize
Privacy
New business models

Flexibility
- Custom made solutions – instead of “one size fits all”
Private network and local spectrum risks

\[ \sum \text{Values} \gg \sum \text{Risks} \]

Simple
- to engineer and integrate
- to maintain, monitor and operate

Collaborate
- It is not a “one domain issue” – need cross domain collaborations

Then we will create success!