



**BOSCH**



# Industrial 5G

Campus Licenses: Status Quo & Future Perspectives

Dr. Andreas Mueller | Robert Bosch GmbH

# Industrial 5G: Status Quo and Future Perspectives

## First Campus Licenses of Bosch

### Lessons Learned

Reasonable costs

Unbureaucratic application procedure

Quick processing of the license application

No deep expert knowledge required

Very good framework from BNetzA and brave step into the right direction 😊



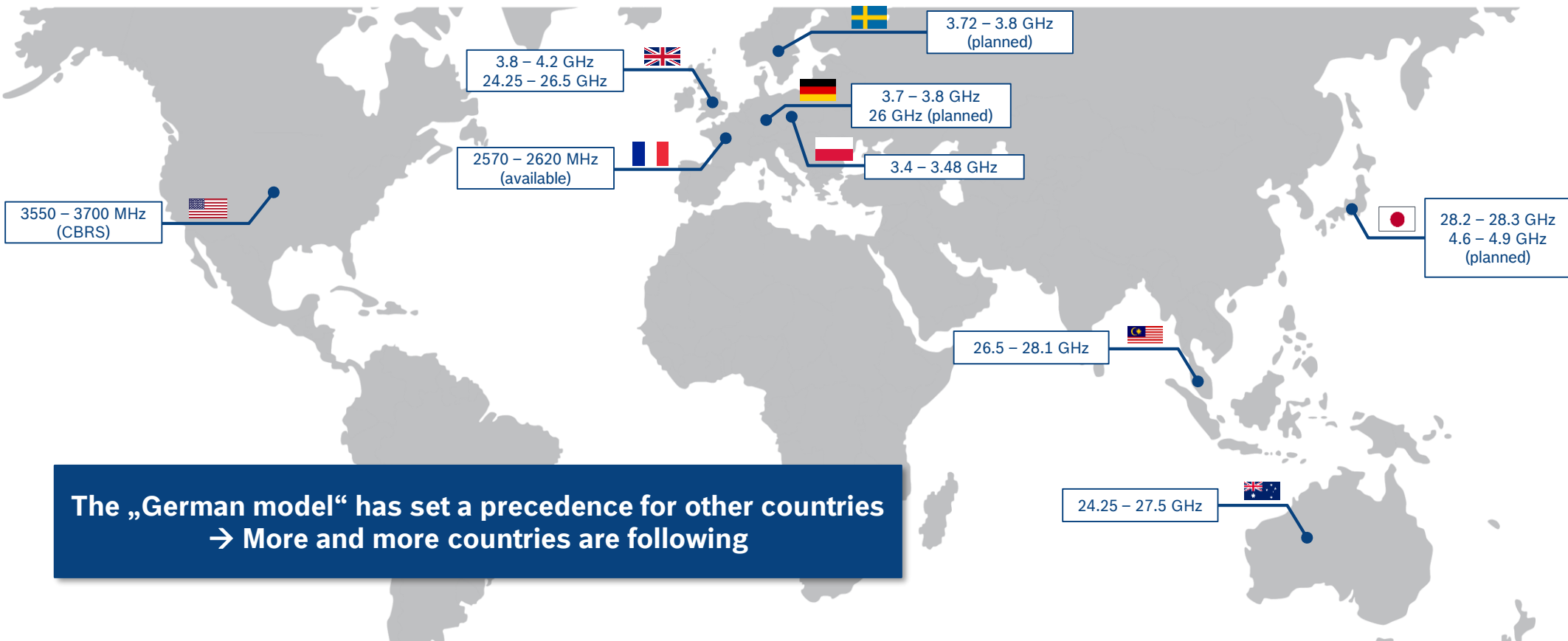
Bosch plant in Stuttgart



Research campus in Renningen

# Industrial 5G: Status Quo and Future Perspectives

## Local Spectrum Situation Worldwide (Selection)



**The „German model“ has set a precedence for other countries  
→ More and more countries are following**

# Industrial 5G: Status Quo and Future Perspectives

## Status Quo

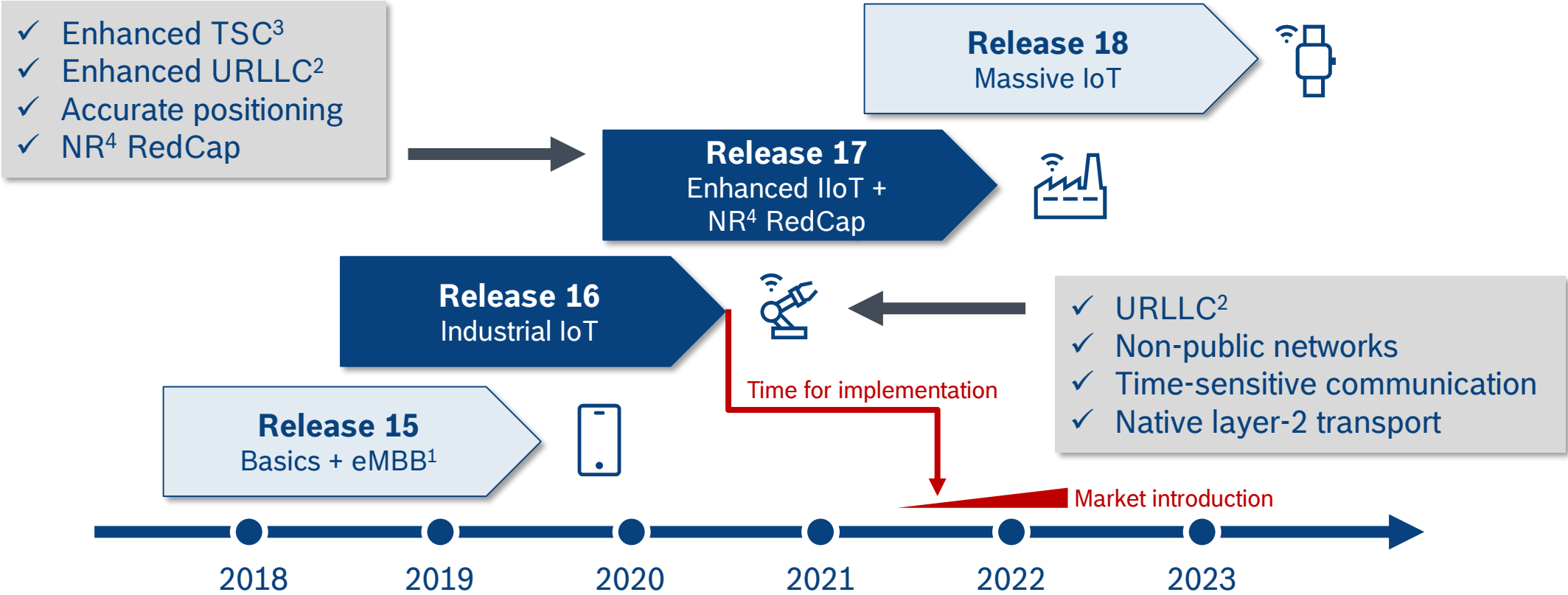


Only limited usage in general so far

# Why?

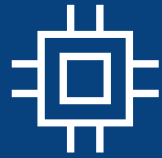
# Industrial 5G: Status Quo and Future Perspectives

## 3GPP Standardization Timeline





## Selected Remaining Challenges



### **Feature Support**

Chipsets and infrastructure components



### **Performance Validation**

In real-world industrial environments



### **Real Business Cases**



### **Smart Integration**

Secure & smooth integration



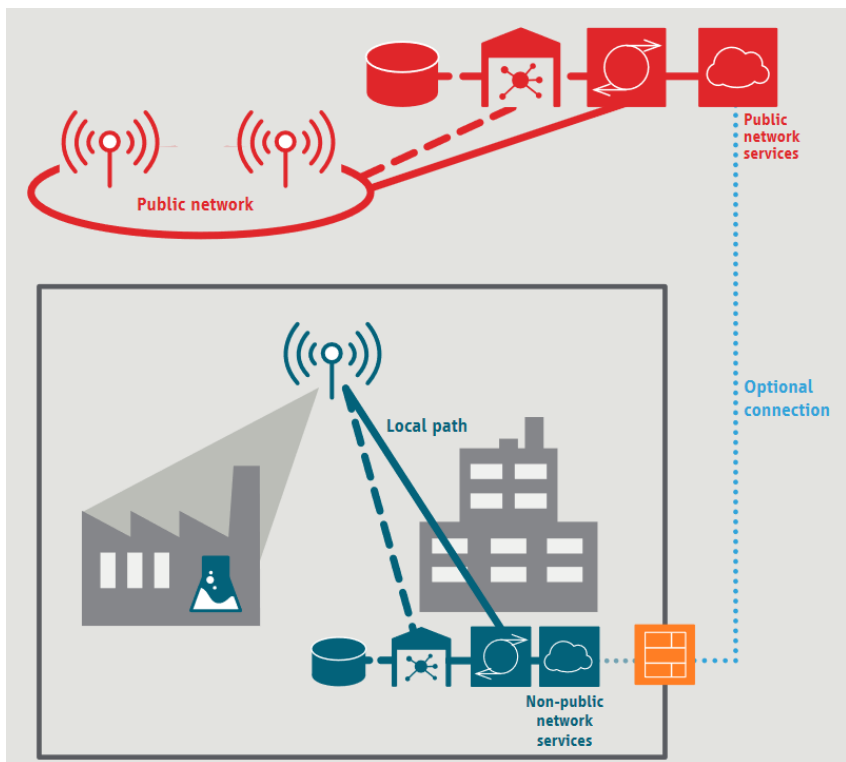
### **Functional Ecosystem**

Solving the chicken-egg challenge

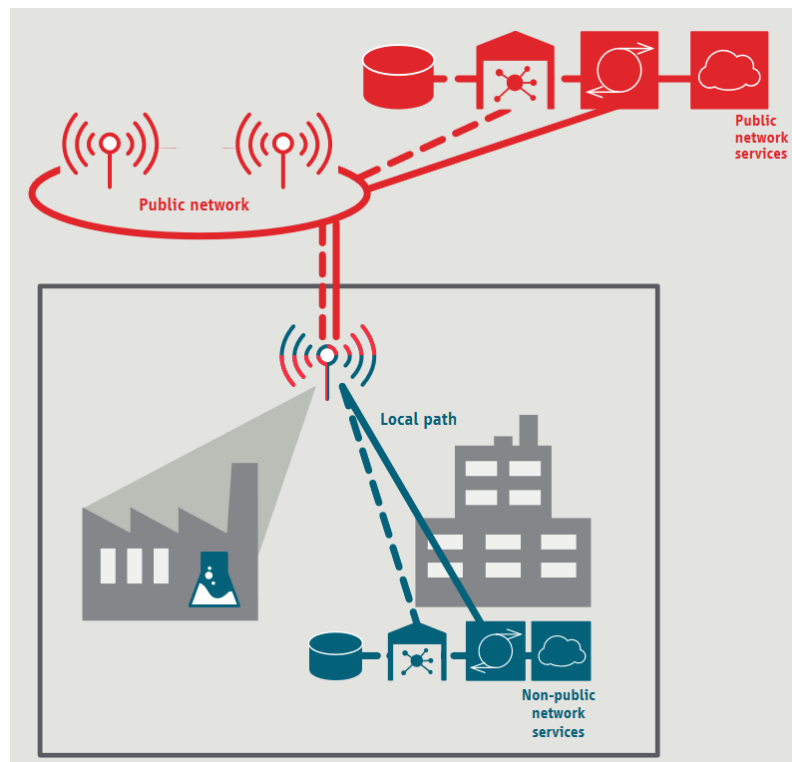
# Industrial 5G: Status Quo and Future Perspectives

## Different Flavors of Private 5G Factory Networks

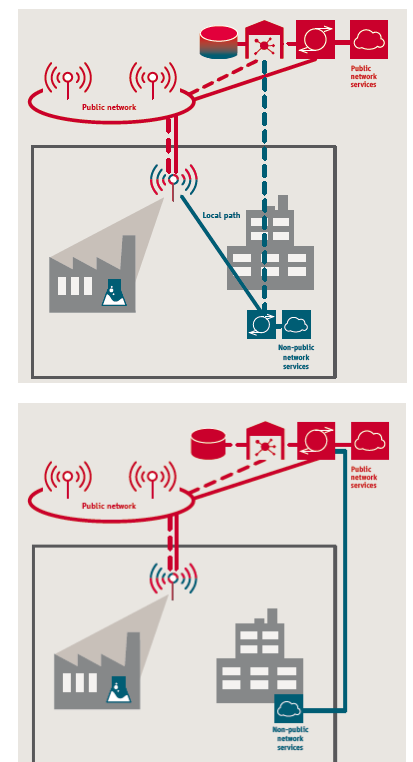
### Example 1: Standalone Non-Public Network



### Example 2: Shared Radio Access Network



### Further Options



Source: 5G-ACIA



**New business models & service offerings take time to emerge → first steps have been taken already**

„We have come to stay 😊!“



Dipl.-Ing., M.Sc.  
**Dr. Andreas Mueller**

Corporate Sector Research and Advance Engineering  
Communication and Network Technology (CR/ADT1)

andreas.mueller21@de.bosch.com  
Tel.: +49-711-811-20836

# 5G

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