

Materials, Processes

- Materials and quality issues (S2)
- Design for manufacturing and the SLM process (S5)
- Lead-free solder reliability for harsh environment electronics (S8)

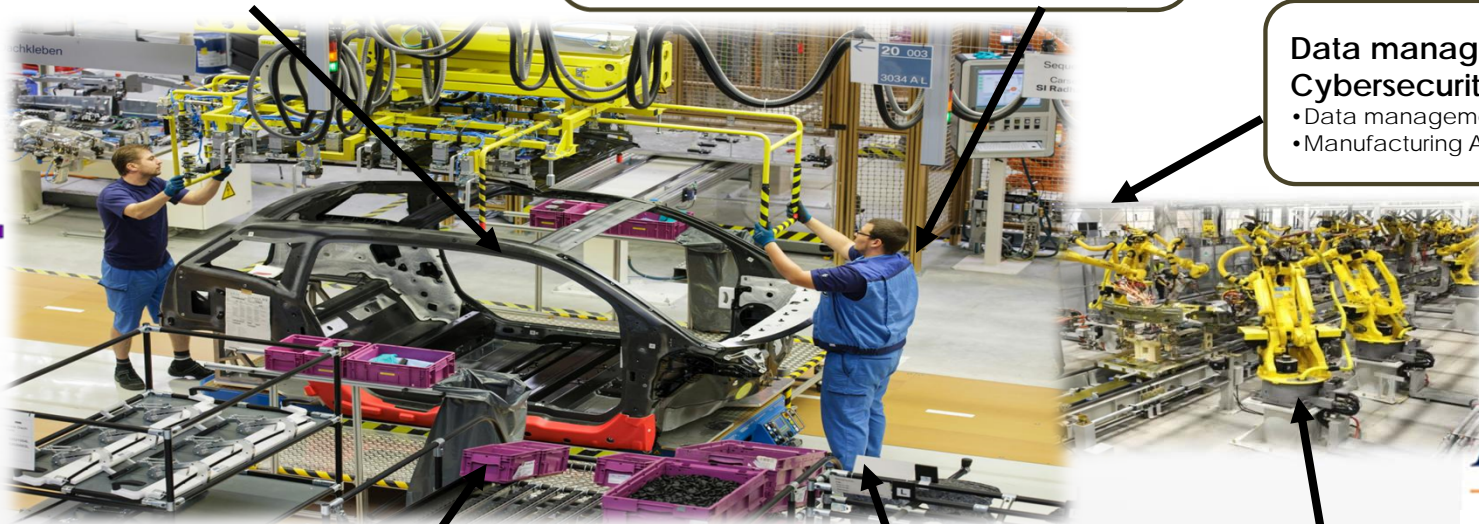
Workforce and Lean Manufacturing

- Control of musculoskeletal disorders using fatigue failure theory (S1)
- Continuous improvement systems analysis (S3)
- Industrial standards for fasteners (S11)
- Assembly line balancing under unstable environments (S18)



Data management, Cybersecurity

- Data management Analytics (S4)
- Manufacturing Analytics (S13)



Inspection, Maintenance, Energy,

- Non-contact monitoring of manufacturing equipment (S6)
- Range-extended RFID applications (S14)
- Diagnostic system for image inspection (S15)
- Advanced automated visual inspection of cast parts

Green Material Handling

- Range-extended RFID applications (S14)
- Novel material handling through advanced AGV

Automation, Controls, Robotics

- Improved robotic welding (S9)
- Hybrid Tactile-visual perception (S10)
- Multi-sensor data fusion for 3D printing (S11)

