CERN QTI & Knowledge Transfer

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Knowledge Transfer at CERN

- **Maximise** the technological and knowledge return to society, in particular through Member States industry
- **Promote** CERN as a centre of excellence for technology and innovation
- **Demonstrate** the importance and impact of fundamental research investments

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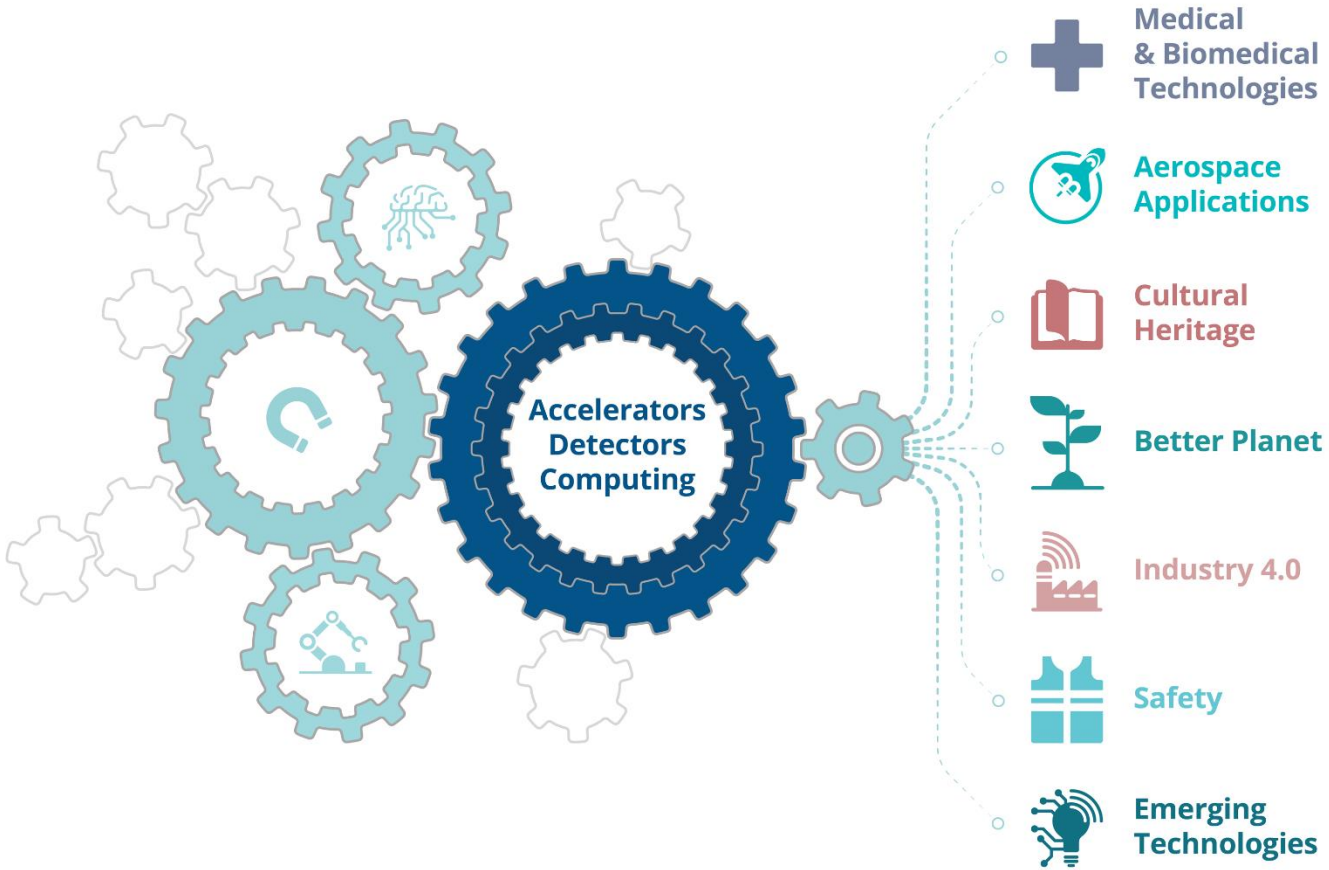
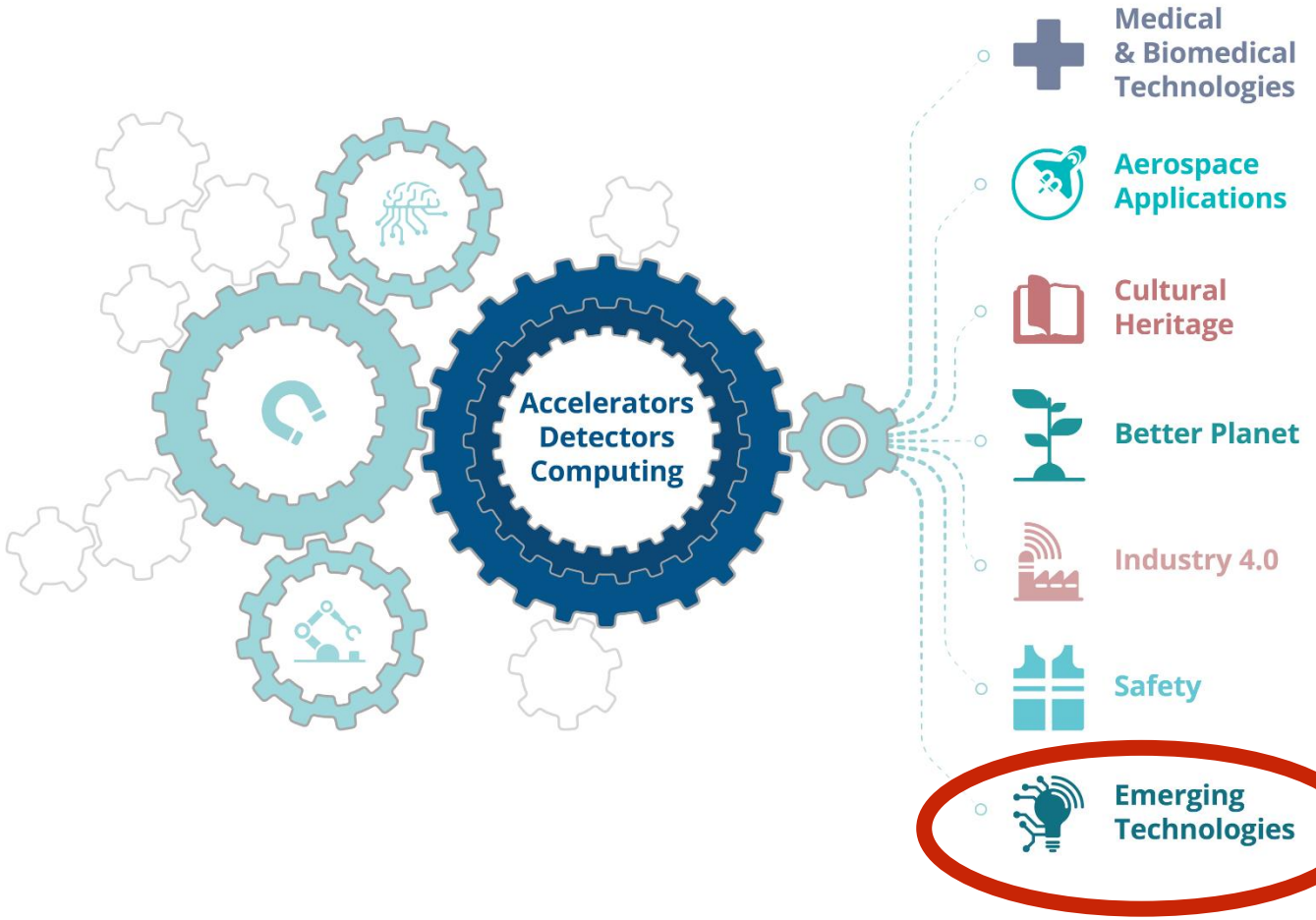
Maximise CERN's impact on the development of quantum technologies

From CERN Technologies...



… to Society

From CERN Technologies...



QUANTUM TECHNOLOGY INITIATIVE

… to Society

Competences

Machine Learning and Deep Learning

Industrial Controls and Automation

Metrology

High and Ultra High Vacuum Systems

Data Analytics

Health, Safety and Environment Management

Cryogenics

Optoelectronics and Microelectronics

High Volume Data Management & Storage

Superconducting Magnets

Particle Acceleration and Control

Radiation Protection and Monitoring

Particle Tracking and Calorimetry

Sensors

Material Science

Cooling and Ventilation

Robotics

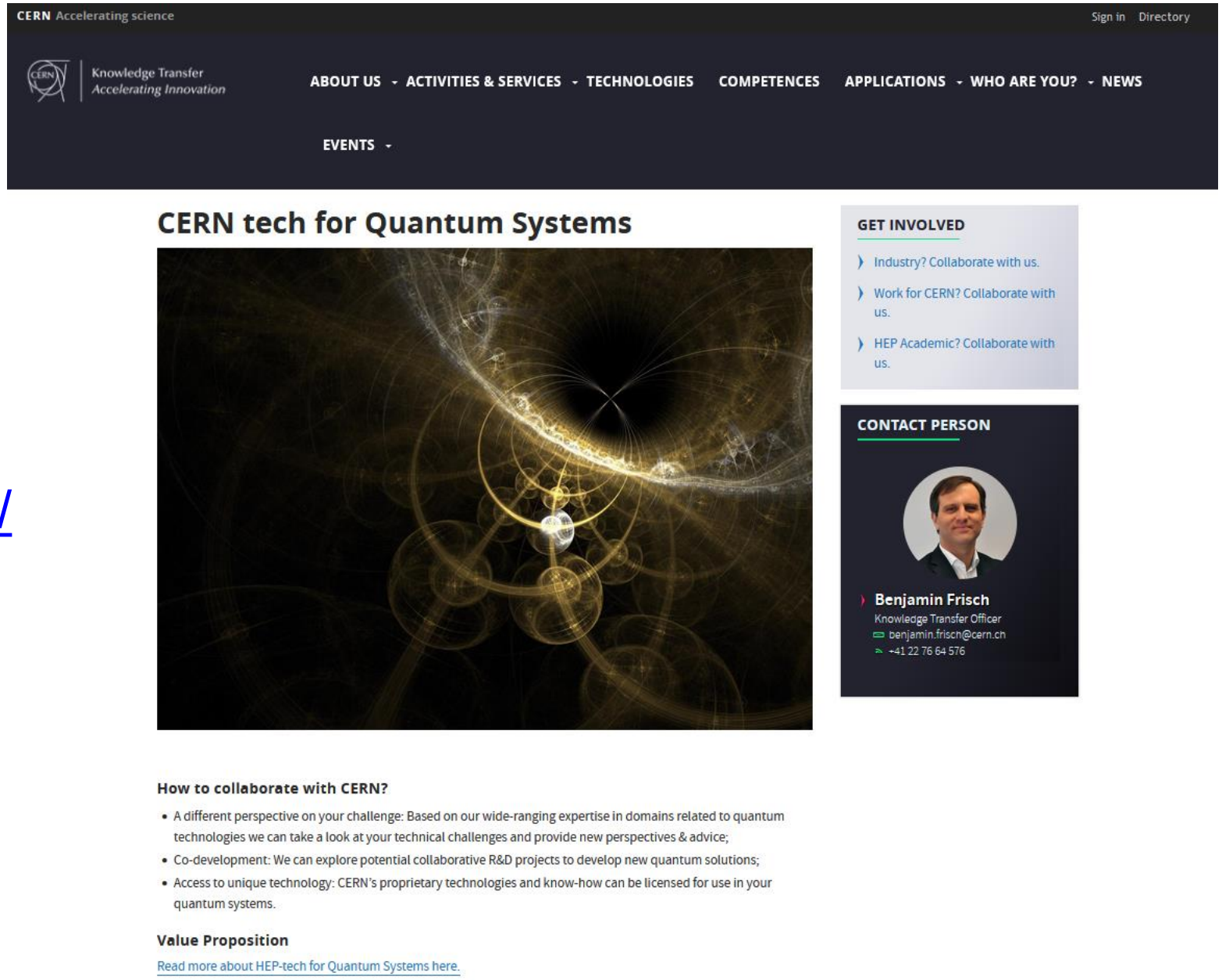
Collaboration Tools

Radio Frequency Technology

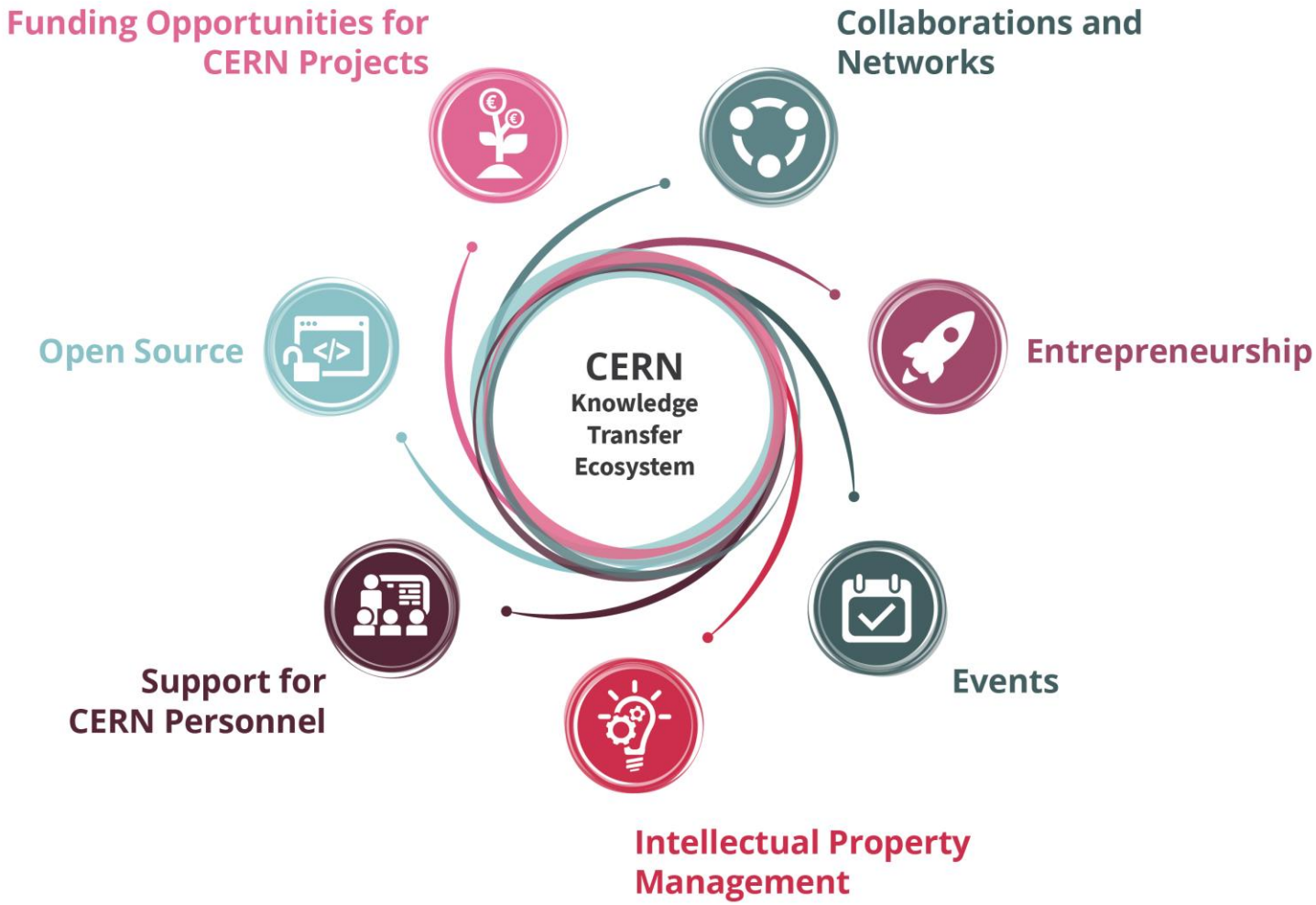
Manufacturing and Mechanical Processes

Competences

http://kt.cern/competences/cern-tech-quantum-systems

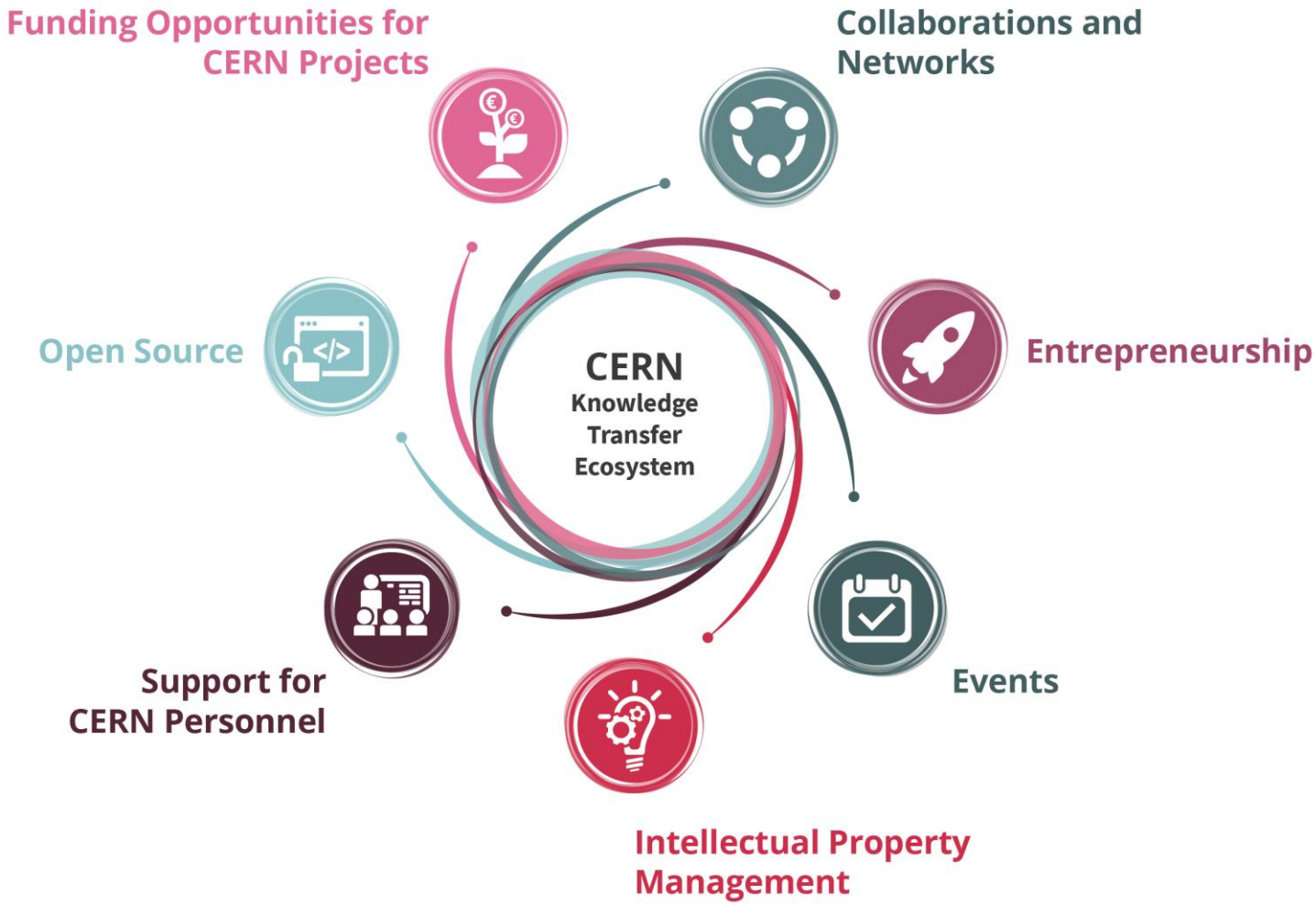


Knowledge Transfer Tools



Knowledge Transfer Tools

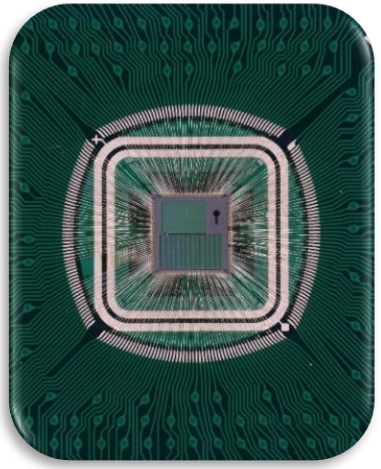
Establish mutually beneficial industry partnerships



Do you have examples?

Do you have examples?

White Rabbit
Picosecond time synchronisation



picoTDC
picosecond time to digital converter

Lasers
Integrated Single Longitudinal Mode Raman Laser Converter Structured Laser Beam

Our ambition

- **Identify** technologies and competences for QT
- **Explore** mutually beneficial industry opportunities
- **Create** network of industrial collaborations
- **Demonstrate** impact