



CERN QTI & Knowledge Transfer

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Knowledge Transfer at CERN

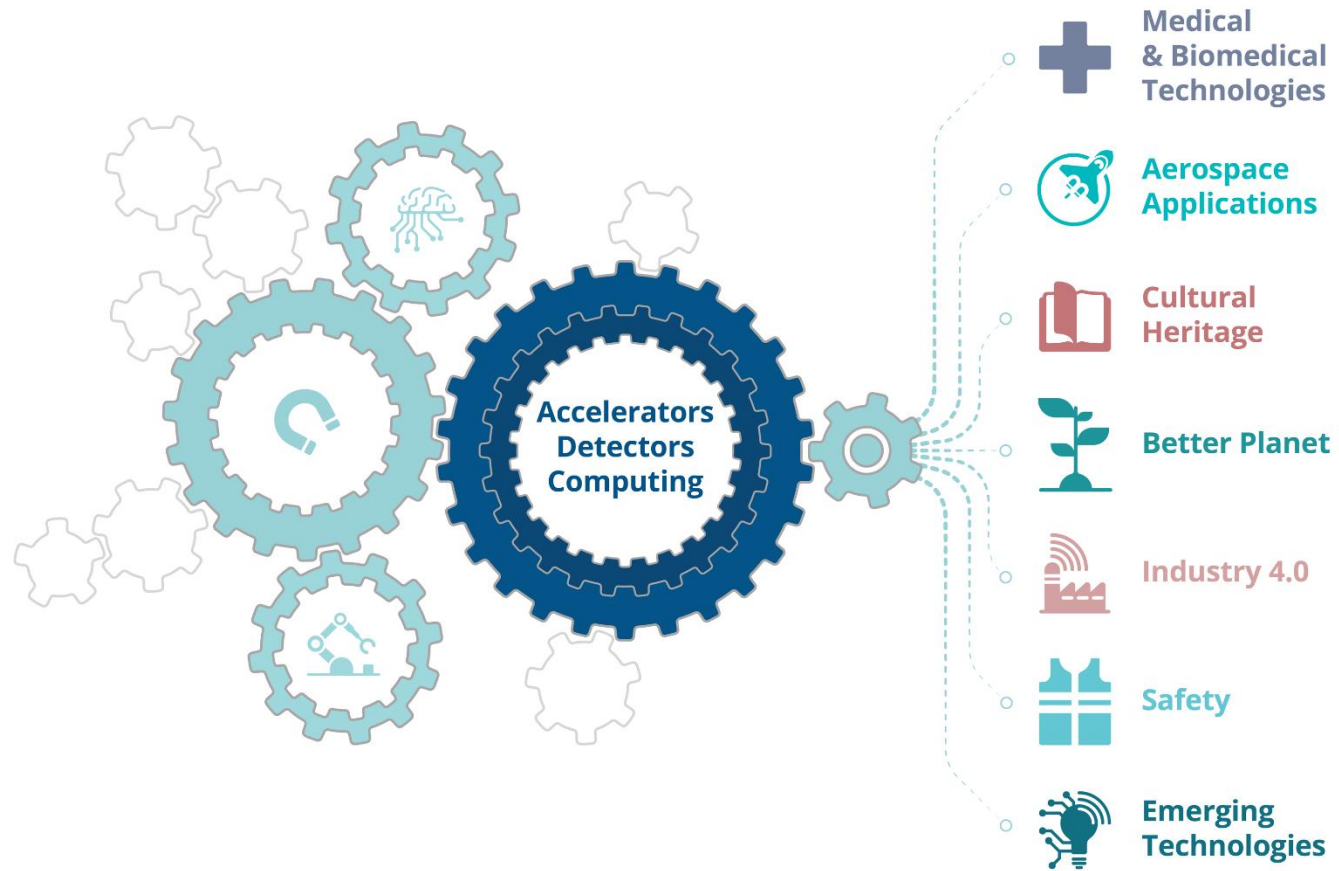
- **Maximise** the technological and knowledge return to society, in particular through Member States industry
- **Promote** CERN as a centre of excellence for technology and innovation
- **Demonstrate** the importance and impact of fundamental research investments

Knowledge Transfer at CERN

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Maximise
CERN's impact
on the
development of
quantum
technologies

From CERN Technologies...



... to Society

From CERN Technologies...



Competences

Machine Learning and Deep Learning Industrial Controls and Automation

Data Analytics **Metrology** **High and Ultra High Vacuum Systems**

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

Robotics **Sensors** Material Science **Cooling and Ventilation**

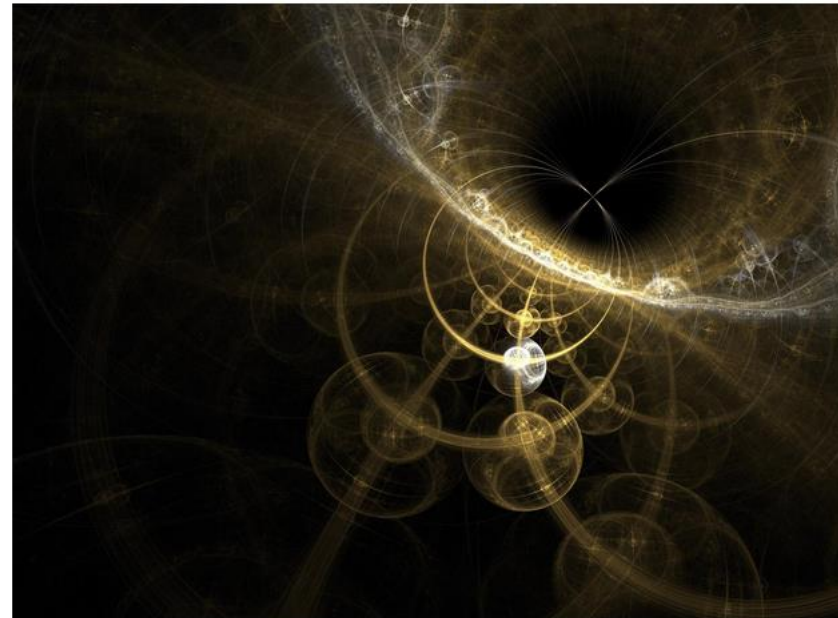
Collaboration Tools Radio Frequency Technology

Manufacturing and Mechanical Processes

Competences

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

CERN tech for Quantum Systems



GET INVOLVED

- › Industry? Collaborate with us.
- › Work for CERN? Collaborate with us.
- › HEP Academic? Collaborate with us.

CONTACT PERSON



› **Benjamin Frisch**
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How to collaborate with CERN?

- A different perspective on your challenge: Based on our wide-ranging expertise in domains related to quantum technologies we can take a look at your technical challenges and provide new perspectives & advice;
- Co-development: We can explore potential collaborative R&D projects to develop new quantum solutions;
- Access to unique technology: CERN's proprietary technologies and know-how can be licensed for use in your quantum systems.

Value Proposition

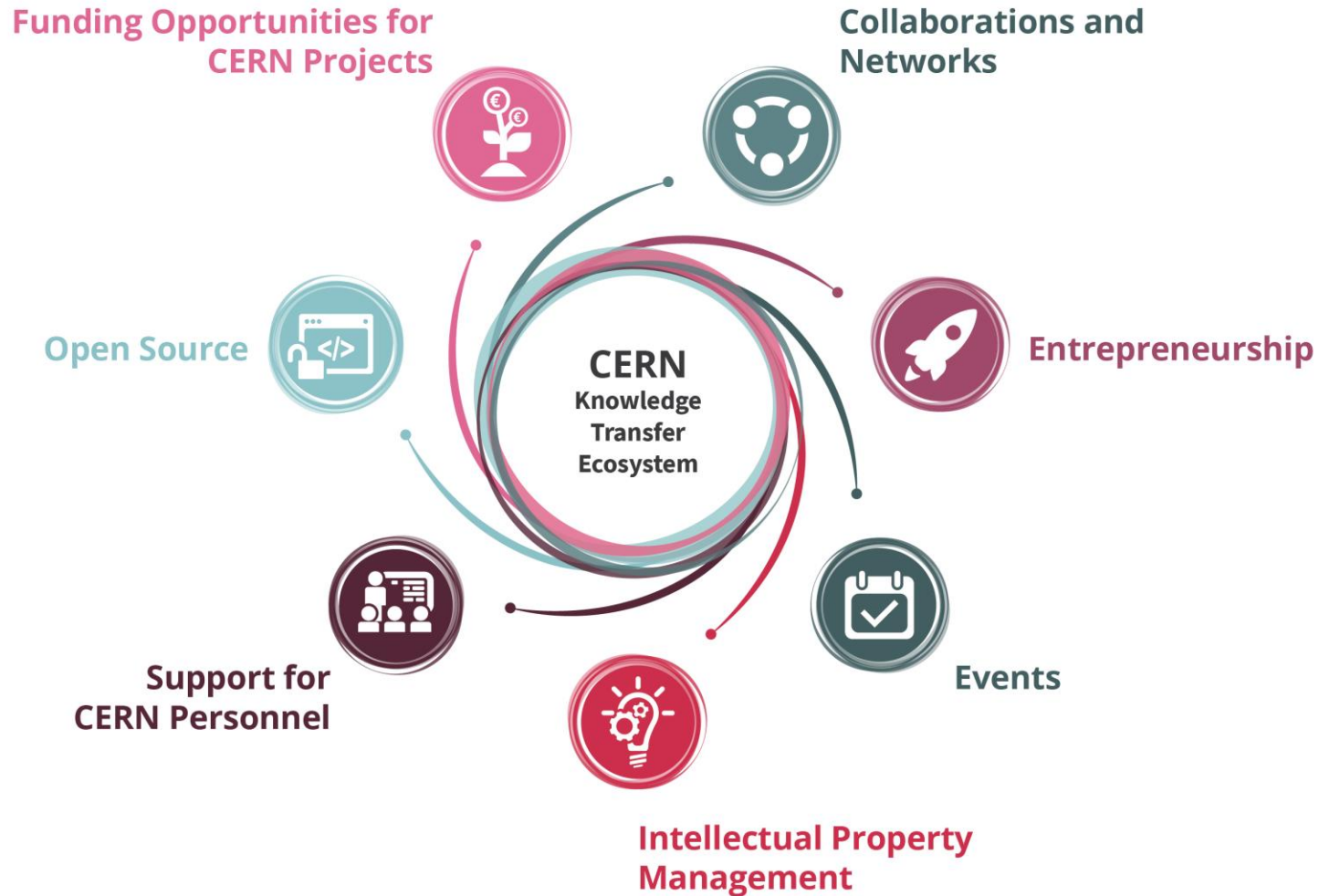
[Read more about HEP-tech for Quantum Systems here.](#)

Knowledge Transfer Tools



Knowledge Transfer Tools

Establish mutually beneficial industry partnerships



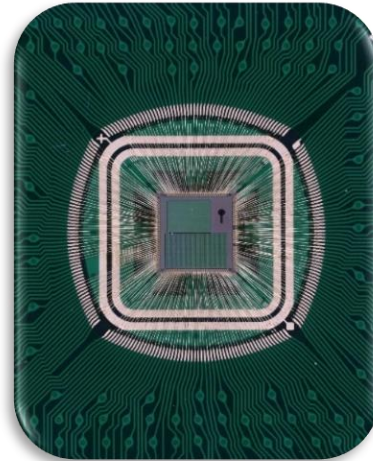
Do you have examples?



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

