CVStar

QUANTERA

Innovation Fund Denmark

FFG — Forschung wirkt.

quantera.eu/cvstar

Consortium

DTU
tdc net
Palacký University Olomouc
AIT AUSTRIAN INSTITUTE OF TECHNOLOGY
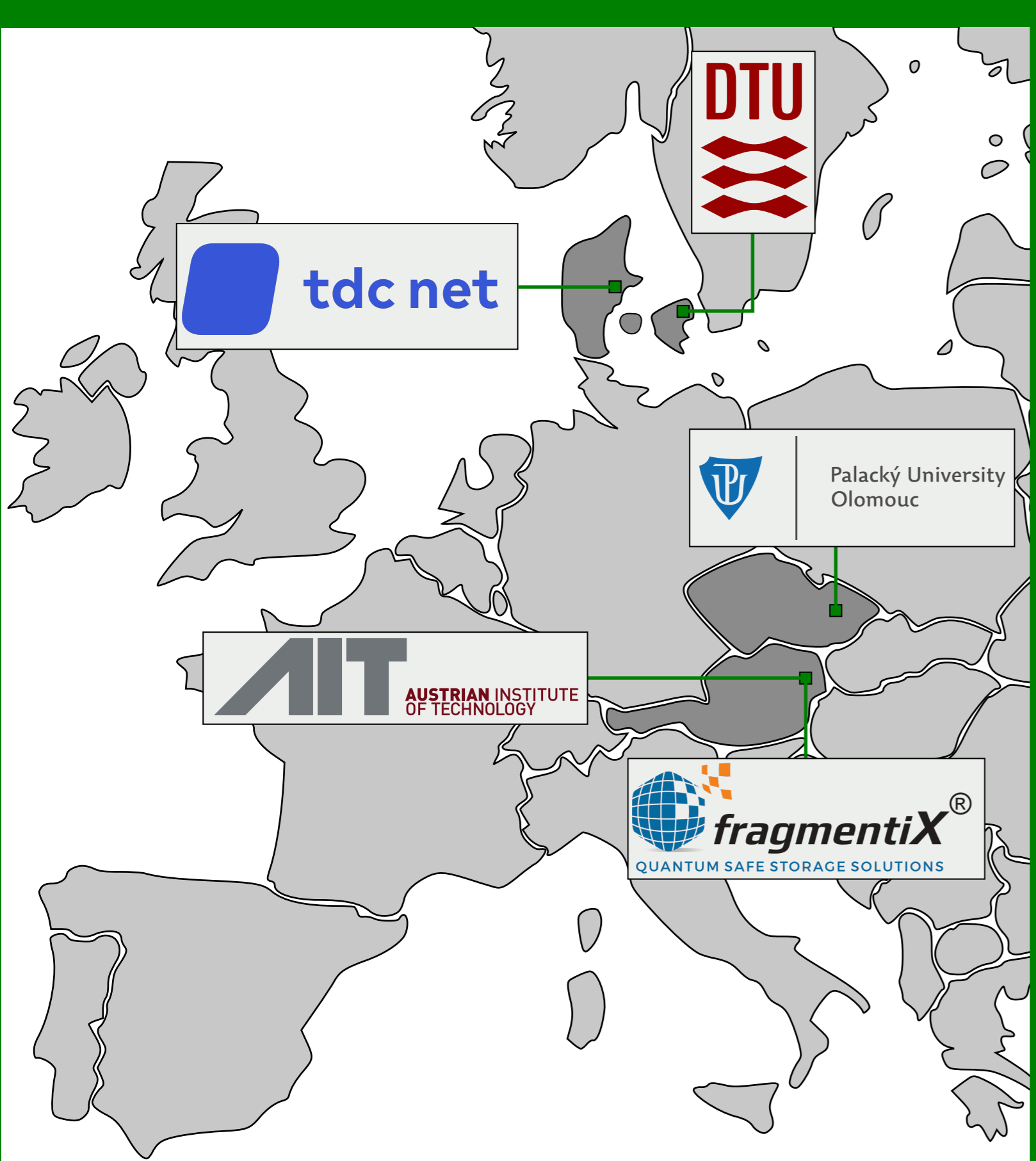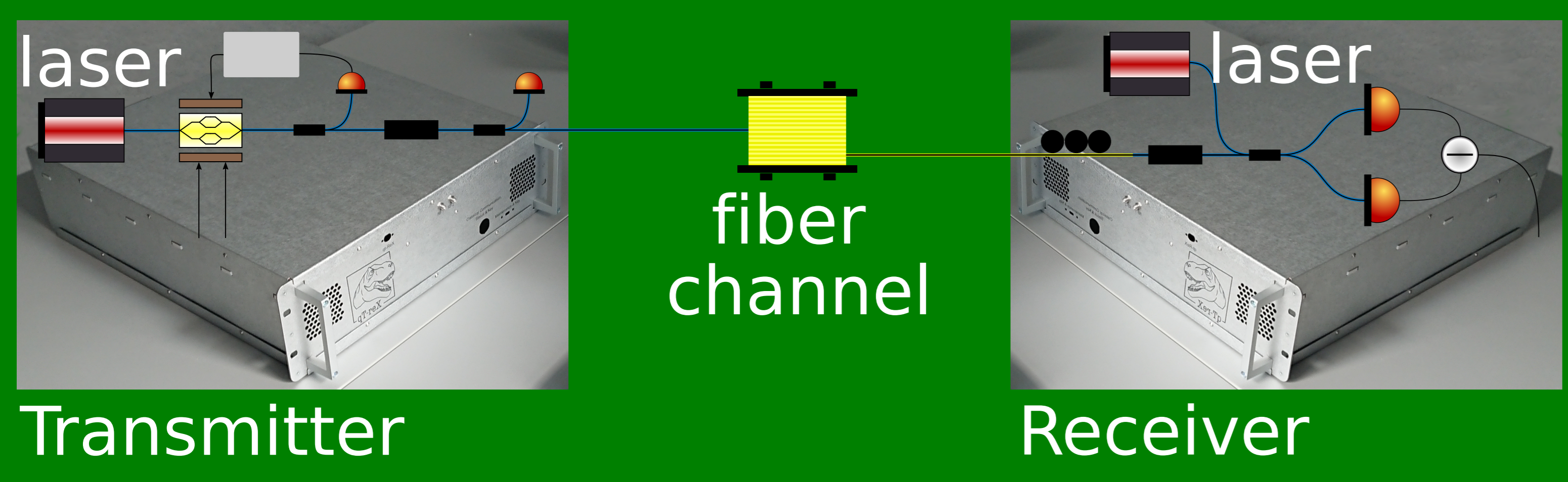fragmentiX QUANTUM SAFE STORAGE SOLUTIONS

Project Vision

- Development of multi-user quantum key distribution:
  - coherent states
  - squeezed states
  - different collaborative scenarios
  - security proofs
  - prototypes
- Use-case demonstrations:
  - fronthaul traffic in mobile networks
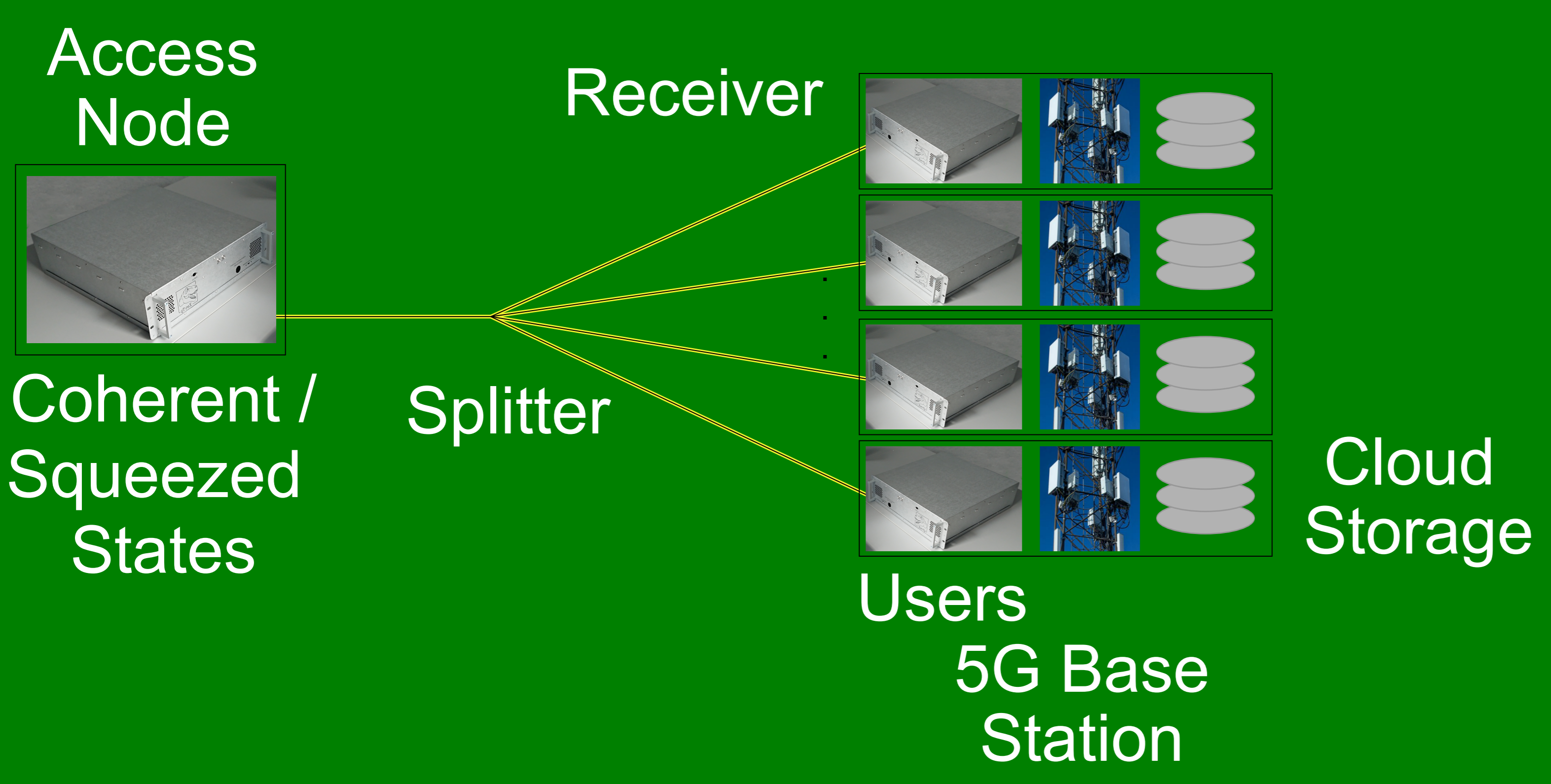 - distributed data storage

Continuous-Variable QKD

Coherent state QKD system for generating secret keys between two users

laser

Transmitter

fiber channel

laser

Receiver

Facts

2022 - 2025
1.25 MEur
Coordinator: Tobias Gehring, DTU

Multi-User QKD

Access Node

Coherent / Squeezed States

Splitter

Receiver

Users

5G Base Station

Cloud Storage

- different network topologies
- cooperating users
- lab demonstrations
- demonstrations in the field