Experience from participation in EU projects

Department of Telecommunications
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University of Sarajevo | Faculty of Electrical Engineering | www.tk.etf.unsa.ba

University of Sarajevo

- Founded in 1949 as a public higher education institution
- Partnership with 128 universities in Europe, USA, Canada and Middle East
- The largest higher education institution in Bosnia and Herzegovina
  - over 1.300 academic staff members and 30 full member institutions
  - experience in international projects within EU, regional, and national funding schemes such as:
    - Horizon 2020
    - Framework Programme (FP5, FP6, FP7)
    - Erasmus+
    - COST projects, CEEPUS, TEMPUS, Mevlana, Fulbright, DAAD and others.

Faculty of Electrical Engineering

- Established in 1961
- Spans several engineering disciplines divided into four departments:
  - Automatic Control and Electronics,
  - Computing and Informatics,
  - Electrical Power Engineering and
  - <u>Telecommunications</u>.
- The bachelor's study program is accredited by ASIIN – the German member of European Quality Assurance Association in Higher Education (ENQA).

Department of Telecommunications

- Founded in 1976
- The bachelor's study program (3 years)
  - fundamentals of engineering practice and telecommunication knowledge
- The master's study program (2 years)
  - practical engineering work and scientific-research activities.
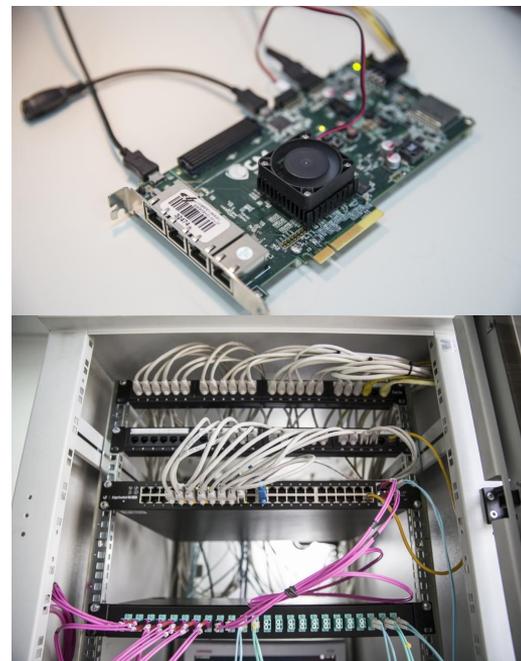- Implemented numerous local and international scientific and research projects.

Department of Telecommunications

- **Laboratory of Software Defined Networks**
  - **Teaching courses:**
    - Switching systems
    - Packet-switching node architectures
  - **Laboratory tasks:**
    - Designing components for packet switches using VHDL
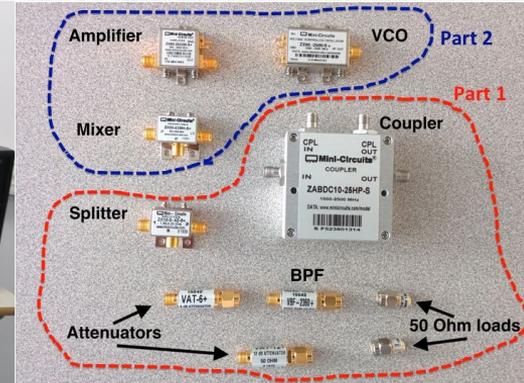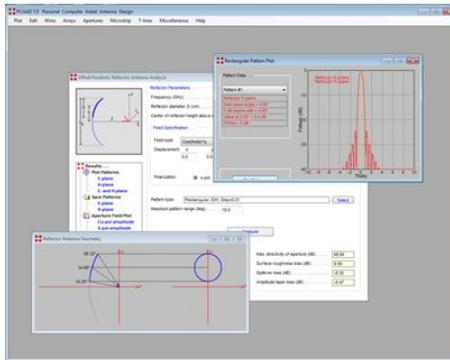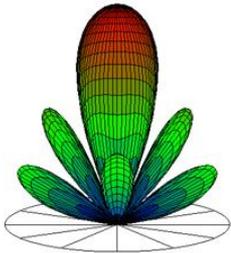   - Implementation of packet switches using FPGA-based development boards

Department of Telecommunications

- **Laboratory of Radio Communications**
    - Fundamentals of Radio communications
        - Refectometry/Transmission lines theory
        - Filter design
        - Principles of PLL
    - Microwave communication
    - Antenna design
    - 4G - LTE networking

Pan-European Quantum Internet Hackathon
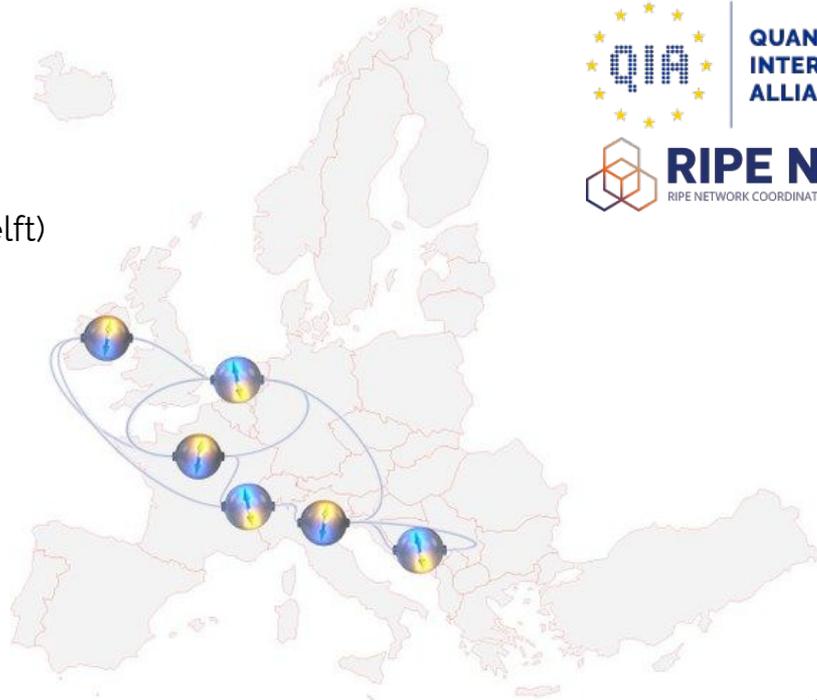
Pan-European Quantum Internet Hackathon

- **Participating Organisations:**
    a.   CNRS, Paris
    b.   QuTech, Delft University of Technology (TU Delft)
    c.   The Port, at CERN's "IdeaSquare" in Geneva
    d.   University of Sarajevo
    e.   University of Padova
    f.   Trinity College Dublin
    g.   The Quantum Internet Alliance
    h.   Veriqloud
    i.   gluoNNet
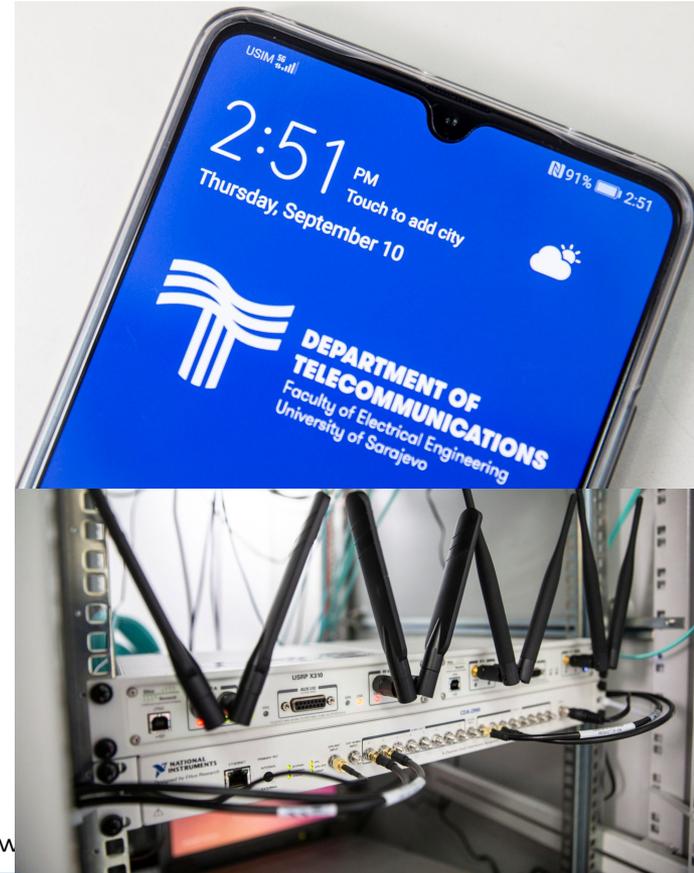   j.   Quantonation
    k.   RIPE NCC

Pan-European Quantum Internet Hackathon

Laboratory for Software Defined Networks

- Since 2020, laboratory is equipped with 5G networking equipment
  - First 5G standalone (SA) network in the region
  - a stand-alone 5G network that does not require a 4G/3G/2G infrastructure to operate

- Procurement of equipment is supported by projects:
  - Erasmus+ BENEFIT

EU Horizont 2020 OpenQKD project

- www.openqkd.eu
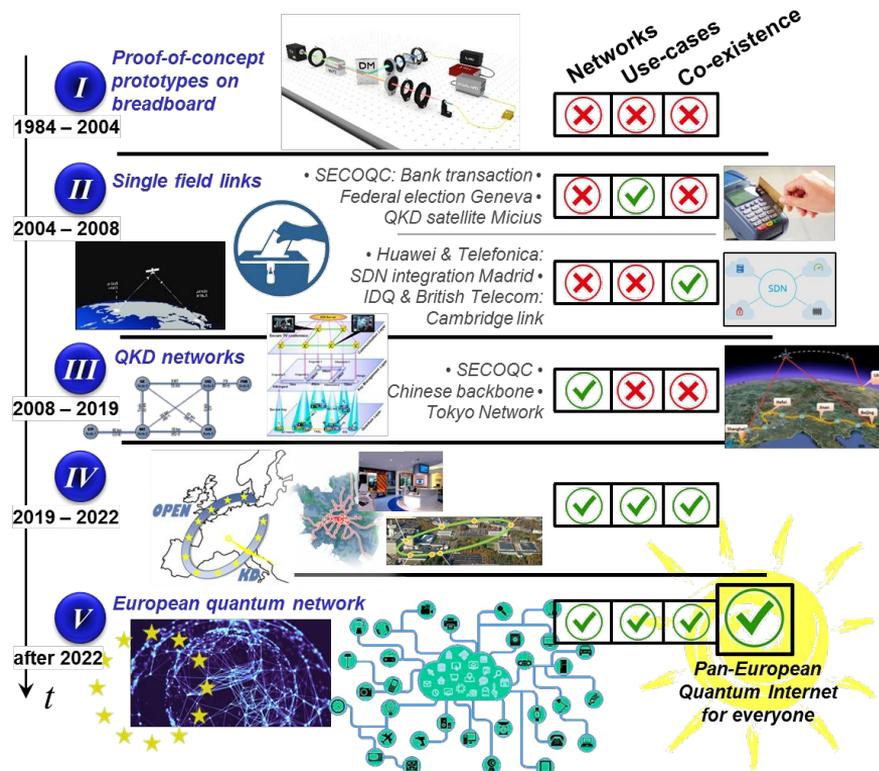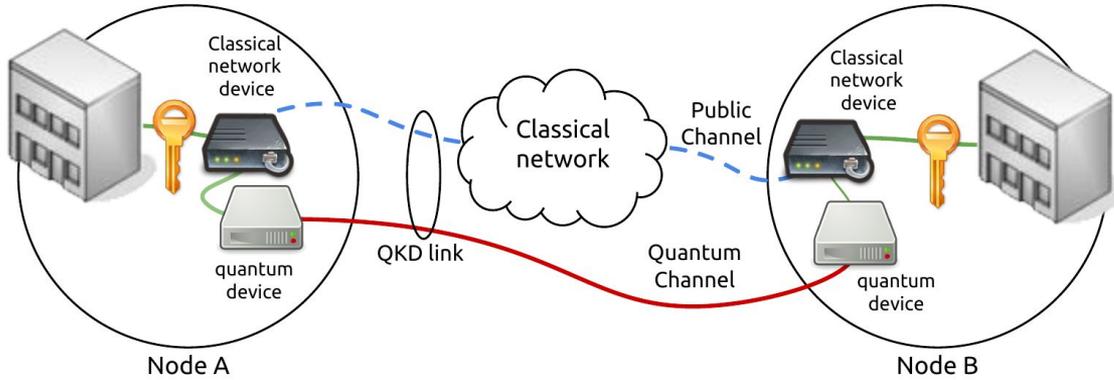- 38 Partners from 13 EU countries

H2020 OpenQKD project

- ID: SU-ICT-04-2019
- Information and Communication Technologies
- 38 Partners in project consoritum
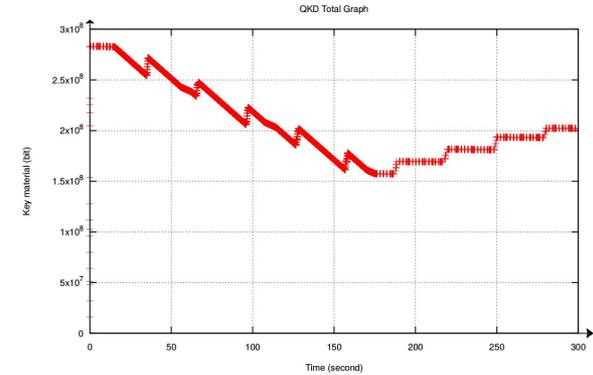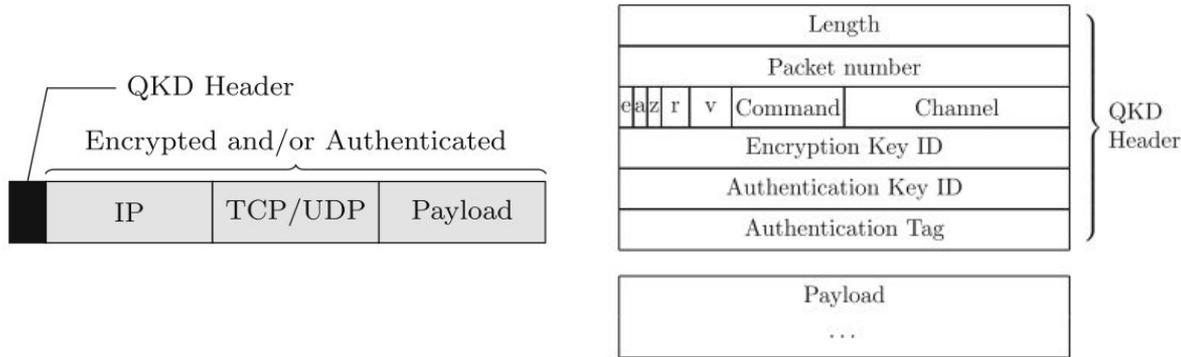- Budget: 15 milions EUR
- Duration: 3 years

More details at:
https://www.tk.etf.unsa.ba/projects/horizon-2020-openqkd/

More details at:
www.qkdnetsim.info

QKDNetSim

https://www.youtube.com/watch?v=TsRIxzrsl7E

Thank you!

Let's stay connected!
www.tk.etf.unsa.ba