

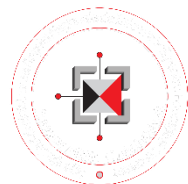
Romanian National Quantum Communication Infrastructure

Prof. Mihai CARABAŞ

University POLITEHNICA of Bucharest / RoEduNet

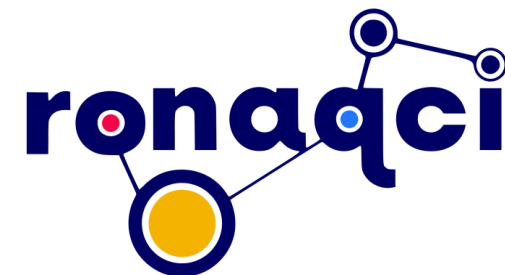
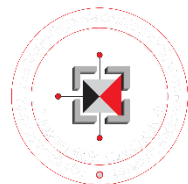
The World Quantum Day @ Geant GN5

14th of April 2023

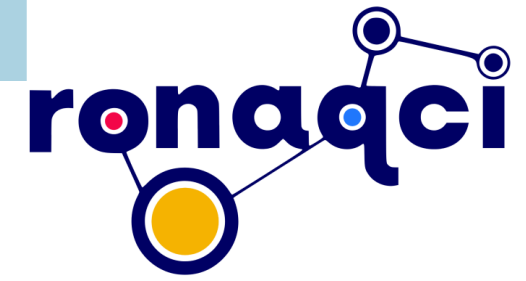
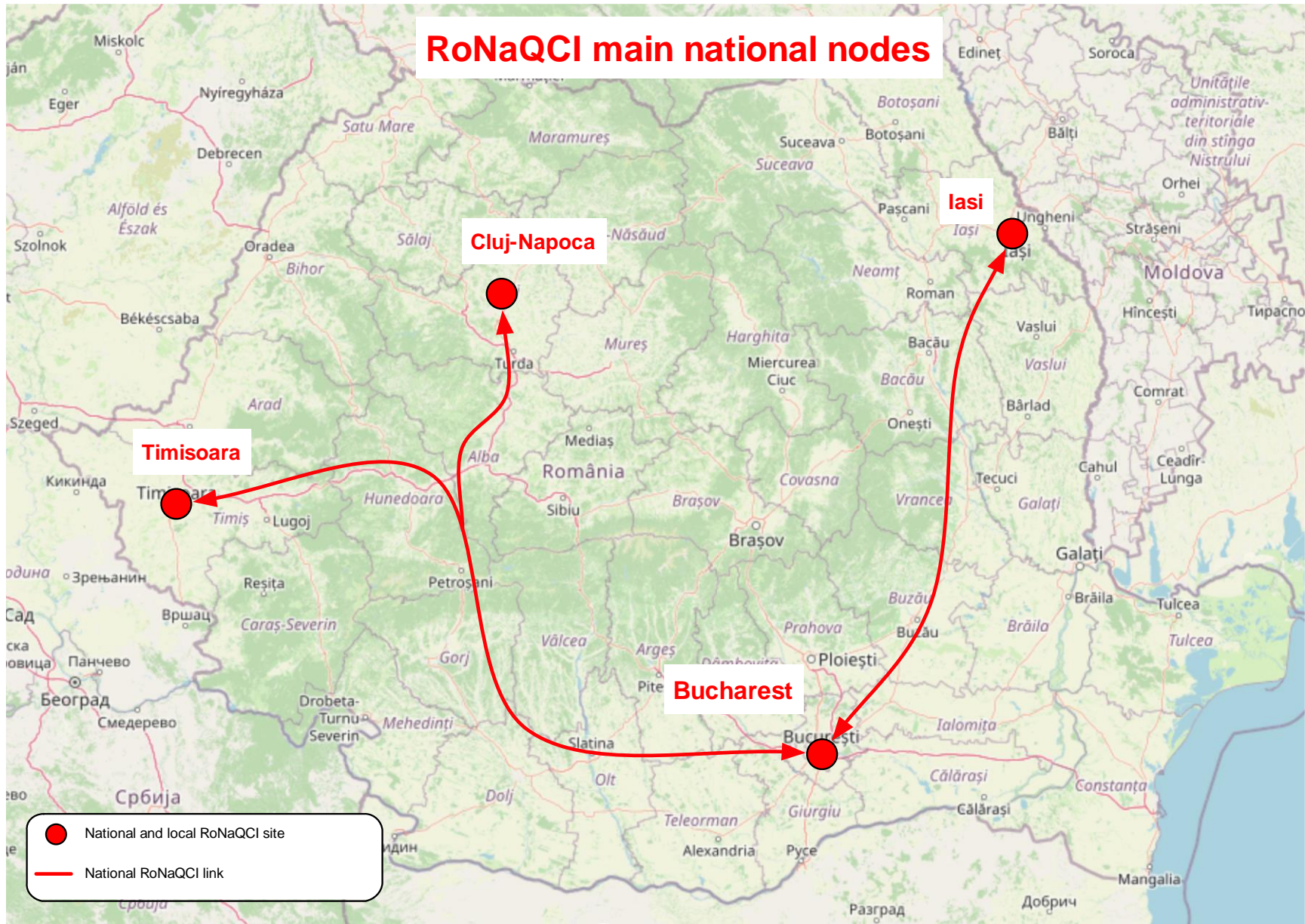


RoNaQCI – in numbers

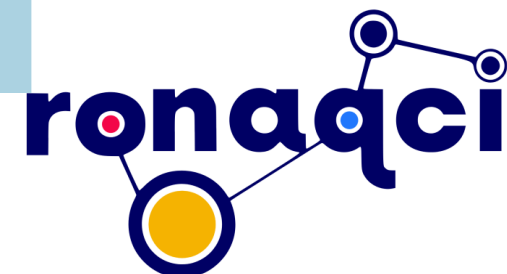
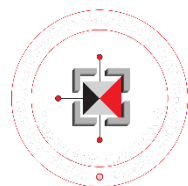
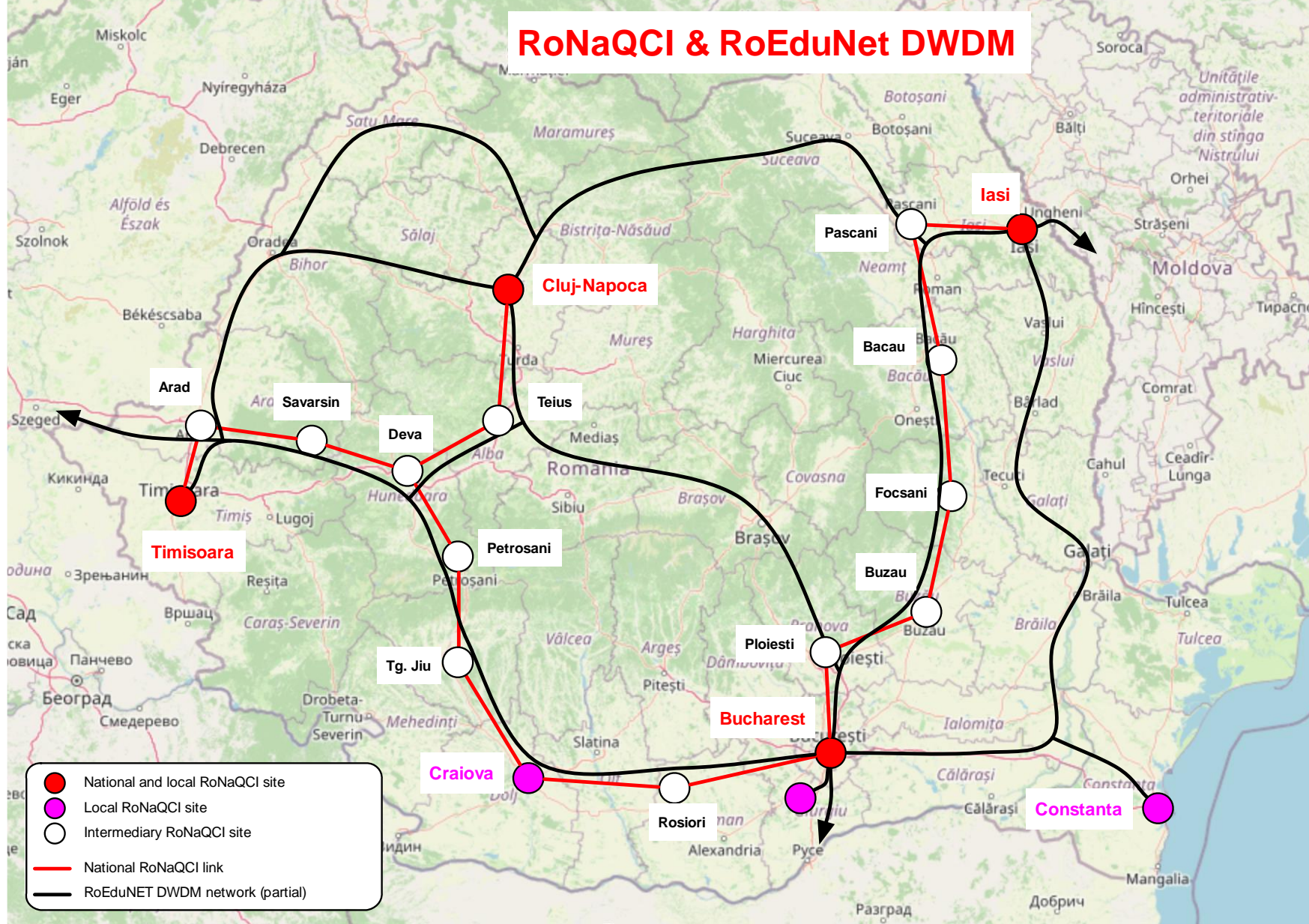
- Deployment of a 1500km+ QCI network including 6 metropolitan networks in the cities of Bucharest, Iasi, Cluj-Napoca, Timisoara, Craiova and Constanta
- 36 QKD links spanning Romania and connecting 10 universities, 5 research institutes, 5 public bodies, 3 data centers and a medical clinic, and with future links planned for quantum Internet interconnecting with neighbors



RoNaQCI main national nodes

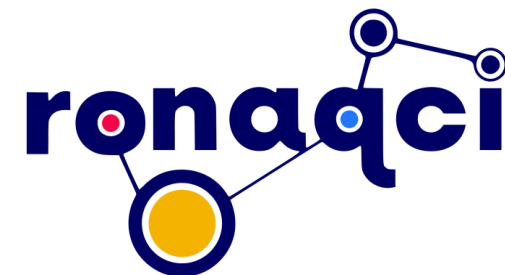
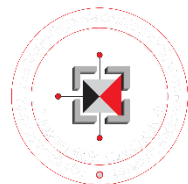


RoNaQCI & RoEduNet DWDM



RoNaQCI – in numbers

- Budget: 10 mil E
 - EC: 5 mil E
 - Romanian State: 5 mil E
- 30 partners
 - 26 full
 - 4 associates



RoNaQCI – objectives

- O1. Deploy advanced national quantum systems and networks (RoNaQCI)
- O2. Test, monitor and integrate RoNaQCI with classical communication infrastructure
- O3. Develop advanced use cases tailored around strategic interests in exploiting RoNaQCI, linking Public Authorities, Governmental entities, Universities, Research Institutes and Private Companies
- O4. Upskill to create a large number of trained users based on specific profile and particular interests
- O5. Participate in EU-wide design and development efforts anticipating the Quantum Internet

