



EUROPEAN CONFERENCE

QUANTUM TECHNOLOGIES FOR DEFENCE: CURRENT AND FUTURE CAPABILITIES WARSAW, POLAND – 13-14 MARCH 2024

PROGRAMME

08:00 – 09:00 REGISTRATION AND WELCOME COFFEE

09:00 – 10:00 OPENING SESSION

- Edouard Geoffrois, Policy Officer, Directorate-General for Defence Industry and Space (DG DEFIS)
- Krzysztof Kulpa, Warsaw University of Technology (PL)
- Adrian Mahlkw, Managing Director, OpTecBB (DE)
- Isabelle Tovenca Pecault, Director Europe and International, ALPHA-RLH (FR)
- Oleksa Vozniak, Ukraine Cluster Alliance (UA)
- Maciej J. Nowakowski, Director of Operations, PPTF (PL)





10:00-11:00 KEYNOTE ADDRESSES 1

10:00 – 10:15 Quantum Warfare, A Survey

Michal Krelina, Czech Technical University (CZ)

10:15– 10:30 Ongoing Quantum Activities of EDA

David Neumann, EDA

10:30–10:45 Towards Secure Communications In The Quantum Era?

Samih Souissi, French Cybersecurity Agency Anssi (FR)

Tobias Hemmert, BSI (DE)

10:45– 11:00 Innovation ecosystem of the Ministry of Defence of Ukraine: opportunities for collaboration and requirements for support

Kateryna Chernogorenko, Deputy Minister and Chief of Digital Transformation, Ministry of Defence (UA) (online)

11:00 – 11:30 COFFEE BREAK

11:30-12:30 KEYNOTE ADDRESSES 2

11:30 – 11:45 EDF project ADEQUADE

Daniel Dolfi, Thales (FR)

11:45 – 12:00 EDIDP project DISCRETION

Catarina Bastos, Deimos (PT)

12:00 –12:15 Quantum Technologies for Super-resolution Imaging

Nicolas Treps, Sorbonne Université (FR)

12:15 – 12:30 Quantum Computer Infrastructure – practical aspects

Grzegorz Kasprowicz, Warsaw University of Technology (PL)

12:30-14:00 LUNCH



Business Support on Your Doorstep



14:00-15:00

ROUNDTABLE

Quantum Technologies in Defence applications

Moderator: Krzysztof Kulpa, Warsaw University of Technology (PL)

Speakers:

- Catarina Bastos, Deimos (PT)
- Baptiste Battelier, Université Bordeaux (FR)
- Johanna Sepulveda, AIRBUS Defence and Space (DE)
- Jacques-Charles Lafoucriere, HQI (FR)
- Volodymyr Havrylov, UARPA (UA)

15:10-16:10

USE CASES PRESENTATION SESSION 1

- **Entanglement based Key Distribution – how Noble Prize physics secure future communication networks**
Kevin Fuchsel, Quantum Optics Jena (DE)
- **Satellite-based quantum-secure communications**
Agnes Ferenczi, DLR (DE)
- **Development of quantum research, education and technology in Ukraine**
Andrii Semenov, Kyiv Academic University (UA)
- **Towards space based optical and quantum communication: Astrolight vision**
Laurynas Maciulis, Astrolight (LT)
- **Custom versions of QKD and QRNG for defense applications**
Szymon Fiderkiewicz, Military University of Technology (PL)
- **Operational perspectives of quantum inertial sensors**
Peter Rosenbusch, Exail (FR)

16:10-16:40

COFFEE BREAK





16:40-17:40 USE CASES PRESENTATION SESSION 2

- **Secure quantum communication**
Ronald Freund, Fraunhofer HHI (DE)
- **Near-Term Opportunities for Quantum Computing in Defence Applications**
Per Nyberg, ORCA Computing (UK)
- **Innovation Speed vs Defence needs: Lesson learnt from Laser SME**
Fabrizio De Marchi, Aktyvus Photonics (LT)
- **Novel quantum algorithms for practical usage**
Khrystyna P. Gnatenko, National University of Lviv (UA)
- **EuroQCI project eCAUSIS and complementary activities for secure communications**
Anna Kamińska, Creotech (PL)

17:40-18:00 WRAP UP DAY 1

Maciej J. Nowakowski, Mike Richardson, Isabela Toven-Pecault, Oleksa Vozniak

19:00-21:00 DINNER



QUANTUM TECHNOLOGIES FOR DEFENCE: DAY 2 - 14TH MARCH

08:00 – 09:00 REGISTRATION AND WELCOME COFFEE

09:00 – 09:30 OPENING SESSION

09:30-10:30 PITCH SESSION

- Tadeusz Kocman, **AROBS Polska**
- Andrei Andryieuski, **LD4B**
- Jouni Flyktman, **IQM Quantum Computers**
- Marta Irene García Cid, **Indra**
- Iordanis Koutsopoulos, **Athens University of Economics and Business**
- Sven Zagala, **Resquant**
- Anna Beata Kalisz Hedegaard, **QuantumPrime**
- Piotr Rydlichowski, **Poznan Supercomputing and Networking Center**
- Imran Khan, **KEEQuant**
- Michael Ullrich, **MO-SPACE**

10:30-11:00 COFFEE BREAK

11:00-12:30 WORKSHOPS

WORKSHOP QUANTUM SENSING AND METROLOGY – ROOM 1.47

Moderator: Grzegorz Kasprowicz, Warsaw University of Technology (PL)

Introductory Talk: Mike Richardson, OpTecBB (DE)

WORKSHOP QUANTUM COMMUNICATION – AULA

Moderator: Jose Brito, OpTecBB (DE)

Introductory Talk: Michał Karpiński, University of Warsaw (PL)





WORKSHOP QUANTUM COMPUTING AND SIMULATION – ROOM 1.50

Moderator: Teodor E. Buchner, Warsaw University of Technology (PL)

Introductory Talk: Enrique Solano, KIPU Quantum (DE)

12:30-14:00 LUNCH

14:00-14:50 WORKSHOPS RESULTS PRESENTATION

Quantum Sensing and Metrology

Quantum Communication

Quantum Computation and Simulation

General discussion on workshop results

14:50-15:00 WRAP UP

Maciej J. Nowakowski, Mike Richardson, Isabela Tovená-Pecault, Oleksa Vozniak

15:00-16:00 MATCHMAKING – NETWORKING

Contact persons:

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