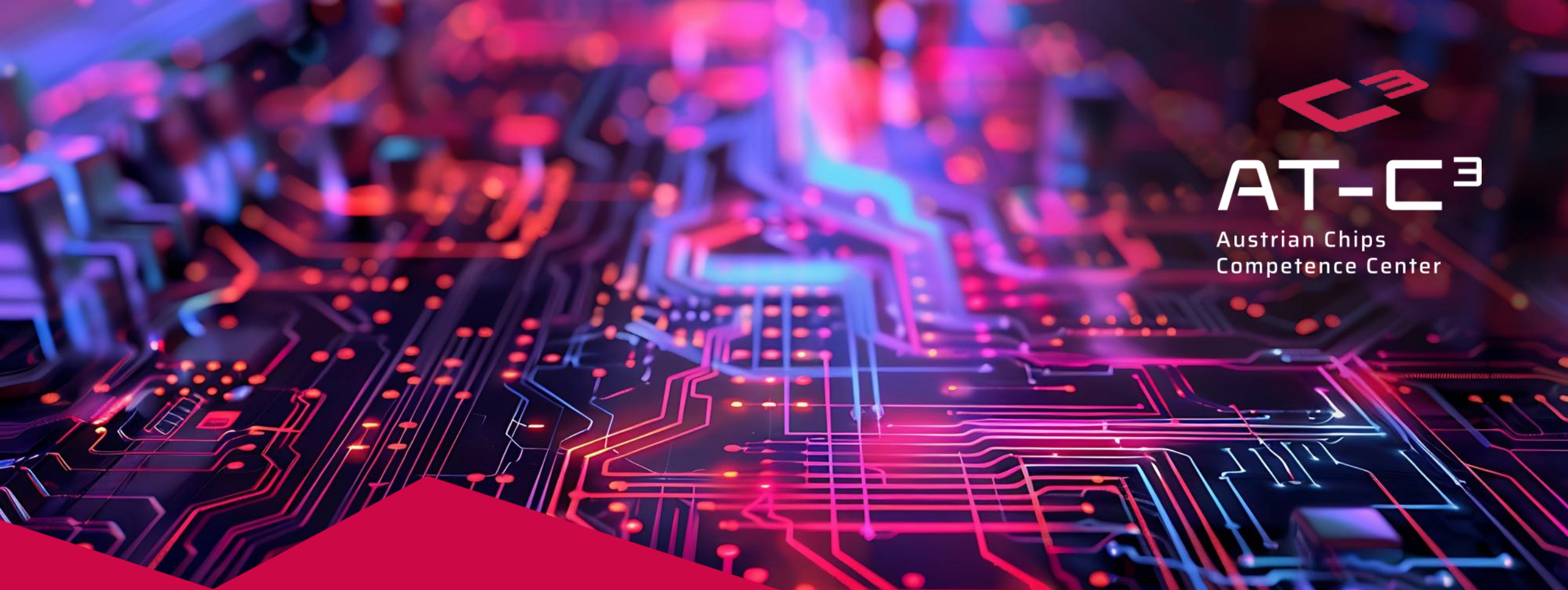


Introduction: Photonics & Quantum Workshop

Borislav Hinkov (SAL & AT-C3) & Tomi Salo (FiCCC)

Optica ImageSense – Photonics & Quantum Workshop,
Maastricht – 17.07.2026

FFG Promoting Innovation.
ChipsJU

Workshop Agenda

Quantum Photonics for Startups & SMEs

Where: Maastricht Exhibition & Conference Centre (MECC) **Date:**17-07-2026 | 11:00 - 16:00

Timeslot	Talk title	Speaker	Role&Company
11:00-11:30	**Session_Opening & workshop introduction**	**Moderator : Tasfia Kabir**	
	Workshop Introduction Joint introduction of CCCs& highlight of Pilot Lines	Borislav Hinkov & Tomi Salo & Peter-Jan Hendrikx	
11:30-12:30	**Session 1_ The Chips JU ecosystem and its instruments**	**Moderator: Peter-Jan Hendrikx**	
11:30-11:40	Finnish Microelectronics, Photonics and Quantum Excellence Encouraging the FiCCC activities	Tomi Salo	Co-CreationManager at Kvanttinova Ltd.
11:40-11:55	Finnish photonics ecosystem collaborating with European networks	Jyrki Saarinen	Head of the Center for Photonics Sciences and PHOTONICS RC, UEF, Vice Director (economic growth and other societal impacts) of the PREIN Flagship); Professor (Photonics Applications and Commercialization)
11:55-12:10	Connecting Research and Innovation in Austria's Quantum Ecosystem	Helene Hainzer	Senior Knowledge Broker for Quantum Technologies I University of Vienna and the Vienna Center for Quantum Science and Technology (VCQ)
12:10-12:25	CHAMP-ION - Championing A European Advanced Manufacturing Pilot Line of Ion-Traps	Borislav Hinkov	Staff Scientist at Silicon Austria Labs and Lead European Ecosystem activities at AT-C3
12:30-14:00	**LUNCH & Networking & Topic Islands**		
14:00-15:00	**Session 2_Startups and SMEs in Photonics and Quantum**	**Moderator: Borislav Hinkov**	
14:00 -14:25	The road ahead for integrated photonics	Martijn Heck	Full Professor I Eindhoven University of Technology, department of Electrical Engineering
14:25-14:45	From promising technology to a fundable case: practical routes for photonics and quantum startups	Dirk Van Meer	Business Developer I chiptech Oost NL
14:45-15:00	Quantum focus: The art of detecting single-photons with Single Quantum	Ronan Gourges	Senior research engineer and Device development lead I Single Quantum
15:00-16:00	**Closing remarks & Networking**		

Why this workshop?

Importance of the ecosystems with case examples

- Chips JU ecosystem with its components like the pilot lines and competence centres
- Finnish photonics ecosystem
- Austria's quantum ecosystem

Modern innovations are very rarely created in isolation

Why this workshop?

Advances in science and technology create a better future

- Integrated photonics
- Quantum technologies
  - Single photon detection
  - Ion trapping

Technological convergence for modern innovations

Why this workshop?

Competence centres are there to support you

- Technology sparring and even solutions
- Business development
- Funding possibilities
- Talents, skills development

Contact your local competence centre

Why this workshop?

Let’s make us Europeans speak the common language of chips, photonics and quantum!!!

→ **The New Maastricht Treaty for 21st Century**

Focus: „(chips) supply“

Chips Act 1.0: since September 2023

European Semiconductor Board (Governance)

Pillar 1	*Pillar 2*	*Pillar 3*
Chips for Europe Initiative	**Security of Supply**	**Monitoring and Crisis Response**
• **Aim**: bolster large-scale technological capacity building and innovation within the EU semiconductor ecosystem. • **Actions**: set up of pilot lines, competence centres, design platform, Chips Fund	• **Aim**: attract investments to increase semiconductor manufacturing capacity, contributing to security of supply. • **Actions**: EUR 80 billion committed in manufacturing	• **Aim:** monitoring the supply chain, coordinate actions with Member States, especially in times of crises. • **Actions:** monitoring and alerting system, European Semiconductor Board.

Mandatory evaluation & review by September 2026

Research policy + **Industry policy** + **Crisis management**

Chips JU

FOAK Investments

IPCEI Microelectronics and Communication Technologies

European Semiconductor Board

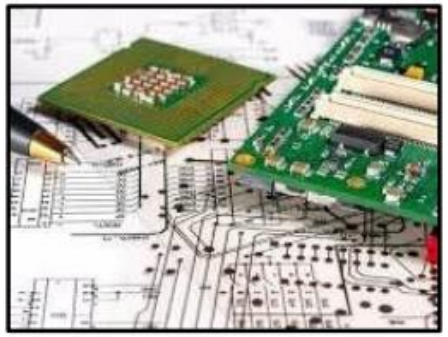
Pillar I – Chips for Europe Initiative

Infrastructure open to a wide range of EU Users

5 launched | **In progress**

Pilot lines

Prototyping of validated designs
Testing of equipment
Validation of process flows

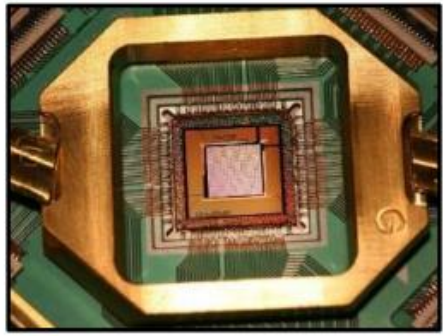


Design Platform

Help designing semiconductor devices, via access to Electronic Design Automation tools and IP libraries

Competence centres

Access to technical expertise
Helping companies to approach and improve design capabilities and developing skills



Quantum chips

Technology and engineering capacities for accelerating innovative development of quantum chips

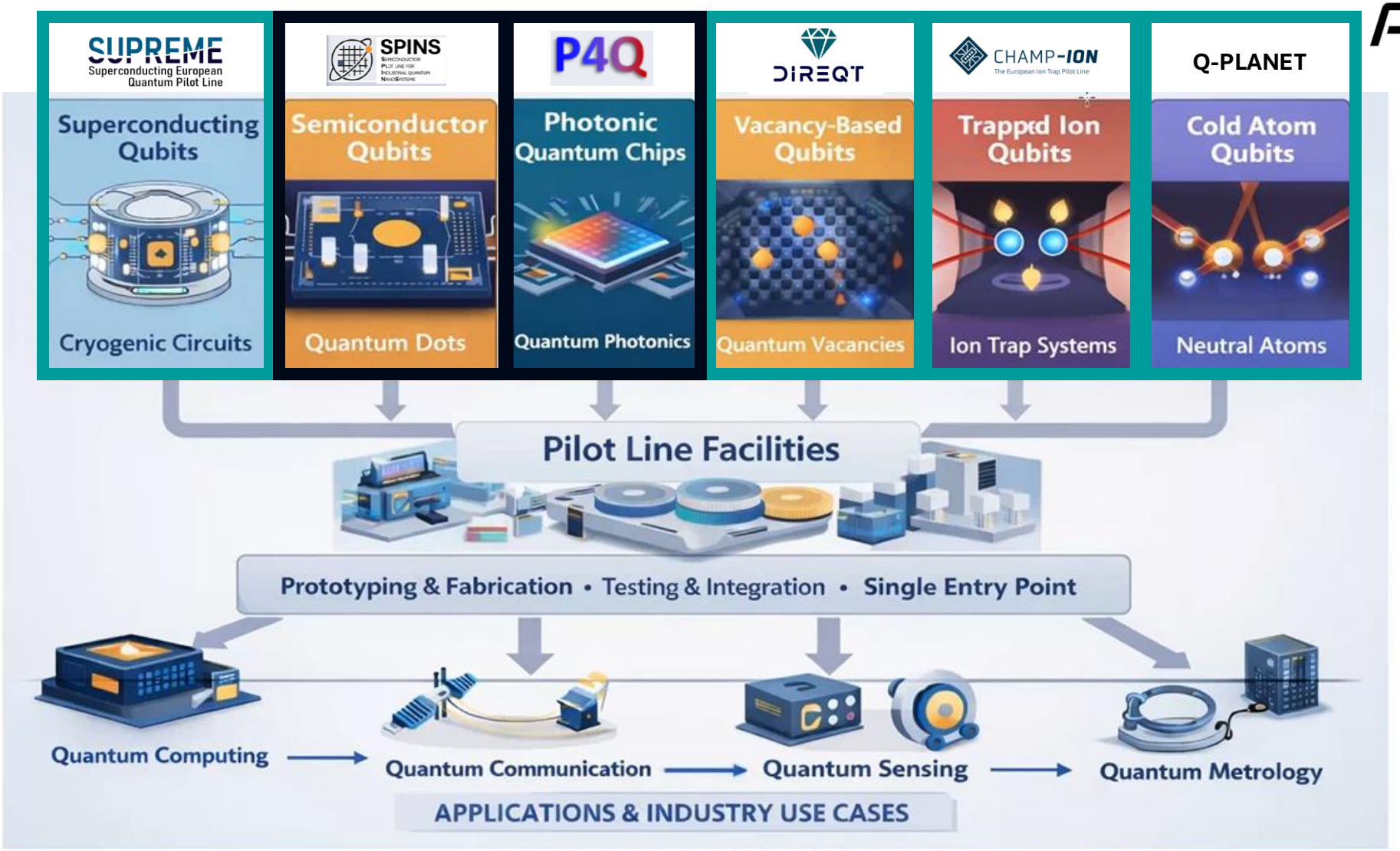
28 countries | **In progress**

➢ **More than 85% of budget has been committed already (~ EUR 3 billion)**

Current Pilot Lines (under Chips Act 1.0)

	NanoIC	FAMES greener electronics FD-SOI · NVM · 3D · RF · PMIC	APECS	WBG Wide Band Gap future power electronics	PIX Europe
Total cost (EU and national)	€2.5 billion (including €1.05 billion from ASML)	€830 million	€730 million	€360 million	€400 million
Coordinator	imec	CEA-Leti	Fraunhofer-Gesellschaft	National Research Council of Italy	Institute of Photonic Sciences
Consortium	6 partners 6 countries	11 partners 8 countries	10 partners 8 countries	15 partners 7 countries	20 partners 11 countries
Topic	Sub-2 nm System-on-Chip	Fully Depleted Silicon on Insulator 7 nm	Heterogeneous system integration and assembly	Wide band gap semiconductors	Advanced photonic integrated circuits

New Quantum Pilot Lines (under Chips Act 1.0)



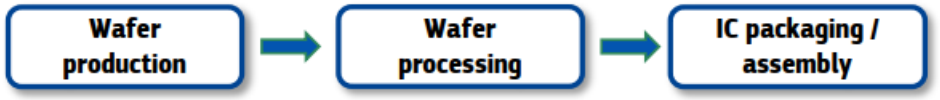
Source: Quantum Enabling Technologies Webinar, European Commission, 2026

Pillar II – Security of Supply and Resilience

State Aid for Production Facilities

First-of-a-kind facility (FOAK): offers innovation in terms of products or process not yet present in the Union

All stages of semiconductor production are eligible



Company	Location	Investment (EUR billions)	Technology
STMicroelectronics	Catania, Italy	0.73	*SiC Wafer*
STMicro & GlobalFoundries	Crolles, France	7.5	*300-mm FD-SOI*
STMicroelectronics	Catania, Italy	5.0	*SiC Devices*
ESMC	Dresden, Germany	>10	*CMOS, FinFET*
Silicon Box	Novara, Italy	3.2	*Advanced Packaging*
Infineon	Dresden, Germany	3.54	*Discrete, Analog/Mixed Signals*
ams OSRAM	Premstätten, Austria	0.567	*CMOS*
Ephos	Milan, Italy	n.d.	*Glass-based Photonic Chips*
Onsemi	Rožnov, Czech Republic	1.64	*SiC Devices*
GlobalFoundries	Dresden, Germany	n.d.	*300-mm FD-SOI and BCD*
X-Fab	Erfurt, Germany	n.d.	*Advanced Packaging*
Zadient	Bitterfeld, Germany	n.d.	*SiC source granulate material*
Carl Zeiss	Oberkochen, Germany	n.d.	*EUV lithography optics*
Total		>32 billion Euros	

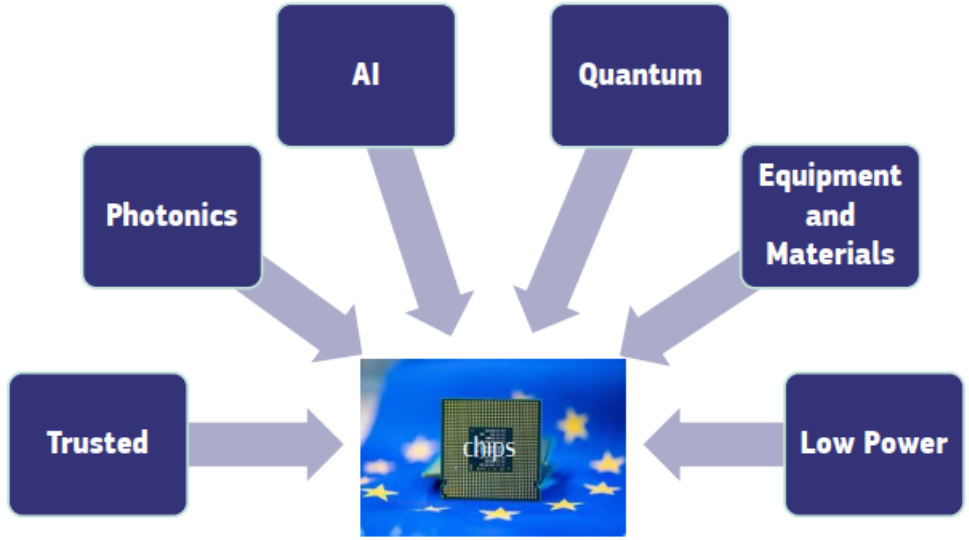
- Further, IPCEI ME-CT started in 2023 with around **EUR 20 billion** investments
- More projects in the pipeline

Towards Chips Act 2.0

Focus: „(chips) demand“

Develop a strong Design ecosystem

Accelerate R&D transfer lab-to-fab



Advanced, sustainable Manufacturing and Advanced Packaging

Deploy large-scale skills initiatives

Verticals generating the future demand for chips in the EU

- Automotive
- Telecom
- Data infrastructure / Edge AI
- Aerospace Security & Defence
- Healthcare
- Energy

Co-funded by the European Union

The project is supported by the Chips JU and its members including top-up funding by the FFG.

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Project No. Chips JU: 101217532

Project No. FFG: FO999917171