

QuPIC

Quantum photonics for anyone

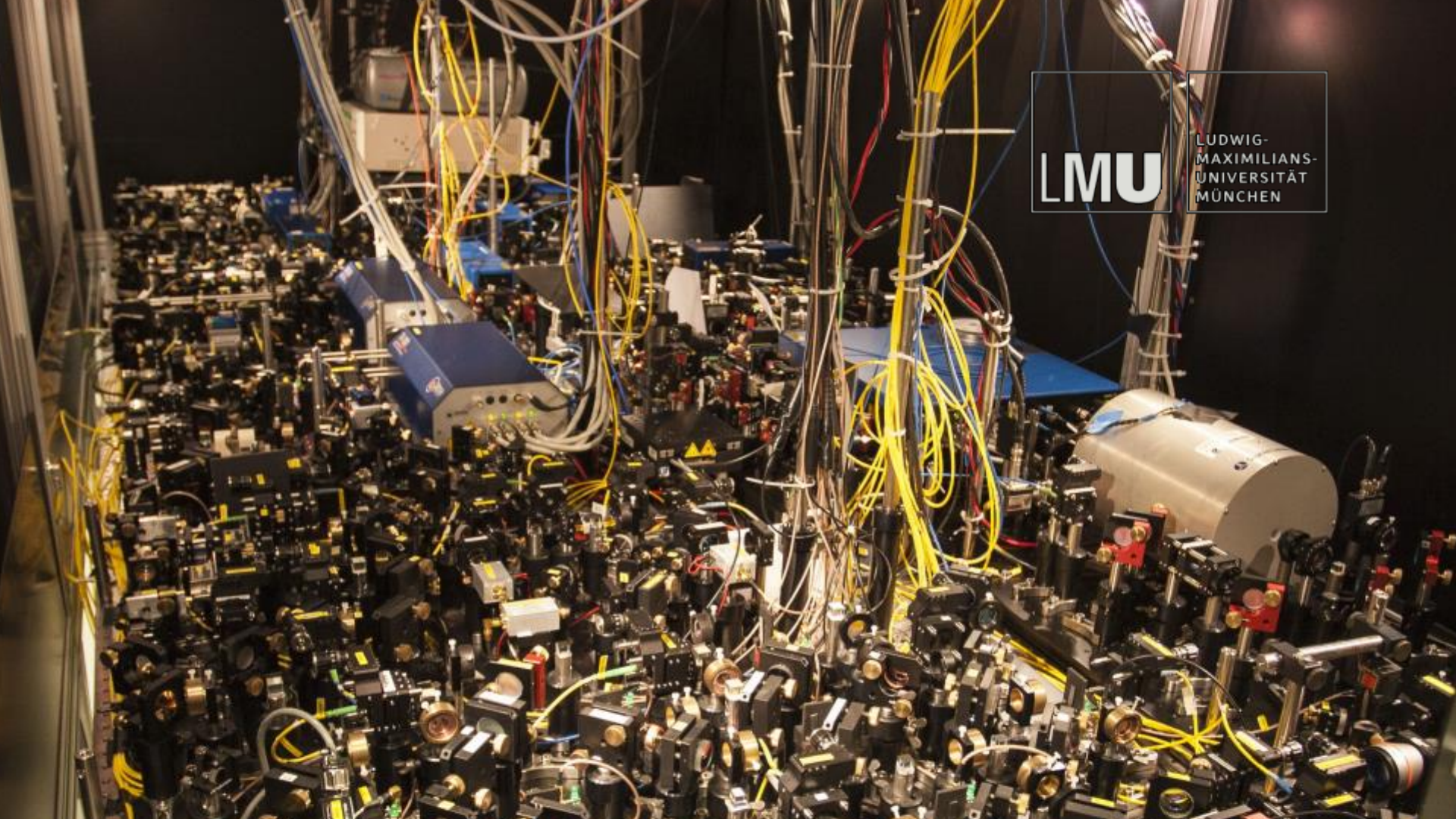
EPSRC

Engineering and Physical Sciences
Research Council

EP/N015126/1

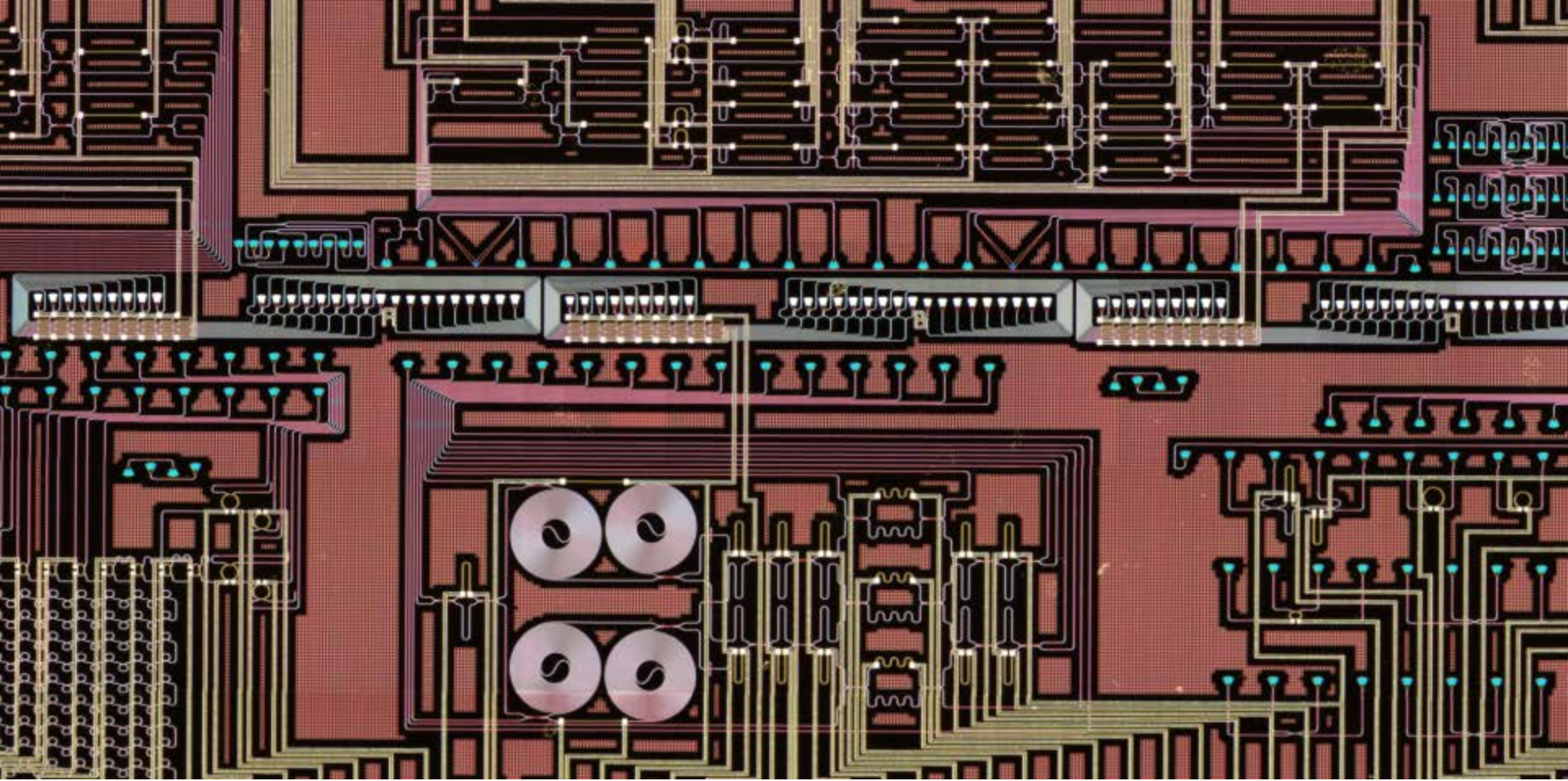
Supporters and
partners:





LMU

LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN



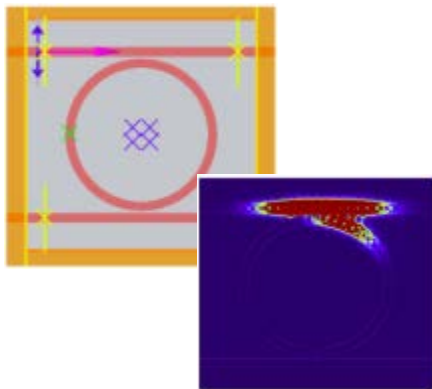
bristol.ac.uk

What is different with quantum optics?

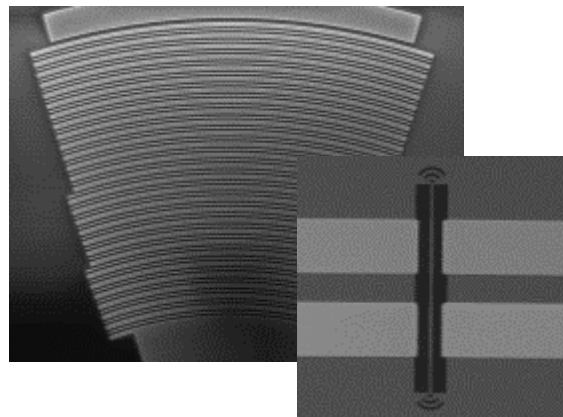
- Low loss waveguides
- Low loss bends
- Low loss interfaces to optical fibre (grating couplers)
- Low power tuning (phase shifters, thermo-optic phase shifter designs)

QuPIC

- ❑ QuPIC has 100+ person-years' experience in quantum photonics design – *PG inspired*
- ❑ Rapid prototyping development capability through local cleanroom service
- ❑ Will offer a service for quantum photonics and access to proven foundry PDK
- ❑ Characterisation and test (including in cryogenic environments)



❑ Design



❑ Prototype & Manufacture

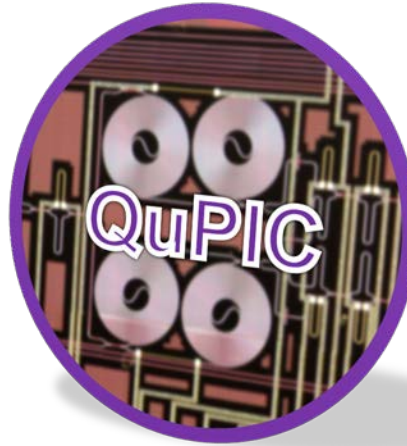


❑ Test

QuPIC vision

Services

Technical consultancy
Design service
Prototype mfg
Small volume mfg
Test and meas'



Users

Quantum Hubs
UK Universities
UK Industry
IUK Catapults
International partners

Approaches

In house prototyping
Brokering of qualified MPW
Rent-to-test

QuPIC (Quantum Photonic Integrated Circuits)

QuPIC at the University of Bristol was funded in 2016 by the UK Engineering and Physical Sciences Research Council. Its aim is to provide access for the academic and industrial communities to the very specific needs of integrated quantum photonics systems and to enable photonic-circuit test and measurement solutions at room and cryogenic temperatures. Initially the programme is focused on the silicon-on-insulator platform as this is the most cost effective to access and accounts for the majority of design and manufacturing experience within QETLabs.

The programme is presently in its setting-up phase and has recently acquired some key pieces of equipment to enable the work-package goals.

If you are conducting research that has been the beneficiary of these equipment items any research publications resulting must contain the acknowledgement "This work was supported by the UK EPSRC grant QuPIC (EP/N015126/1)" and the publications must be made open-access as per the Research Councils UK policy on access to research publications.