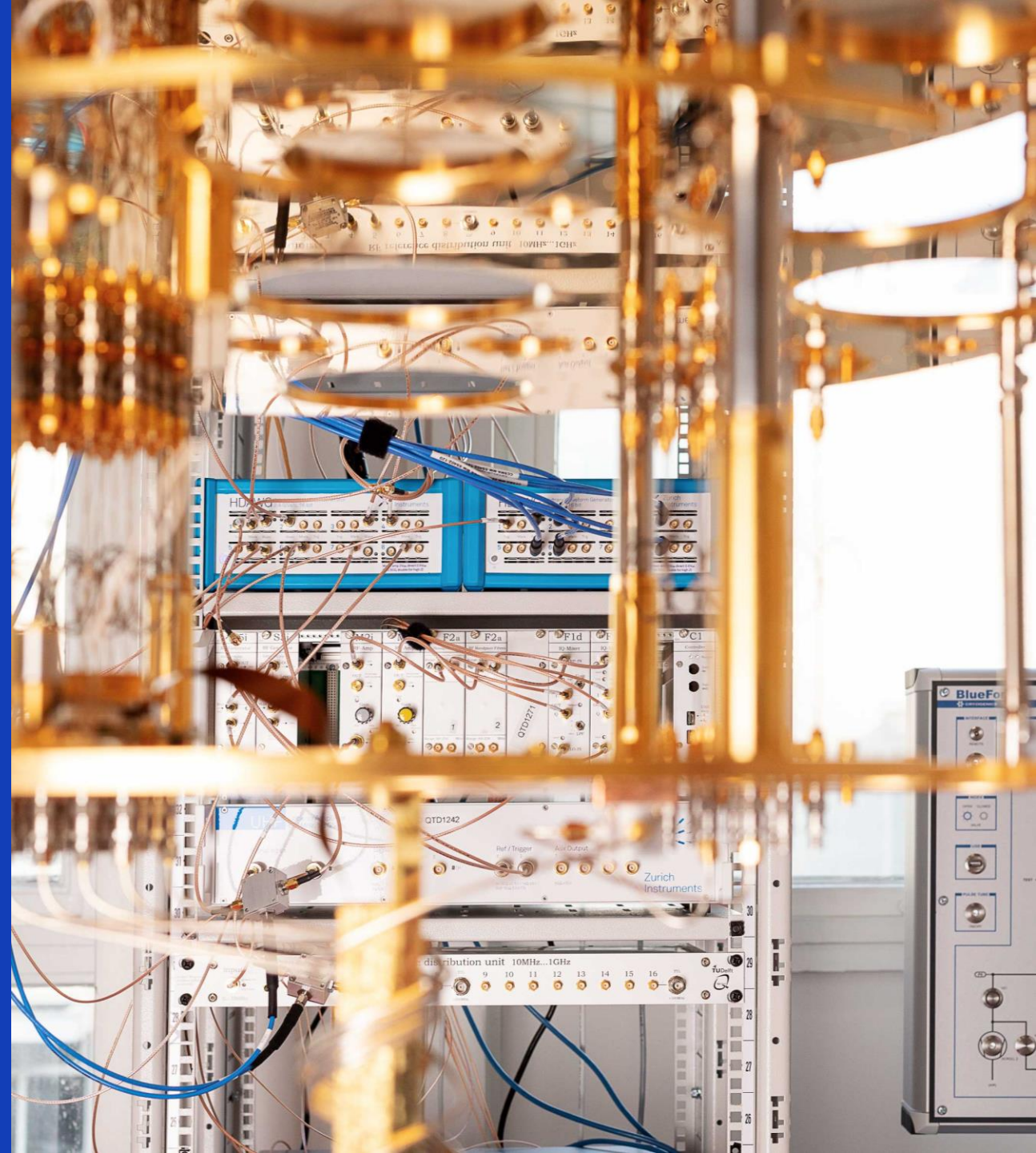


Quantum computing at TNO

Tumi Makinwa & Yoram Vos

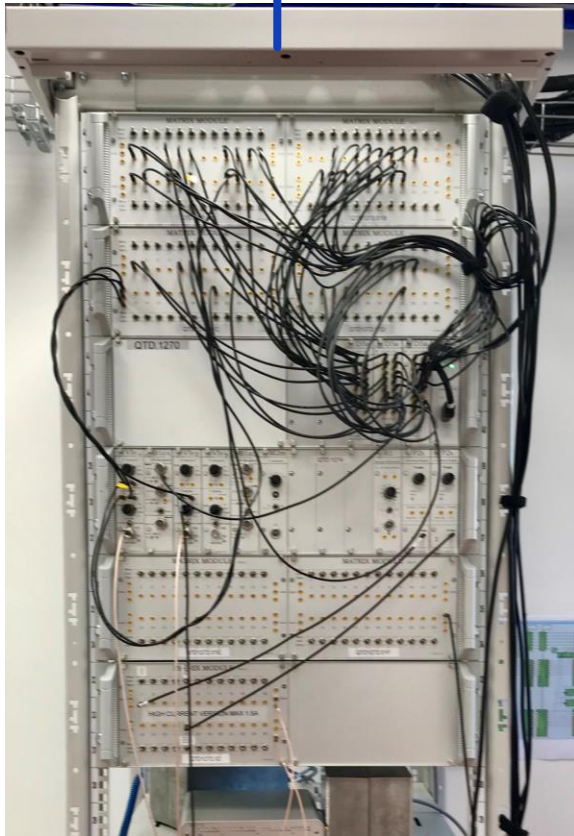
All rights reserved. No part of this publication may be reproduced and/or published by print, photoprint, microfilm or any other means without the previous written consent of TNO.

In case this report was drafted on instructions, the rights and obligations of contracting parties are subject to either the General Terms and Conditions for commissions to TNO, or the relevant agreement concluded between the contracting parties. Submitting the report for inspection to parties who have a direct interest is permitted.

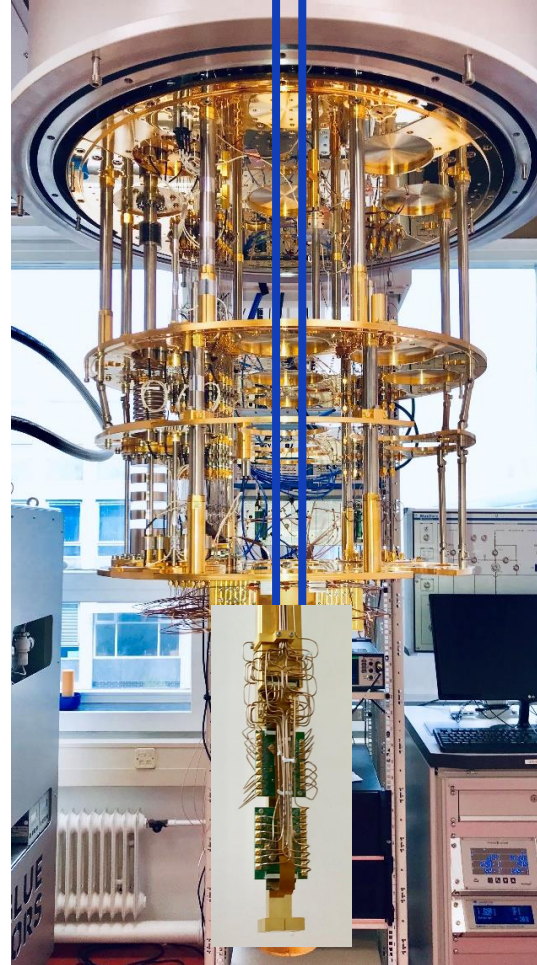


The quantum computer

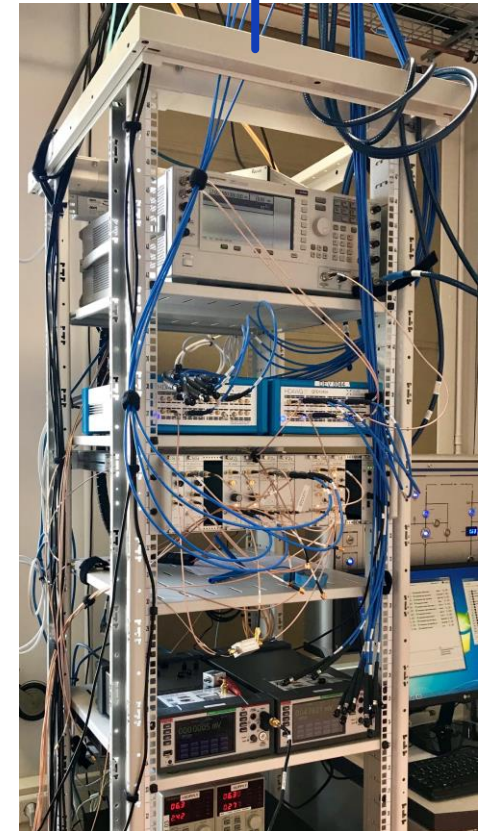
Electronics



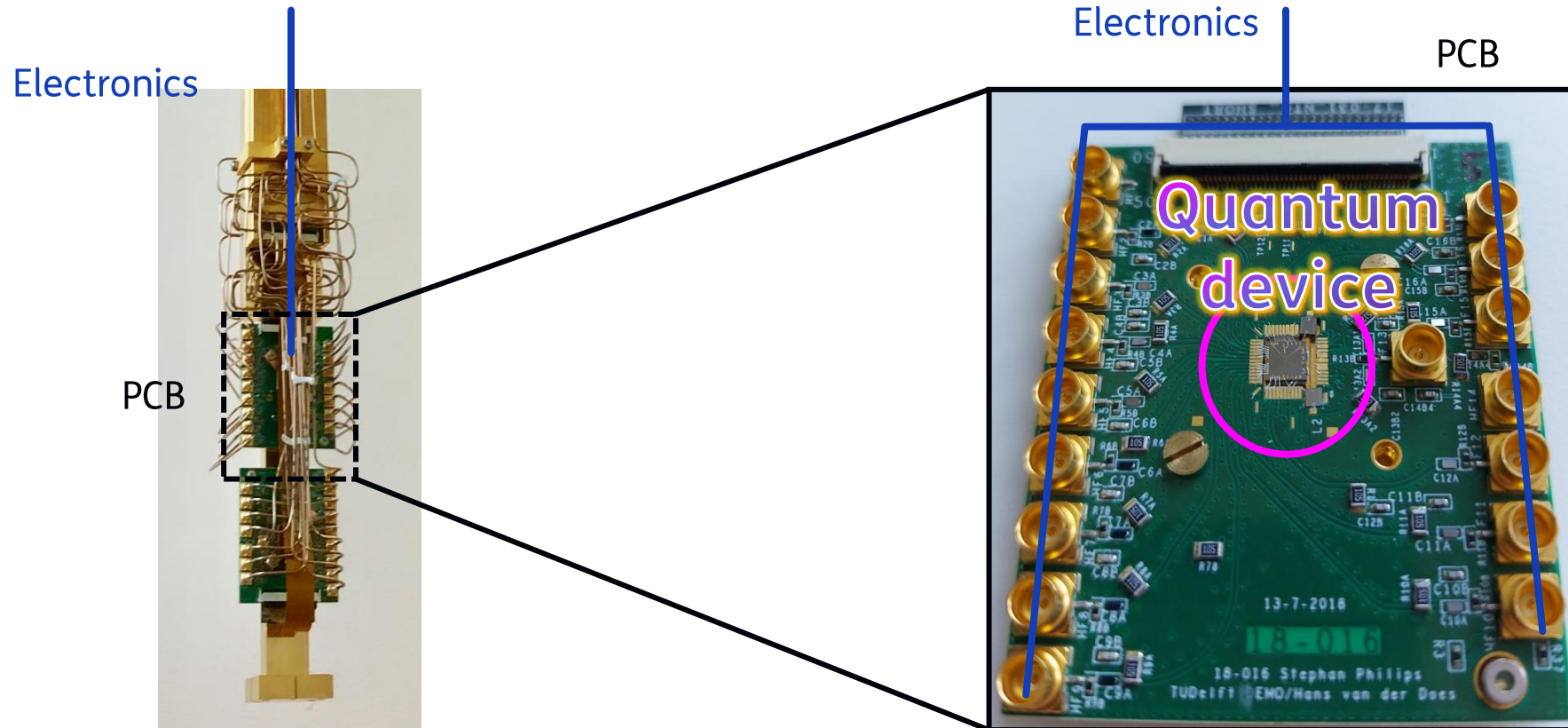
Fridge



Electronics

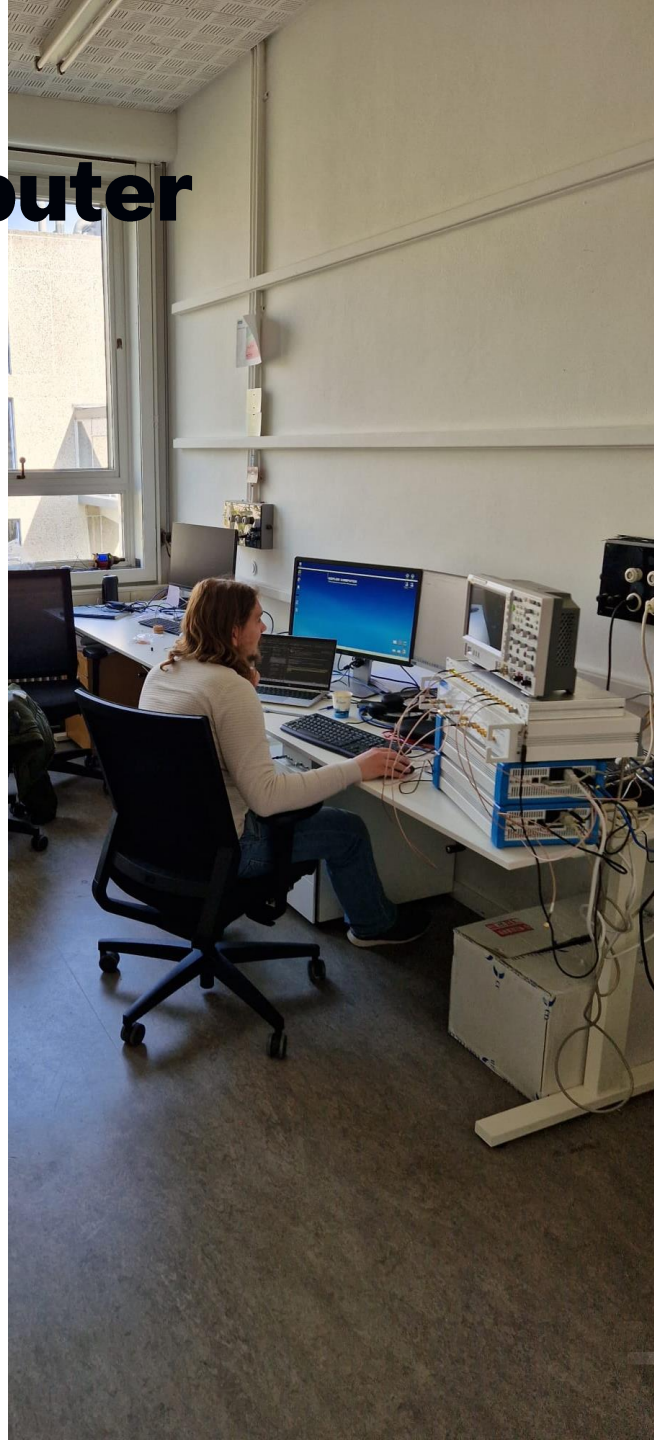


The quantum computer

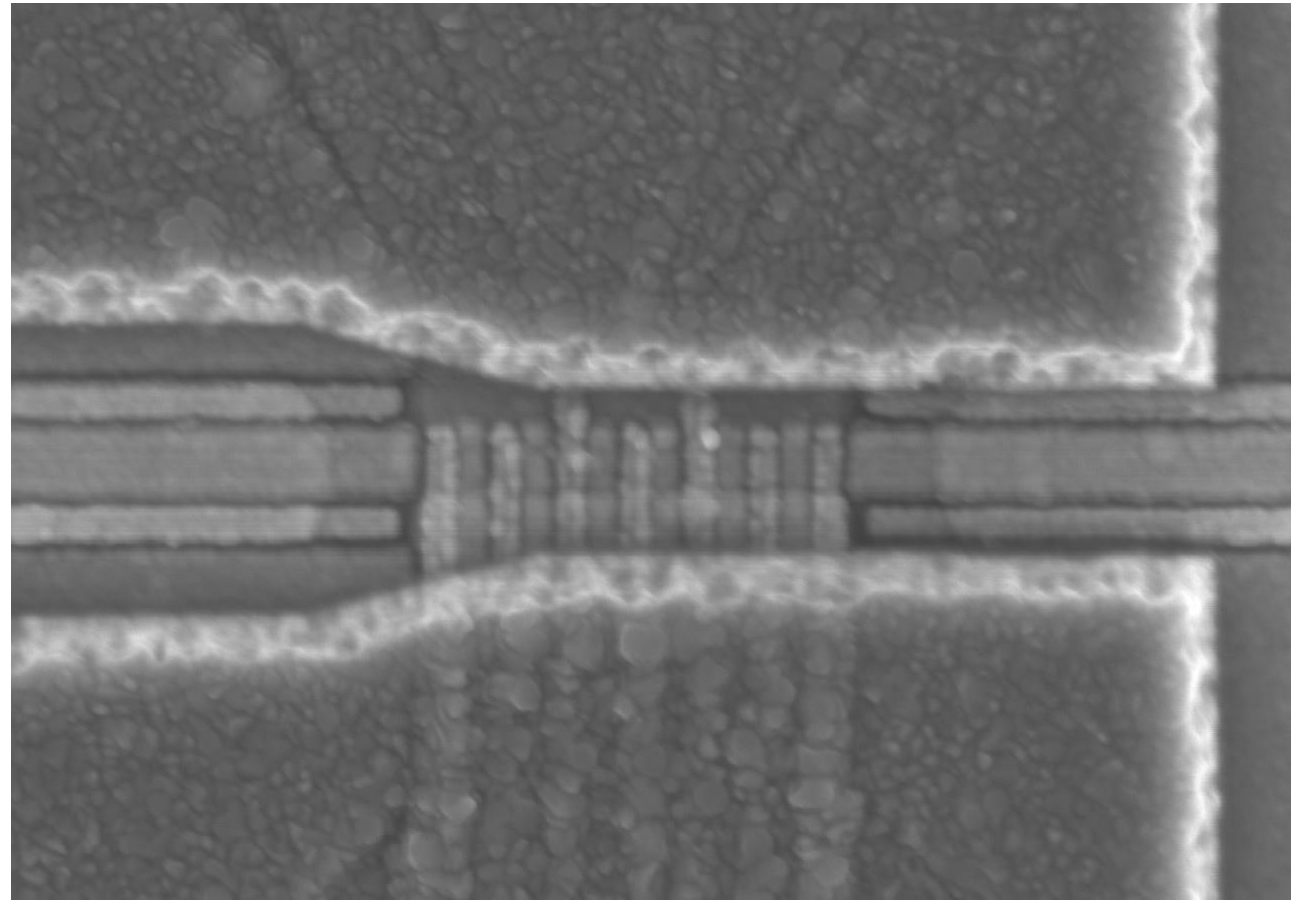
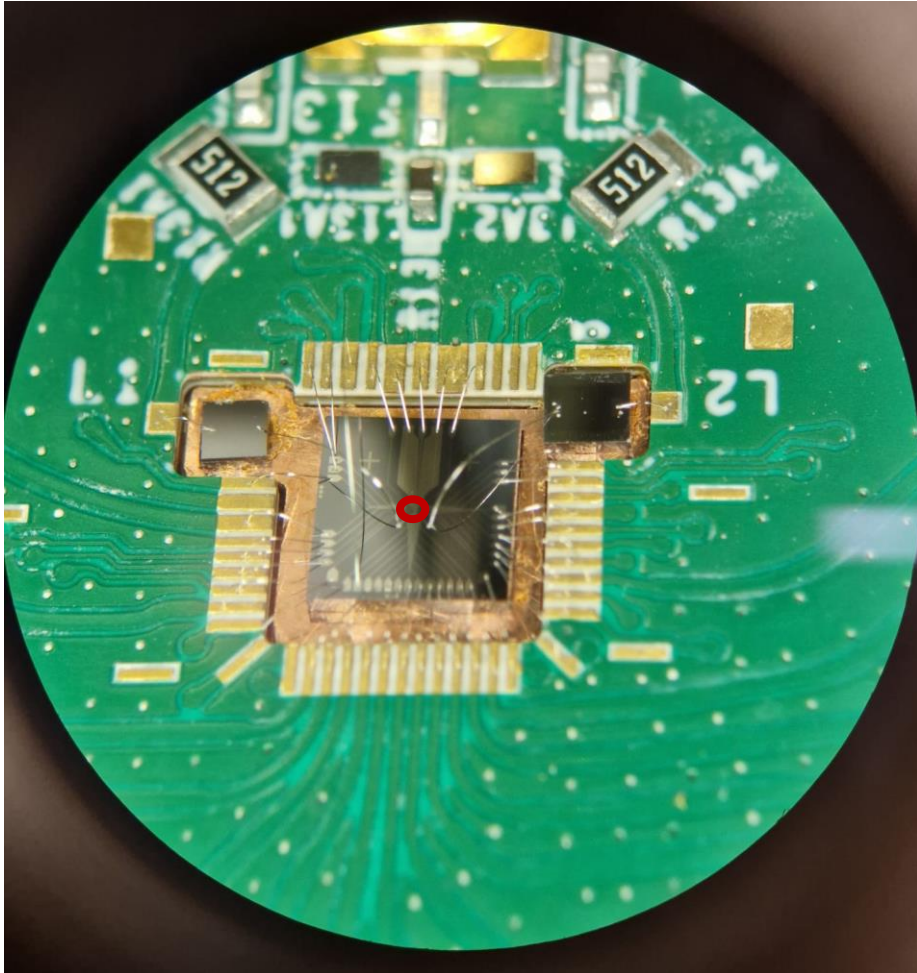


The quantum computer

- And it's minions.

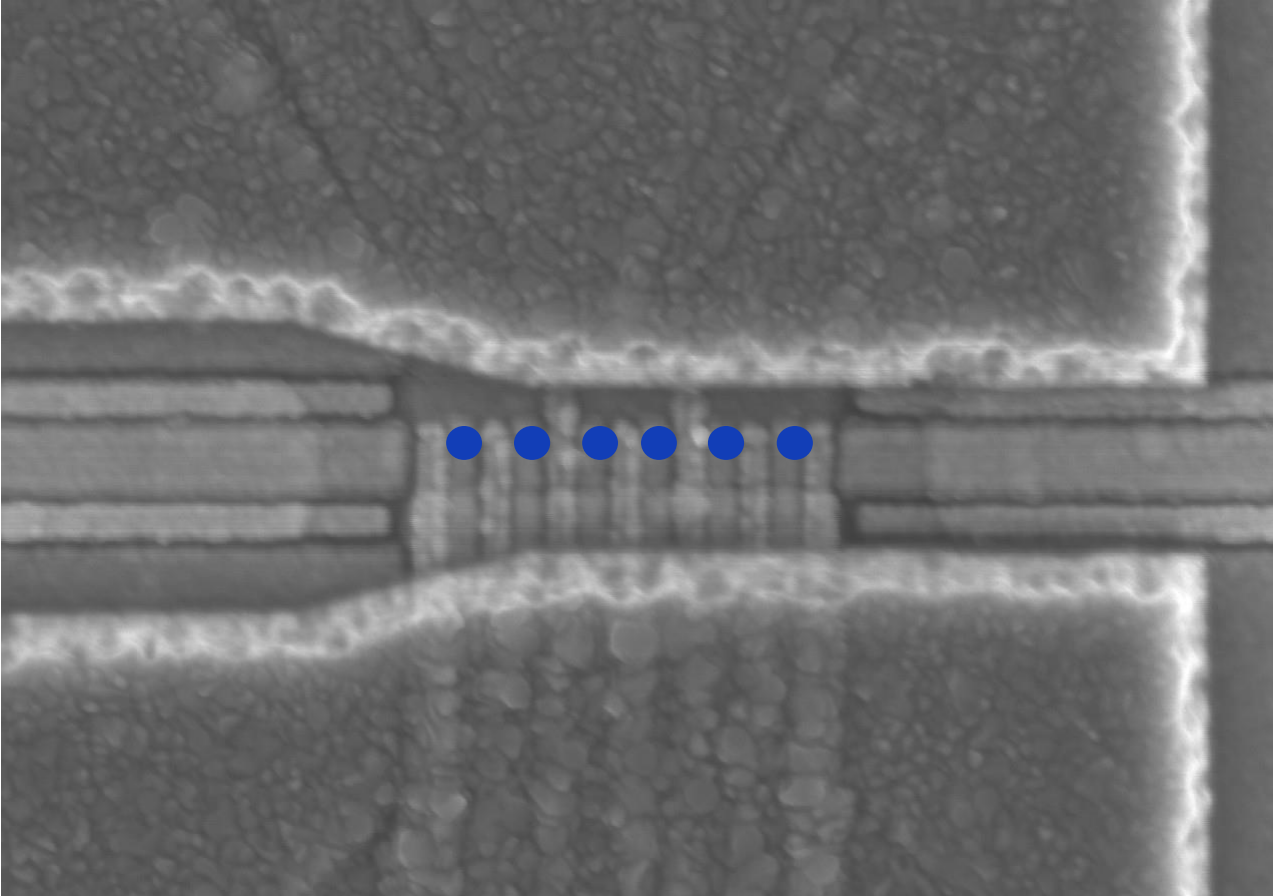


The quantum device



From: Philips et al. "Universal control of a six-qubit quantum processor in silicon" 2022

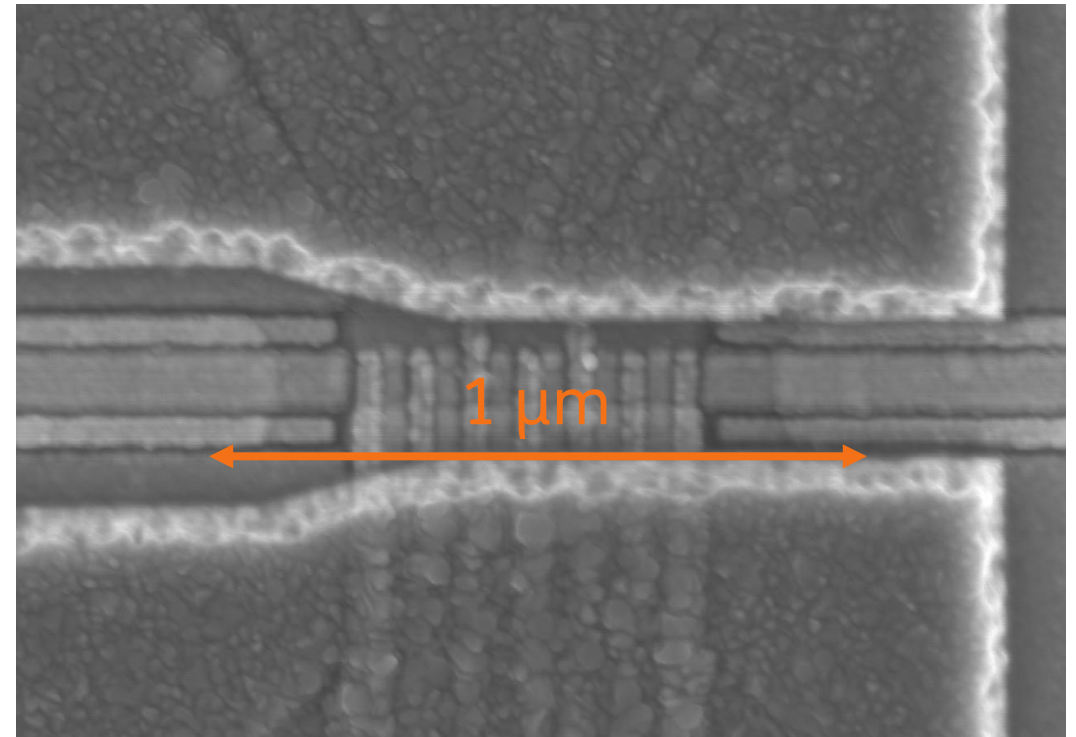
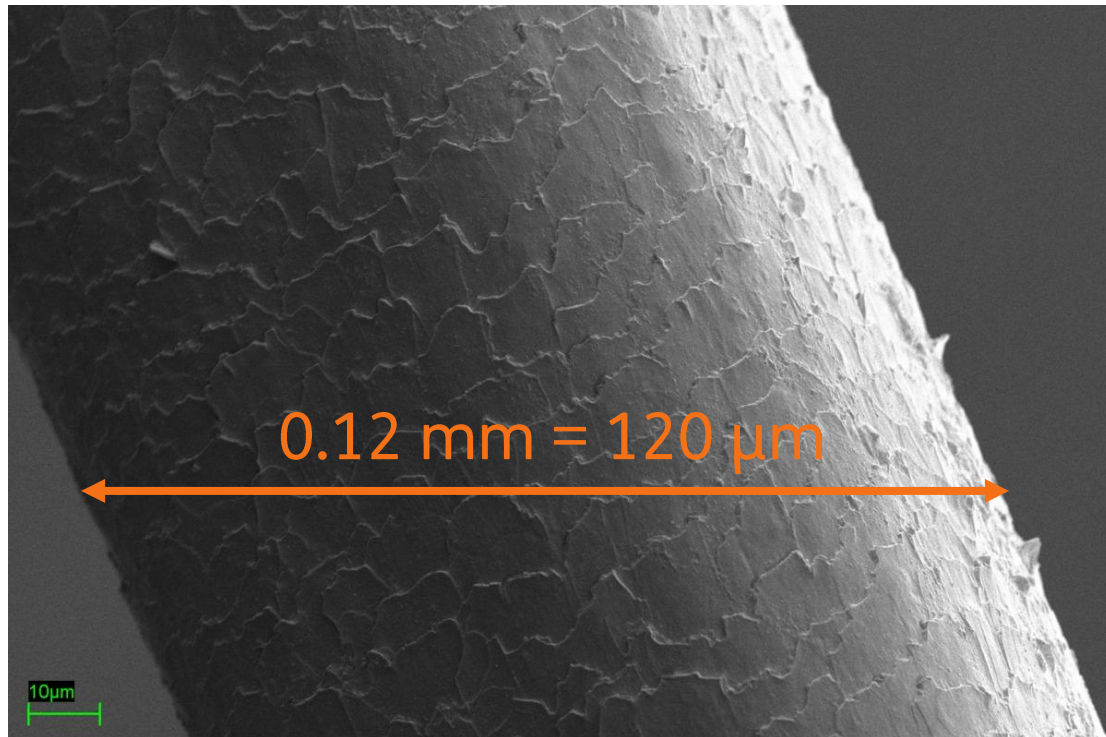
The quantum device



From: Philips et al. "Universal control of a six-qubit quantum processor in silicon" 2022



What is this?

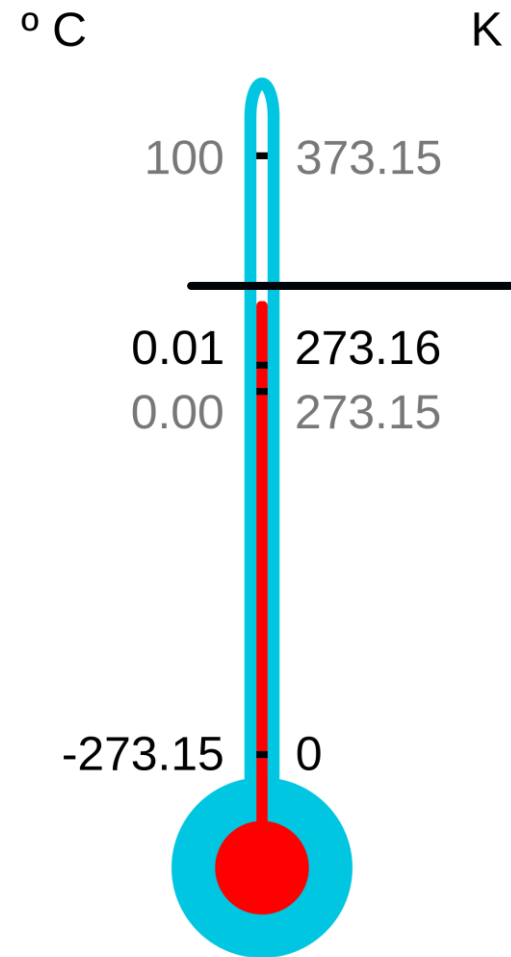
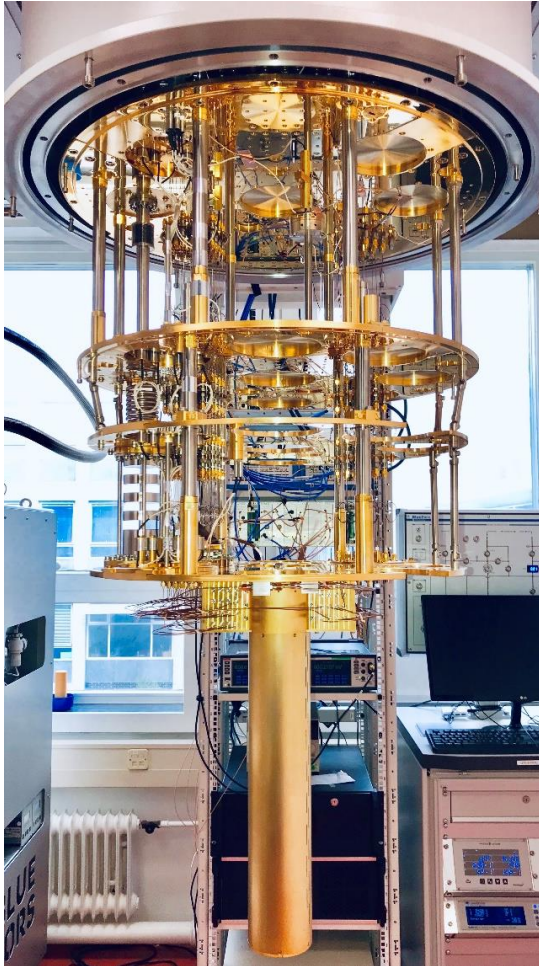


From: Philips et al. "Universal control of a six-qubit quantum processor in silicon" 2022

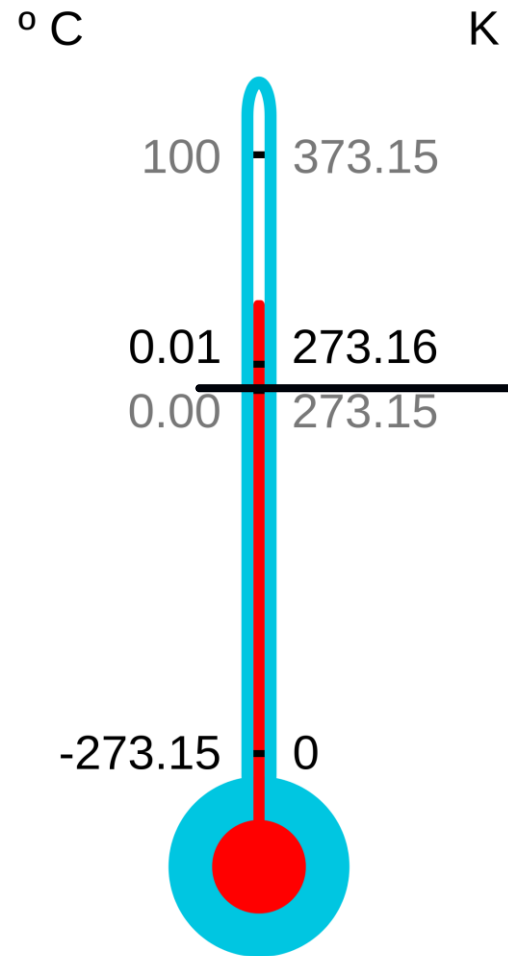
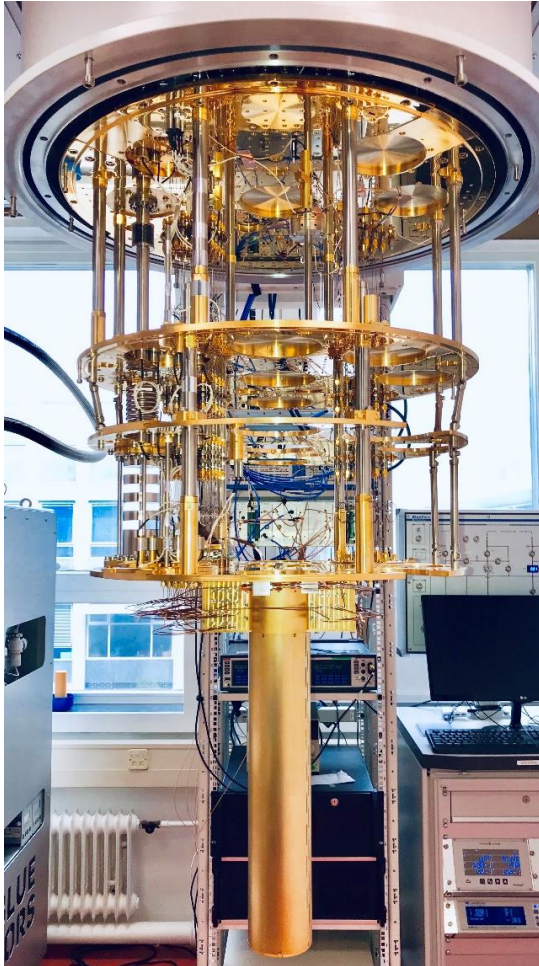
How to make something so small?



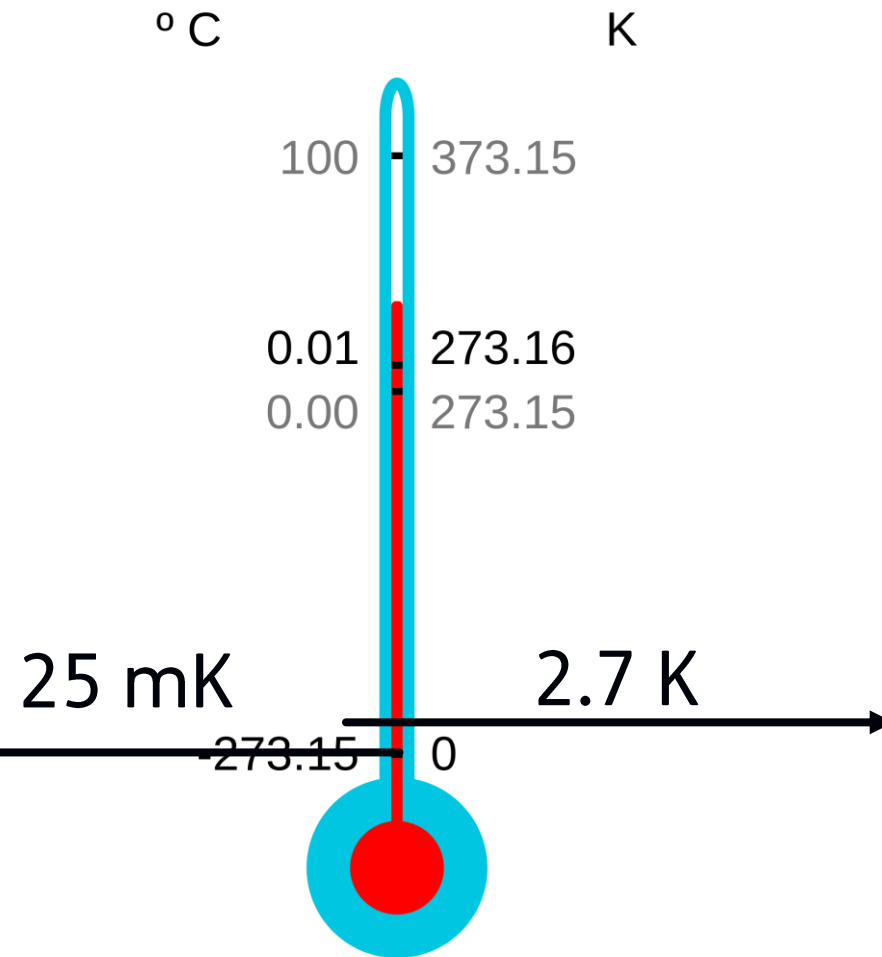
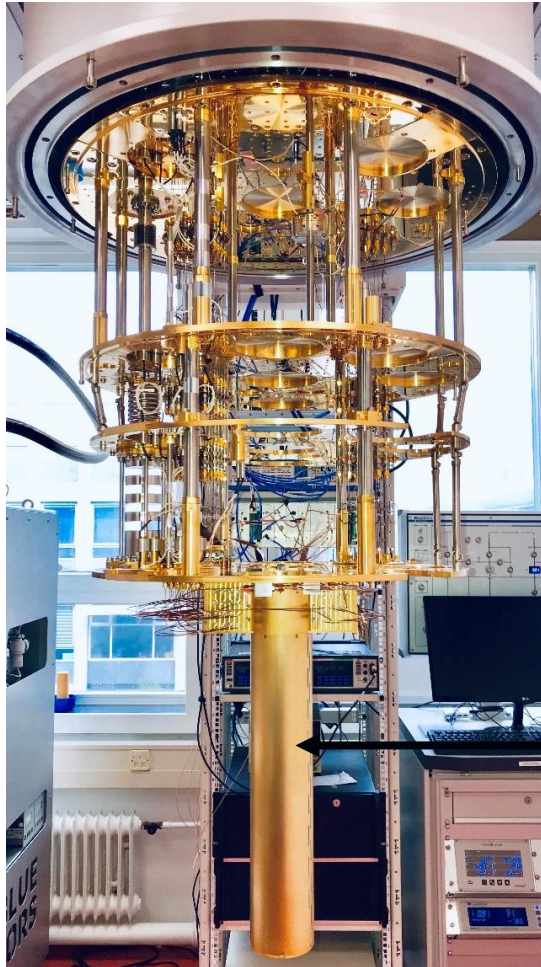
How cold?



How cold?



How cold?



Conclusion

- To make a quantum computer we to push the boundaries of what is possible.
 - We have to make chips with as small as possible features
 - We have to cool those down to almost absolute zero.

Ontdek Quantum in AR

Altijd al eens de quantum computer voor je willen zien? Scan de QR-code en ontdek het zelf!

