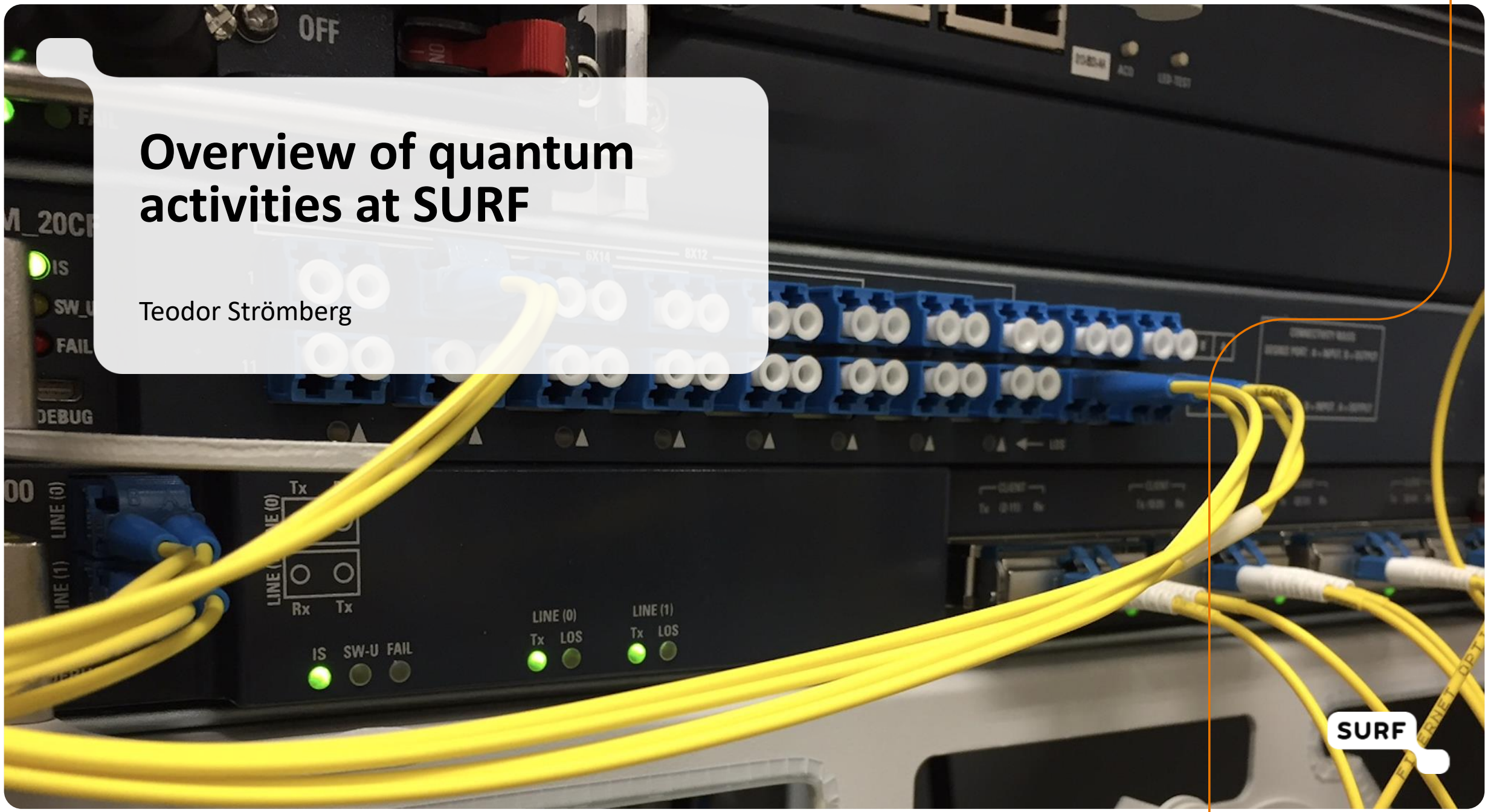
Overview of quantum activities at SURF

Teodor Strömberg



Our role in quantum compu' ng:

Support **access** and use of quantum simulators as well as physical quantum computers (future)

Understand the required exper! se and tools to **'transform'** regular applica! ons into quantum applica! ons

S' mulate and support the development of quantum applica! ons

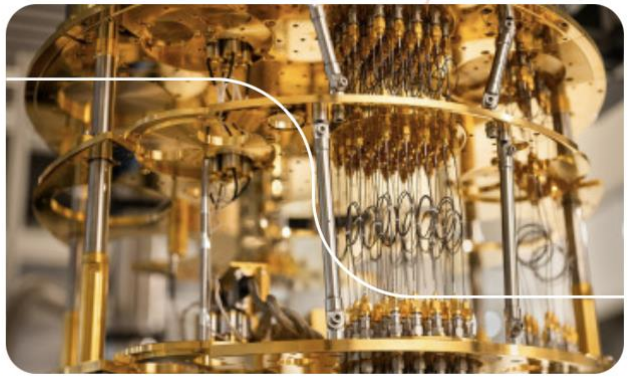
Understand the **applicability** for scien! %c applica! ons

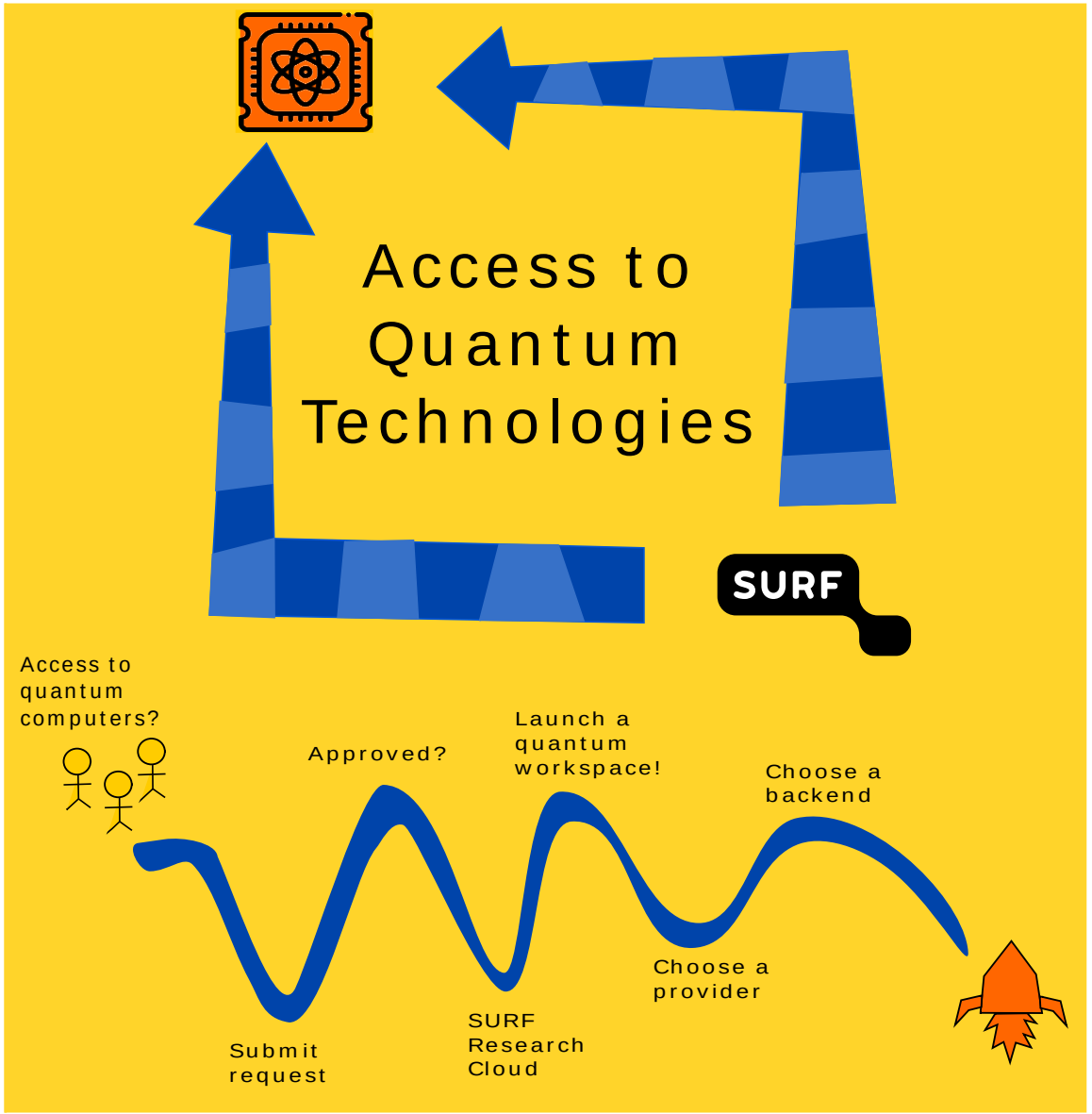
Support Dutch research to take early and compe! ! ve **advantage** of Quantum compu! ng

Access to quantum technologies

Get access to quantum!

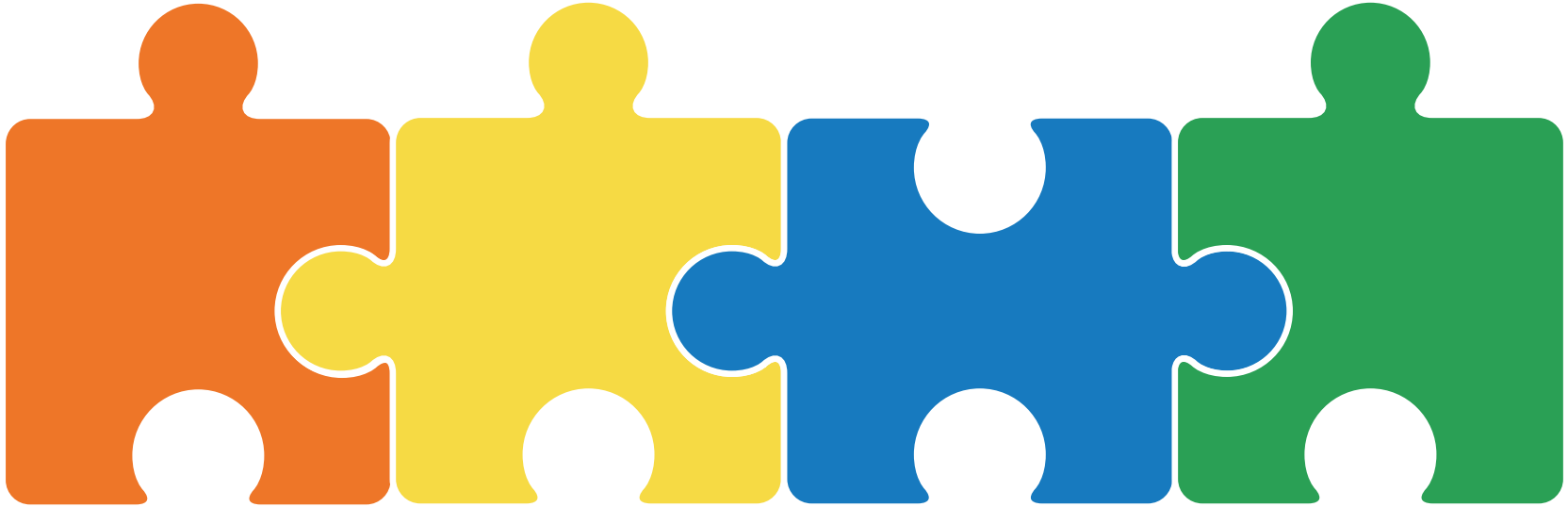
Are we at the beginning of the quantum era? At SURF we think so! Are you a researcher or student and interested in quantum computing? We invite you to join us in further discovering what quantum computing can do. Apply for credits in this pilot phase of 'Access to Quantum Technologies', and run your experiments on real hardware!




Access to Quantum Technologies
SURF
Access to quantum computers?
Approved?
Launch a quantum workspace!
Choose a backend
Choose a provider
Submit request
SURF Research Cloud

SURF

SURF's role in quantum communication / internet



Support Dutch researchers by ensuring that our members can be quantum safe

Develop understanding of use cases for scientific applications

Gain experience integrating quantum technologies

Support research on quantum internet architectures

Quantum Internet Alliance

Quantum internet use cases

- **Work package leader**
- **Will explore use cases together with academic partners**
- **User engagement to understand needs**

SURF

QCINed (part of EuroQCI)

- Work package leader
- Preparing deployment of development network in Utrecht
- Defining QKD service
- Developing tools and workflows for the integration of QKD hardware
- Engaging with vendors about feature development