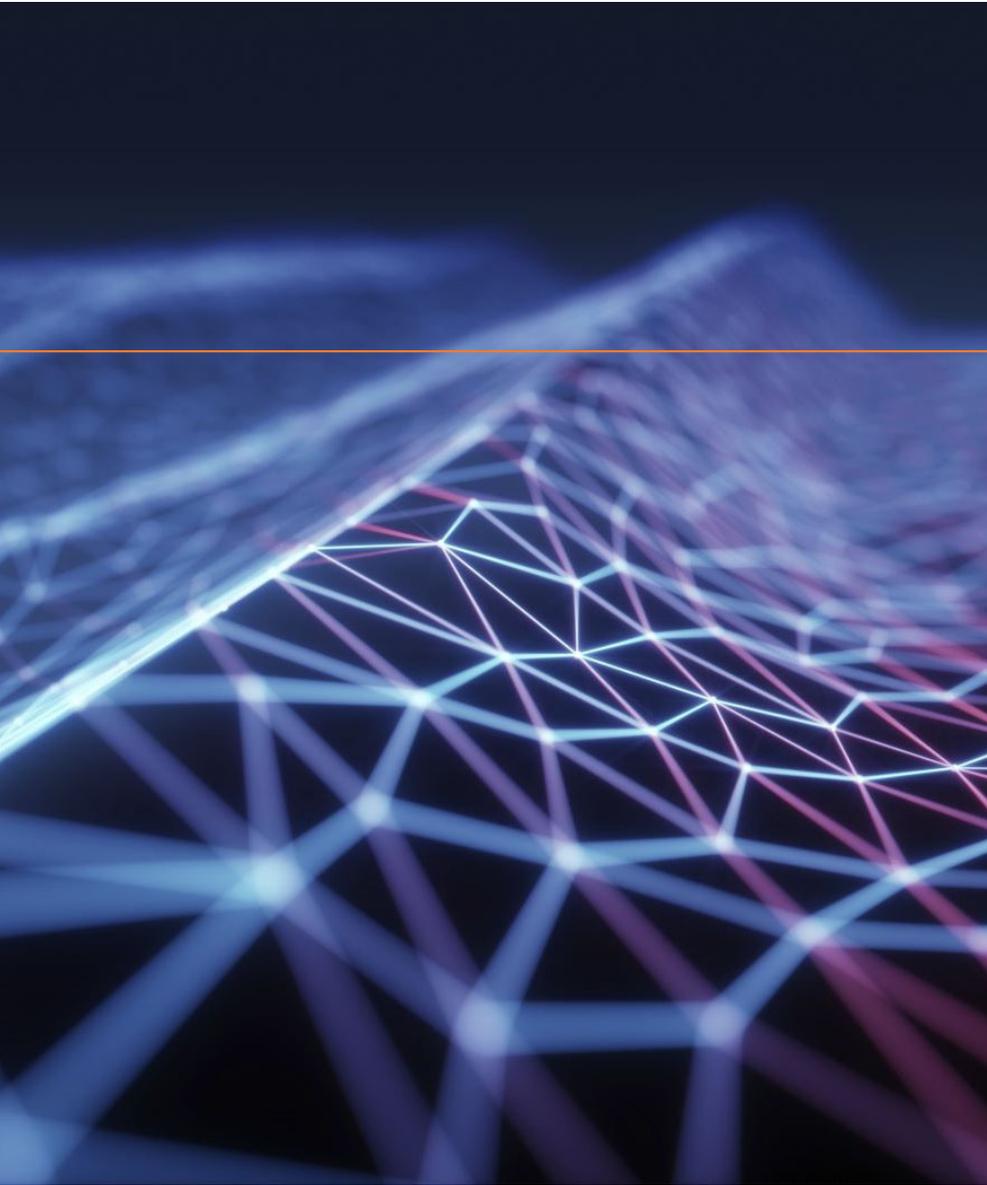




Bank Security & Innovation

Why banks need to be on the frontline of security innovation



Content

About us

Why banking needs innovation

Why acting on security is important now

What we did

The road to quantum readiness

Steps to a blueprint on quantum safe encryption

Journey ahead

Awareness, Skills & Education

About us



Trendwatching



Experiment

Research



Support





Why banking needs innovation

- Changing customer needs
- New entrants
- Acceleration of technology
- Data is an asset
- Security by design
- Regulation and law

- Increasing dependency on **digitalization** in society
- Data **harvesting**
- Some cryptographic algorithms, like RSA and ECC, are extensively being used and are **highly susceptible** when QC reach the required scale and reliability
- New quantum-safe algorithms need to be **studied and tested** thoroughly before application
- Based on **international standardization** bodies, we need to develop formal and consistent design patterns for applications with quantum readiness & safety in mind
- A periodically updated **policy and standard** for cryptography

Why acting on security is important now

What we did

- Industry scan of **relevant** organisations
- Contact field **experts**
- Build **network** of like minded organisations
- Launch a dedicated quantum **lab**
- Created a **vision** document

The road to quantum readiness



Inventory & Oversight: An impact assessment of the transition to post-quantum cryptography

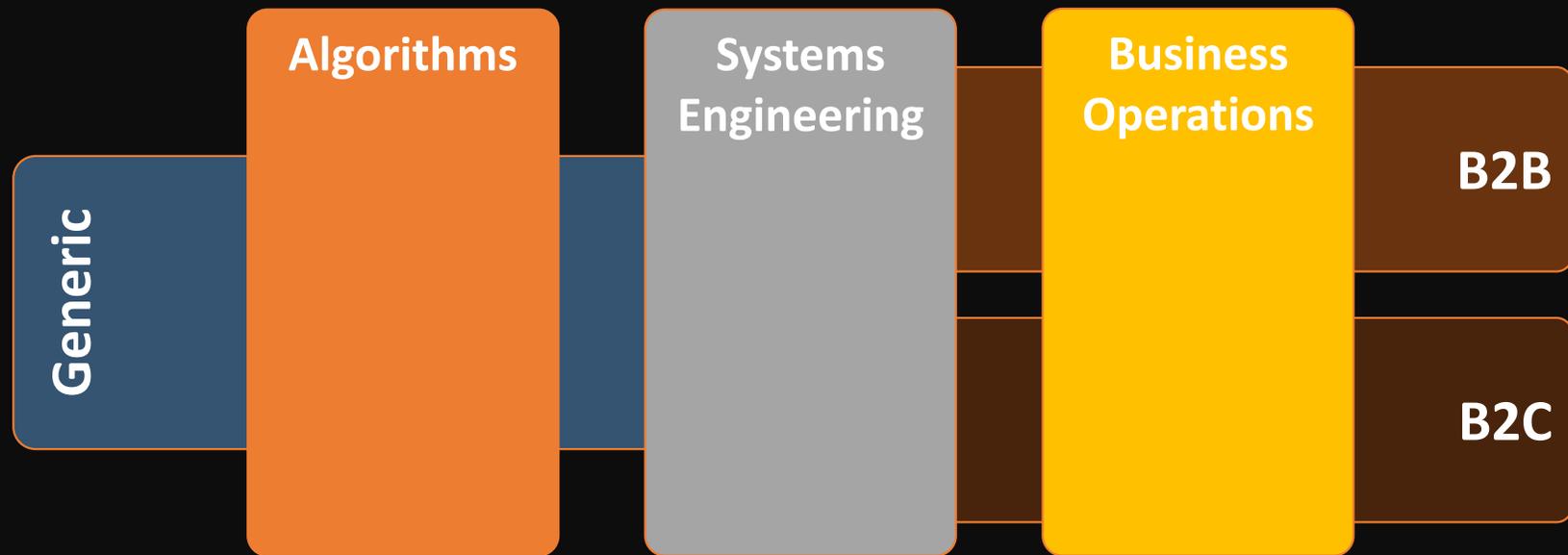


PQC solutions: A migration strategy



Fallback: Developing fallback scenarios

Steps to a blueprint on quantum safe encryption





Journey ahead

Awareness, Skills & Education

- The **monthly workshop** General Awareness Quantum Computing addresses the need for companies to explore and develop quantum software and new applications.
 - To create an **education and awareness program** The Dutch Payments Association, the Dutch Banking Association and the three major Dutch banks ABN AMRO, ING and Rabobank asked CWI, UvA and the Amsterdam University of Applied Sciences for collaboration, within the Quantum.Amsterdam innovation hub.
-

AWARENESS QUANTUM COMPUTING



Can be booked throughout the entire year



Marten Teitsma
Professor of Applied
Quantum
Computing at the
Amsterdam
University of Applied
Sciences



Koen Groenland
Quantum
Innovation
Officer at Research
Institute QuSoft

INTRODUCTION TO THE GENERAL PRINCIPLES OF QUANTUM COMPUTING

4-HOUR WORKSHOP:
**NO PRIOR
KNOWLEDGE NEEDED**

**A CLEAR FOCUS ON
OPPORTUNITIES AND
THREATS FOR YOUR
BUSINESS**