

# THE QUANTUM ECONOMY

## ABOUT THE PROGRAM

In this program you will learn the foundations of quantum physics and its applications on computing, economy and finance, organisational design and new business models. You will explore the potential of quantum technologies to address pressing challenges of mankind through the use of for example quantum algorithms and (hybrid) quantum computing to solve complex problems.

Quantum technology is destined to be the most profoundly transformative technology that humans have ever uncovered. It will transform our way of life, both socially and economically, in ways that we can't yet fully grasp. Unprecedentedly dynamic, it's poised to address problems spanning all present industries, making the impossible possible.

You will acquire the skills managers and leaders need, in order to shape the future of the economy by applying quantum concepts in your (business) decision-making and leadership along the philosophical implications of quantum theory.

## WHO SHOULD ATTEND

**Executives** looking to understand the foundations of quantum technologies and the associated business threats and opportunities of quantum technologies with responsibility in strategic management, technology management or business development



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PROGRAM DIRECTOR

## THIS PROGRAM INCLUDES

Workshops  
Case Studies  
Huddles  
Prototyping

## WHAT YOU WILL LEARN

- ✓ Understand the fundamentals of quantum technologies
- ✓ Identify use cases of the technology along potential threats and opportunities
- ✓ Stay up-to-date on current quantum technology developments
- ✓ Understand the implications of quantum technologies on business and society
- ✓ Explore philosophical and ethical considerations of the next frontier in tech

## THE CURRICULUM

### MODULE 1: QUNATUM GOODS AND SERVICES

In the “Quantum Goods & Services” block, participants will explore use-cases and current developments of quantum technologies. This includes the current state of development and production of quantum hardware, software, and other products and services that make use of quantum mechanics. Participants will be exposed to a variety of software solutions for quantum computing, such as development tools and programming languages, as well as the development of quantum consulting services.

### MODULE 2: QUANTUM ECONOMICS, FINANCE AND MONEY

The “Quantum Economics, Finance and Money” block explores the impact of quantum technologies on financial and economic systems. This includes cryptography, security, and risk management, as well as the development of new financial instruments and investment strategies. Quantum economics applies the principles of quantum mechanics to model economic systems and behaviour, using game theory and quantum computing to optimise such systems.

### MODULE 3: QUANTUM ORGANISATION

The “Quantum Organisation” focuses on the potential impact of (quantum) technologies on organisations, including leadership, management and decision-making, and aims to develop new models and methods for improving organisational performance. The use of quantum-inspired algorithms to solve complex organisational problems is a practical area of interest, as is the transfer of quantum physics principles to organisational structures for greater agility, adaptability, and resilience creating dynamic organisations.

### MODULE 4: QUANTUM HUMAN

The “Quantum Human” block applies quantum mechanics principles to model complex cognitive processes, potentially leading to a new understanding of what it means to be a human in the age of exponential technologies, in which Human-Machine interaction is becoming the norm and more and more human tasks are getting replaced by machines. Additionally, “Quantum Human” examines the impact of quantum technologies on human health, cognition, and behaviour, including quantum biology, quantum neuroscience, and quantum psychology.