

# **Results of the Workshops / Breakout Sessions**

# Current status of QT

## Current status

- QT hold potential for various applications in industry
- QT is still in the research stadium
- Actions need to be taken to bring QT from fundamental research to commercial products

## Roadblocks for commercializing QT

- Technological issues which need to be resolved
- QT Infrastructure (Manufacturing/ Enabling technologies)
- Lack of wide spread understanding of the benefits of QT (potential applications)/ Expectation management
- Valley of death from fundamental research to commercial applications
- Brain/IP/Knowledge drain from Europe

# Recommendations for developing QT

## Recommendations for resolving roadblocks

- Building up QT Infrastructure/ Ecosystem
  - Open access (to industrial and governmental facilities) to enable start-ups & SMEs to participate in the development of QT (reduce entry barrier)
  - Support of enabling technologies ecosystem
  - Government incentives for venture capital / early adopter/ Government as early adopter to bridge the valley of death
- Funding fundamental research to resolve technological roadblocks
- Develop chain from fundamental research to engineering
  - Closer collaboration between industry and academia
  - Interdisciplinary education/ Interdisciplinary research initiatives to bridge the gap from physics to engineering

# Recommendations for developing QT

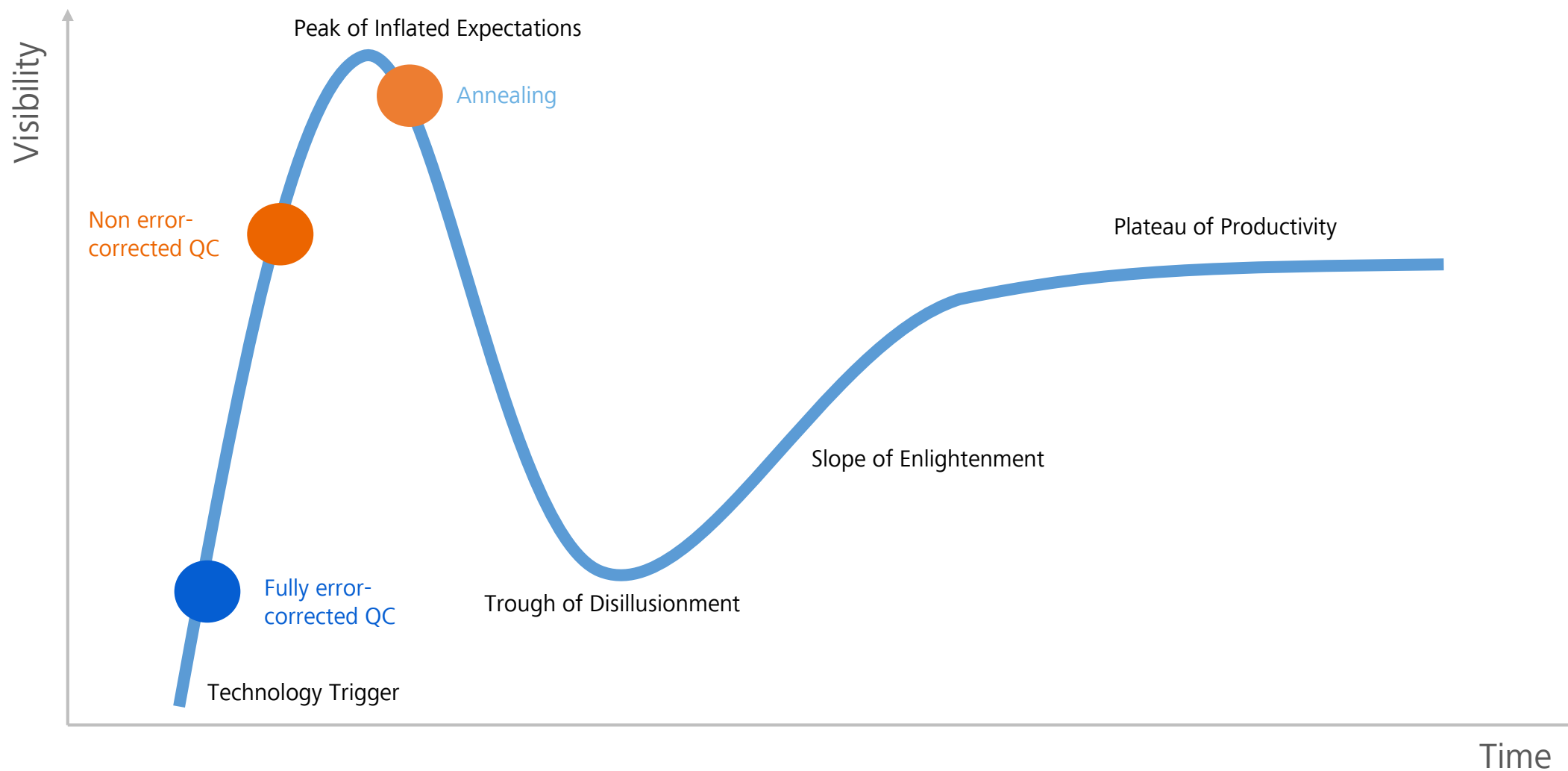
## Recommendations for resolving roadblocks

- Measures against brain drain / knowledge protection to keep know-how and IP in Europe
- Improve external and internal communication
  - What are the benefits of QT?
  - For what should it be used?
  - Expectation Management

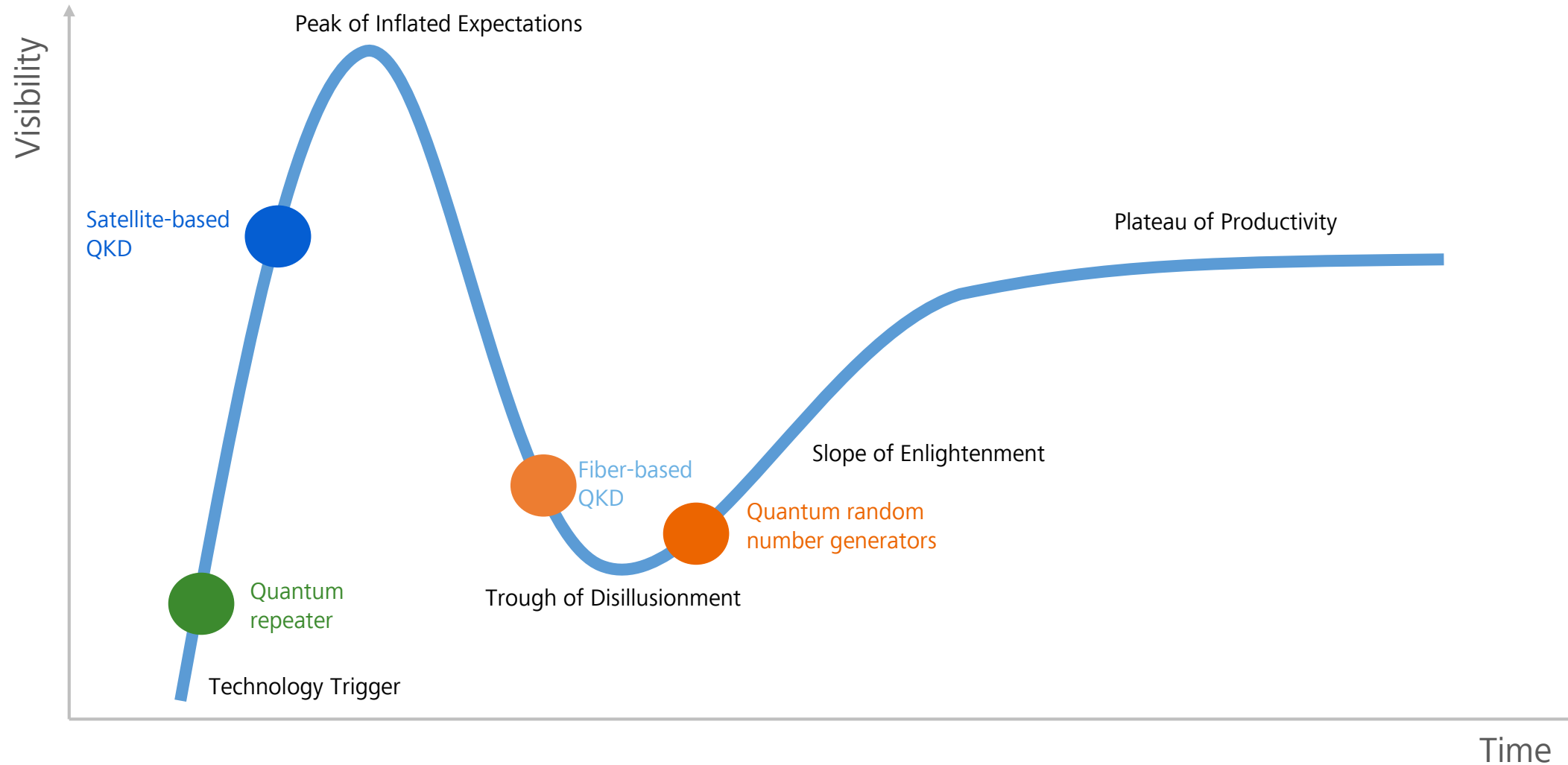
# Quantum Computing

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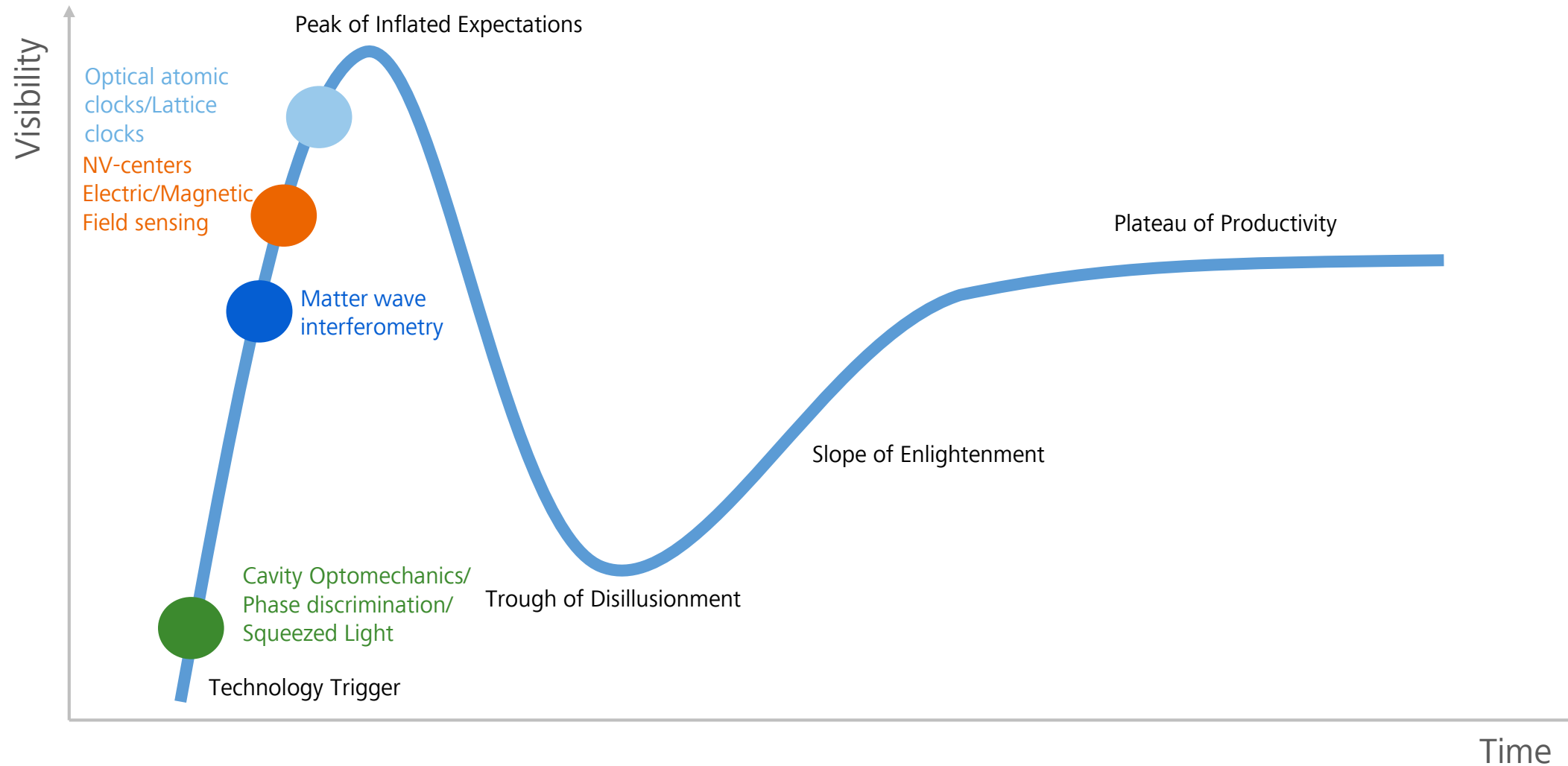
OPTICS IN THE  
QUANTUM WORLD



# Quantum Communication



# Quantum Metrology and Sensing



# Quantum Enhanced Imaging

