

The logo consists of the letters 'NL' in a white, bold, sans-serif font, set against a solid orange square background.

**Holland  
High Tech**

Global Challenges,  
Smart Solutions

Let's talk about  
**COMPUTING  
OUR FUTURE**

**NETWORKING EVENT 2026**

# SHAPING THE FUTURE OF COMPUTE

Why is this important, what has been done so far and how should we proceed?

Holland High Tech NETWORKING EVENT · 17 June 2026 · The Hague

Breakout B · Strategic briefing deck



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Global Challenges  
Smart Solutions

## FUTURE OF COMPUTE TOPICS

Data and AI Software

Advanced semiconductors

Integrated photonics

Quantum computing

Neuromorphic computing

HPC & AI infrastructure

Cybersecurity

Robotics

# Session flow



**01 What is the Future of Compute?**  
Definition, scope and technology layers of the stack

**02 Why it matters**  
Three converging forces reshaping compute geopolitics

**03 Techleap/TNO deep dive**  
Evidence from the 2025 ecosystem scan

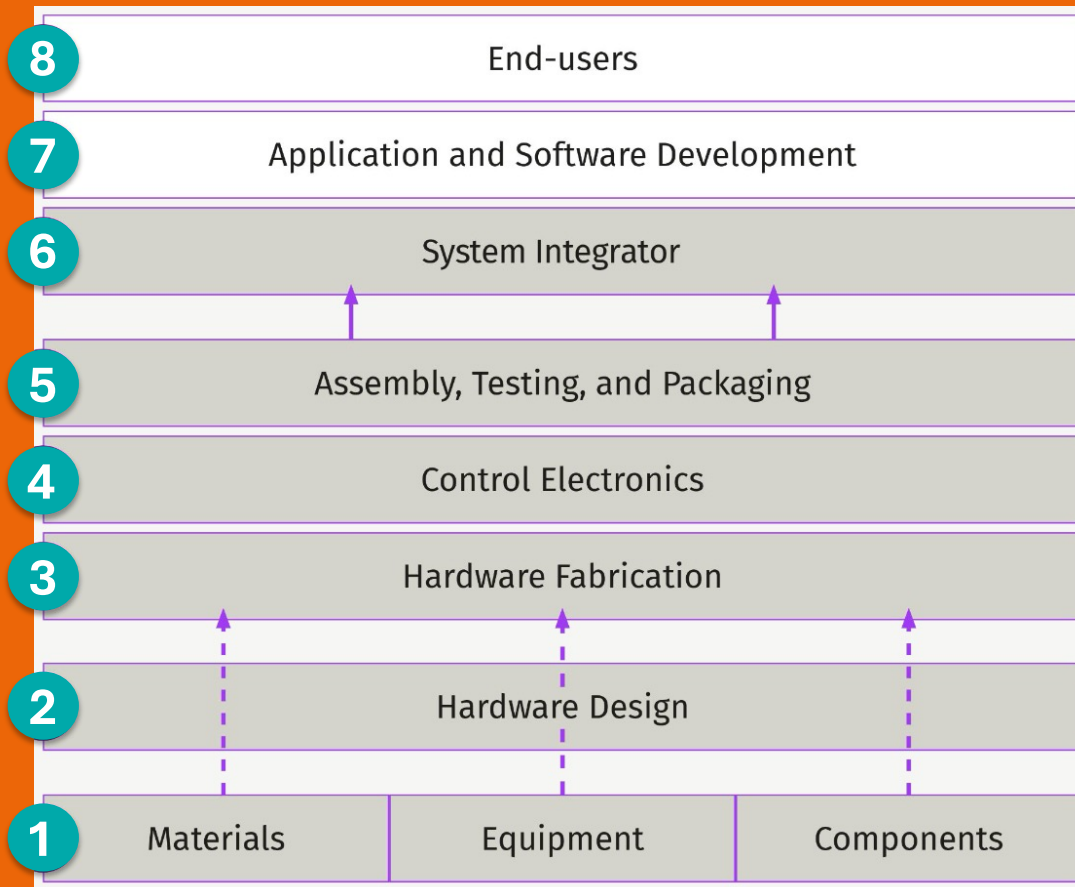
**04 Digital Holland Call to action**  
A coordinated FoC umbrella is being proposed

**05 New HHT research**  
What founders told us

**06 Discussion**  
Three questions to test with the room



# 01 What is the Future of Compute?



*Future of Compute represents a structural shift beyond traditional architectures throughout the compute stack. It covers advanced semiconductors, quantum computing, integrated photonics, neuromorphic computing and HPC.*

### Global market outlook

**€1.6T – €2.6T** by 2035

### Application areas

Healthcare AI · drug design · materials science · edge computing · security · machine learning · optimization · simulation



## 02 Why Compute is critical for our future

01

### Unprecedented compute demand

AI is driving datacentre energy demand faster than grids and facilities can scale



02

### Strategic autonomy at risk

We need more than one control point.



03

### Our ecosystem grows fast

The support policies should grow with it.



“The question is no longer whether we should act, but how quickly we can bring existing coalitions together.”

“We have what it takes to become a global compute powerhouse — drawing not only on the legacy of ASML, but also on a new generation of companies setting new standards.”

“We need a vision that connects edge to cloud, cybersecurity to quantum networks, photonics to energy efficiency”



## 02 The Netherlands has an opportunity: yes we can!

Five strengths put the Netherlands in pole position for future FoC value chains

1

### Global industry anchors

ASML, NXP, ASM and Besi anchor the workforce.

2

### Strong R&D foundation

TU Delft, TU/e, Twente and TNO span key compute domains.

3

### Fast-growth cohort

65 FoC firms attract deeptech investment.

4

### Strategic public funding

Major programmes in quantum, photonics and semicon.

5

### World-class partners

NVIDIA, Intel, Microsoft and imec strengthen the Dutch position.

### NTS and Wennink Proposed Programme budgets

NTS Quantum: €2.0bn / Wennink QuantumValley: €9.4bn · NTS Photonics: €887m / Wennink Photonic Chips: €1.95bn · NTS AI & data: €2.6bn · NTS Semicon: €890m / Wennink ChipNL: €735m · NTS Neuromorphic: €80m



# 03 Phase 1: Techleap/TNO FoC Deep Dive (Dec 2025)

Key figures from the Dutch compute landscape scan

**65**

Dutch FoC companies

**28%**

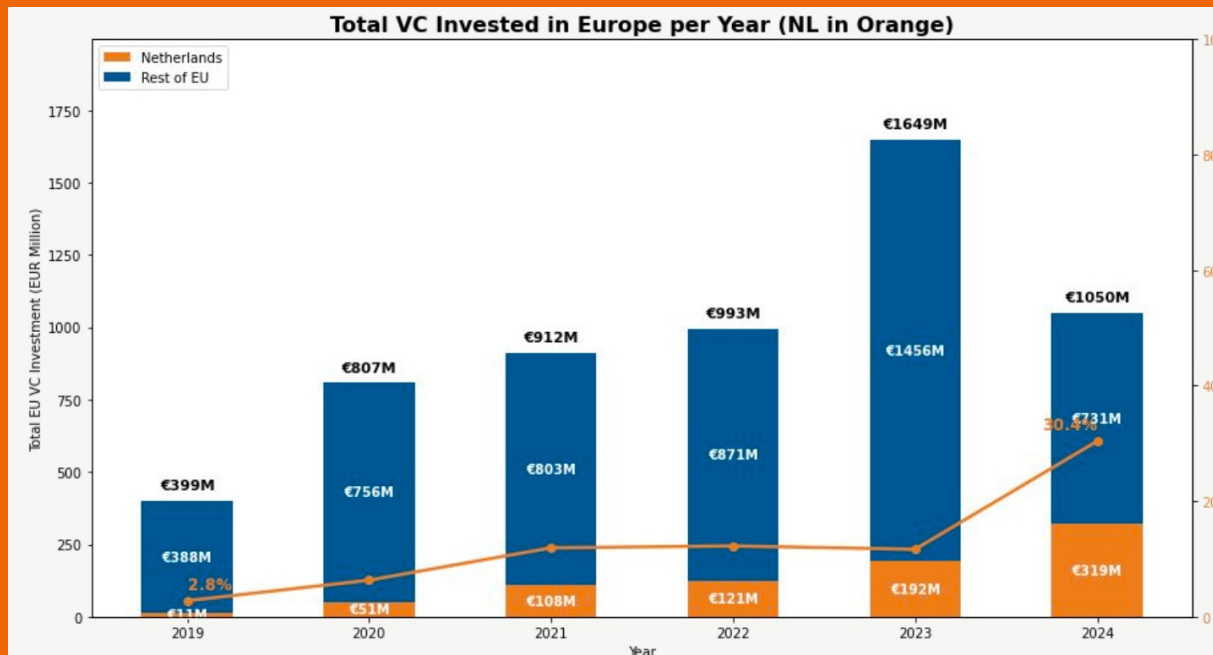
Of Dutch Deeptech capital to FoC

**30x**

Investment growth 2019–2024

**> €4B**

Capital needed over 5 years



## Five founder challenges identified

- CAPITAL:** Unlocking growth capital and exit opportunities
- TALENT:** Building leadership teams and competing for talent
- MARKET:** Breaking into markets and strategic partnerships
- OPERATIONS:** Scaling operations and industrialisation
- POLICY:** Navigating regulatory and policy environments



## 04 Phase 2: Shaping the Future of Compute (May 2026)

*The Netherlands has real capabilities, but they remain fragmented. A coherent national vision is now indispensable.*

### Call to action

- Build one national vision for the full Future of Compute stack.
- Connect fragmented initiatives into one coordinated strategy.
- Convert Dutch deep-tech strengths into growth and strategic leadership.
- Invest in scalable, sovereign and energy-efficient compute infrastructure.

### From fragmentation to unity

#### Before — siloed

QDNL

PhotonDelta

ChipNL

TKI's

Regional programs

#### After — integrated

**FoC umbrella**

Advanced semicon

Photonics

Quantum

Neuromorphic

HPC / AI



# 05 Current HHT research: Future of Compute dialogue (2026)

Structured company interviews across the stack

## Research question

*“Does a unified Future of Compute umbrella add policy and ecosystem value for companies — and if so, where and how?”*

8

## structured interviews

semi-structured · confidential

## Themes per interview

- 01 Current ecosystem & governance
- 02 FoC as one domain — added value?
- 03 Funding gap & useful instruments

## Company × FoC stack coverage

Company	Q	Photon	Semi	Neuro	AI/data
Qblox	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Delft Circuits	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innatera	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Axelera AI	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>
Neways	<input type="radio"/>	<input checked="" type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
NXP	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Effect Photonics	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sandgrain	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

in scope    not primary



## Companies agree on fragmented support not being effective

1. Too many players with overlapping role, works in startup phase, but lacks in scale phase
2. NTS and Wennink: strong analysis, weak implementation
3. Strategic autonomy needs concrete choices and vision on control points
4. Priority: Regulation is constraining growth and valuation
5. Role of HHT: anchor demand, build shared vision and connections



# A conditional “yes” for a scoped umbrella

## Where the umbrella adds value

### ✓ Value sits at interfaces between domains

Photonics–CMOS, fibre-to-chip, PQ security, packaging and cloud-edge.

### ✓ Organise instruments by operating reality

Infrastructure builders and product firms need different support — even within FoC.

### ✓ A vision is needed on strategic autonomy

Protective measures are not enough — we need a strategy for global growth.

## What should be avoided

### ✗ Do not reproduce dilution

Decide on scope: cables, software, sensors, robotics — in or outside?

### ✗ No talking tables without money

Collaboration and consensus only work when backed by money and execution.

### ✗ Avoid research institutes taking money and control

Industry risks lagging behind if it is not supported by NGF funds.

## Funding instruments need more scale and speed



1. “Lab to fab” scale-up funding is the biggest gap, takes over 10 years
2. NGF funds should flow to companies, as in France, UK, Germany
3. RVO and EU instruments: *The Need for Speed and Scale*
4. EU co-funding is not aligned with our strong position
5. Stronger demand-side mechanisms: anchor customers, procurement, and public capital that can lead



# Questions for the room

Use the final discussion to test both urgency and practical design choices

## 1 Test the findings of the interviews

Fragmented support ecosystem, value of FoC umbrella, instruments with more scale and speed

## 2 Which cross-domain use cases are most strategic?

Packaging, photonics-semicon, edge AI security, compute infrastructure, or another interface?

## 3 What should happen in the next 12 months?

Taskforce, vision building, low hanging fruits?

Desired outcome: a sharper sense of where coordination adds value and what a first implementation step could be.

**THANK**

**YOU**

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The title 'IGNITE INNOVATION' is written in a large, bold, white, sans-serif font, centered within a yellow rectangular area.

**ACCELERATING  
DUTCH HIGH TECH**

**NETWORKING EVENT 2026**