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**Holland
High Tech**

Global Challenges,
Smart Solutions

Let's talk about
**INNOVATION IN
SECURITY AND DEFENCE**

NETWORKING EVENT 2026



GERARD VAN DER ZON

OPERATIONAL DIRECTOR,
HOLLAND HIGH TECH

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Global Challenges,
Smart Solutions

PROGRAMME

- **Holland High Tech and innovation for Defence |** Gerard van der Zon, operational director Holland High Tech
- **Defence: Ambitions for space |** Carla Andala, Policy Advisor Space Technology
- **Only Quantum if it makes a difference |** Charlotte Rutgers, Regievoerder Quantum
- **Smart Materials & Manufacturing: Innovation & Production Orchestration |** LKOL Jasper Heeren, Defence Innovation & Production Orchestrator
- **Panel |** State Secretary for Defence and three speakers, moderated by Gerard van der Zon





**Wij
stimuleren
innovatie**

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Holland High Tech

Holland High Tech is the Sector High Tech Systems and Materials (HTSM). We offer structural solutions to societal challenges and create economic growth. Teams of experts develop (key) enabling technologies focussed on the National Technology Strategy. Our overall aim is to stimulate impact in international innovation via public-private partnerships.

Netherlands & Holland High Tech in numbers

€18 B
billion euros in
production value

€70 B
billion euros in
export value

#13 Strategic
Programmes

89,000
Companies in
high tech
ecosystem



500,000
Professionals in
hightech

#1 Digitally & hightech
skilled people in
Europe 2024

#11 Innovation
Domains

#8 Global
innovation
index 2024

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INNOVATION DOMAINS

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**CIRCULAR
ECONOMY**



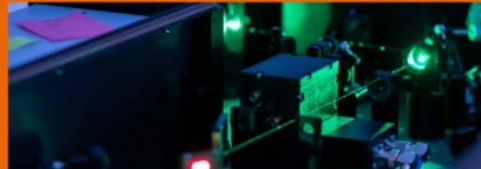
**ENERGY
MATERIALS**



**HIGHTECH
SECURITY**



**IMAGING
TECHNOLOGIES**



**MECHATRONICS
& OPTOMECHANICS**



**OPTICAL SYSTEMS
& INTEGRATED PHOTONICS**



**QUANTUM
TECHNOLOGIES**



**SEMICONDUCTOR
TECHNOLOGIES**



**SMART
INDUSTRY**



**SUSTAINABLE
MOBILITY**



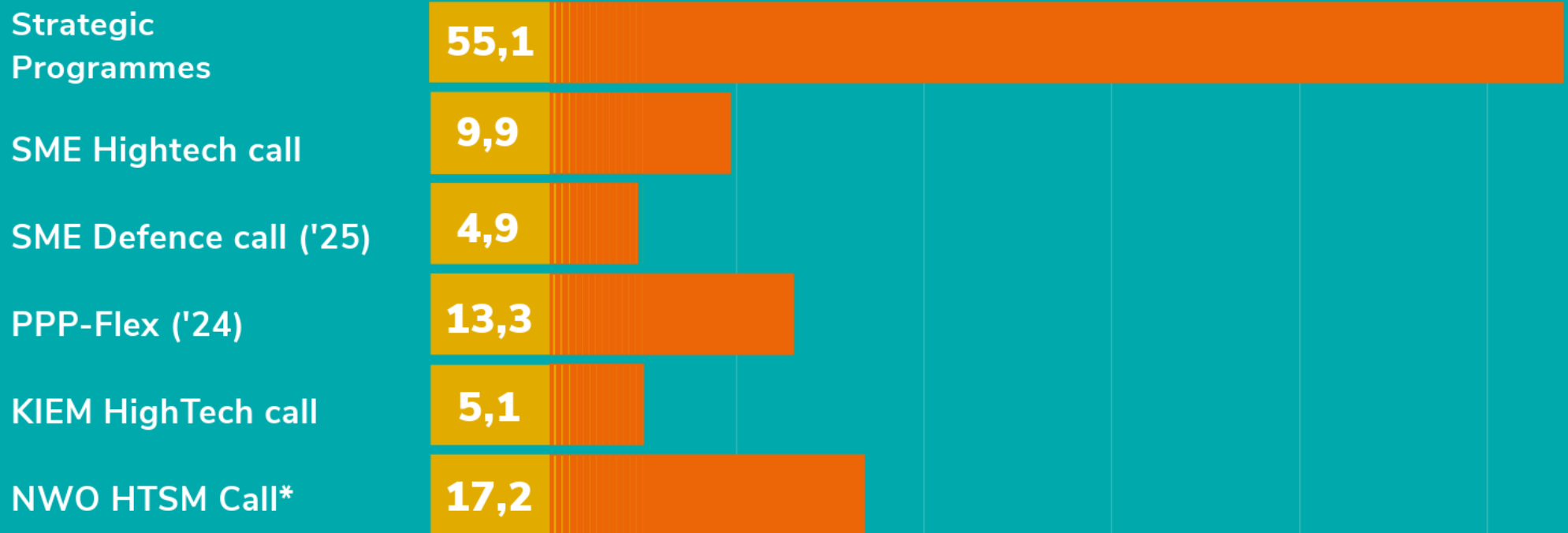
**SYSTEMS
ENGINEERING**

BUDGETS 2024 & 2025

€100,3 million in innovation

NL

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 Total in millions of euros

*joint call by NWO & Holland High Tech

Ministerie van Economische Zaken

> Retouradres Postbus 20401 2500 EK Den Haag

De Voorzitter van de Tweede Kamer
der Staten-Generaal
Prinses Irenestraat 6
2595 BD DEN HAAG

Datum 17 oktober 2025
Betreft Industriebeleid met focus

Geachte Voorzitter,

Nederland is een welvarend land, maar die welvaart is niet vanzelfsprekend. Ons
verdienvermogen¹ staat onder druk. Nederland worstelt met stagnerende
productiviteit, lage R&D-investeringen en een ondernemingsklimaat dat piept en
kraakt. Kijk naar de files op het stroomnet, toenemende waterschaarste, de
krapte op de arbeidsmarkt, de beperkte ruimte voor nieuwe fabrieken² of het
gebrek aan (passende) financiering voor het mkb en groeiende, veelbelovende
bedrijven. Dit raakt het brede bedrijfsleven en vooral de industrie, die cruciaal is
voor onze welvaart.

Daarnaast vraagt de huidige internationale economische en geopolitieke situatie
om een actievere rol van de overheid. Het speelveld is de afgelopen decennia
ingrijpend veranderd, zoals ook het Draghi-rapport³ laat zien. Internationale
concurrentie en geopolitieke spanningen zijn toegenomen en hebben grote
gevolgen voor internationale handel, waar Nederland traditioneel veel aan
verdient. Andere landen, ook binnen de EU, voeren veel actiever industriebeleid;
ze sturen actief op de ontwikkeling van bepaalde technologieën en markten in
eigen land, waardoor Nederlandse bedrijven benadeeld kunnen worden. Het
aantal industriepolitieke instrumenten en maatregelen wereldwijd is in tien jaar
tijd sterk gegroeid.⁴ Economische macht wordt steeds vaker ingezet voor politieke
doeleinden. Denk aan de importheffingen van de VS op specifieke goederen of de
Chinese *Made In China 2025* strategie met overheidsinvesteringen in strategische
markten, zoals zonnepanelen of elektrische auto's. Mede hierdoor is de
economische macht en technologische positie van de VS en diverse Aziatische
landen waaronder China sterk gegroeid.

¹ Verdienvermogen is de capaciteit om nu en op de lange termijn structurele welvaart én welzijn te genereren,
door simpelweg geld te verdienen.

² Ruimte voor industrieclusters, Kamerstuknummer 29826-258

³ Draghi, 2024. *The Future of European competitiveness*

⁴ Juhazi, Lane, Oehlser, Perez, 2022. *The Who, What, When and How of Industrial Policy: A Analysis van de
Wereldbank en de New Industrial Policy Observatory schatten in dat het aantal industriebeleidsinterventies van
2017 – 2023 is vermenigvoudigd.* (World Bank, 2024. *The renaissance of industrial policy: Known knowns,
known unknowns, and unknown unknowns*)

Directoraat-generaal
Bedrijfsleven & Innovatie

Bezoekadres
Bezuilenhoutweg 73
2594 AC Den Haag

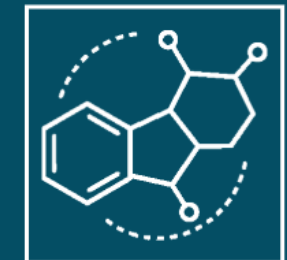
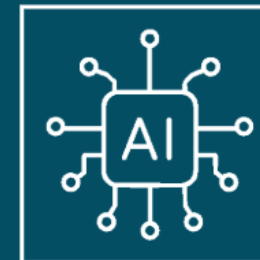
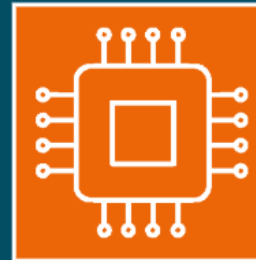
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Ons kenmerk
DGBI / 101636279

Bijlage(n)
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2025–2029

Defence Strategy for Industry and Innovation





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Ministerie van Defensie

Defence Strategy for Industry and Innovation

ambitions for space

Ministerie van Defensie
Directorate Industry & Innovation
Carla Andela
Policy advisor space technology

24 juni 2026

2025–2029

Defence Strategy for Industry and Innovation



Fundamental Defence area's

NLDTIB

5 NLD areas

 Intelligent systems

 Smart materials

 Space

 Sensors

 Quantum

Pull

Push

1 Strong armed forces
of the future

2 Smarter in
tomorrow's fight

3 Putting efforts
together



Setting the scene

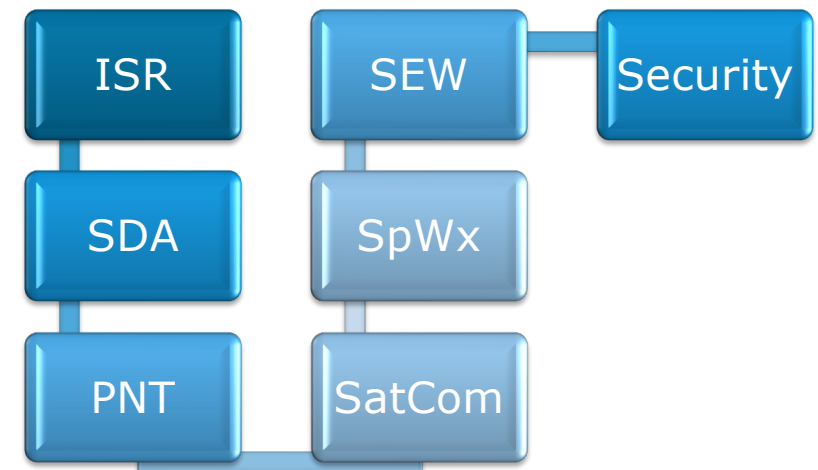




Focus area **Space Technology**

- Intelligence Surveillance and Reconnaissance
 - Sensor technology: better, smaller, accurate, resilient,...
- Space Situational/Domain Awareness
 - Sensor technology
- **Protection** of space-based assets
 - security: cyber, quantum technology
 - space weather, space debris
- Access to space
 - NATO StarLift

NATO functional domains:





Cooperation plans and opportunities

Next-gen Defence Satellites:

- **Interoperable** by design
- Space as part of the **tactical** domain – timeliness
- Secure, accurate but most of all **available**
- Robust and resilient

Research and Development:

- **Roadmaps** are leading and defining desirable effects
- Defence projects and calls
- Accelerate innovation cycle

RF communication

Tactical datalinks

Laser communication



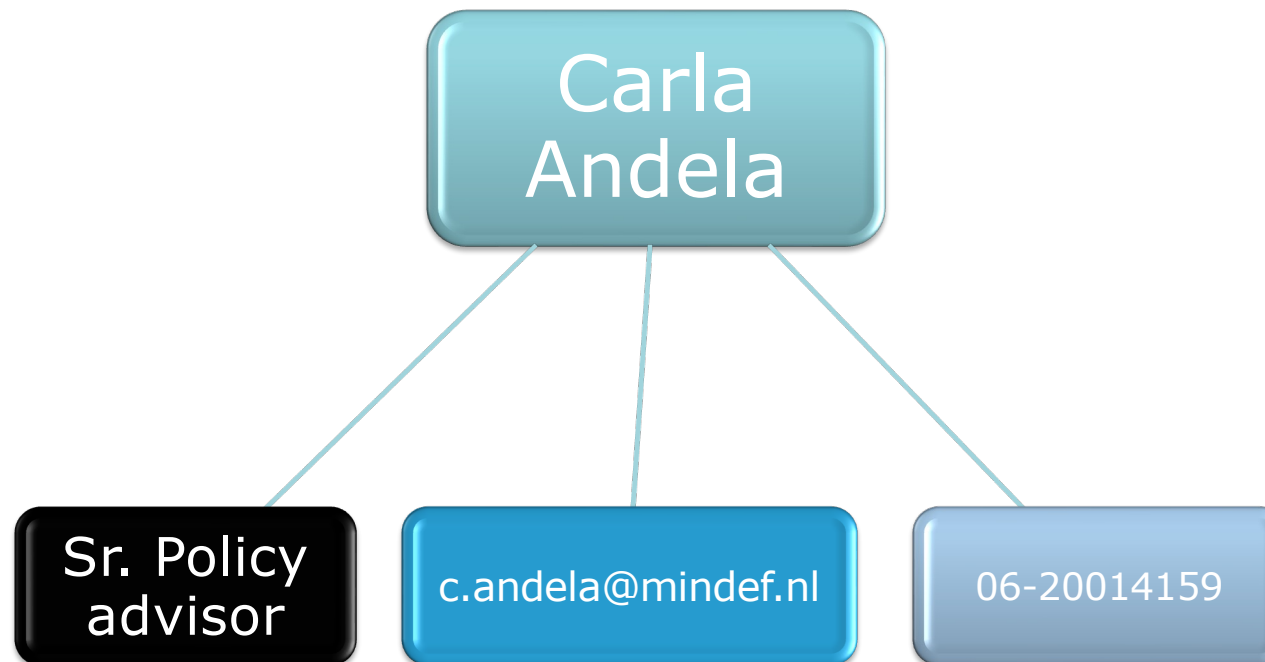
4 new projects!

Dunedain Space B.V.
Technology, Information and Internet





Contact





Ministry of Defence

NLD Quantum

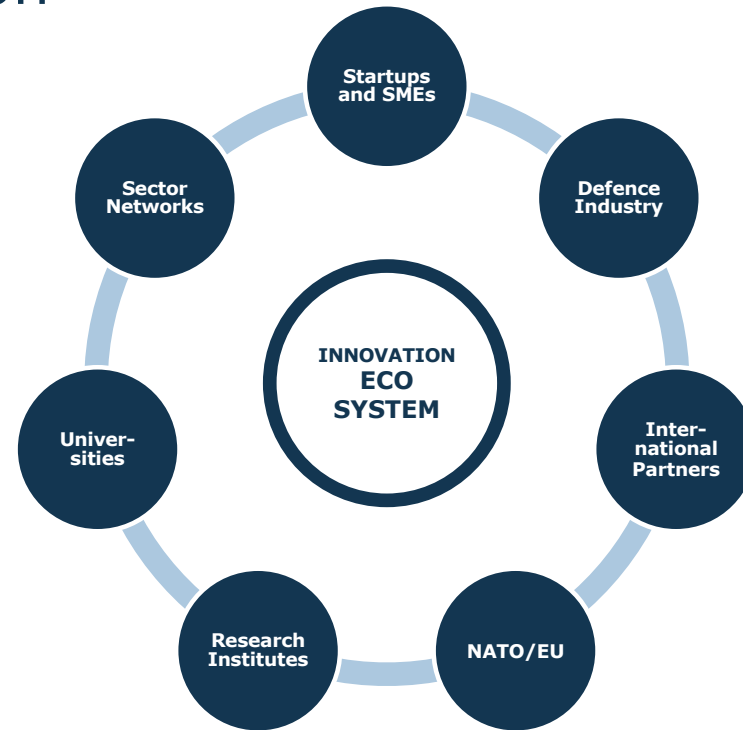
Only Quantum if it
makes a difference

Ministry of Defence
Quantum team
regievoerder

24 June 2026



Innovation requires collaboration

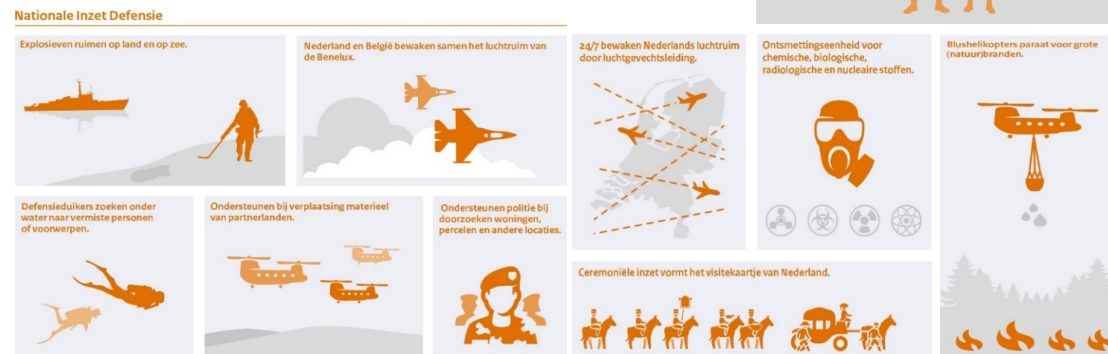




Defence Perspective: Why do we innovate?

Military innovation doesn't just allow us to respond to threats, it also helps us to improve the way we work:

- Faster, more accurate
- Risk reduction
- Cover more ground
- Personnel reduction
- Automate dangerous, heavy or tedious work
- Reduce environmental impact





Quantum Technology – perspectives

Systems	Neutral atoms		Other atomic states		Solid-state spin ensembles		Solid-state single spins			Superconducting circuits			Other sensors	
	Atomic vapor	Cold cloud	Trapped ions	Rydberg atoms	NMR sensor	NV center	Donors in Si	Quantum dots	NV centers	SQUID	Flux qubit	Charge qubit	Optomechanics	Interferometers
Magnetic field														
Electric field														
Acceleration														

TNO innovation for life



Summary of NATO's Quantum Technologies Strategy

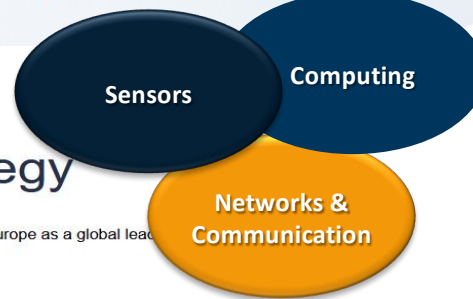
16 January 2024



POLICY AND LEGISLATION | Publication 02 July 2025

Quantum Europe Strategy

The European Commission has adopted a Quantum Strategy to position Europe as a global leader in quantum by 2030.

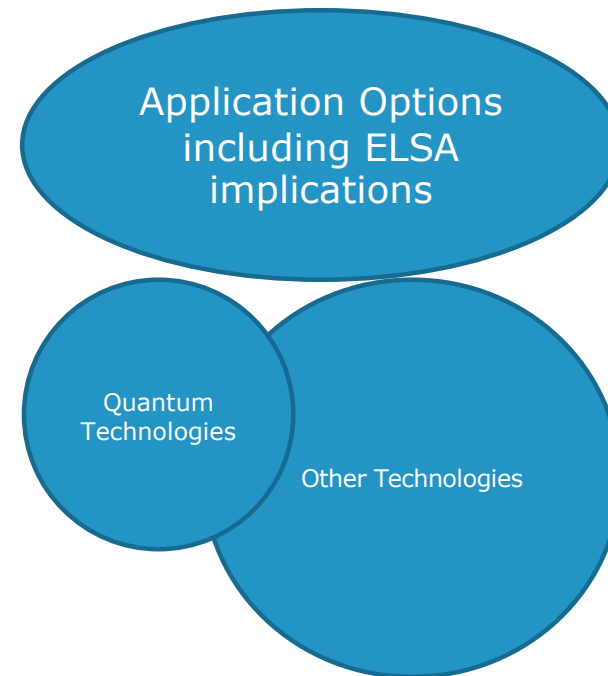




Quantum Technology and Defence

Four Main Area's of Interest

- 1. Quantum Sensing**
 - **QT for sensors**
2. Quantum Computing
 - QT for computational problems
3. Quantum Networks
 - QT to connect systems
4. Quantum Resilience
 - Acting on quantum threats



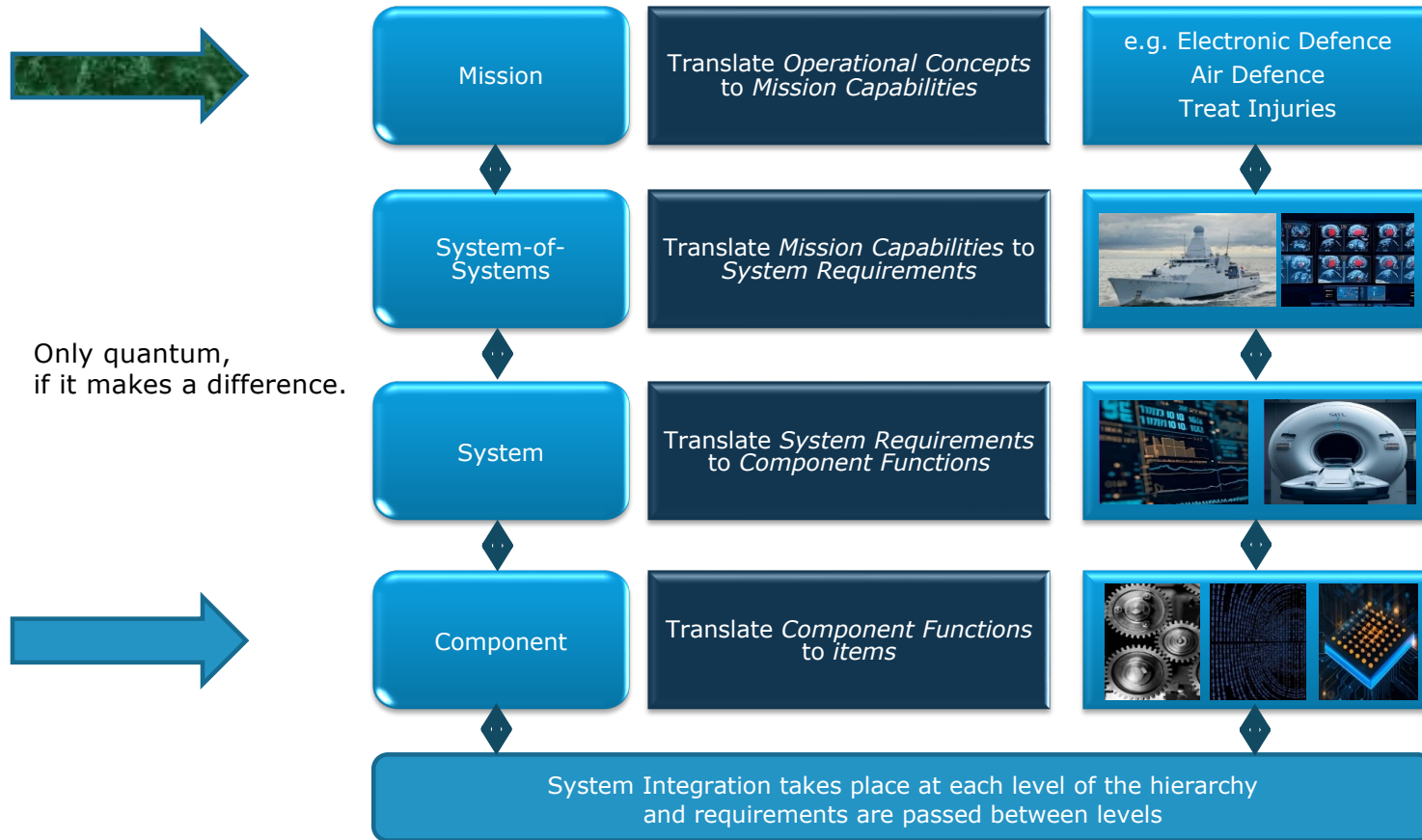
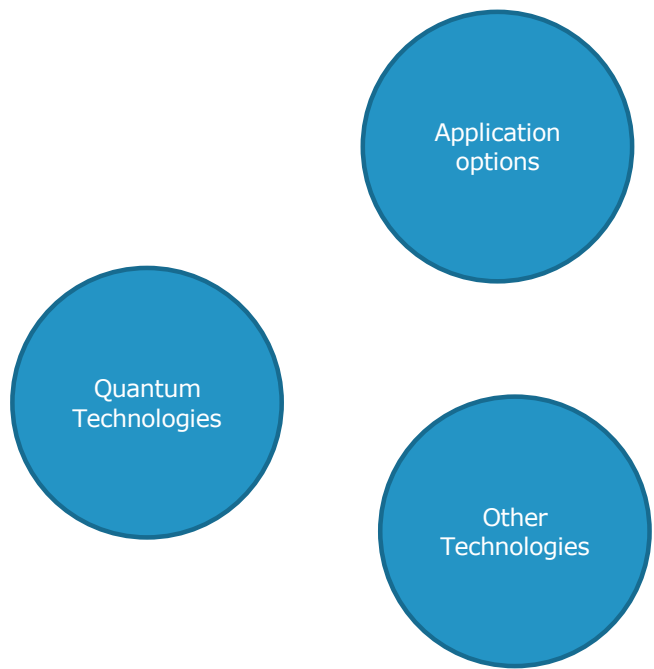


Figure 43: Titled Analysis Hierarchy to a Mission Engineering Process (MEP), showing the relationship of levels of analysis (down to unit components, systems, systems of systems (SoS) and systems)



Only quantum, if it makes a difference.



More information:

Defence Strategy



Contact:

quantum@mindef.nl

Join the Defence quantum challenges (expected publication Jan 2027)

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Ministerie van Defensie



Ministerie van Defensie

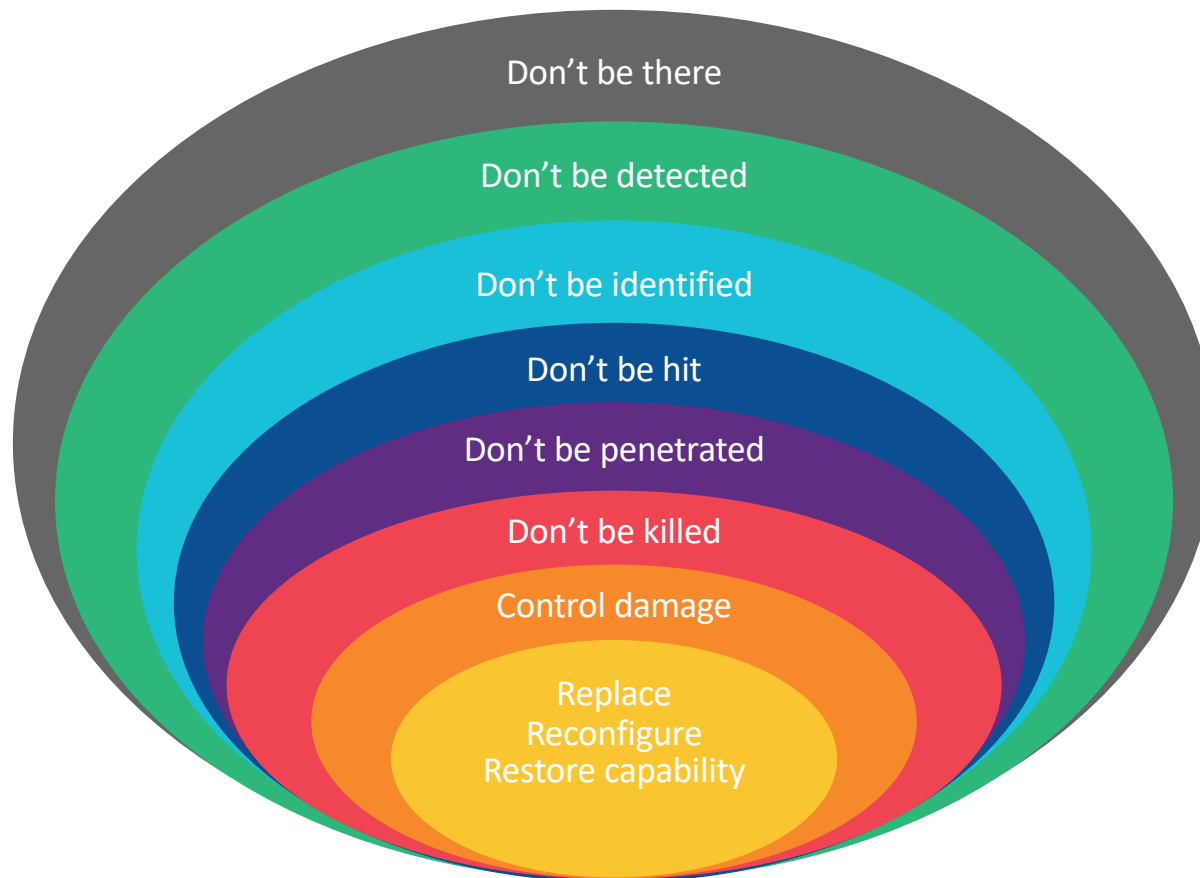
NLD Smart Materials & Manufacturing

Innovation & Production Orchestration

Dr. LKOL Jasper W.J. Heeren MSc.

Ministerie van Defensie





Bron: TNO



NLD Smart Materials & Manufacturing

Knowledge, Innovation, Scaling Production, Internationalization

- **3 Technology areas**
 - Composites
 - Additive manufacturing
 - Metamaterials
- **>150 Industry and innovation partners**
 - Mobilizing ecosystem based on DSII
 - Roadmapping, Industry days, Innovation calls
- **150 mln. Portfolio**
 - R&D&I + Industry propositions
 - Minimum Viable Capabilities
 - % Additive manufacturing
 - Metamaterials as disruptive cross-over





Collaboration Holland High Tech and Defence

- Engagement of **high tech ecosystem** for Defence
- **Technological niches** within NATO and EU
- **Strategic relevance** with unique industries
- **Bottom-up** R&D
- Increase **absorptive capacity** and technological base

- **Roadmapping**
- **Open** dual use R&D
- **Complementarity** T02
- **Cultural change**
- IP and business models



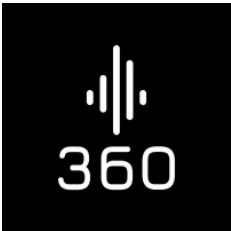
Defence ecosystem connection

- Crossing **valley of death**
- **Industrial participation**
- **Scouting**
- Strengthening **PPP**
- **Access to facilities**
- **European Defence Fund**
- Innovation partnerships
- **Next Gen Hightech**

- ChemistryNL call
- <https://www.brightlands.com/chemelot-campus/event/call-chemie-materialen-voor-defensie>
- Smartmaterials@mindef.nl



6 new projects!



**UNIVERSITY
OF TWENTE.**



DERK BOSWIJK

STATE SECRETARY FOR DEFENCE
MINISTRY OF DEFENCE

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MEET THE PANEL



Derk Boswijk

State Secretary for Defence,
Ministry of Defence



Carla Andela

Policy Officer for Knowledge
and Innovation (Space),
Ministry of Defence



LKOL Jasper Heeren PhD MSc

Defence Innovation & Production
Orchestrator (Smart Materials),
Ministry of Defence



Charlotte Rugers

Senior Innovation Manager
COMMIT (Quantum),
Ministry of Defence



Gerard van der Zon

Operational Director,
Holland High Tech

NETWORKING EVENT 2026

**THANK
YOU**

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The logo consists of the letters 'NL' in a bold, white, sans-serif font.

**Holland
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Global Challenges,
Smart Solutions

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

**ACCELERATING
DUTCH HIGH TECH**

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