



Ministry of Economic Affairs  
and Climate Policy

# Dutch Semiconductor Industry

## Policy Overview



Tokyo, 21 June 2023

## Ministry of Economic Affairs & Climate Policy

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# Ministry of Economic Affairs and Climate Policy

- › Directorate General Enterprise & Innovation (~250 fte)
  - Industry & Innovation Policy (~100 fte)
    - 9 Topsectors
    - 20 sector accounts
    - 30 strategic corporate accounts





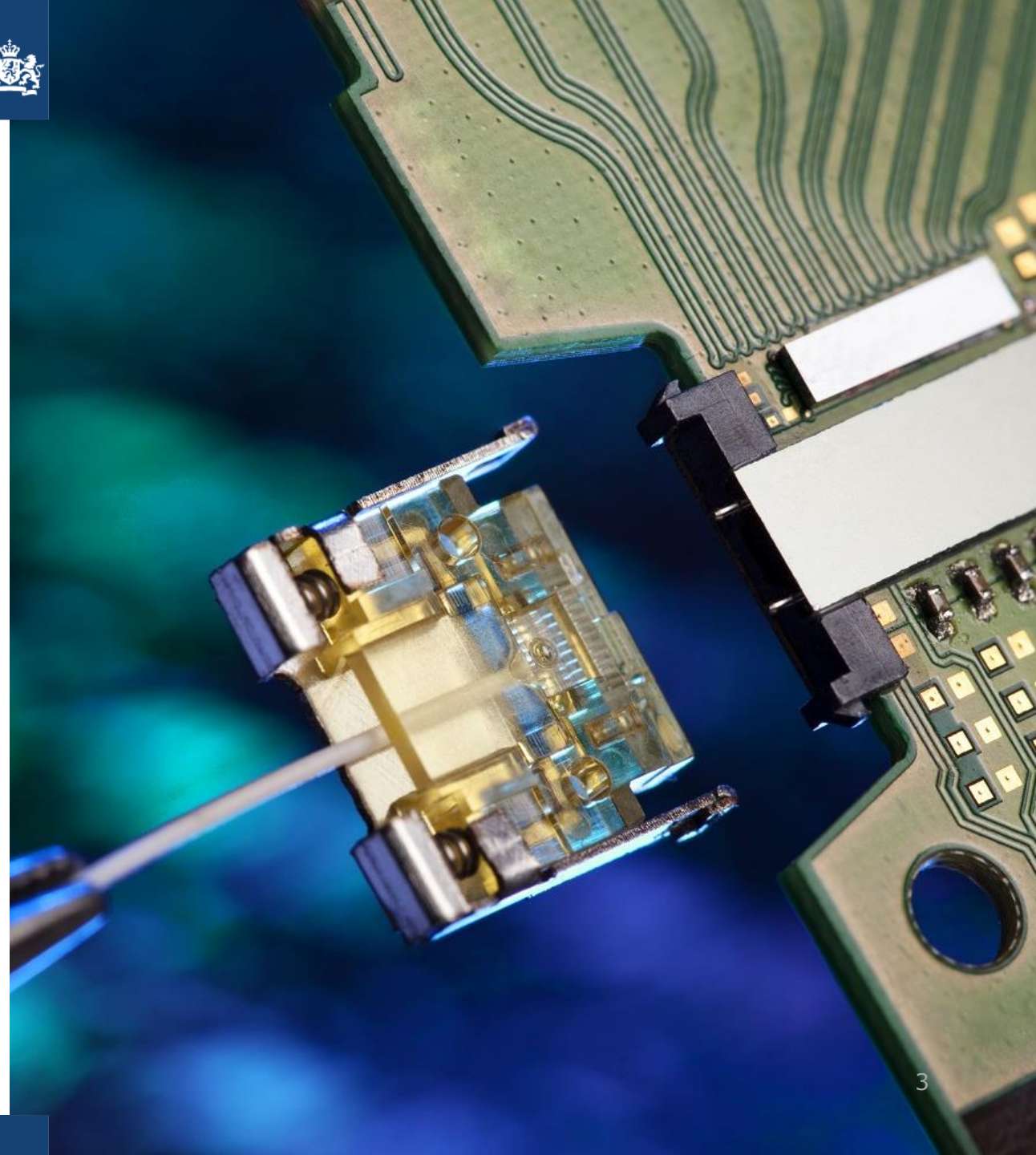
# Economic policy context

## Generic:

- Facilitating a base to enable innovation and strong entrepreneurial climate
- Facilitating the digital and green transition based on mission statements

## Focused:

- 'Topsectors': **High Tech Systems & Materials**
  - Semiconductor R&D Roadmaps





# Global societal challenges

25 mission statements on:



Sustainability & Energy



Agriculture, Water & Food



Health & Care



Security



Key Enabling Technology approach (like semiconductors)





# Focused policy instrumentation

- › The Netherlands spends  
~**€900 million** euro's  
annually on the semiconductor  
industry
  - Combination of:
    - Focused innovation subsidies
    - Fiscal incentives
  - Combination of:
    - European innovation programs
    - National innovation programs



# Focused policy instrumentation

## IMPORTANT PROJECTS OF COMMON EUROPEAN INTEREST

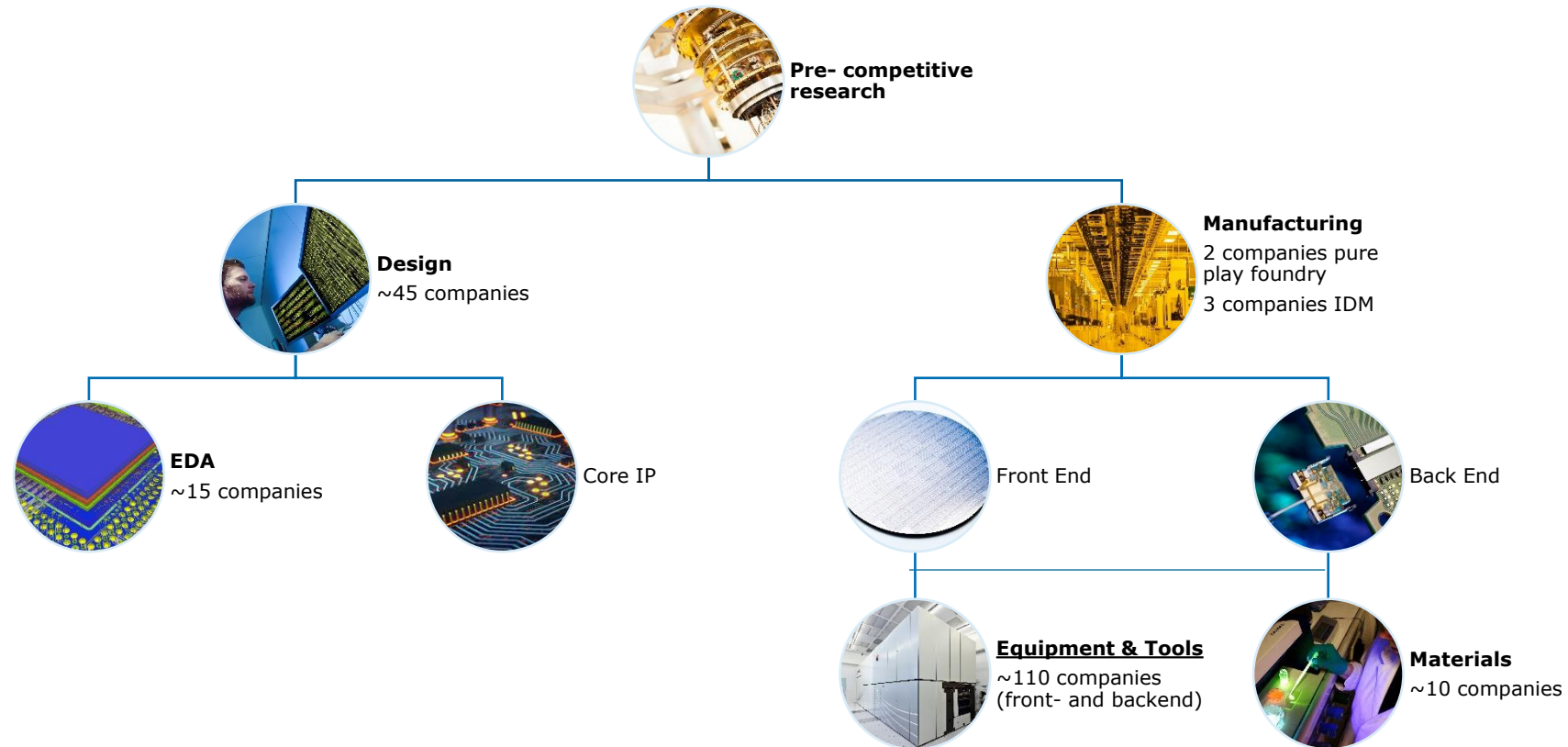
- > Microelectronics II
  - 5 Dutch projects have recently been notified
  - €230 million public funding

## NATIONAL GROWTH FUND (NATIONAAL GROEIFONDS)

- > AINED  
(€276 million public funding)
- > QuantumDelta NL  
(€615 million public funding)
- > PhotonDelta  
(€471 million public funding)
- > NXT GEN High Tech  
(€450 million public funding)



# Semiconductor Value Chain in The Netherlands





UNIVERSITY OF TWENTE.

**MESA+**  
INSTITUTE FOR NANOTECHNOLOGY



Research & Development Centers

**TU Delft**  
Delft University of Technology

**TU/e** EINDHOVEN UNIVERSITY OF TECHNOLOGY

**TNO**

Delft

Enschede

**PITC**  
Photonic Integration Technology Center

Nijmegen

**PhotonDelta**  
Gateway to Integrated Photonics

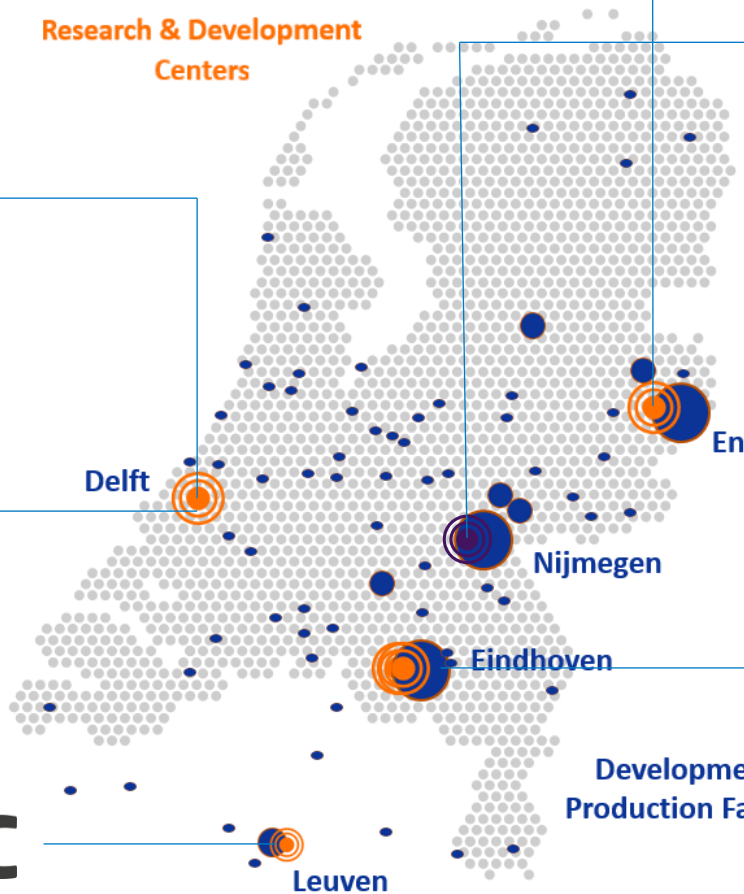
Eindhoven

Development & Production Facilities

**Holst Centre**  
Powered by imec & TNO

**imec**

Leuven







A EUROPEAN INDUSTRIAL STRATEGY

# A new Industrial Strategy for a globally competitive, green and digital Europe

March 2020

#EUIndustrialStrategy



# EU Chips Act: three pillars

## Pillar 1

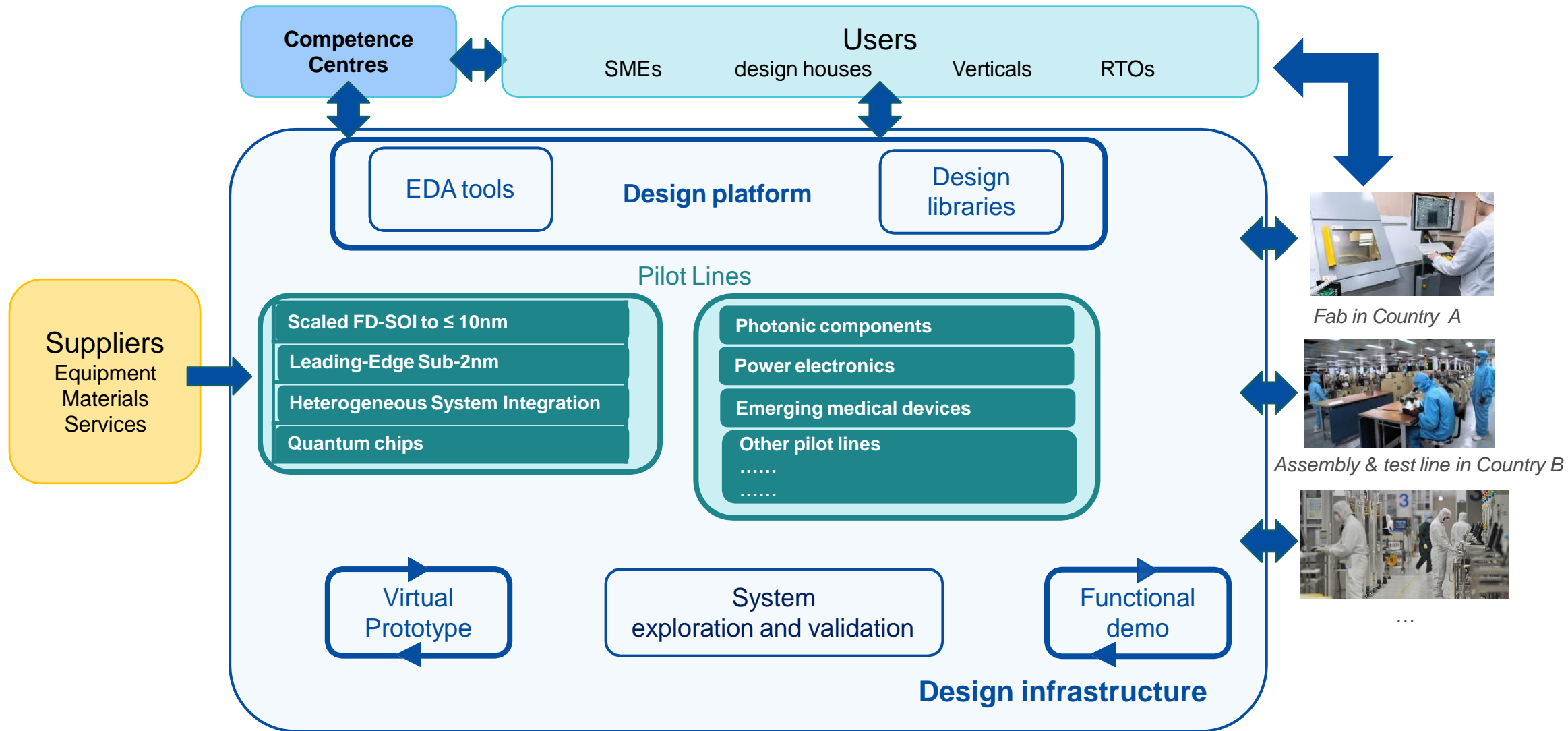
- Chips for Europe Initiative
- Speeding up from *Lab to Fab*

## Pillar 2

- Security of Supply
- Boosting European production capacity

## Pillar 3

- Monitoring & Crisis Response



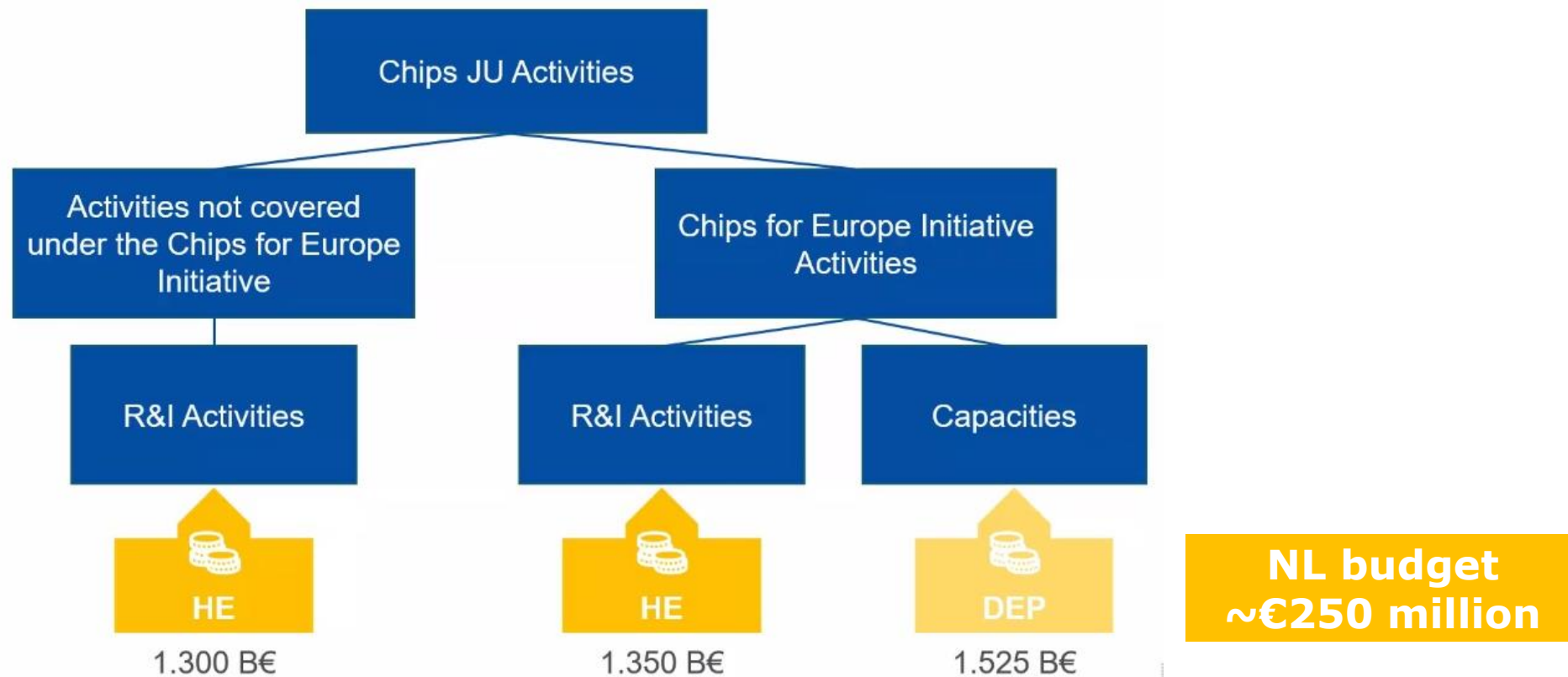


# Dutch Semicon Competence Center

- › Address the **skills shortage** by offering access to **training**, including workforce upskilling and reskilling, on semiconductors
- › Facilitate effective use of capacities and facilities of the Chips for Europe initiative, including access to **design platform** and **pilot lines, funding opportunities** etc.
- › **Connect** stakeholders to national and international programs, and resources linked to semiconductors
- › Act as **access point** to the European **network** of competence centres



# Funding structure & activities Chips Joint Undertaking





# Exploring cooperation between Japan and The Netherlands

- › Dutch Semicon Competence Center and Leading- Edge Semiconductor Technology Center (LSTC)
- › Industrial upscaling of semiconductor and photonic-IC (PIC) applications
- › Open access semiconductor design tools and platforms (including RISC V)
- › Semiconductors advanced packaging (including photonics)