

Lessons learned from spin-off creation and portfolio management at TNO

Hans Boumans | Director Technology Transfer



The Netherlands and Taiwan



Population:

18 million

23.4 million

Gross domestic product:

1,009 billion USD

761 billion USD

Largest company:

ASML

TSMC



TNO key figures 2023

4.4

Client satisfaction

1,067

Public-private
partnerships

4500

Employees

937

Patents



TNO structure

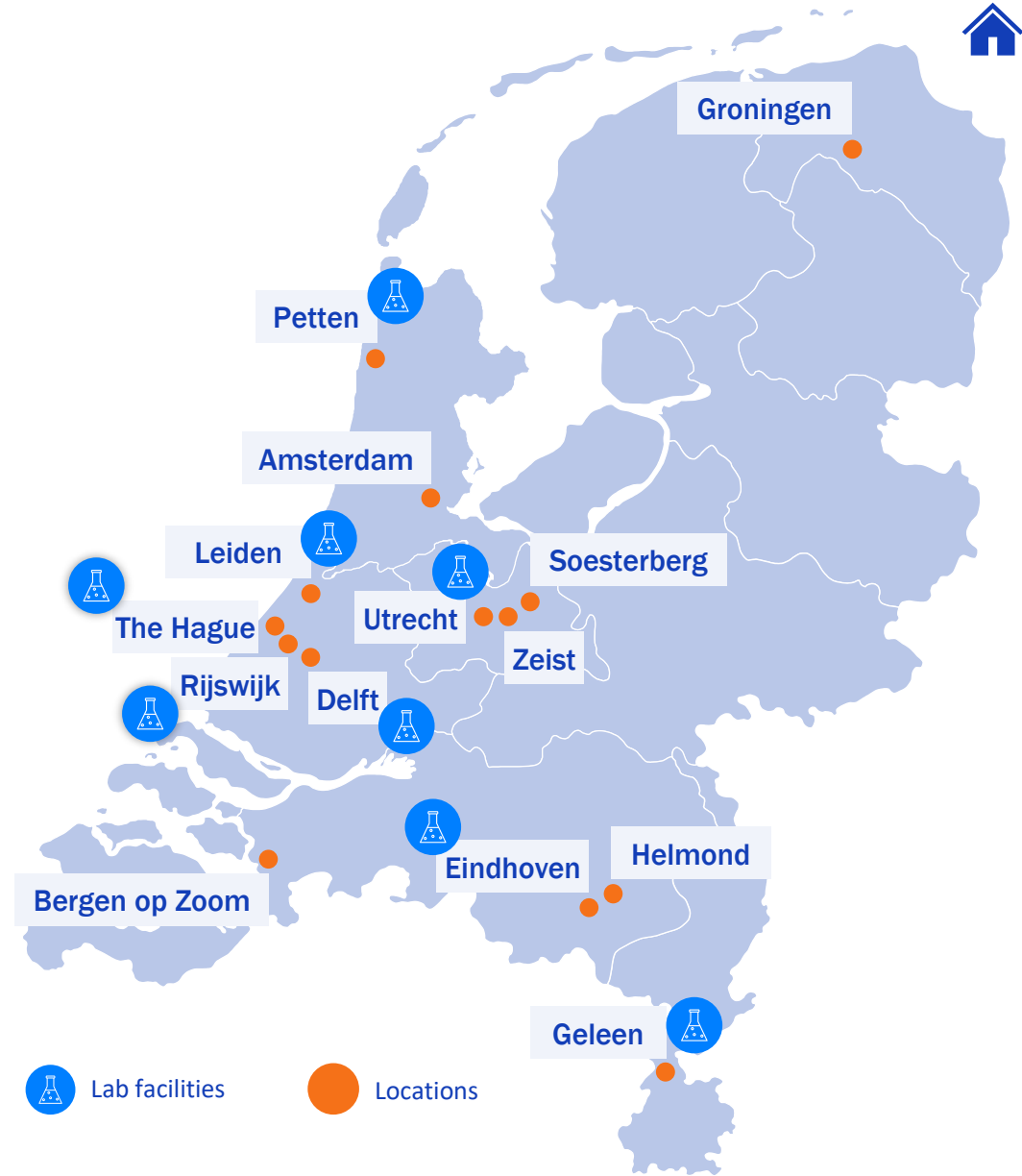




Locations & lab facilities

Some lab facilities highlighted:

-  Building Innovation Lab (Delft)
-  Solar Lab (Petten & Eindhoven)
-  Castel milieulab (Utrecht)
-  Nano Lab (Delft)
-  Accelerator Mass Spectrometer (Leiden)
-  Brightlands Materials Center






TNO Mission

TNO's mission is to create impactful innovations for the sustainable wellbeing and prosperity of society.

Innovation only has impact if applied at large scale.



A person wearing blue jeans and dark boots is walking on a rocky beach. Water is splashing around their feet, creating a misty atmosphere. The background shows a calm sea and distant hills under a bright sky.

“Innovation is the market introduction of a technical or organisational novelty, not just its invention”

Joseph A. Schumpeter

Smart solutions for clients & partners

Knowledge transfer

Knowledge exploitation by spin-offs, licenses, in partnership with other companies

Knowledge application

Contract research for and with clients



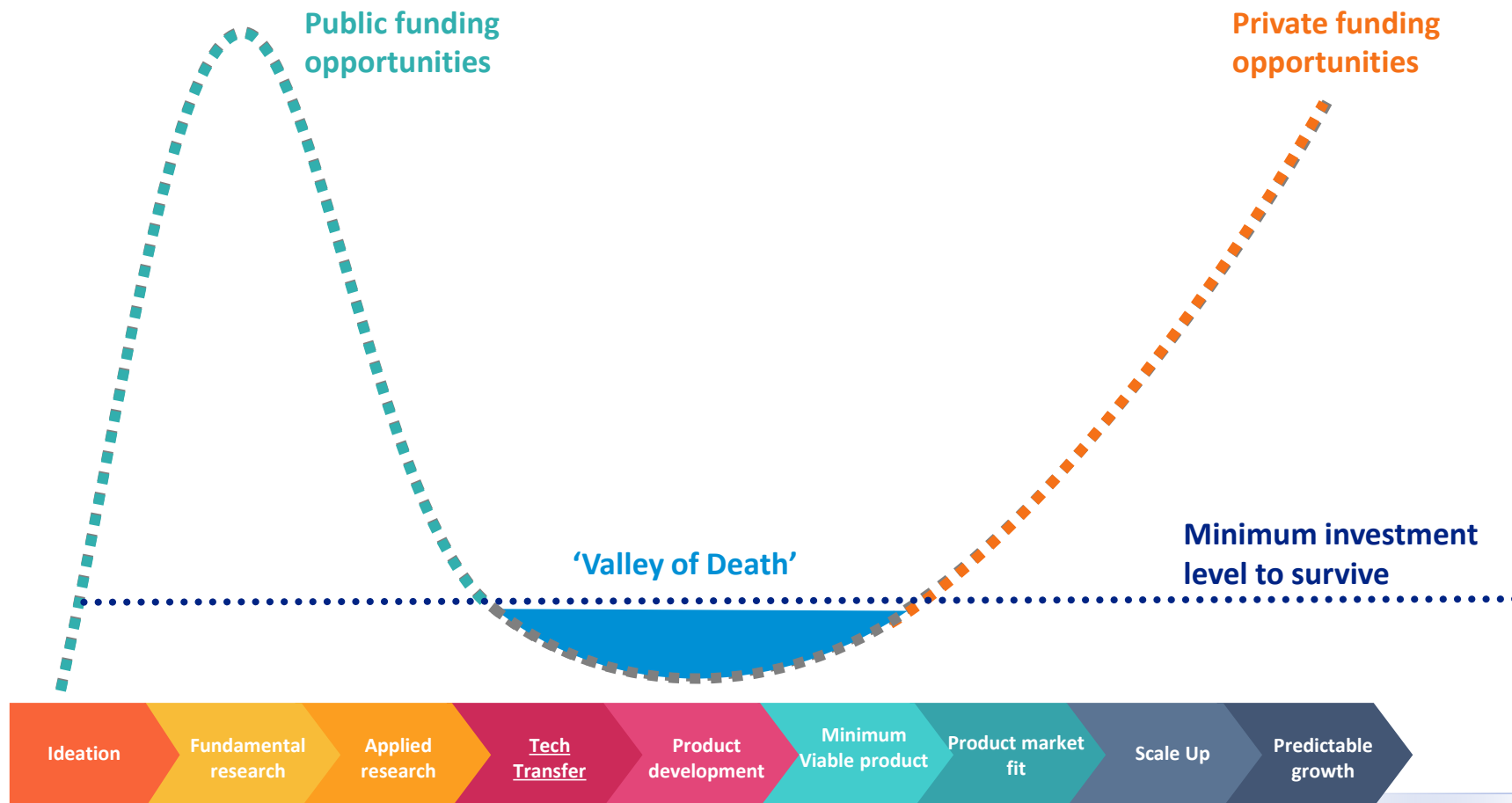
Develop fundamental knowledge

Together with universities

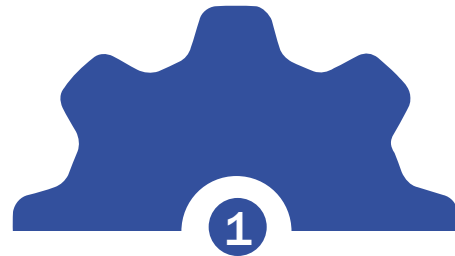
Knowledge development

In public-private partnership with partners from the golden triangle

Why do so many projects seem successful at first and then fail?

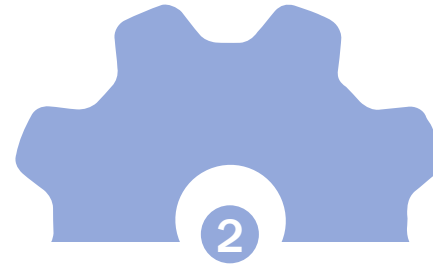


The Tech Transfer program: turning technology into business



Business case & route to market

- Problem validation
- Develop business case
- Pros and cons different routes to market



Venture building & incorporation

- Business plan & financing plan of spin-off
- Team building
- Contracts & incorporation of spin-off



Tech Transfer process

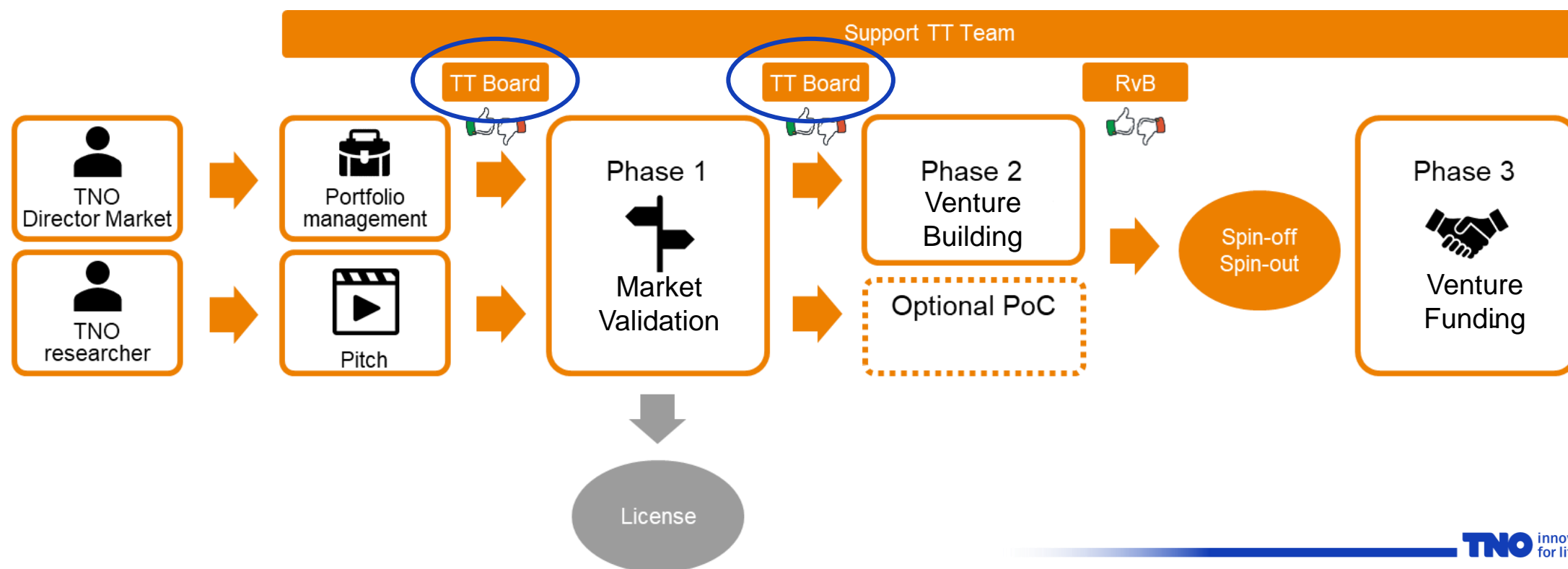
Phase 1



Phase 2



Tech Transfer Program: clear governance structure



Tech Transfer Board

Tasks and Responsibilities

- ✓ Approve new Tech Transfer projects and perform gate review
- ✓ Advise the TNO Executive Committee on spin off creation
- ✓ Approve TNO funding for spin-off creation (€ 40k - 250k per case)

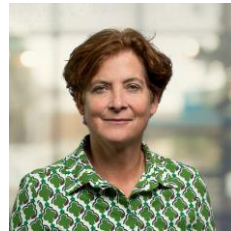
Internal Members (TNO)



Susan Swarte
CFO
TNO Executive Board



Arnaud de Jong
Managing Director
High Tech Industry



Machteld de Kroon
Managing Director
Mobility & Built Env.



Berry Vetjens
Director Market
ICT, Strategy & Policy



Hans Boumans
Director Tech Transfer

External Members (Investors)



Sander Verbrugge
Partner
Innovation Industries



Sven Bakkes
Founding Partner
LUMO labs



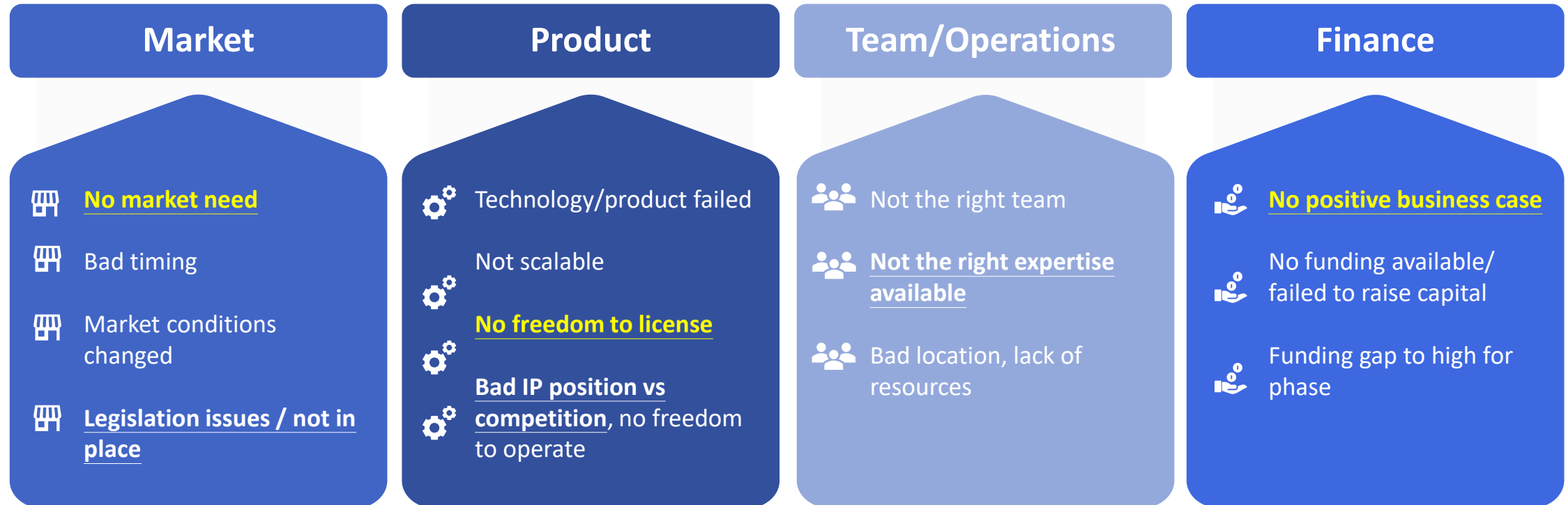
Bram Ledeboer
Investment Partner
SHIFT Invest



Guus Frericks
Founder & Managing Partner
DeepTechXL

When did we fail to bridge the gap from research to impact

Lessons learned form 105+ Tech Transfer Projects!

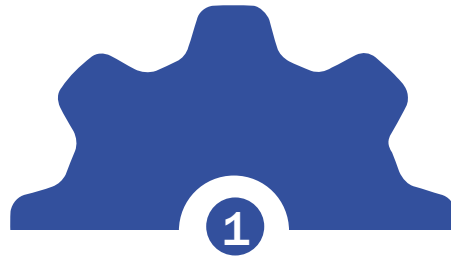


Stimulate entrepreneurship and valorisation to unleash market potential



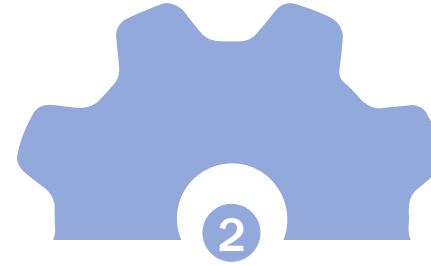
Valorisation Strategy & Scouting

- Develop valorisation strategies for propositions
- Stimulate entrepreneurship
- Scouting potential TT cases



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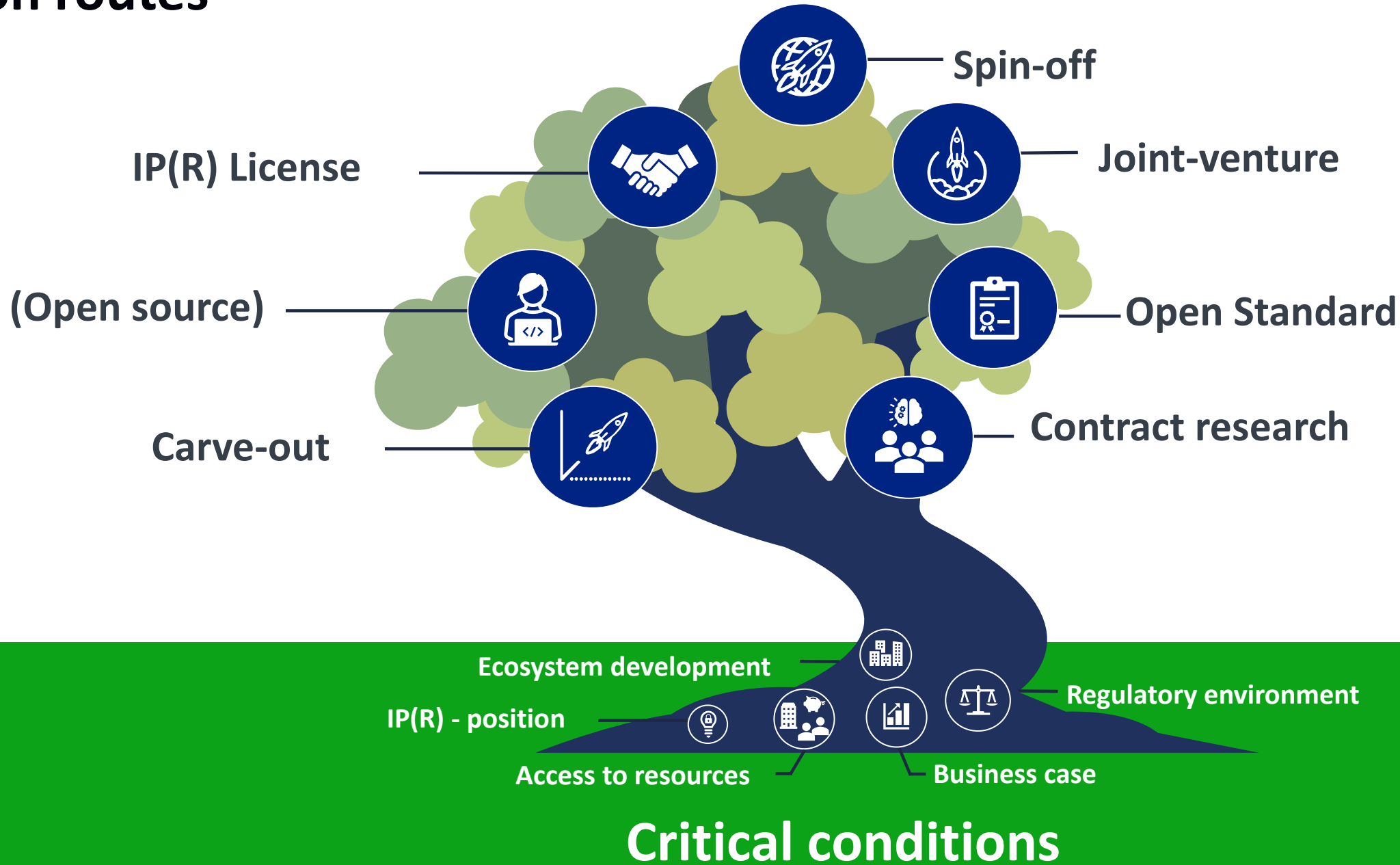


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Valorisation routes

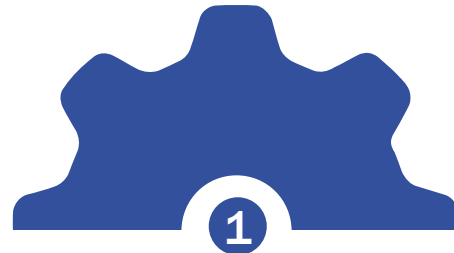
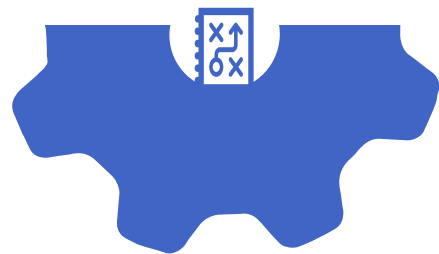


TNO Tech Transfer: Bridging research to impact



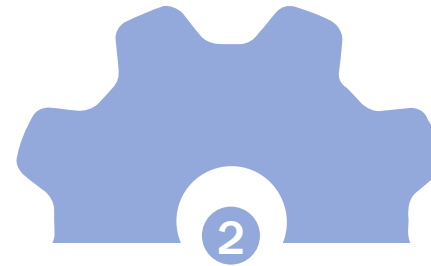
Valorisation strategy & scouting

- Advice on developing a valorisation strategy
- Stimulate entrepreneurship
- Scouting potential Tech Transfer cases



Business case & route to market

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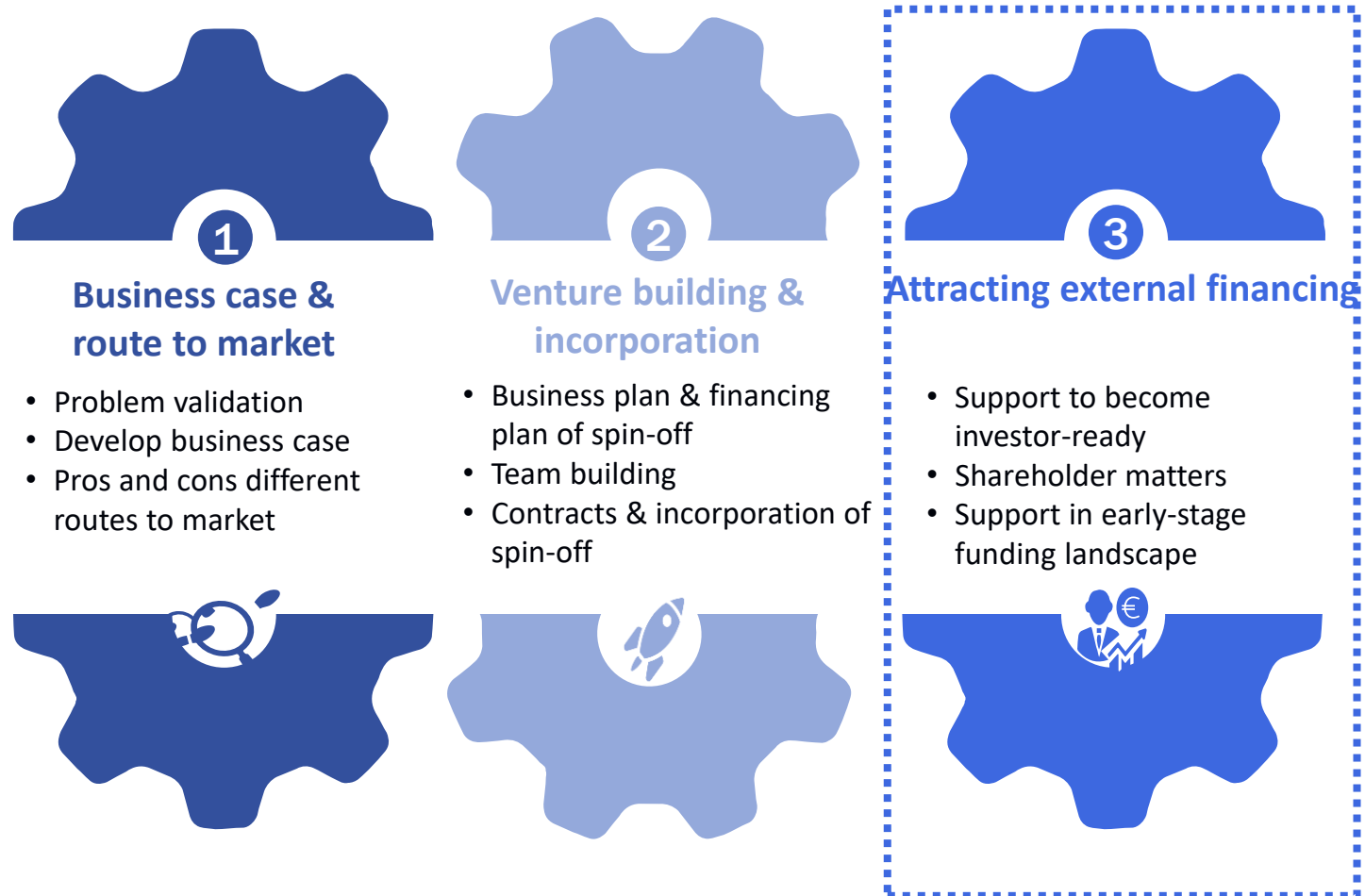


Attracting external financing

- Support to become investor-ready
- Shareholder matters
- Support in early-stage funding landscape



An active shareholder role turned out to be of great value to the spin-offs



Partnering with venture capital funds fosters a promising ecosystem for creating more scale-ups



3 Attracting external financing

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Fund investment policy

- Accelerating funding of TNO spin-offs
- Encouraging (private) investments for TNO spin-offs
- Recouping the investment with the potential for positive returns

istart

LUMO
LABS



SHIFT INVEST

DEEP
TECH XL

PHOTON
VENTURES

VALUE
CREATION
CAPITAL

HIGH
TECH XL

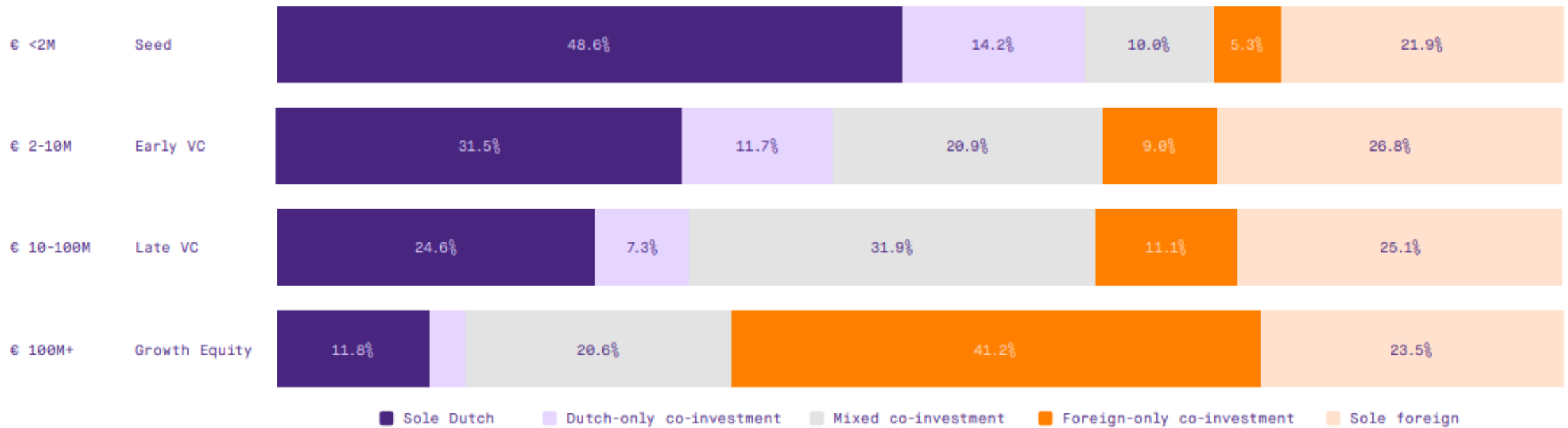
UNIQ
Finance for the Future



Innovation Industries

Role of national VC's in early stage investment rounds

% of deal types by round size, years 2019-2023



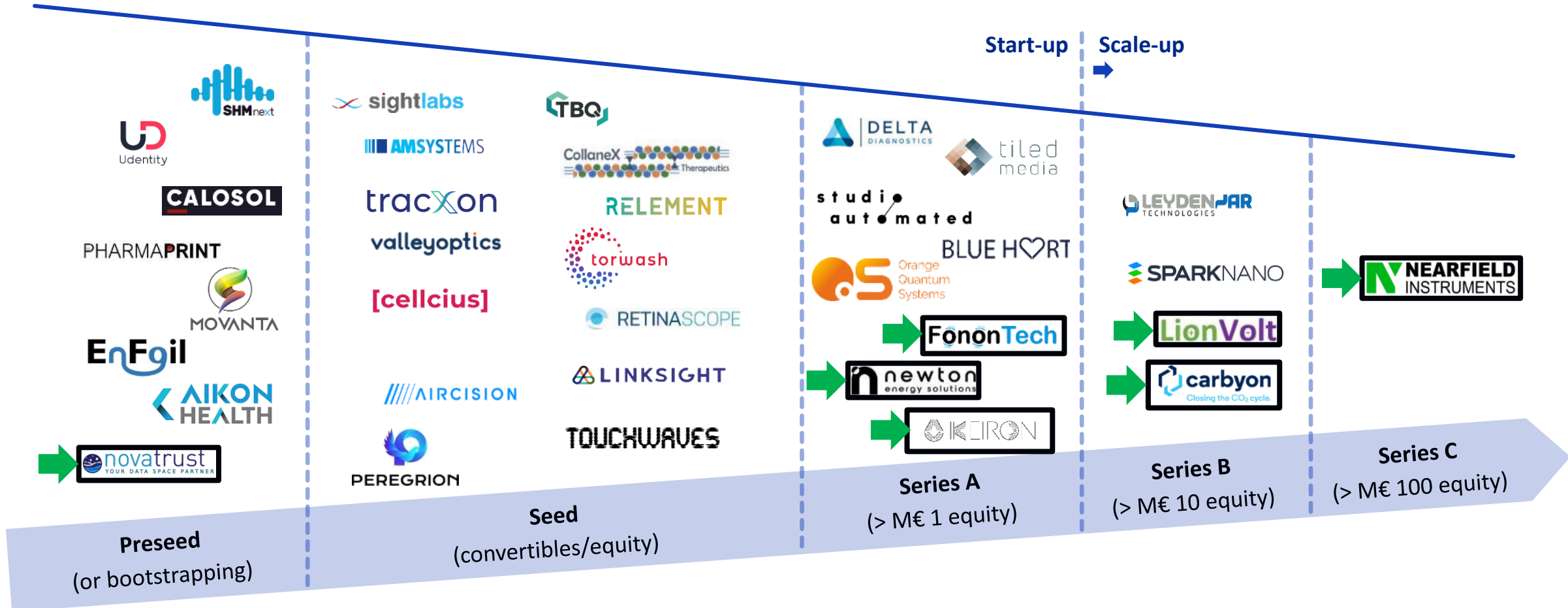
Portfolio update for investors

TNO Tech Transfer



TNO

TNO spin-off portfolio



COMPANY INFORMATION


NAME LINKSIGHT
LOCATION UTRECHT, THE NETHERLANDS
INDUSTRY DEEPTECH FOR HEALTH & GOV.
STATUS REVENUE



FINANCIALS

EXT. FINANCE

K€ 820

TRACTION

 First recurring clients, 28 orgs signed for implementations 2023, Market leader NL Health

REQUIRED INVESTMENT

M€ 1.5+

TIMING

Q4 2024

NEXT MILESTONE

- 50 organizations live on Linksight network
- Expansion in EU

COMPANY DESCRIPTION

Organizations need to become “data driven”, but struggle to use sensitive data from other organizations.
 Linksight enables organizations to get insights from 3rd party data **without any sensitive data being shared**.

PRODUCT

Linksight offers access to a decentralized **network** of privacy-by-design **data stations**. Our clients can perform **data analytics** over multiple organizations’ datasets with full data governance / GDPR compliance.

This world-first platform combines **multiparty computation (MPC) & Homomorphic Encryption (FHE)** for secure data analytics with technically enforceable data collaboration governance.

MARKET

First focus is on multi-org data analytics in the NL **health (care&cure) and social domain** markets, currently estimated at **>34M**, growing at **20-30%** per year.

Next phase is scaling into **EU/global** health and social domain market, estimated at **>500M**, and expansion into financial and other sectors.

TEAM



Martine van de Gaar
 CEO

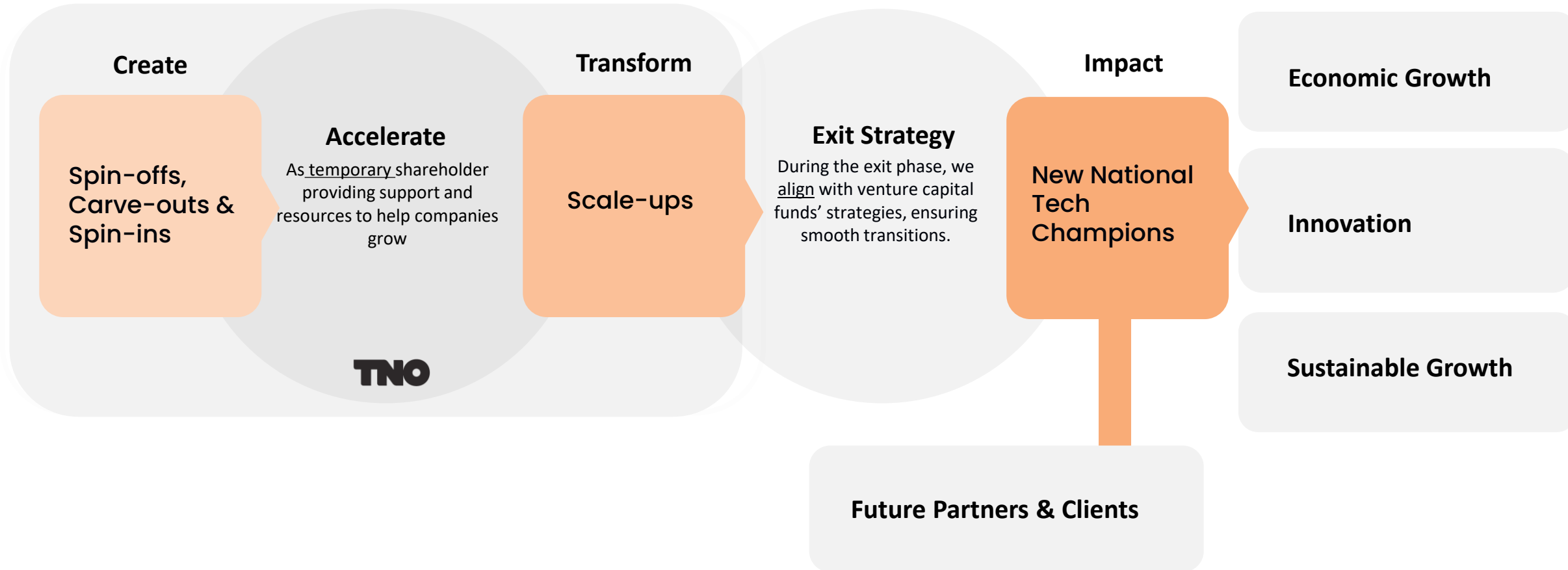


Maarten Everts
 CTO



Theo Koster
 CCO

Building the future of innovation: nurturing tech champions to create jobs and prosperity





Dutch chip manufacturing quality control startup Nearfield Instruments raises €135M




JULY 18 2024

Thank you for your attention

 Address

 E-mail address

 Phone number