sirris

driving industry by technology

het collectief centrum van de Belgische technologische industrie

Sirris, collective centre of the Belgian technology industry

Driving Industry by Technology

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AGORIA

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For the technology industry

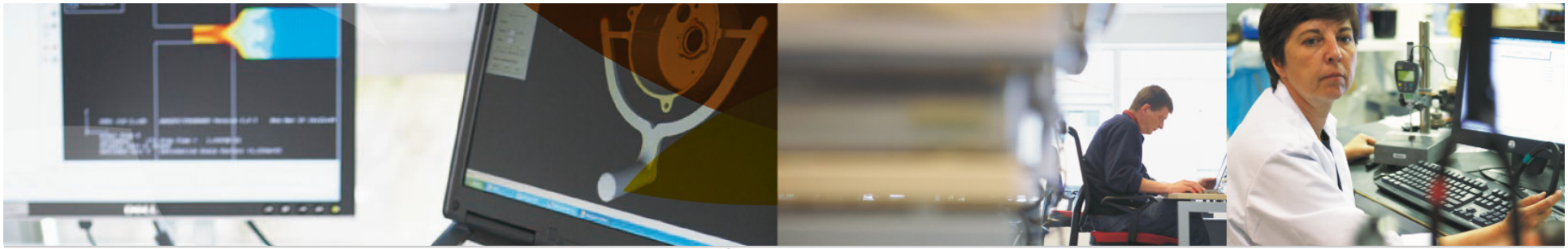
- Automotive
- Industrial Automation
- Metals and Materials
- Construction products
- Plastics & composites
- Metal processing
- Contracting & maintenance
- Aerospace
- Mounting & Cranes
- Electrical engineering
- Mechatronical engineering
- Defense & security
- ICT

Accompany with introduction of technology innovations

Improve the competitive position

Mission: Driving industry by technology

- Advise and guide companies during their introduction of technological innovations.
  - Our experts visit companies on site, offer them technological advice, launch innovation paths, and provide guidance until they reach the implementation phase.
- Objective knowledge partner
  - It is our aim to find concrete solutions to the real challenges facing Belgian entrepreneurs. In doing so, we do not favour any particular technology. We are:
    - Independent and driven by demand
    - Multi-technological
- Focused on results



Materials ProductDevelopment ProductionTechnology ProcessOrganisation ICT

Collective

Individual

Knowledge development and research

Innovation stimulation

Advise and guidance

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Key figures

> **5 000** industrial interventions each year in 2000 companies

>2000 member companies

85% SME

> 100 technology experts
> 100 European projects already carried out turnover of 20 million euro

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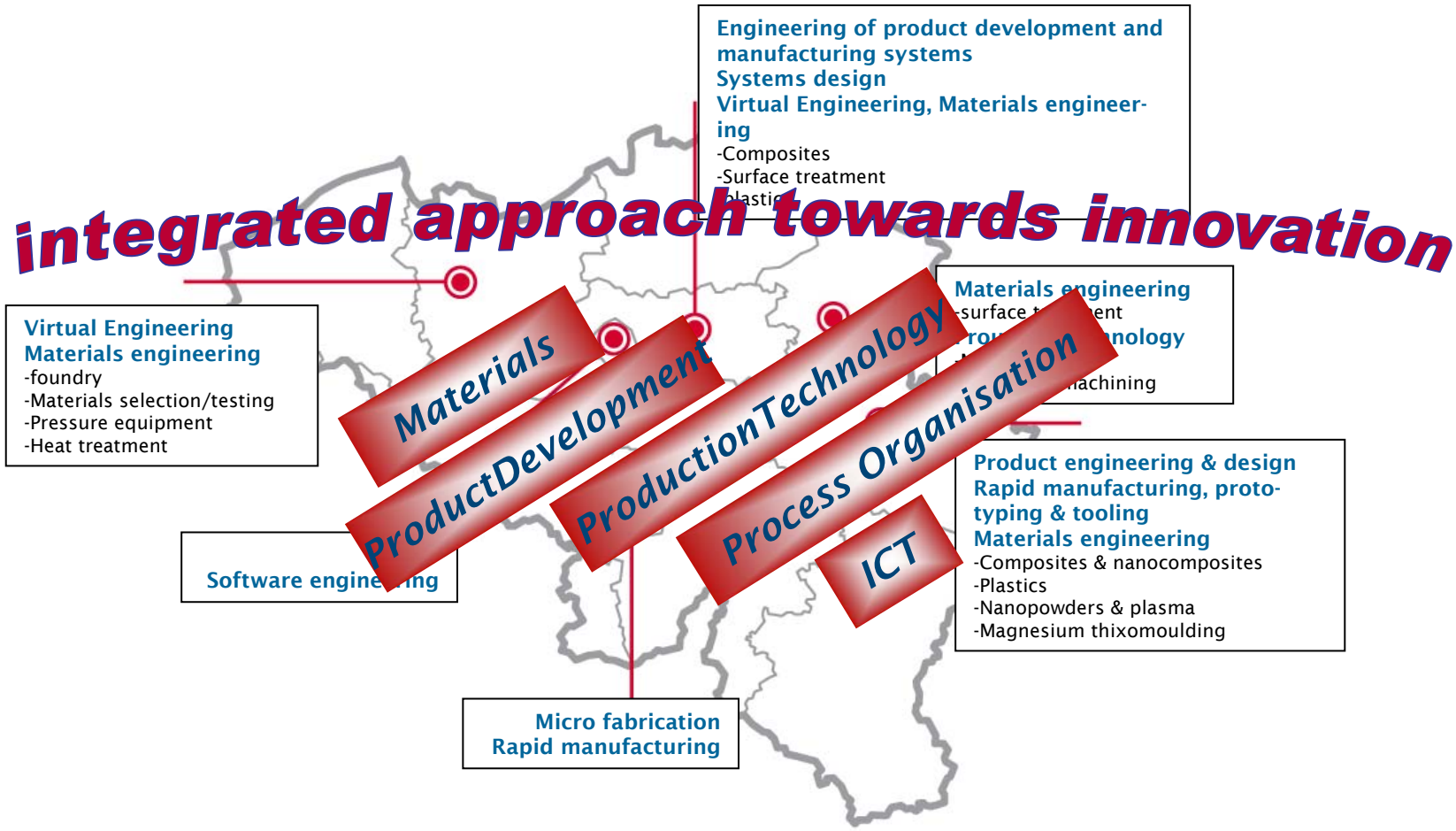
Locally present, embedded in 3 regions



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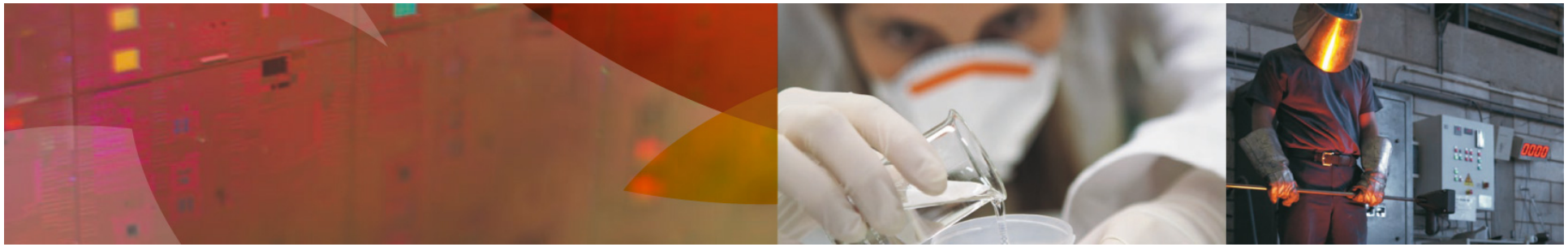

Taking technical innovation at a higher level

Technology strategy

Integrated projects

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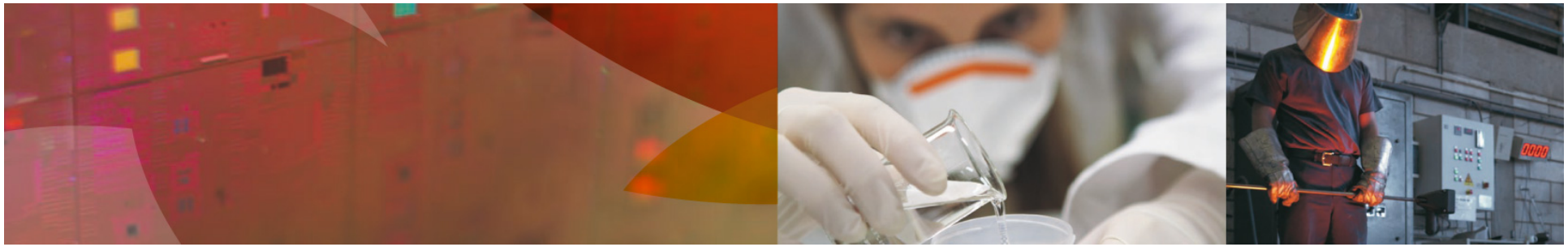

Technology strategy

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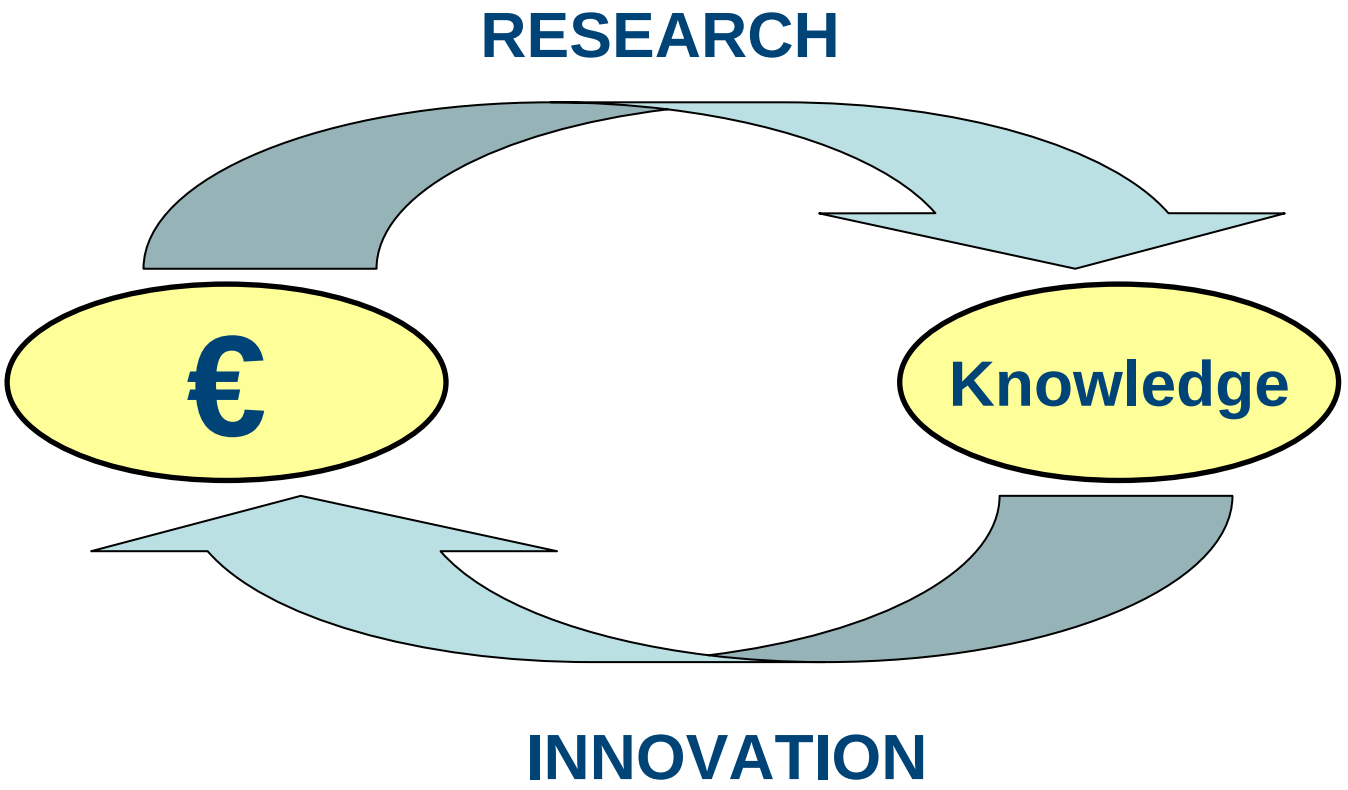
What is innovation?



Why do you a need a strategy?

1. To make choices !

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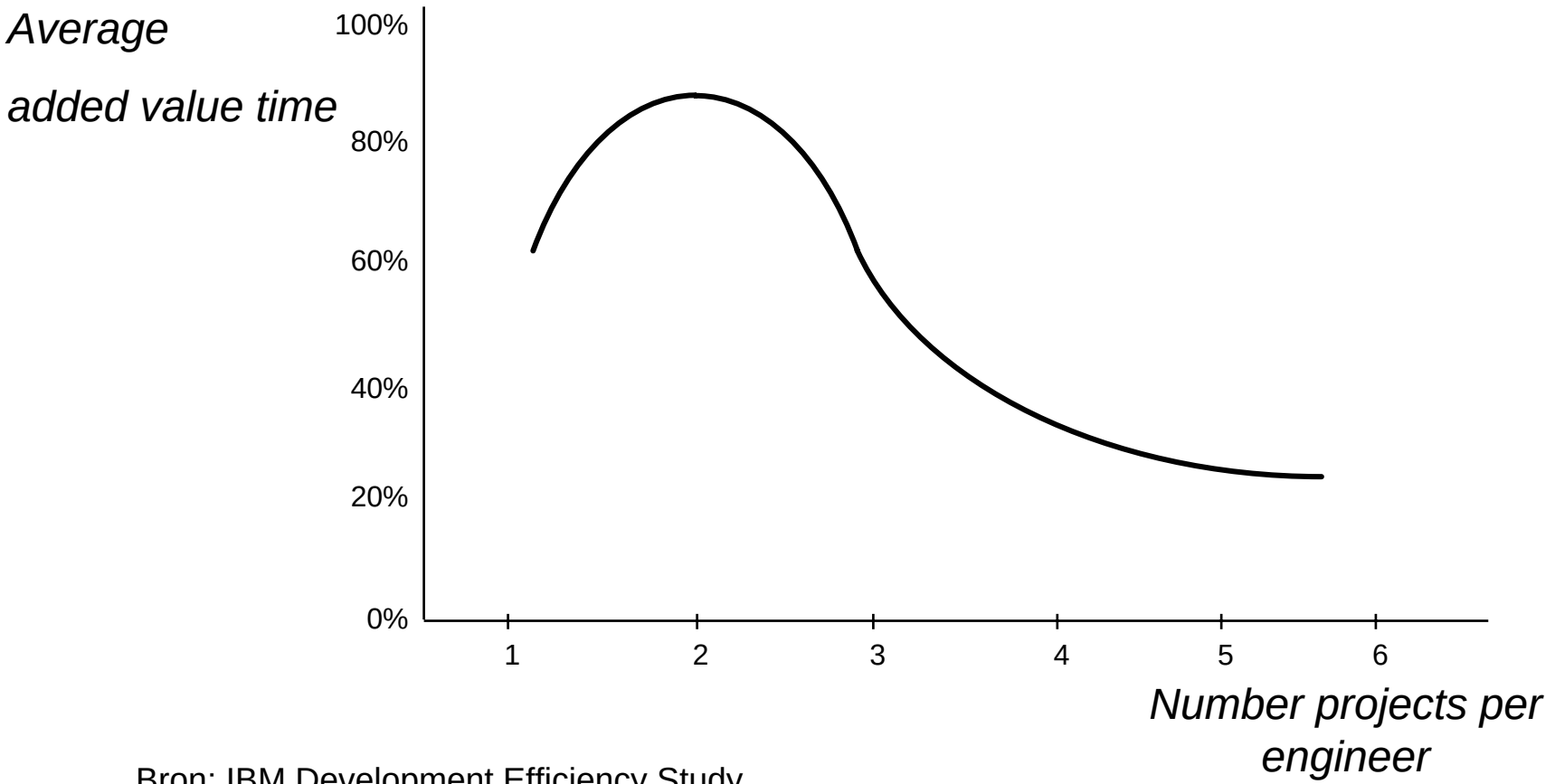
Is this your project pipeline?

Many projects = low productivity



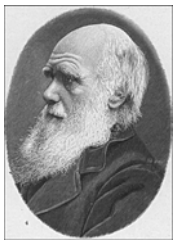
Bron: IBM Development Efficiency Study

Why do you a need a strategy?

2. To be able to change !

"It is not the strongest of the species that survives, nor the most intelligent, but the one most responsive to change."

Charles Darwin



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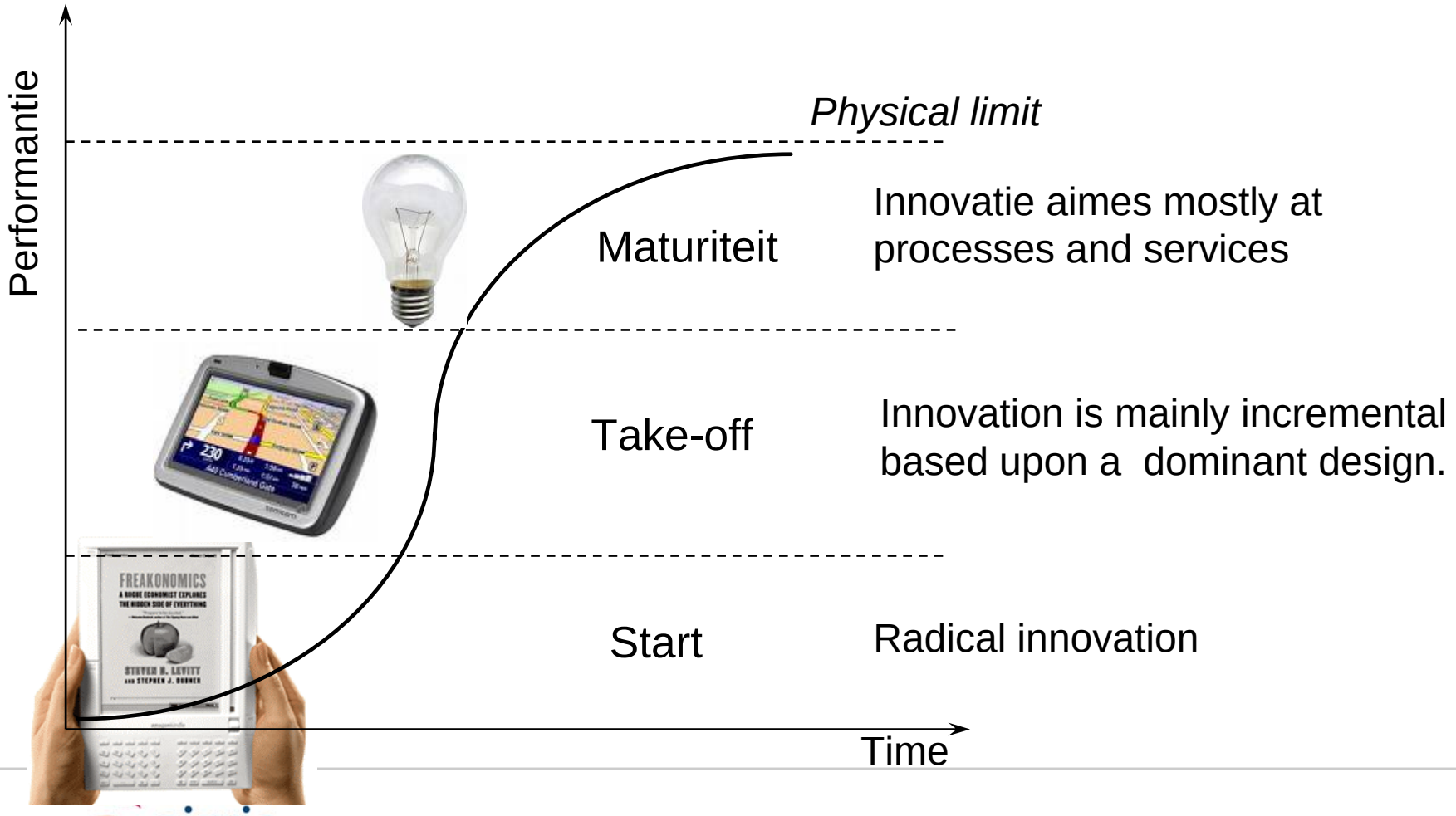
Technology evolution: the S-curve



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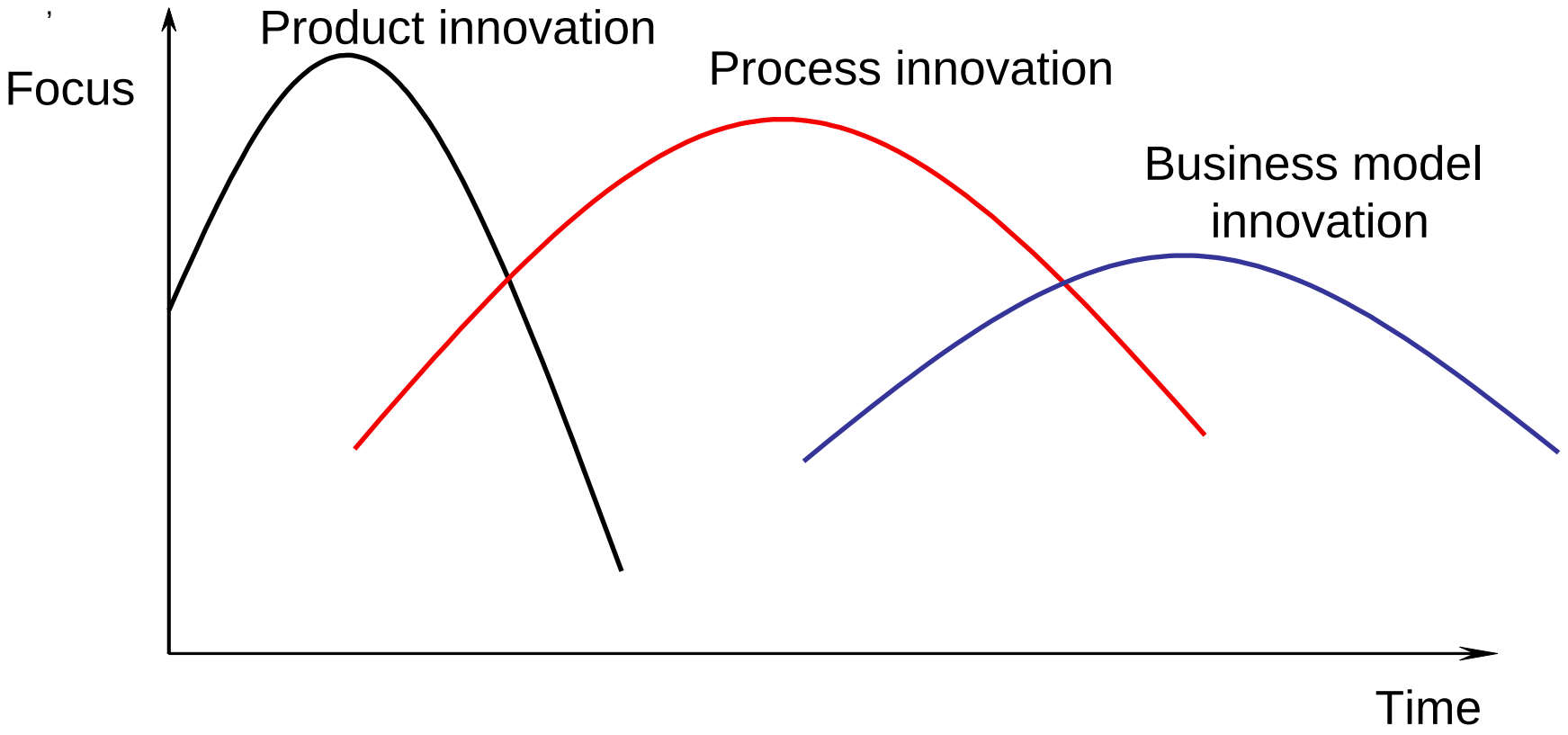
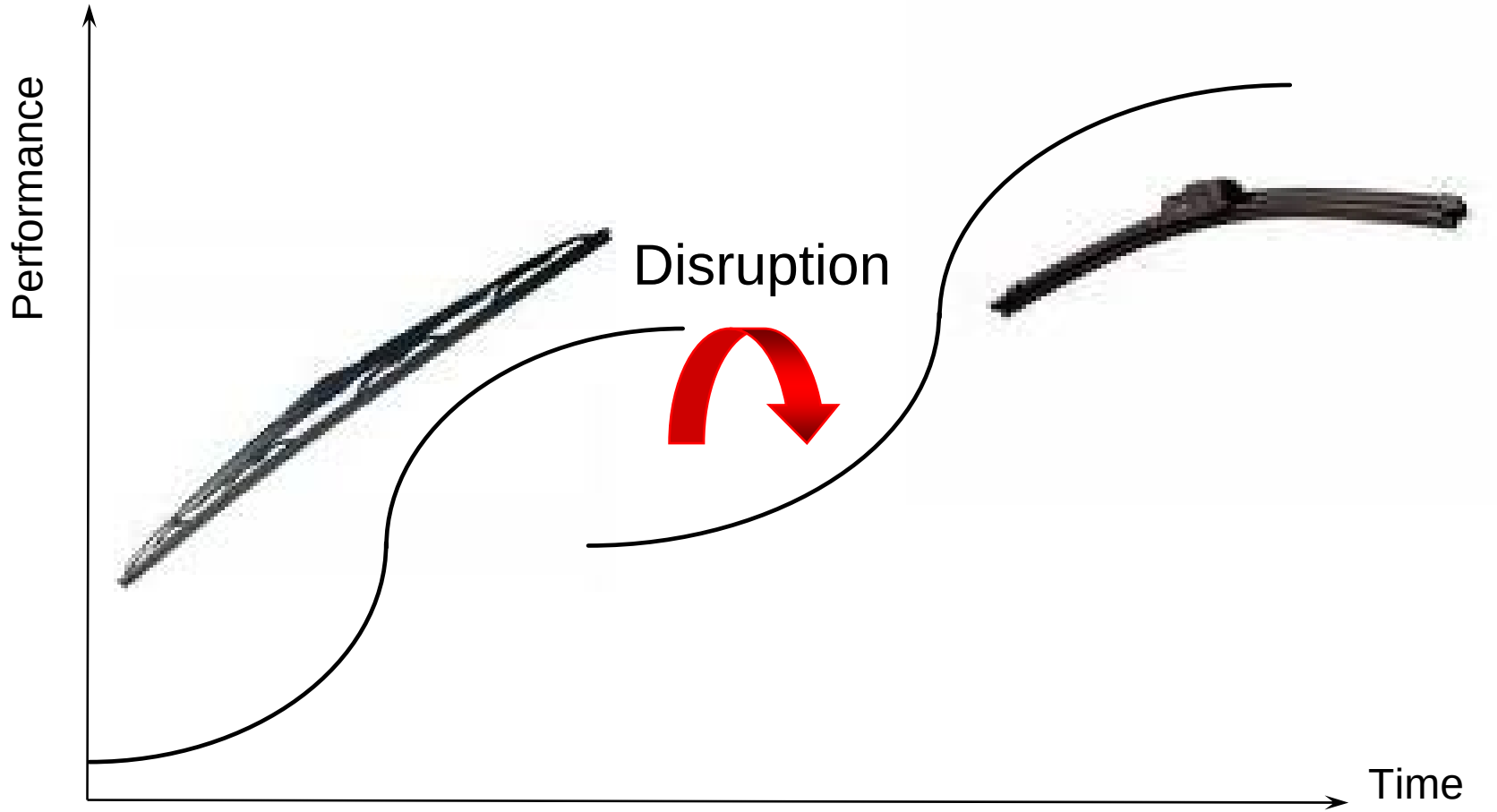
Innovation phases



Disruptive innovation



Technology strategy – a definition

A technology strategy gives **choices** at mid term regarding the **technology portfolio** of a company.

It plans the **collaborations** with technology providers and defines the relations with **product and process innovations**.

Example

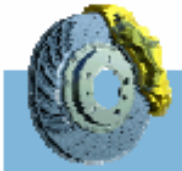
corporate strategy

development of company
- *growth*
- stabilisation
- reduce investment

competitive advantages
- cost leadership
- differentiation
- *niche*

self-reliance
- *autonomy*
- cooperation
- integration

technology strategy



„brake-world champion"

first mover

valve operating mechanism (BMW)

fast follower

electronic chassis control

late follower

diesel technology

non follower

constraints
- laws
- size of company
- resources
- customer expectations
- brand conformity
- core competencies

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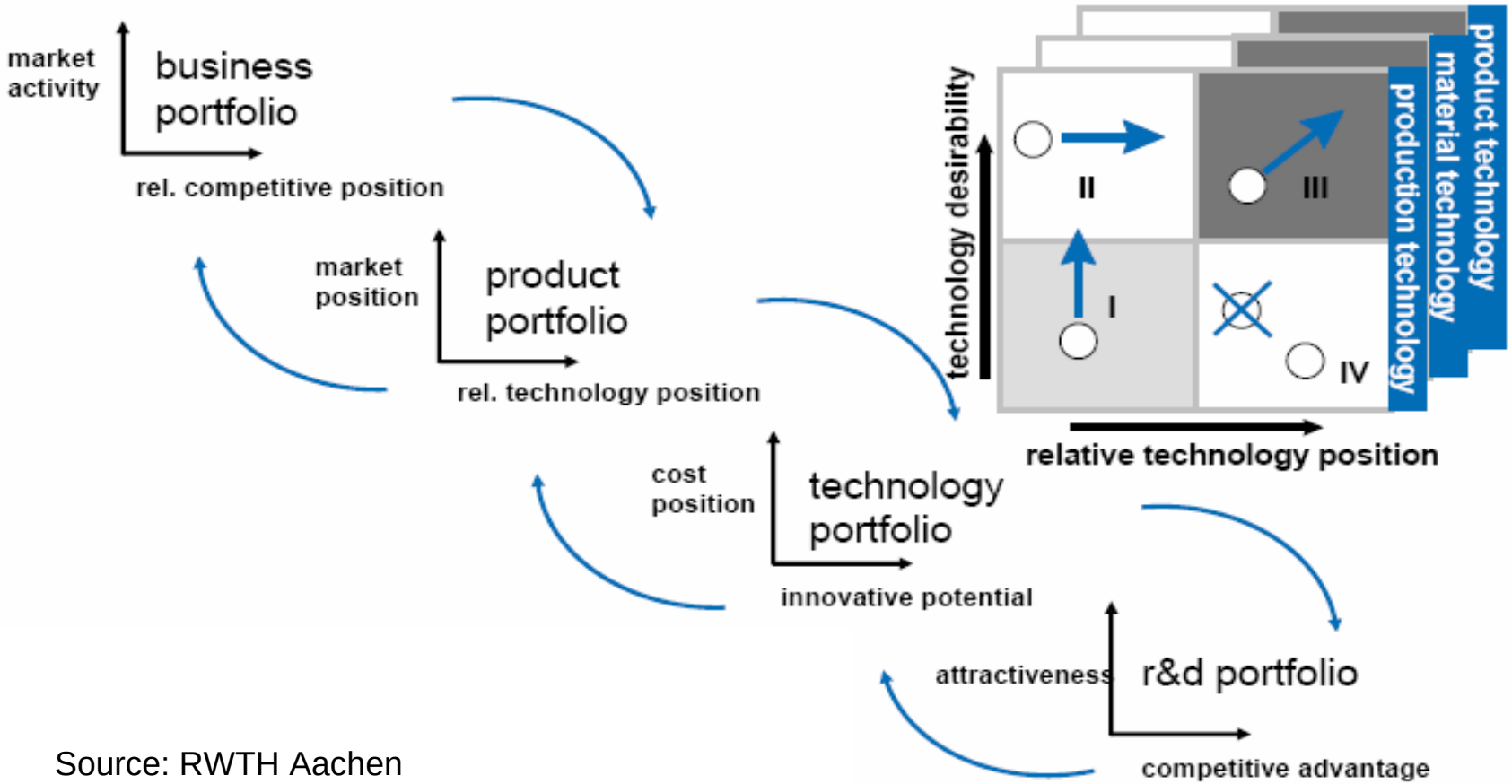
Source: RWTH Aachen

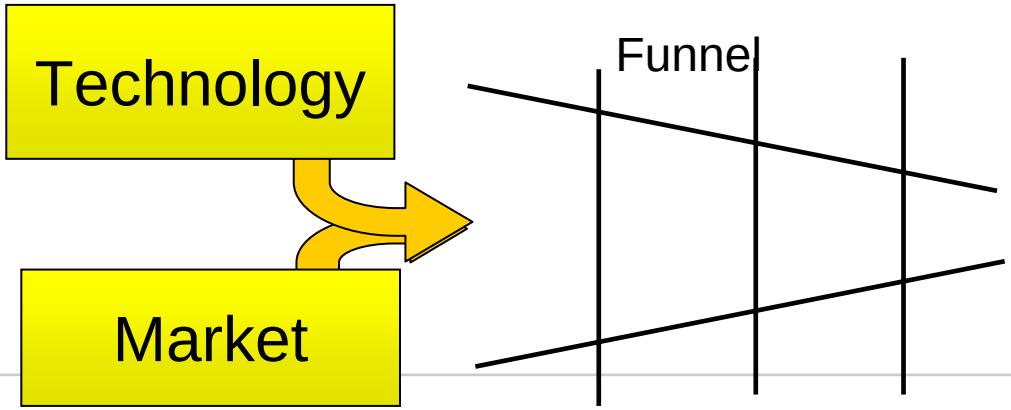
Business strategy and technology strategy



Source: RWTH Aachen

Case: RVB

- Small enterprise
- Niche player, water taps
- Wants to develop a new generation of products by introducing more technologies.
- **Question: in which technologies does the company have to invest?**



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Case: Fours Industriel Belge

- SME
- Heat treatment installation for metal wires
- Divers product portfolio based on many technologies

- **Question: in which technologies does the company have to invest?**

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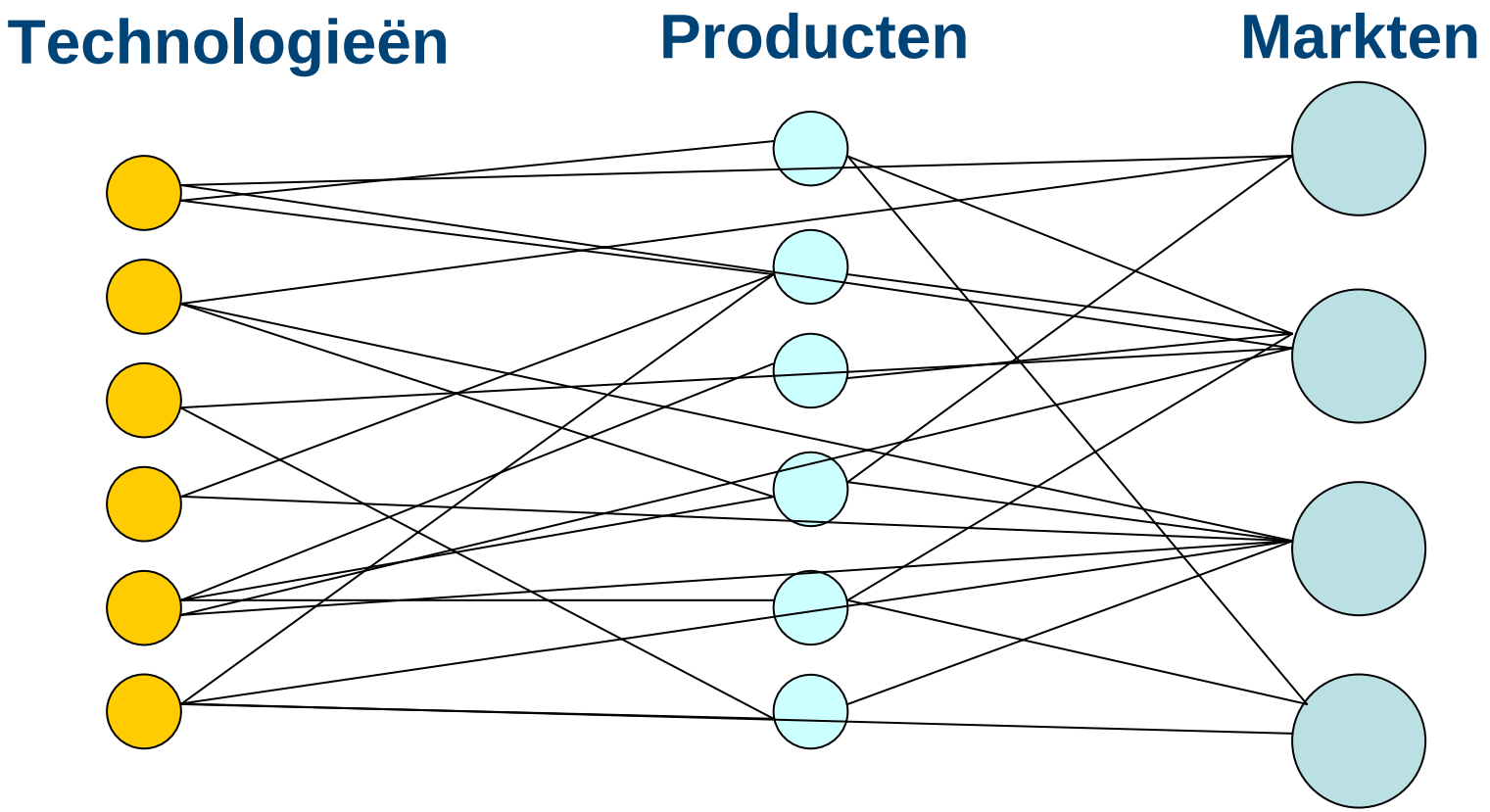
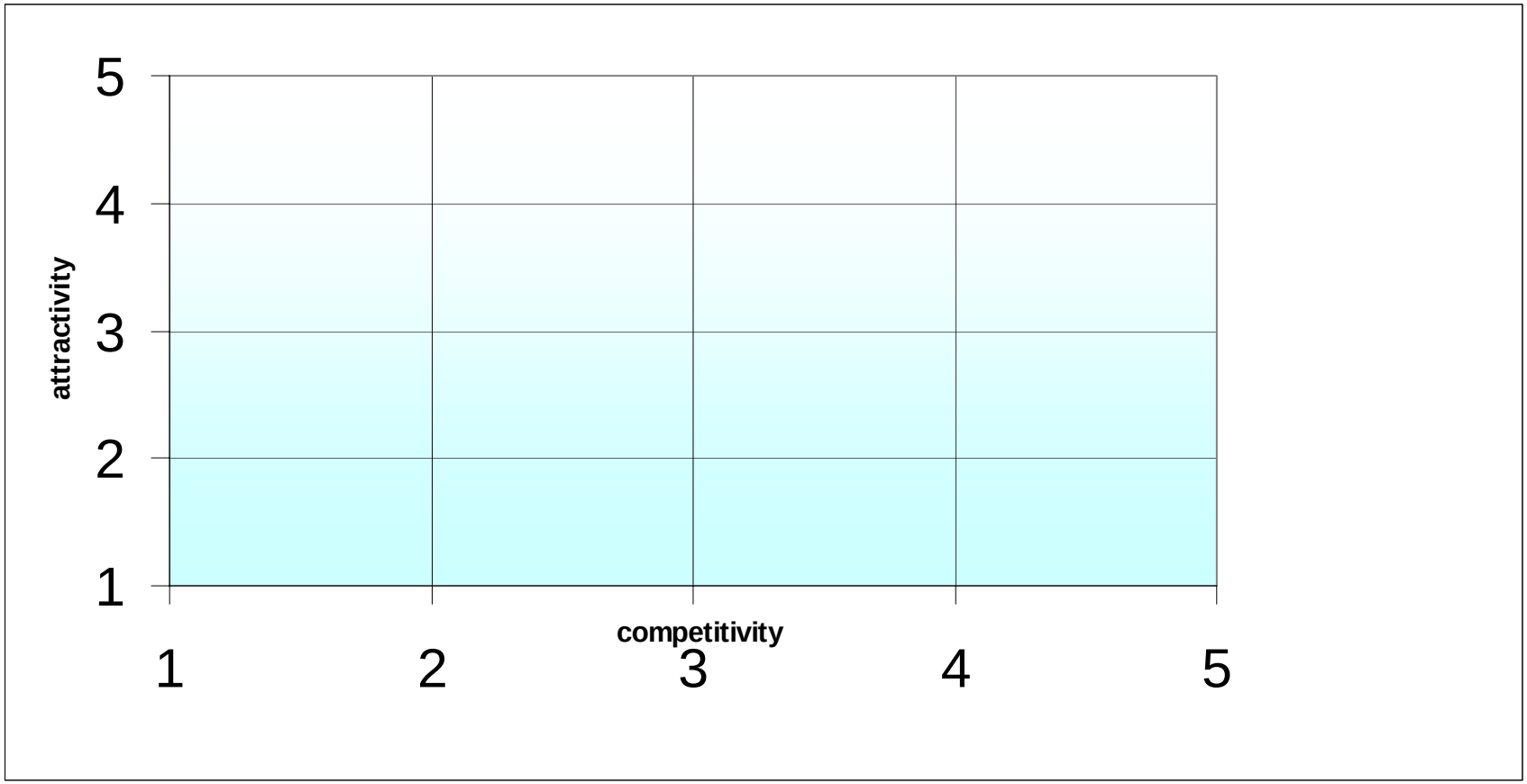
Product – Markt – Technologie



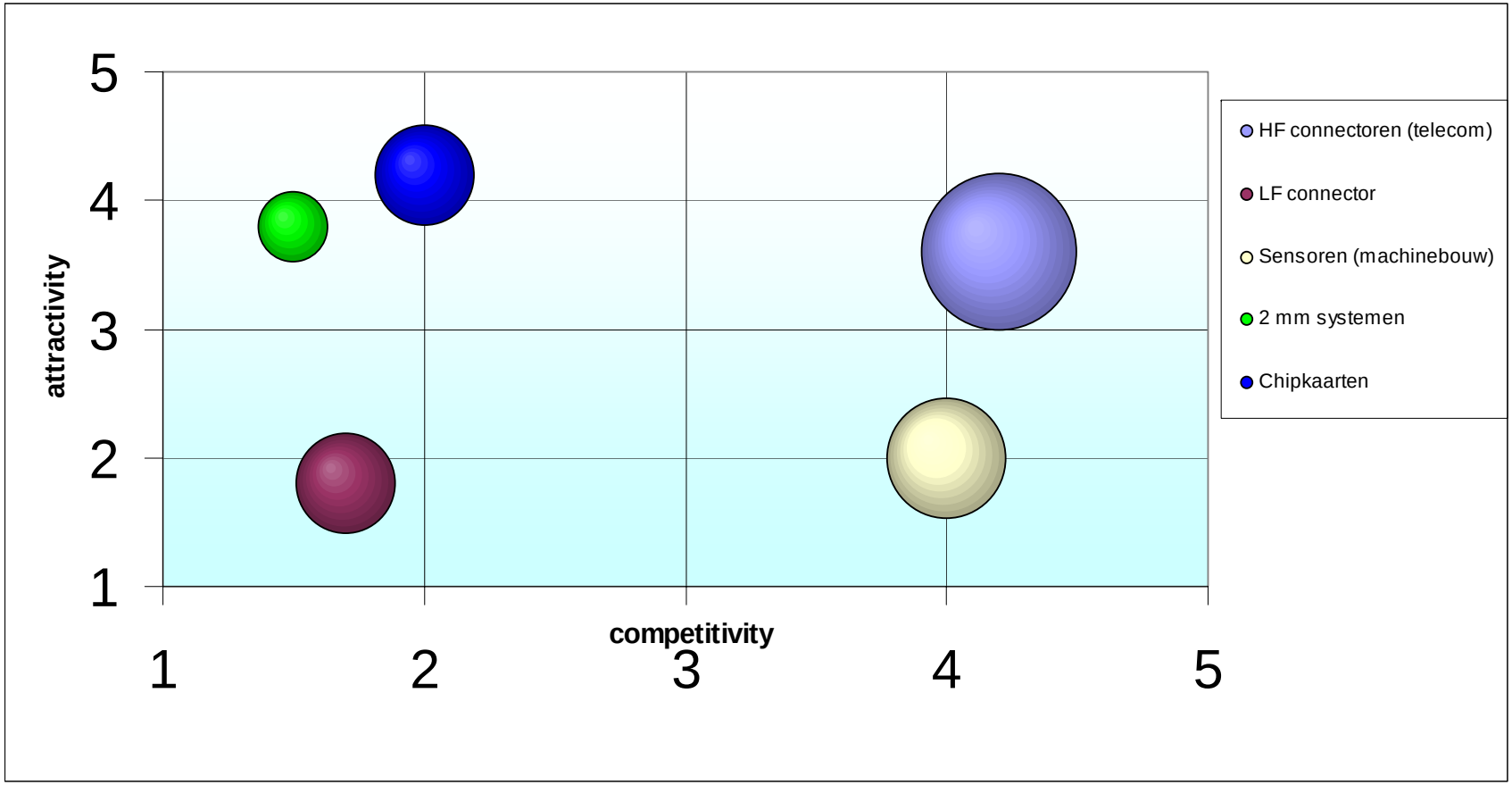
Steps in a technology strategy

- Situation analysis
  - Product-Market combinations
  - Competitors
  - Market expectations
- Technology analysis
  - Internal and externe technologies
  - S-curve, technology position
- Analysis of the strategical impact of technologies
- Describe technology options
- Formulate strategic plan

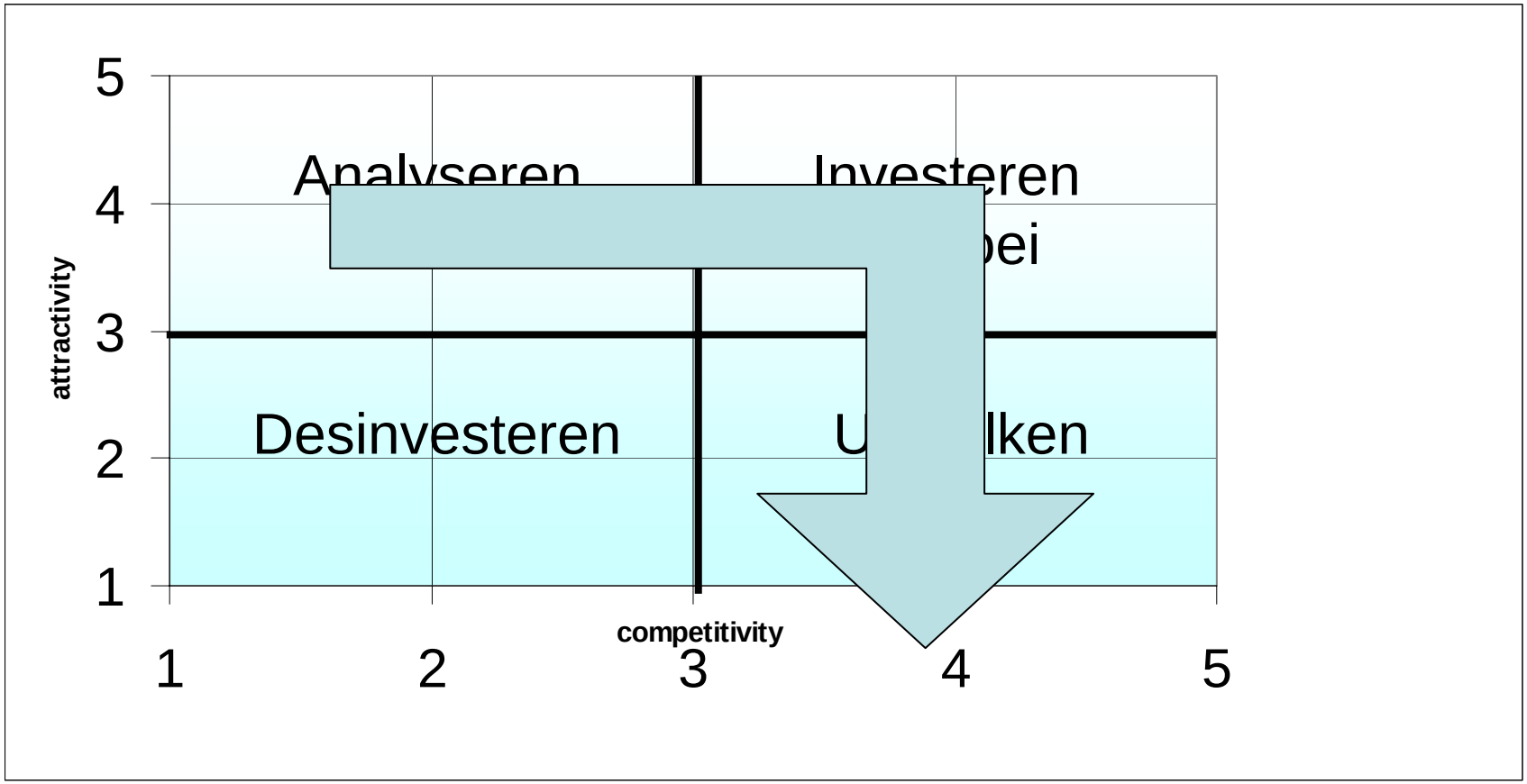
Portfolio analysis of PM combinations



Portfolio analysis of PM combinations

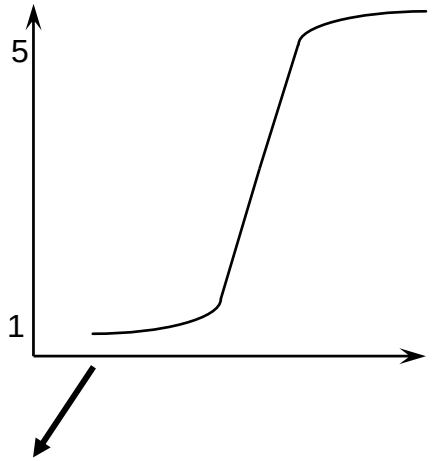


Portfolio analysis of PM combinations



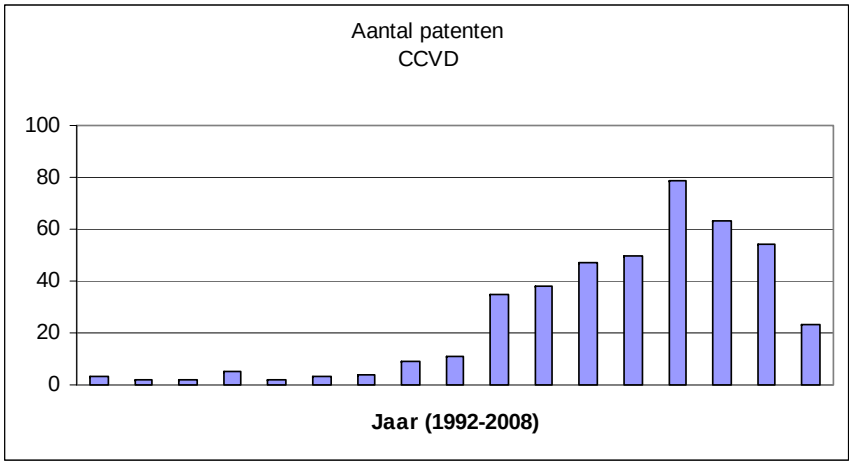
Product-Technology analysis

Technologie \ Product - Markt	HF-Connectors	LF connectors	Sensoren	Chipkaarten	2 mm systemen	Gewogen belang
Impact business	5	4	2	3	1	
Display	1	1	0	0	0	9
Wireless transmission	0	0	1	1	1	6
Overmoulding	1	0	0	0	0	5
Coating	1	1	1	1	0	14

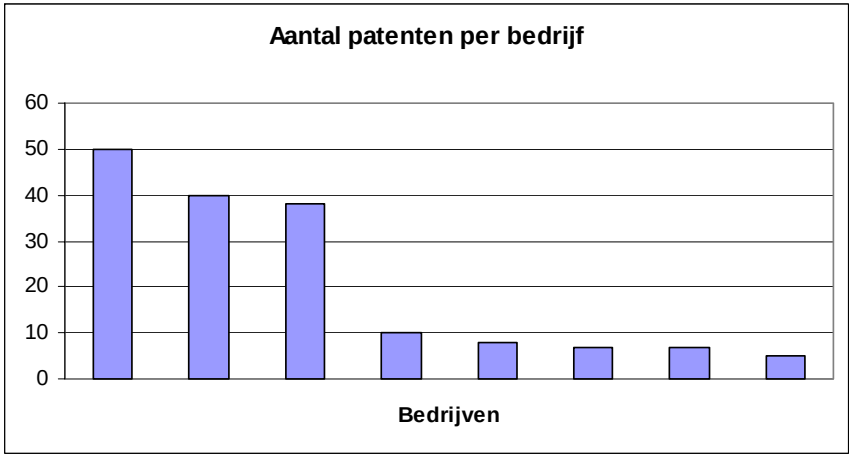


Technologie	Gewogen belang	S curve van de technologie	Technologische positie
Display	9	4	4
Wireless transmission	6	4	3
Overmoulding	5	4	2
Coating	14	2	4

Patent research

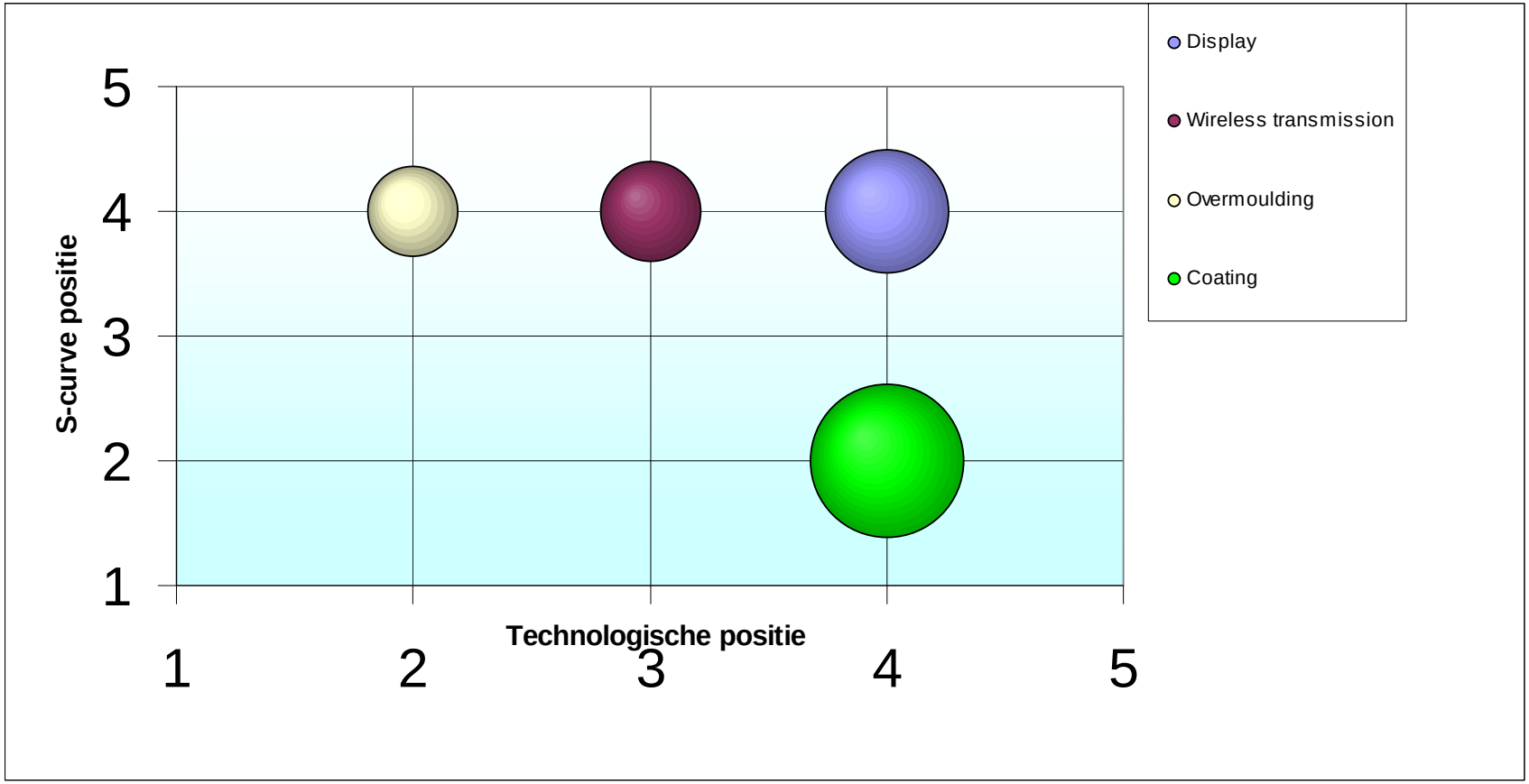


Patent evolution.

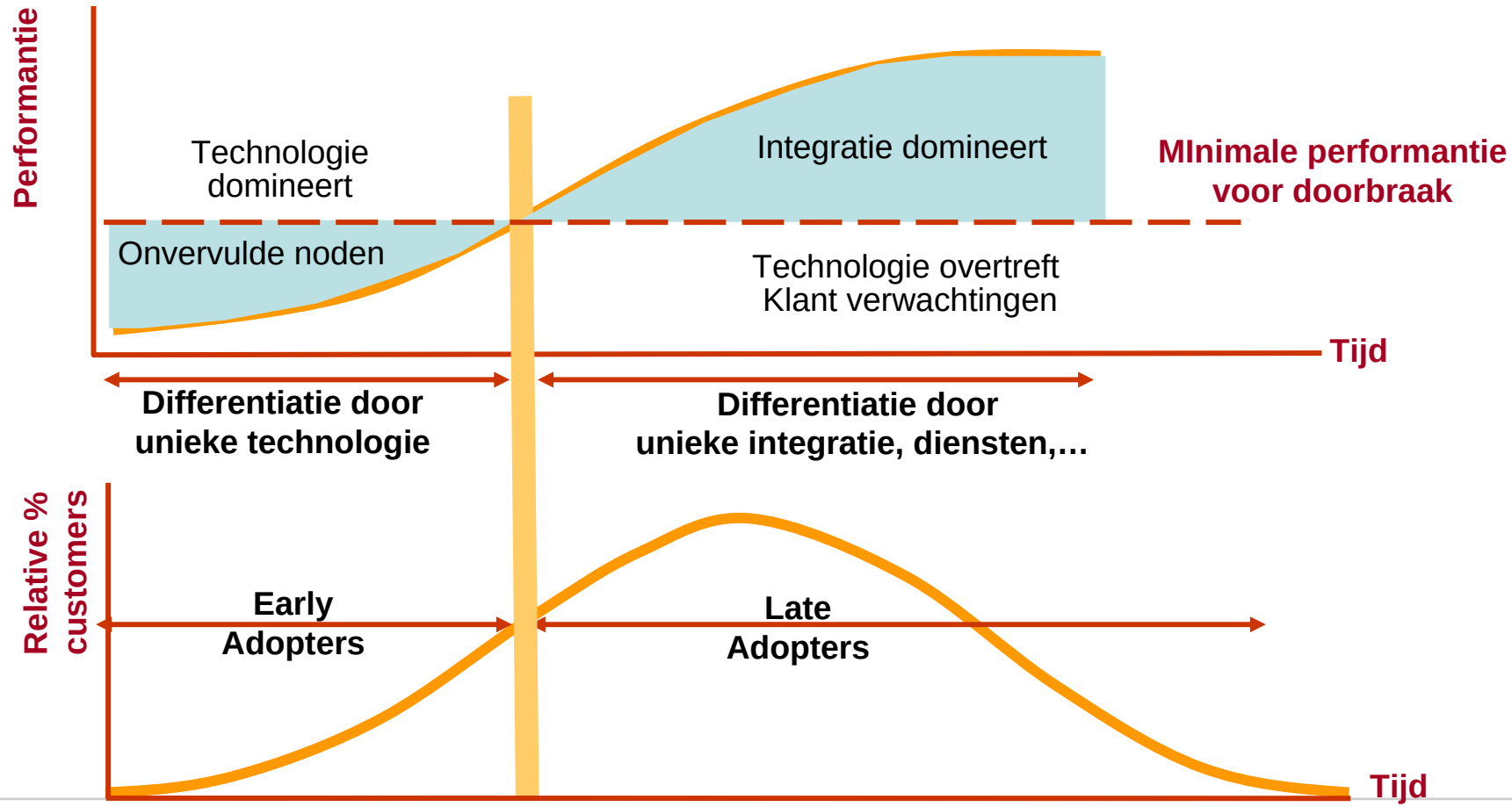


Number of patents per company

Technology analysis



Market Technology analysis



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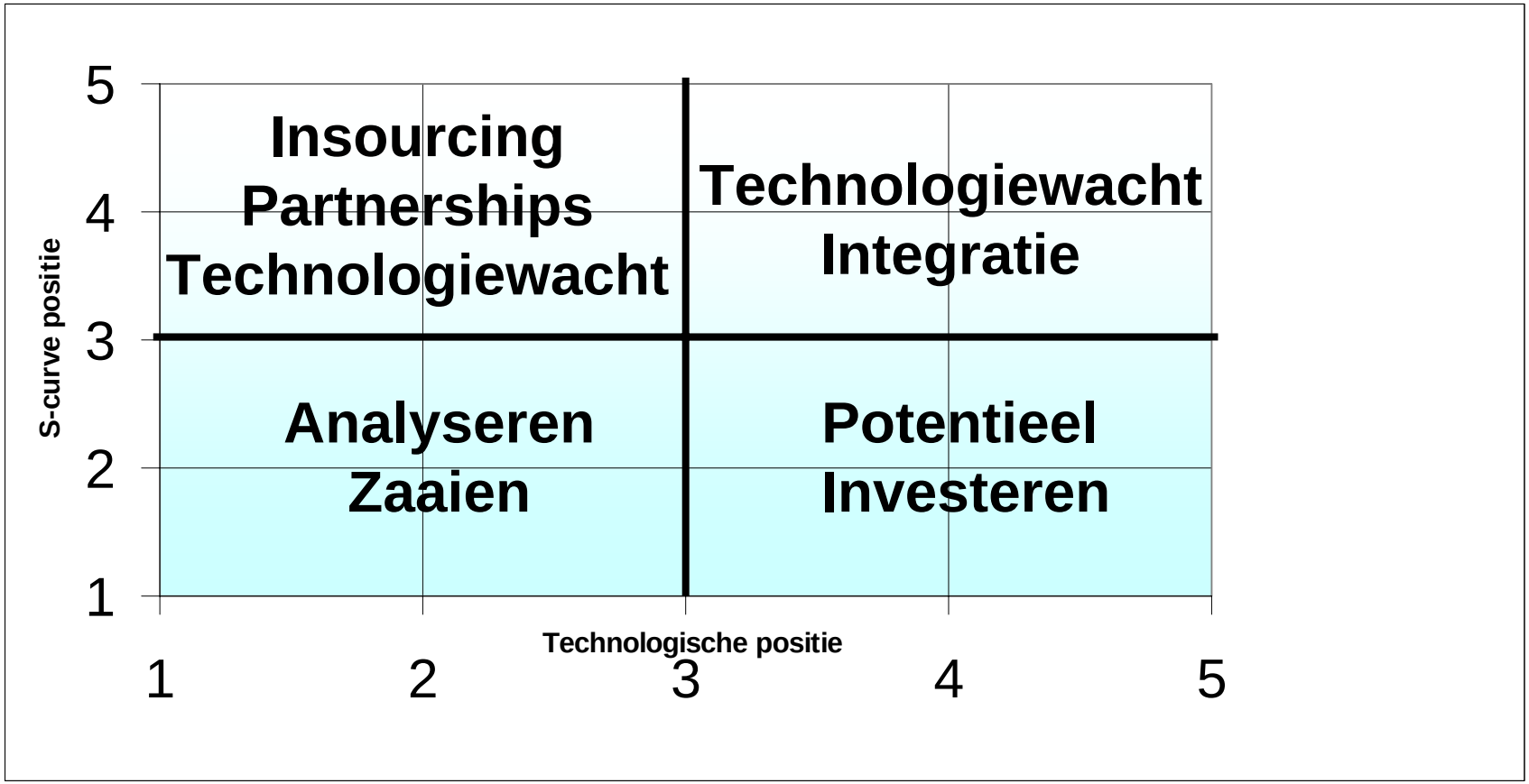
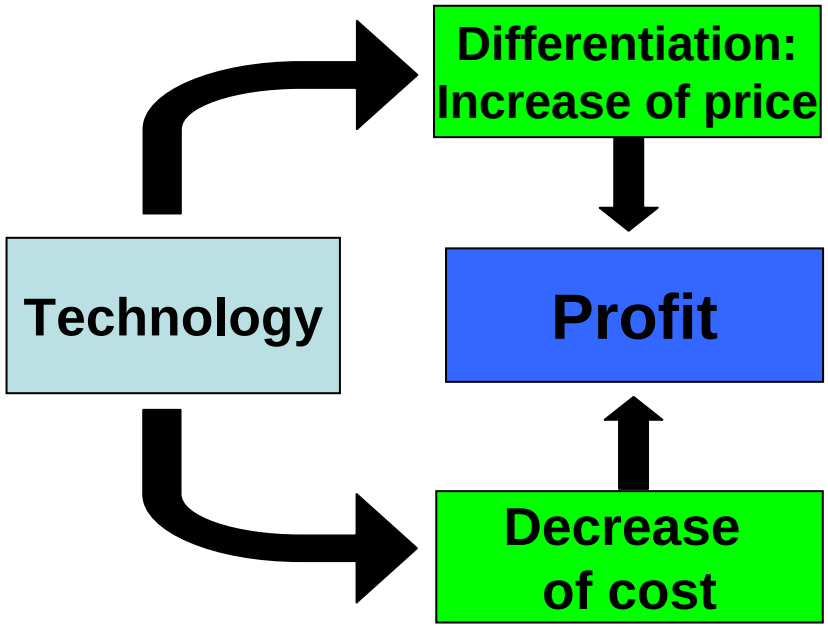
Technology analysis



When is a technology strategic?

1. Does the technology have real value?



When is a technology strategic?

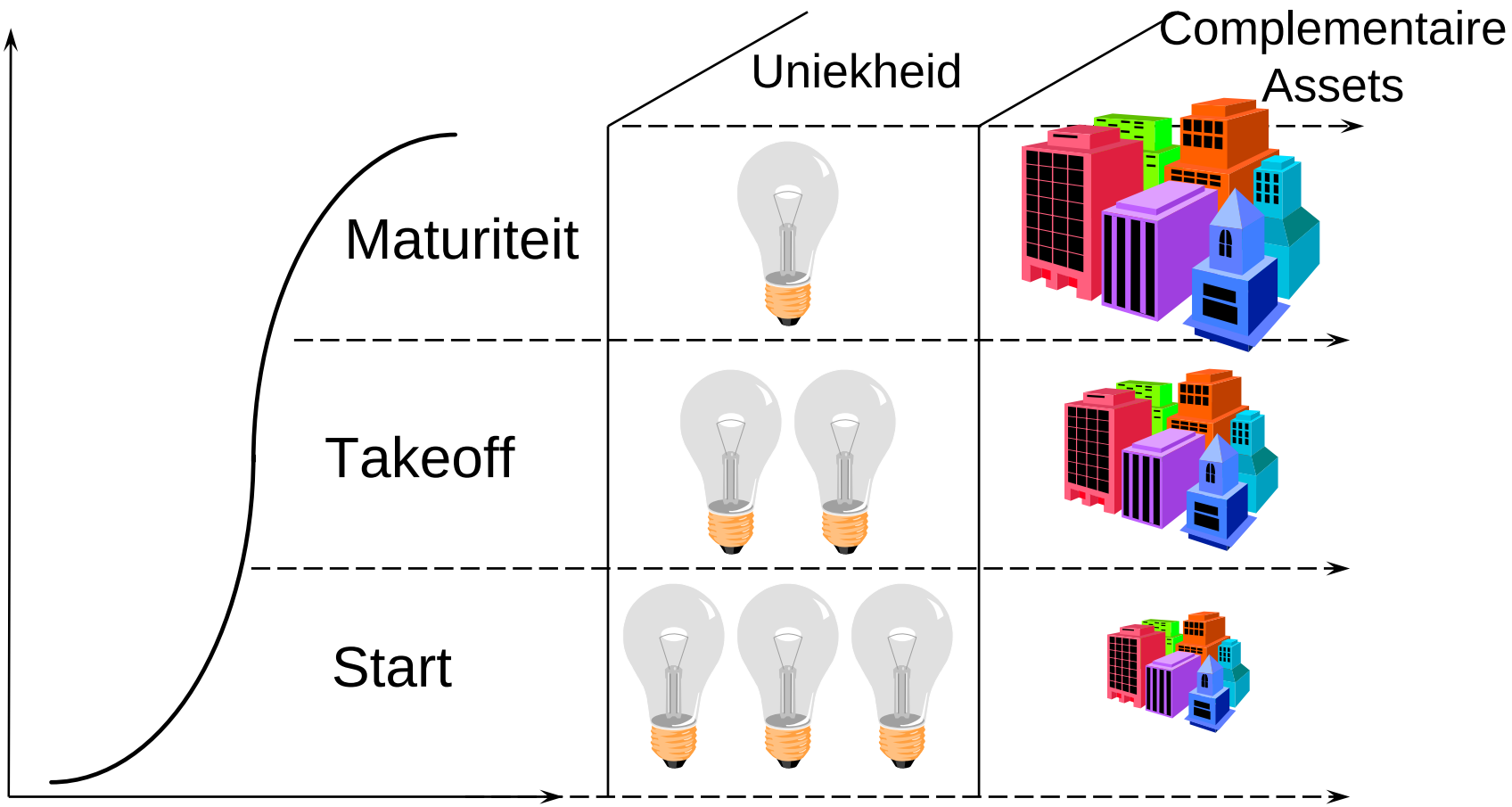
2. Does the technology provide a unique advantage?

Are there alternative technologies with
a similar or better performance?

3. How sustainable is the advantage?

Protection by patents, company secrets, …

Uniqueness and the life cycle



When is a technology strategic?

4. Can we bring the technology to the market?

Are there enough collateral assets to profit from the technology investment?

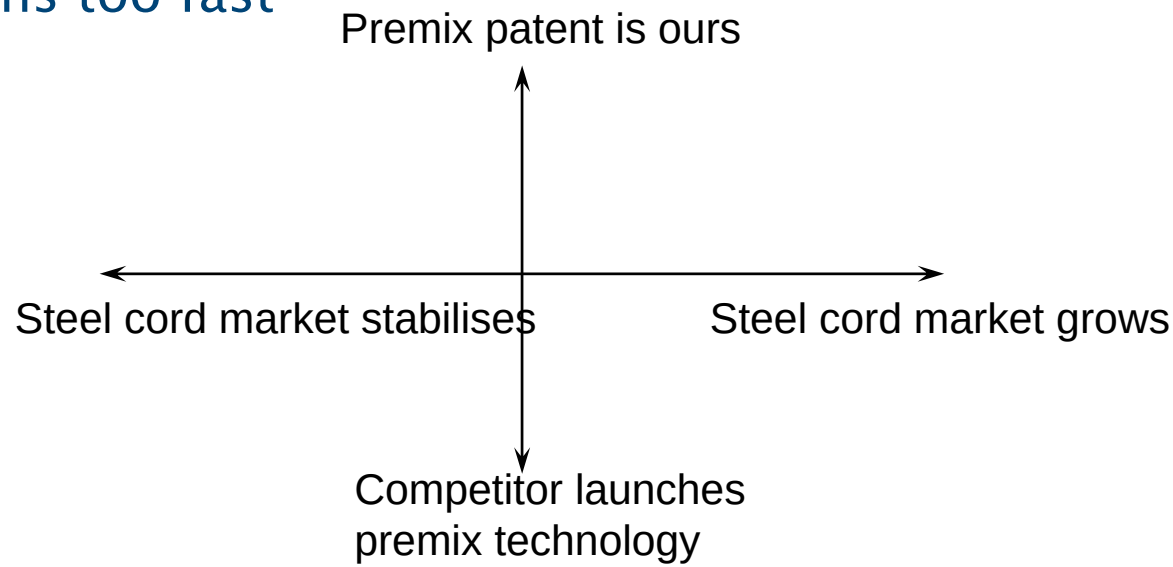
Collaboration with partners.

Technology options and scenario analysis

- Analysis leads to a number of technology options
  - Own development
  - Partnerships
  - Starte new technologies/products
- Biggest problem of strategy: the future cannot be predicted
- Map the potential risks / SWOT
  - Technological risks
  - Market risks
  - Competition

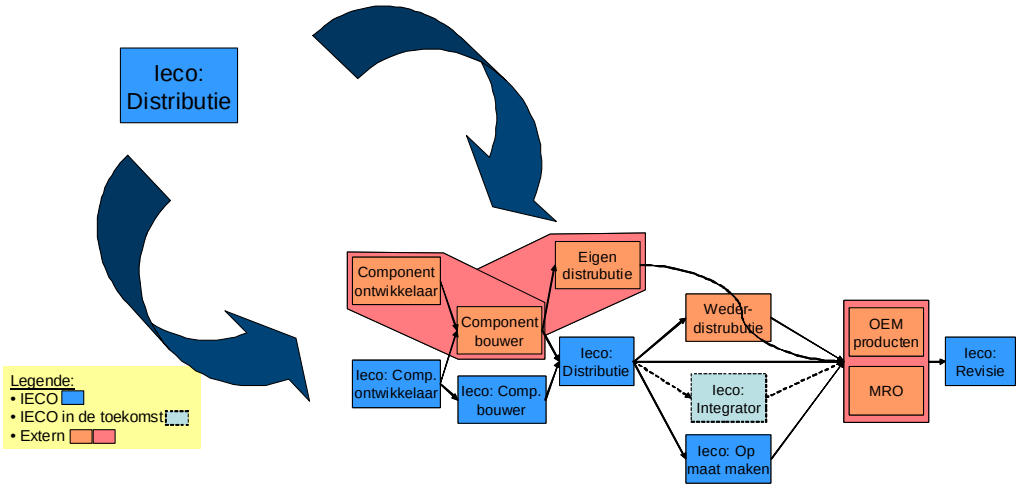
Scenario analysis

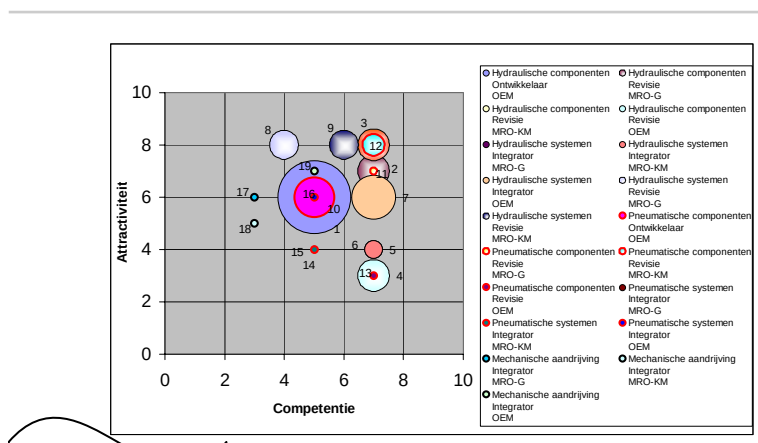
- Select the two main uncertainties
- Evaluate the consequences of different options
- Choose a robust solution
- Do not close options too fast

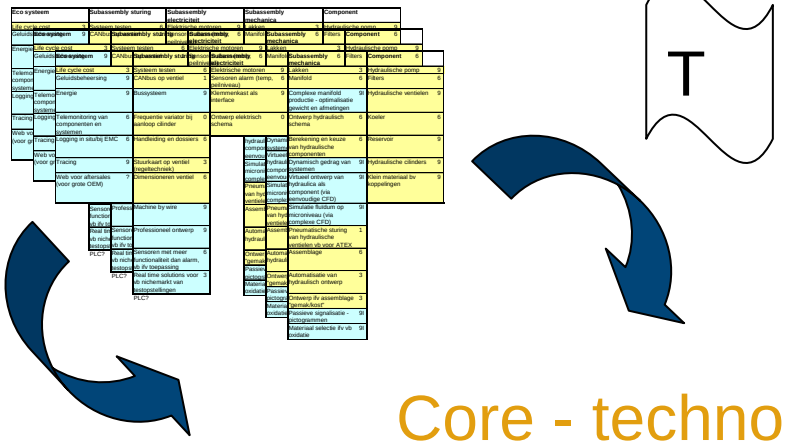


Case

from distribution
to system development







T

Core - technologies

PM

klanten

technologie

technologie

partner

TM

partner search

Conclusions

- A strategic framework is needed to ensure innovations
- The foundations of a technology strategy:
  - S-curve
  - Own technological position
  - Market expectations
- Uniquenesss and assests lead to a competitive advantage
- Technology strategy (T) and business strategy (PM) should be closely linked