High Tech NL

The Dutch National Network of Semiconductor companies

Share innovation. Shape tomorrow.

High Tech NL

Let's look back

WHY ?


The Golden Circle

WHAT
Every organization on the planet knows WHAT they do. These are products they sell or the services

HOW
Some organizations know HOW they do it. These are the things that make them special or set them apart from their competition.

WHY
Very few organizations know WHY they do what they do. WHY is not about making money. That's a result. WHY is a purpose, cause or belief. It's the very reason your organization exists.
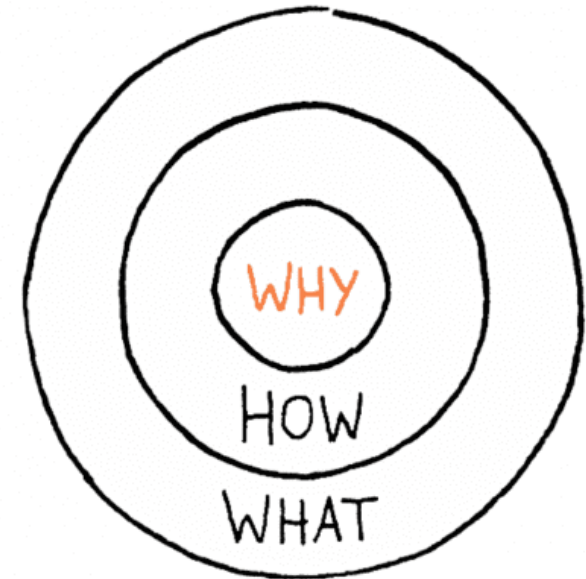
AMBITION

ABN·AMRO

Het begint met ambitie

Why ?

- Existing equipment community 100+ companies

- Leaders in:
  - (EUV) lithography
  - Atomic Layer Deposition
  - Advanced packaging
  - Metrology

- Let's keep supporting and growing!
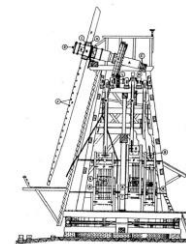- Connect the equipment ecosystem to partner and benefit from

We have a long history of innovations...

Innovation	Year
Microscope	1590
Crankshaft	1594
First submarine	1620
First electric vehicle	1835
Electrocardiologygraph (ECG)	1903
Artificial kidney	1943
Automatic transmission (CVT)	1958
Compact disc	1979
Wifi	1991
Bluetooth	1994
Tom Tom navigation	2004

Why ?

- 70+ active NL chip design companies
- Many strenghts:
  - o Radar, LiDAR, NFC, telecom
  - o Power electronics & new technologies
  - o Materials: SiN, GaN, GaAs, SiC etc.

- No single company masters all steps (design, package, produce, test a complete device)
- **High Tech sector is and will be essential to maintain the current level of prosperity**

Cooperation is not a choice… it's a must!

Ambition

- European Chips Act says 20% by 2030
- Huge investments = chances for NL industry (also equipment sector)

- Which chips, for which application are we going to manufacture?

- Which companies & people will design these?
- Where will production take place?

Ambition

- Let's build 'Chip Design Community NL'

- Some goals:
  - Stimulate synergy between companies
  - Increase sales revenue via increased IP rights
  - Increase # of 'made in NL' finished products

- Connect NL ecosystem equipment manufacturers

- Develop, found a complete ecosystem together

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Next steps forward

- Strategic plan (work in progress)

- Marketing, branding & events:
    o October: 4th event, Chip Design Community goes to Delft
    o December: let's close the year in Eindhoven

- Create exposure towards others
    o Silicon Europe Alliance: 11 cooperating national communities
    o Involve the 'Chip Design Community NL' into international shows

Strategic growth by McKinsey

- 6 critical areas in which semiconductor companies can evaluate strengths and weaknesses:

  - Technology leadership

  - Long-term R&D

  - Resilience

  - Talent

  - Ecosystem capabilities

  - Greater capacity

  - Source: https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-a-semiconductor

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Strategic plan

- 4 partners started and connected a nationwide group of supporters

- A strategy only works with:
  - ○ A clear plan and goals
  - ○ Actions to finish
  - ○ Input from partners

  Next slides: feedback March 23rd & individual meetings

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Strategic plan & highlights of your feedback March 23rd

Topic: Lab to Fab

- o How to go from university to industry?
- o We need a design lab
- o Create a crowdfunding program for IC design
- o Which existing facilities are available? Create an overview
- o 'one-stop-shop' for small series & trial runs
- o Create more infrastructure and easy entrance
- o Volumes up = pricing down = margin up
- o Scouting (foreign) talent and increase master programs
- o Keep the fab filled and maintain quality in the long run
- o Pilot lines for proto, small & medium series

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Strategic plan & highlights of your feedback March 23rd

Topic: Tech to Market

- We need a 'thought leading' company (like Philips was in the past)
- Rebuild & reshore the ecosystem, first: create overview of running initiatives (within the EU)
- Have focus on scale-up companies, create resources and simplify regulations
- Enter promising markets, avoid existing ones, launch disruptive innovations
- Sell IP and products, avoid to be paid for consultancy hours and only your labour
- Have a clear EU-policy towards opportunities and investments: Airbus is a leading example
- Partner with innovative leaders like Bosch and successful European regions

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Strategic plan & highlights of your feedback March 23rd

Topic: Human Capital: *later today Brainport Development & CITC take a deep dive*

- Huge demand for talent and experienced staff (on March 23 mentioned: 29 vacancies vs. 63 employees)
- Various fields of expertise: digital & analog design, layout, electrical engineers, embedded software etc.
- Huge costs to find people (international recruitment costs)
- Quality of education is at a correct level, but too many options:
  - TU/Eindhoven has 200 students and 105 courses
  - Electrical Engineering now has a very wide scope
  - Create a standard and generic base education, specialize later
- Create awareness at primary education and involve parents + influencers
- Create a pool of staff and rotate between companies (like consultancy agencies now do)

BRAINPORT EINDHOVEN

Strategic plan & highlights of your feedback March 23rd

Topic: Venture Building

- o Need for corporate Venture Capital to fund bigger opportunities
- o Shortage of experienced CEOs to build / support start-up companies
- o SME's need 'quick & dirty' funding to grow
- o How can we locate private investments & connect towards companies?
- o Controlled buy & build strategy which is aligned with national strategy
- o Start-ups using others fab capacity
- o Commercially managed fab for microfluidics & MEMS
- o Clear wishes and needs from international companies to locate in NL

CHIPTECH
TWENTE

Thanks for your time

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Let's solve challenges together!

Samen maken we het verschil!

Bedankt voor jullie aandacht.

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