

How can industry-driven research produce world-class science?

Early 1990's in NL

- 90% of polymer researchers in industry
- Disciplinary academic research
- Shortening time horizon in industry

1997: Four 'Top Technology Institutes'

- *Interphase* of Academia and Industry
- Pre-competitive and option-creating
- To fill a gap in NL knowledge infrastructure
- To change the mindset of main actors

Dilemma's and challenges

- Academic **excellence or** collaboration with **industry**:
a survival dilemma for academic researchers (?)
- DPI's mission as Top Technology Institute (TTI):
impact and excellence as *raison d'être* (continuation decision in **2007**)
- 'Chain-of-knowledge' from monomer to the product performance, with
50-50 **multi-party** industry-university collaboration
heavily **competing** cost-cutting industries
autonomous self-propelling academics

After learning curve of the first 4-6 years

- **Technology Areas (TA's)**, industrial Programme Committee and tickets, project meetings with industry => many industries and many 'Reported Inventions'
- Financially equal partners => bring **dual structure** with **symmetry**
- Each TA: Voting industrial panel + **Chairing Scientific specialist**
- Annually very active **Scientific Reference Committee** of international top academics reporting to Supervisory Board
- Open **Calls for proposals** with NWO-type scientific jury's
- **International** network of leading university groups ('**Top in Europe**' was the norm)

Government evaluation of scientific impact 2005-08

Organisatie**	Impact*** 2005-08
Publieke onderzoeksinstituten	
KNAW Hubrecht Instituut	2,94
TTI DPI	2,19
NWO FOM Amolf	2,10
Nikhef	2,05
ECN	1,96
KNMI	1,95
NKI	1,87

- Level of impact maintained in following years
- Continued very large number of 'Reported Inventions'

Most important 'valorisation' output

- 1997-2014: ca. **900 young academic researchers** with experience in the new mindset
- Where did they go:
 - **17%** not registered
 - **8%** abroad/native country
 - **44%** knowledge institute
 - **19%** partner industry + **12%** non-partner industry / start-up
- Today two representative **Golden Thesis Award winners**:
Jasper van der Gucht (2003) en **Casper van Oosten** (2009)