

“Human-centred design for organisational transformations”



Dr. Rebecca Price

Delft University of Technology,
Faculty of Industrial Design Engineering.
Product Innovation Management
29-11-2019

What is this?

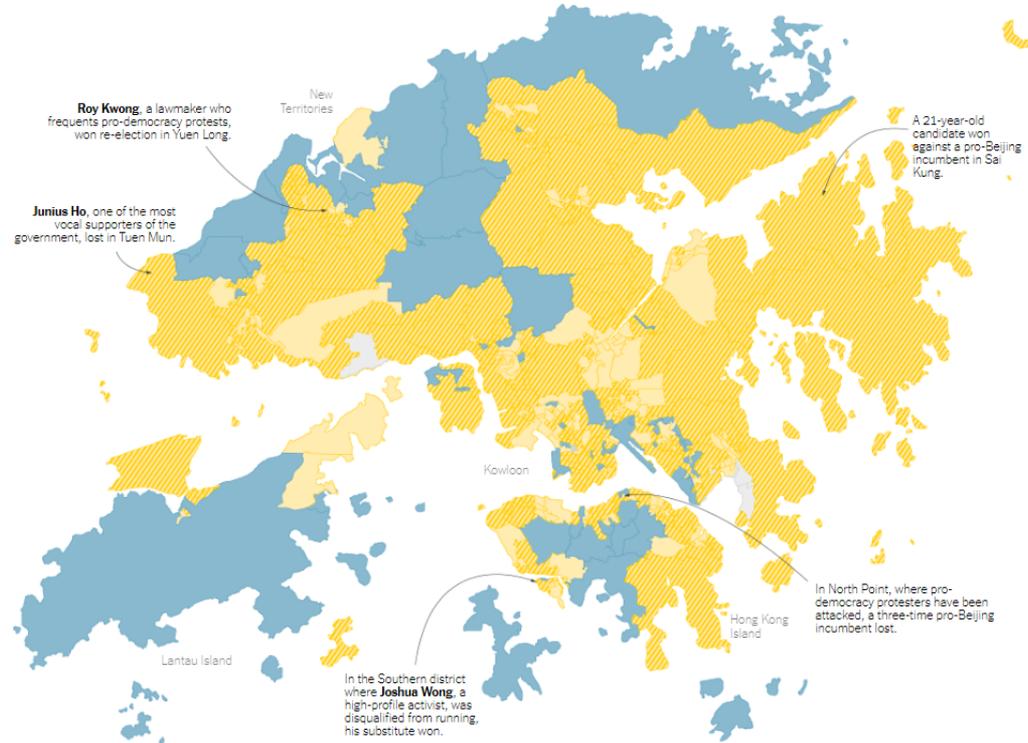
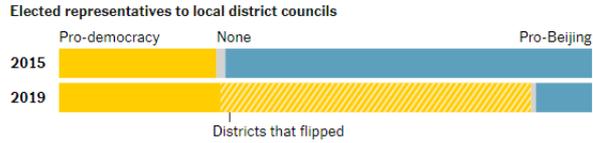


Power, agency, resistance... and human-centred design.



Evolution → Revolution

Pressure within the system for change.



Why must orgs transform?

challenges





HdW translate powerful technologies into desirable solutions?

HdW understand rapid new societal shifts?

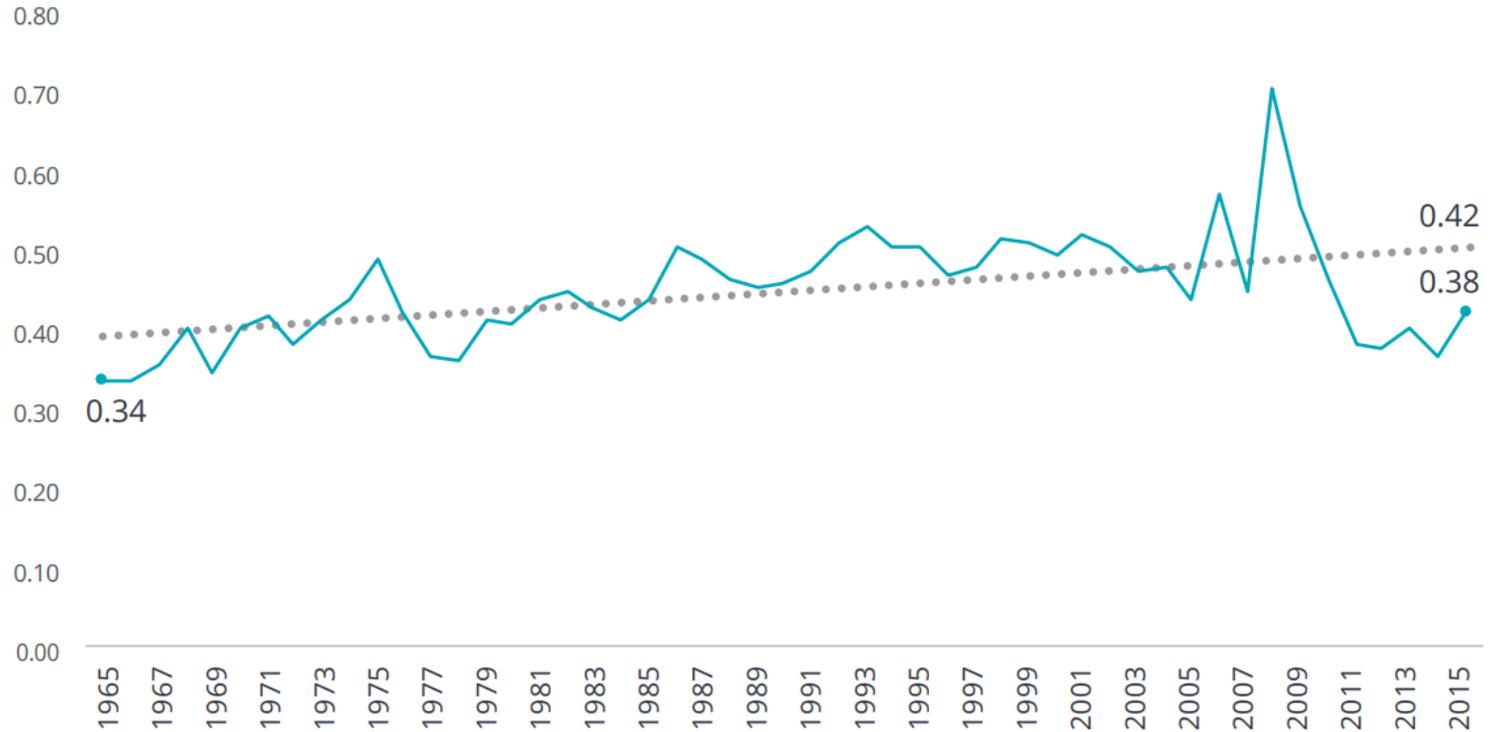
HdW organise for continuous innovation?

HdW anticipate disruptive entrants ?

HdW do we remain relevant?

Firm Topple Rate

Figure 23. Firm topple rate

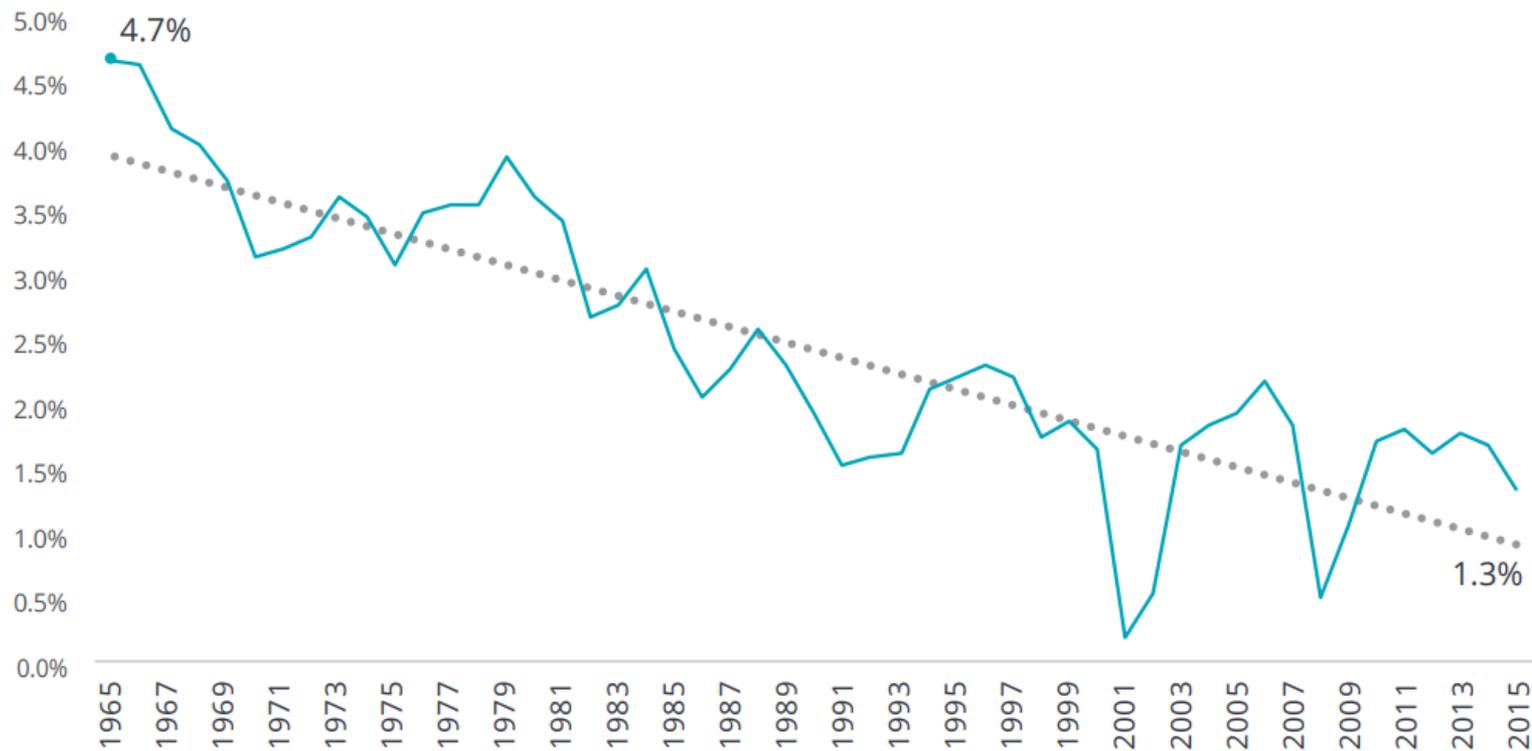


2016 Shift Index, Deloitte

Source: Compustat; Deloitte analysis; Thomas C. Powell and Ingo Reinhardt, "Rank friction: An ordinal approach to persistent profitability," *Strategic Management* 31(11), November 2010, pp. 1244-55.

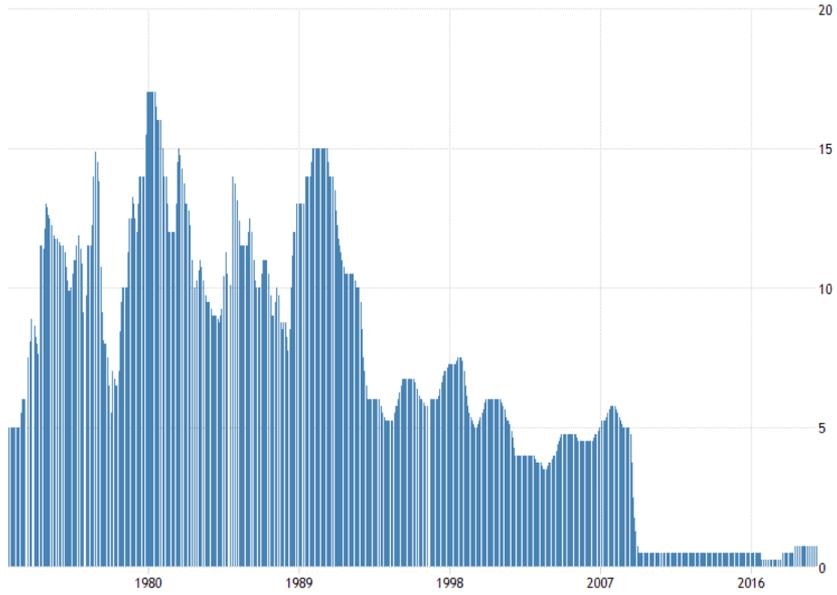
A Knowledge Economy

Figure 21. Economy-wide ROA



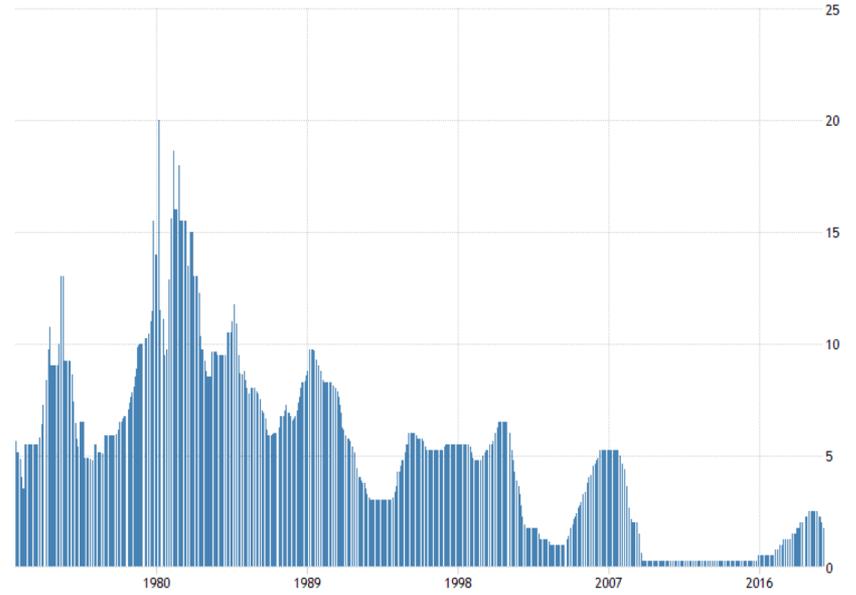
Firm performance, as measured by ROA, continues to decline.

Low(est) Interest Rates



SOURCE: TRADINGECONOMICS.COM | BANK OF ENGLAND

UK Interest Rates



SOURCE: TRADINGECONOMICS.COM | FEDERAL RESERVE

US Interest Rates

A new core org metric:

Beyond efficiency

to

Adaption

Design as source of
innovation, strategic
renewal

● Design thinking
Search term

● Total quality mana...
Search term

● Lean startup
Search term

+ Add comparison

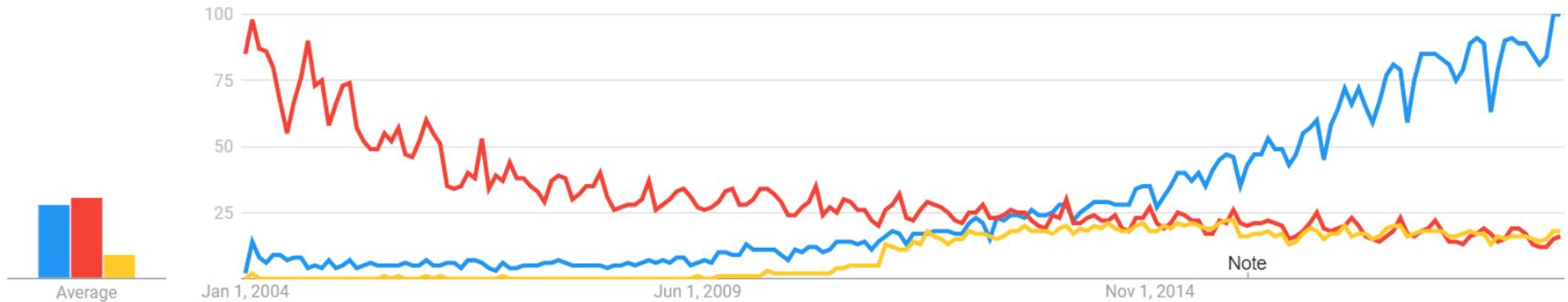
Worldwide ▾

2004 - present ▾

All categories ▾

Web Search ▾

Interest over time ⓘ



Note

Rise of design thinking (blue)
Fall of total quality management (TQM, in red)
Lean startup (yellow).

Design as Adaptive Capability

- i. Thrill of the tech push
- ii. Hard to reach stakeholders
- iii. Pressure on the value chain
- iv. Aggravation

“ Human-centred design can temper the thrill of the tech push ”

Sensitivity, reflection, ethics, responsibility

IBM's Transformation

So hot, we had to make it red.



There it is, nestled among the keys like a jewel in a perfect setting. It's the "TrackPoint"™ II pointing device, and only the new IBM ThinkPad™ have it. It's called a mouse would be woefully inadequate. For whom a mouse merely yells, TrackPoint II dances. An almost imperceptible move of your fingertip controls it; merely touch the rubberized slide buttons and *zhuñ* where on the screen you want to go. It responds as though it's read your mind. And since TrackPoint II is strategically located so that neither hand need ever leave the keyboard, using a ThinkPad is as easy as it gets. Hands down.

For more information or an IBM dealer near you, you can call 1 800 772-2227. In Canada, call 1 800 463-7999.



Introducing
ThinkPad

IBM is a registered trademark and ThinkPad and ThinkPad are trademarks of International Business Machines Corporation. ©1999 IBM Corp.



IBM 1999

"Dear tech, let's talk."



IBM 2019



The purpose of
everything we do
is to guide the
people we serve.

Microsoft Design Inclusion Lab



	Permanent	Temporary	Situational
Touch	 One arm	 Arm injury	 New parent
See	 Blind	 Cataract	 Distracted driver
Hear	 Deaf	 Ear infection	 Bartender
Speak	 Non-verbal	 Laryngitis	 Heavy accent

“ Human-centred design allows us to
engage hard to reach stakeholders”

Persuasion, empathy, innocence

Court of North Holland: Reform of Bailiff Processes

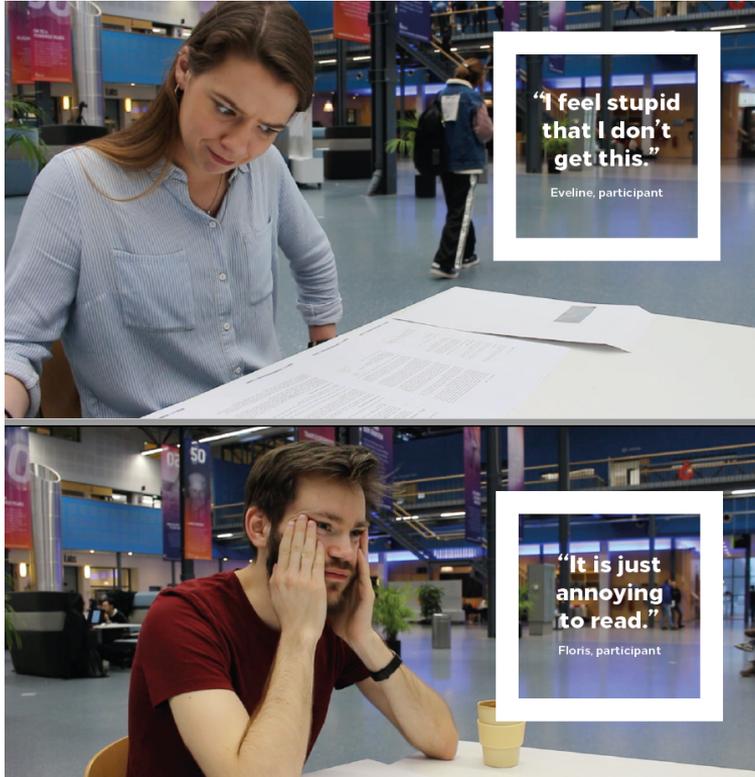


Fig. 43 Interview with defendants after a trial.

The preparation: unclear where to get explanations and advice.

The session: making choices under pressure.

AN ACTIVE ROLE FOR THE COURT IN THE PRE-STAGE

"IT IS REVOLUTIONARY"
"GOES MUCH FURTHER THAN WE ALWAYS DID"

CLEAR NEUTRAL STARTING POINT

COURT PROVIDES EXPLANATIONS AND OPTIONS AT THE START OF A JUDICIAL PROCESS



VISUALLY EXPLAINING COMPLEX SITUATION
ACTIVATING & SHOWING URGENCY
PROVIDING OPTIONS & CONSEQUENCES
GIVING OVERVIEW, POSSIBILITY TO ZOOM IN PERSONAL: FROM YOUR PERSPECTIVE
CONNECTING TO HELP & IN-DEPTH INFO

HUMAN GUIDANCE

PERSONAL GUIDE FOR QUESTIONS & SPEC. SITUATIONS



AVAILABLE ON DIFFERENT CHANNELS
HOST IN COURT FOR ON- & OFFBOARDING
EASY TO FIND & RECOGNIZABLE

INTERACTIVE IN-DEPTH INFO

APP/WEBITE TO HELP CHOOSE & SET EXPECTATIONS



EXPERIENCE THE COURT ANIMATIONS WITH EXPLANATIONS
TOOL TO SEE OPTIONS & CONSEQUENCES
VIDEOS WITH JUDGES & OTHER DEFENDANTS

QUALITATIVE PERSONAL ROZZITTING

SESSION FITTING TO ITS CONTENT: (PERSONAL) ORAL REACTIONS



DIFFERENT NAME FITTING EXPECTATIONS
ONE ON ONE MEETING IN A PERSONAL SETTING
JUDGE REPLACED BY JUDICIAL EMPLOYEE
FREEDOM OF CHOICE FOR TIME/DATE
SOCIAL WORKERS PRESENT FOR HELP

Reaching Judges: 'The Hard to Reach'.



"Why is there actually a judge in the roll session?"

Jorieke Jansen,
Subdistrict judge



the courtroom. These images could be interactive, so aspects as a griffin or a gown are clickable for further explanations.



Fig. 73 Scanned QR-code for more online information.

Google. The presence of the court should be more extensive in this digital world, by being easily findable using Search Engine Optimization. The court should clearly state this information is from a neutral source, distinguishing itself from other commercial parties. However, there is also still a big group which could be considered as 'digital bear', almost non-assistent in the digital world. That means the court should strive for being more online and more offline. All information should be available in both 'worlds'.



Fig. 73 Online video explaining the process and different people at the court.



Fig. 74 Rechtbankwijzer host welcomes people at the court.

2b: Human guidance: Helpdesk Rechtbankwijzer

The Rechtbankwijzer is the personal guide in the court; he points the way and explains how the court works (see figure 74-76). The helpdesk is available on online chatbots and physically present at the court.



Persuasion: So real, it could be already implemented.

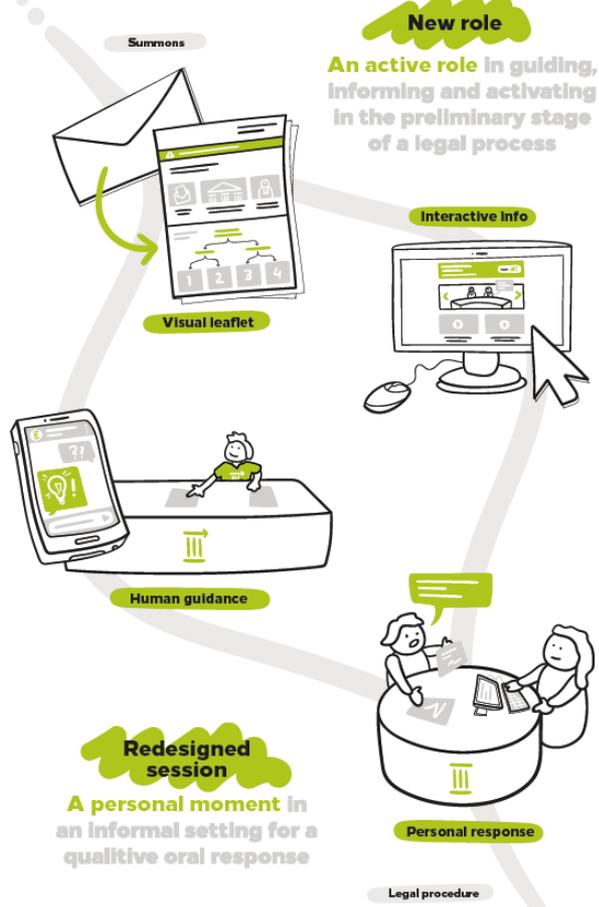


Fig. 69 Overview of the proposed service elements.

de Rechtspraak
Rechtspraak Noord-Nederland

Het is belangrijk dat u deze uitdaging leest! Als u niks doet, kunnen kosten onnodig oplopen.

U heeft een brief ontvangen waarin staat dat u naar de rechter moet.

U heeft een dagvaarding ontvangen. Dat is een brief waarin staat dat u naar de rechter moet. In deze folder legt de rechter uit wat er aan de hand is en wat u kunt doen.

De rechter gaat binnenkort een beslissing nemen in een zaak waarbij u betrokken bent. In de brief staat de eis: waarom u naar de rechter moet komen. Ook staat de eis er in, diegene die vindt dat u naar de rechter moet komen.

U kunt controleren of u het eens bent met de eis. Als dat niet zo is, kunt u aan de rechtbank uitleggen wat er niet klopt. Hierna zal de rechter onafhankelijk beoordelen wie er gelijk heeft.

Het is verstandig om in actie te komen. Als u niks doet, kunnen kosten onnodig oplopen. Wetsu kunt zien, staat op de volgende pagina.

De deurwachter heeft de brief aan u gegeven van vóórhand. Dat heeft hij gedaan in opdracht van de eis.	De eis is dat u naar de rechtbank moet. Het is dat u iets doet of iets betaalt. Dat legt hij uit in de brief.	U bent de gedaagde. De eis in de brief is aan u gericht. U kunt de rechtbank uitleggen of de eis klopt of niet.	De kantonrechter beoordeelt onafhankelijk wie er volgens de wet gelijk moet krijgen.

Fig. 70 Front page of the visual leaflet.



Fig. 71 The visual leaflet present all possible actions for a defendant.

“ Human-centred design creates pressure
for change within the value chain ”

Leadership, customer insights, provocations

Image Source: Adidas



**ADIDAS USE RECYCLED MATERIAL AND 3D PRINT TECH.
RESULT IS SHOES TO ORDER.**



COLLAB WITH 'PARLEY FOR THE OCEANS'



Source: Parley - Hero photo



ADIDAS: MOVE AWAY FROM INVENTORY/ WAREHOUSING.

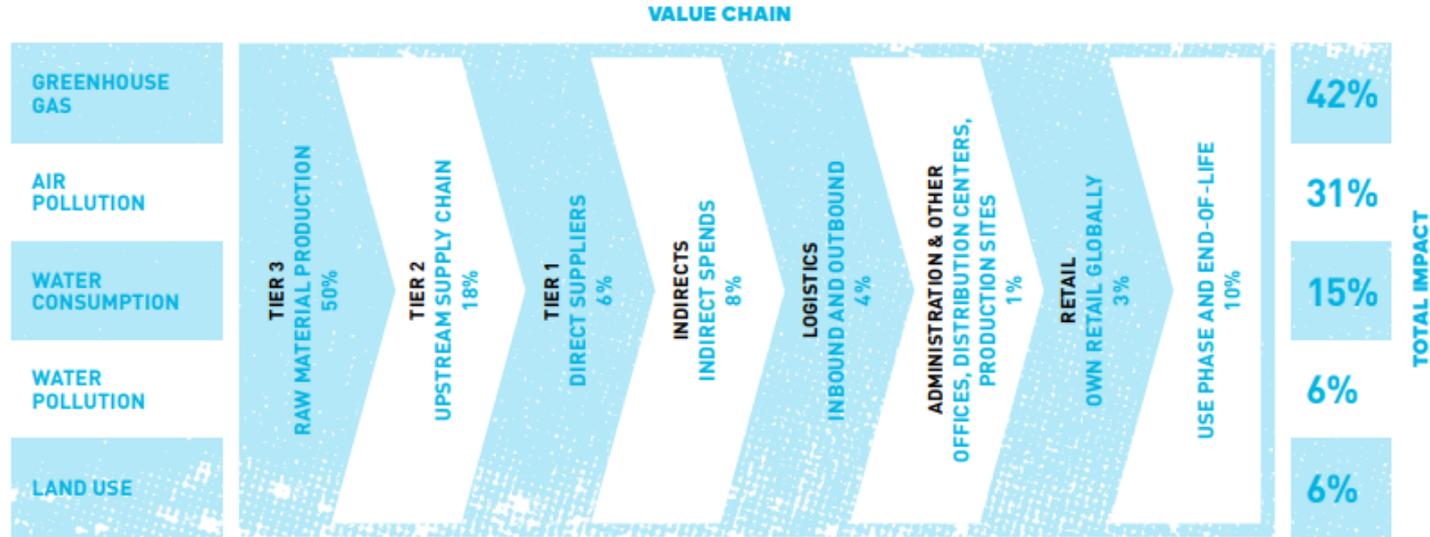
LEVERAGE MY ASSETS DIFFERENTLY; CUT DOWN ON LOGISTICS

CREATE IMMENSE VALUE WITHIN THE COMPANY

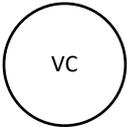
SAVINGS ACROSS THE VALUE CHAIN

SAVINGS TO BUSINESS PARTNERS

31



¹ Greenhouse gas: carbon dioxide, methane and nitrous oxide. Air pollution: sulphur oxides, nitrogen oxides, particulate matter, toxic organic substances. Water consumption: i.a. surface water, ground water. Water pollution: i.a. nitrogen and phosphorus, toxic organic substances, heavy metals. Land use: arable land, pastures and grassland, industrial land use, unsustainable forest area.



“Human-centred design can
aggravate internal org tensions”

Co-evolution, politics

Want to work on Radical Innovations @KLM?

Who dares to take on the challenge to join the KLM Radical Innovation team in building the future of aircraft component services. We are looking for a DFV/IPD MSc student 2-3 days a week part time job or an internship for the coming 4-6 months.

If you are interested, please send your portfolio or motivation to: Rogier-van.beugen@klm.com (also feel free to email in case you need more background information) - klm.com

Royal Dutch Airlines 




Want to work on Radical Innovations @KLM?

Who dares to take on the challenge to join the KLM Radical Innovation team in building the future of aircraft component services. We are looking for a DFV/IPD MSc student 2-3 days a week part time job or an internship for the coming 4-6 months.

If you are interested, please send your portfolio or motivation to: Rogier-van.beugen@klm.com (also feel free to email in case you need more background information) - klm.com

Royal Dutch Airlines 



► The KLM list



► Interaction Qualities

- Control: Directional, Clear
- Support: Responsive, Informative

► KLM envisions the next generation of interaction



► New website look



► Use of data and the right stories




Employee design trainings

Internships, course collaborations, conferences, etc.

Great Project – Shelved!

• Notifications

Depending on the moment of the journey the sender/receiver/family member will receive a different notification. Some notifications can also be complemented with a picture, also other services like a link to Google Maps to help the receiver plan his or her trip to the airport will make the whole service much more efficient and enjoyable. Pictures will help the family members to get a better idea on what is going on. Parents heard about the 'Junior Jet Lounge' but don't really know how it looks like.

UW Status Notification
Mark just disembarked successfully at Schiphol!

UW Status Notification
Mark's flight will arrive with a 20min. delay
Arrival time: ~~18:00~~ 18:20
Mark's is still on time for his baggage.

UW Status Notification
Departing time for Mark's transfer flight is delayed
Departing time: ~~18:00~~ 18:30
Don't worry, Mark is being taken to our Junior Jet Lounge. There, he can play, eat and rest until his next flight.
We will keep you updated.
[Close] [Contact Us!]

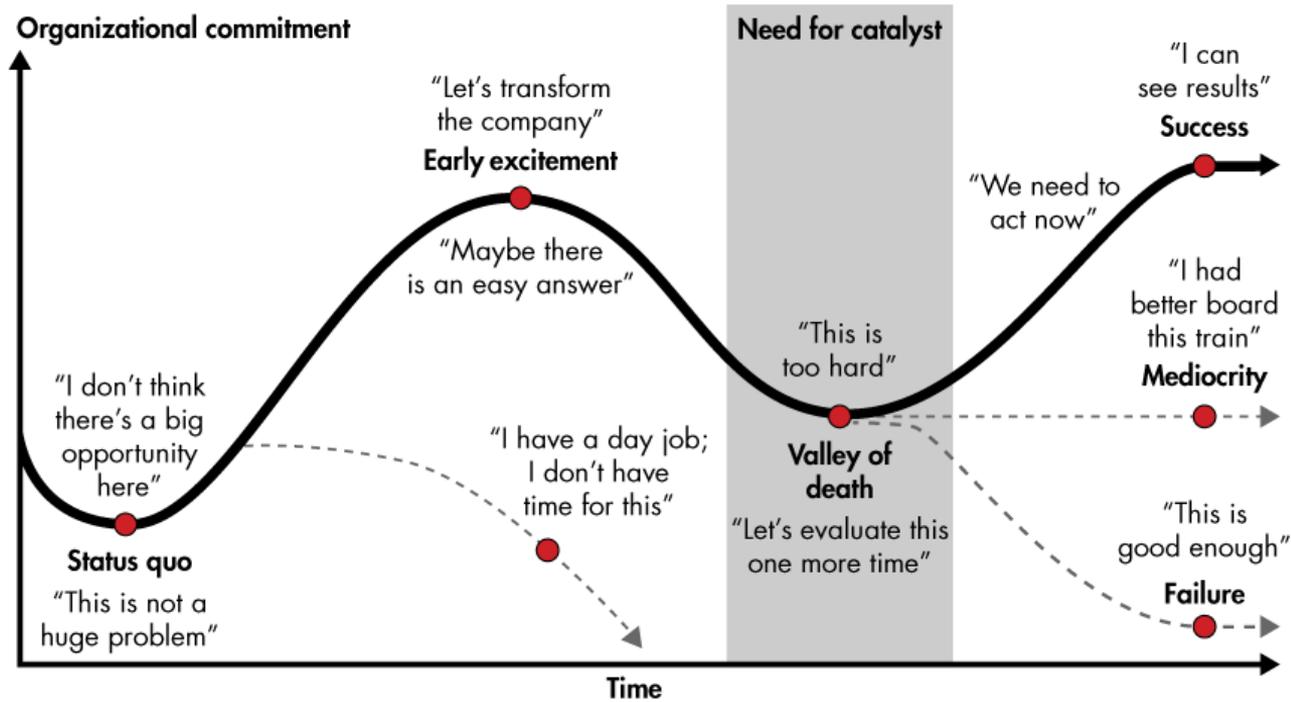
UW Status Notification
Mark is at our Junior Jet Lounge until his transfer

UW Status Notification
Get ready! Mark's flight is arriving in 2h
Mark is off to JFK
[Close] [Contact Us!]



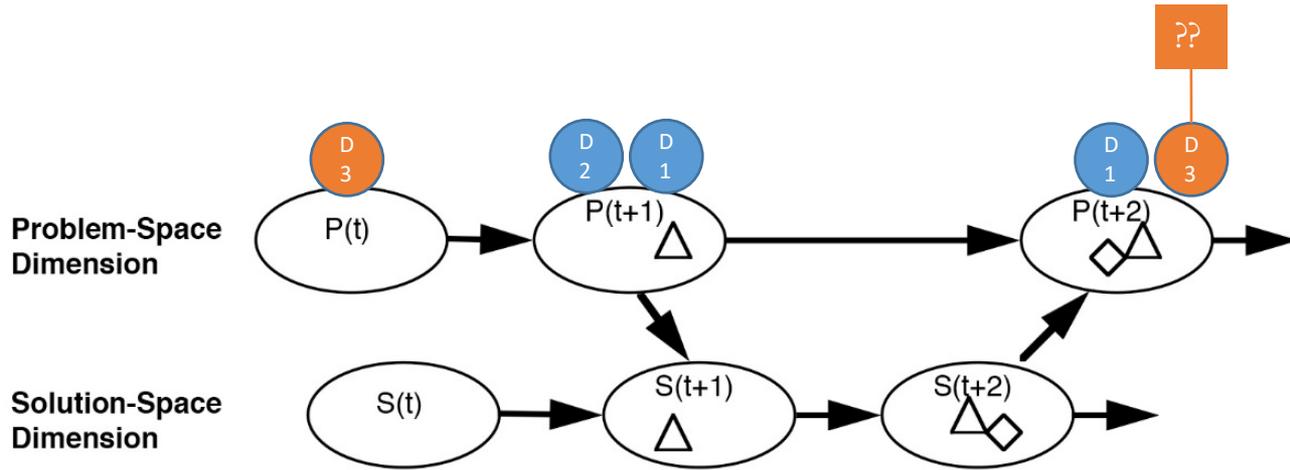
Valley of Death.

Figure 1: Beware the “valley of death” in change programs



Source: Bain & Company

Problem-Solution co-evolution.



P(t) initial problem space

P(t+1) partial structuring of problem space

S(t) initial solution space

S(t+1) partial structuring of solution space

S(t+2) developed structuring of solution space

P(t+2) developed structuring of problem space

Education of (Strategic) Designers:

Lecture on shaking *someone's hand*,
negotiating ethical dilemmas and
understanding business diplomacy.



Organisations are under pressure to transform!

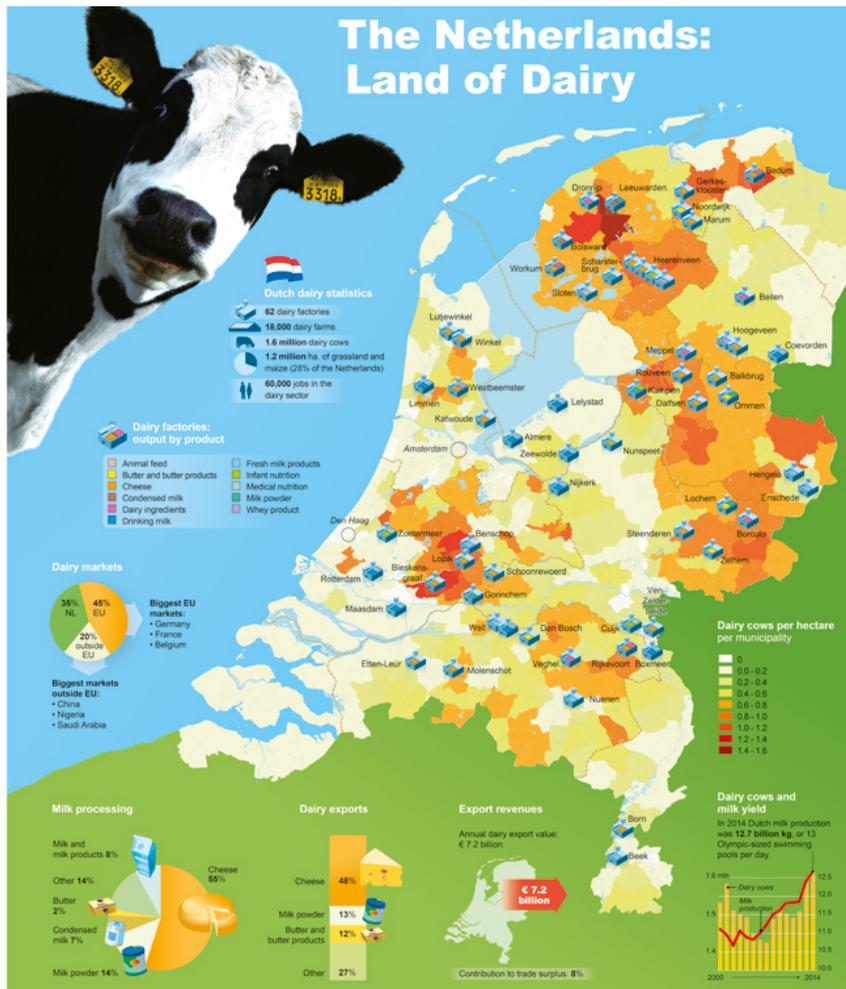
Design as Adaptive Capability

- i. Thrill of the tech push
- ii. Hard to reach stakeholders
- iii. Pressure on the value chain
- iv. Aggravation

Deeply understanding the human condition (of employees, of customers, of partners, of your competitors, of the government etc.)

Future Research

Role of design in system level transitions



Power and Politics

“Lock-in implies that a system has reached an inefficient or unwanted equilibrium which cannot be easily escaped due to the increasing returns”

Vasileiadou, E., & Safarzyńska, K. (2010). Transitions: Taking complexity seriously. *Futures*, 42(10), 1176-1186. doi:https://doi.org/10.1016/j.futures.2010.07.001

Social, cultural, technical, economic, political



Thank you!

Dr. Rebecca Anne Price

29-11-2019

“Stability vs Instability ; Mobility vs Immobility” Image: Star Tribune