



# Miks mõelda Tööstus 4.0-st?

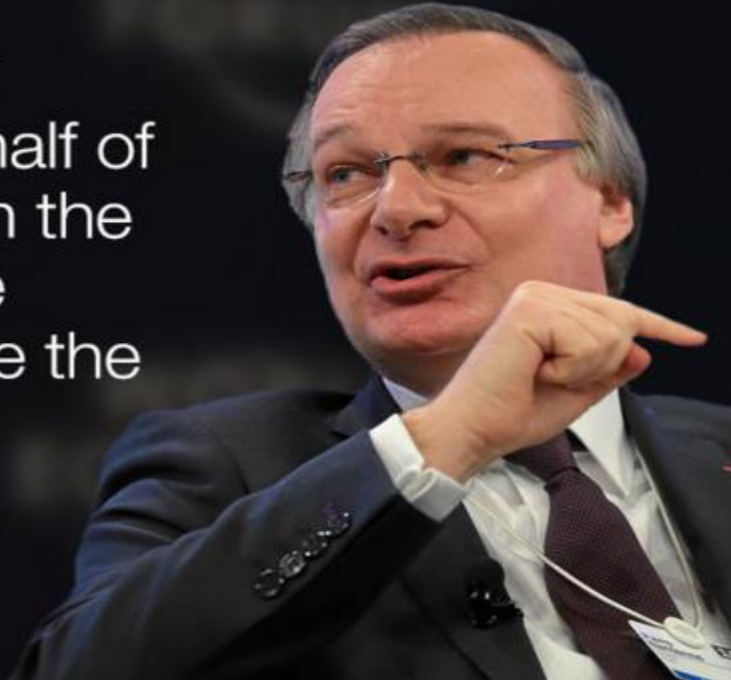


17.11.2017

# Miks...?

Digital is the main reason just over half of the **companies** on the Fortune 500 have **disappeared** since the year 2000

Pierre Nanterme  
CEO of Accenture

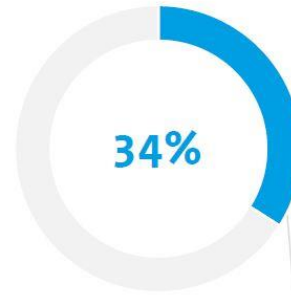
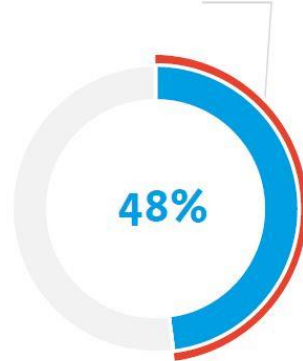


# An existential challenge for the whole economy



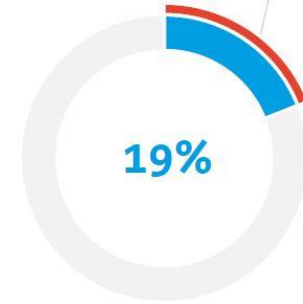
Competitors in our industry, who set on digitization early, are ahead of us.

Competitors from the Internet and ICT industry push in our market.



The digitization threatens the existence of our company.

We have problems to cope with the digitalization.



19%

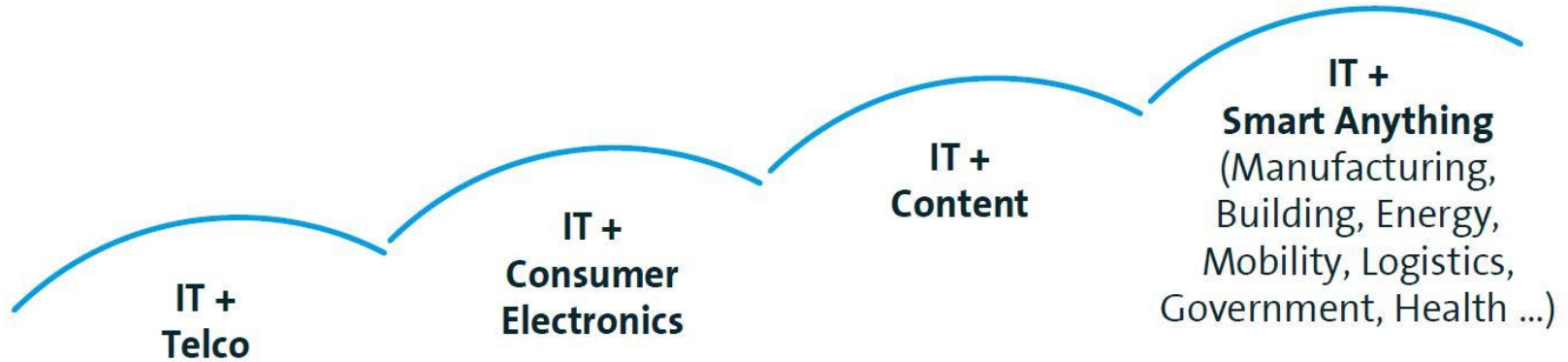
Which statements are applicable in connection with the digitization of your business?



# Aastal 2020 on Eesti heaolu allikaks IKT nutikas kasutamine majanduselus ja ühiskonnakorralduses

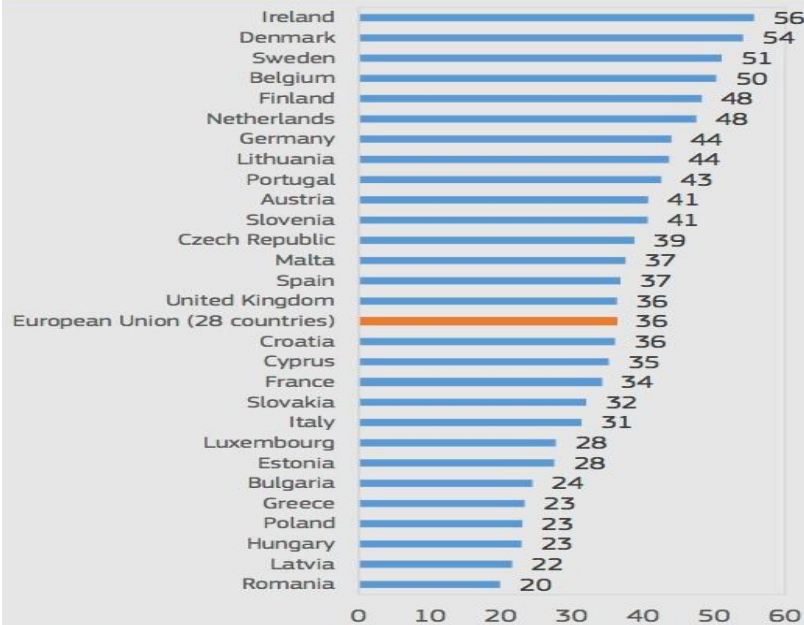


# Four wave of convergence?



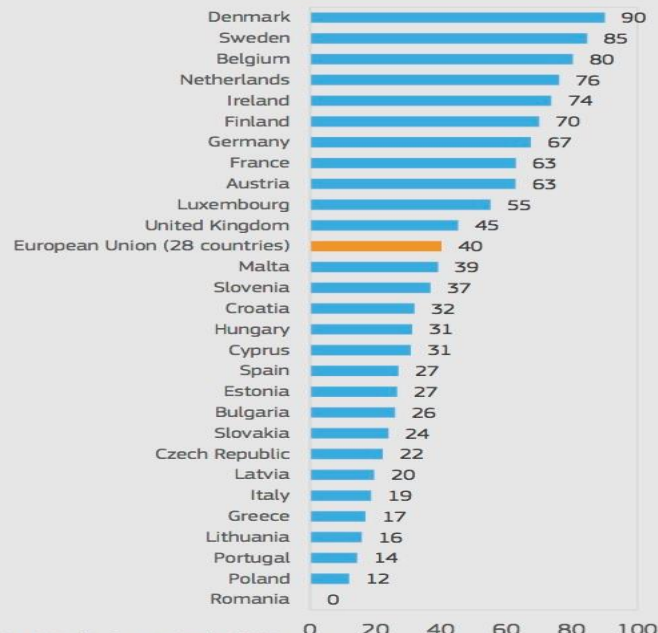
# Eesti positsioon digitechnoloogiate kasutajana

Figure 91: EU Digital Technology Integration Index



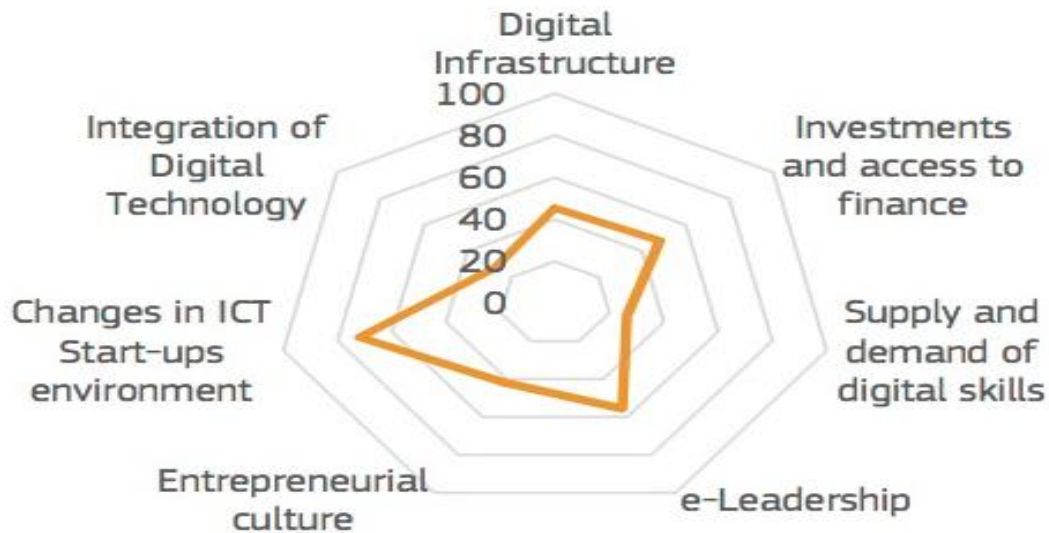
Source: Digital Transformation Scoreboard 2017

Figure 93: Supply and demand of digital skills



Source: Digital Transformation Scoreboard 2017

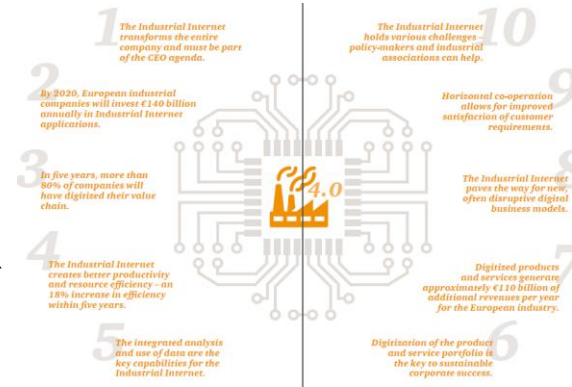
# Eesti suurimad kitsaskohad



*Note: Based on the average of the latest imputed values. Where no data available, the EU average was used.*

# PwC aastal 2014

- Digitized products and service generate 110 billion EUR of additional revenue / year for the European industry
- By 2020 European industrial companies will invest 140 billion EUR annually in Industry 4.0 applications
- In 5 years, more than 80% of companies will have digitized their value chain
- 18% increase of efficiency within 5 years





# Kliendid

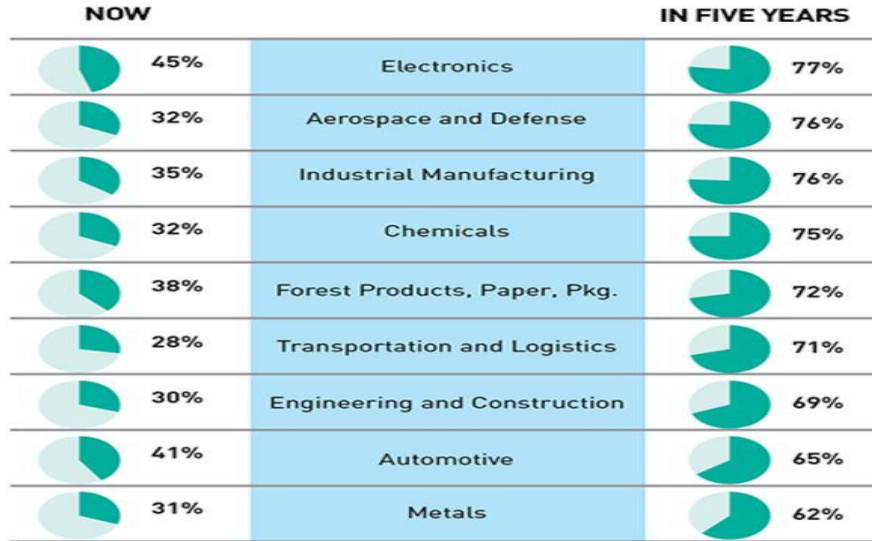
- Tellitava **partii suurused** järjest vähenevad
- **Erinevate toodete arv** järjest suureneb
- Kliendid ootavad järjest **lühemaid tarnetähtaegu**
- Kliendid ootavad **99% tarnekindlust**
- Kliendid ei soovi hoida enda juures **vaheladusid**
- Klientide **surve hindu alandada** ei vähene



# UUTE TEHNOLOOGIATE RAKENDAMINE TÖÖSTUSES TÄNA JA TULEVIKUS

## Exhibit 1: Adoption of Industry 4.0, by Sector

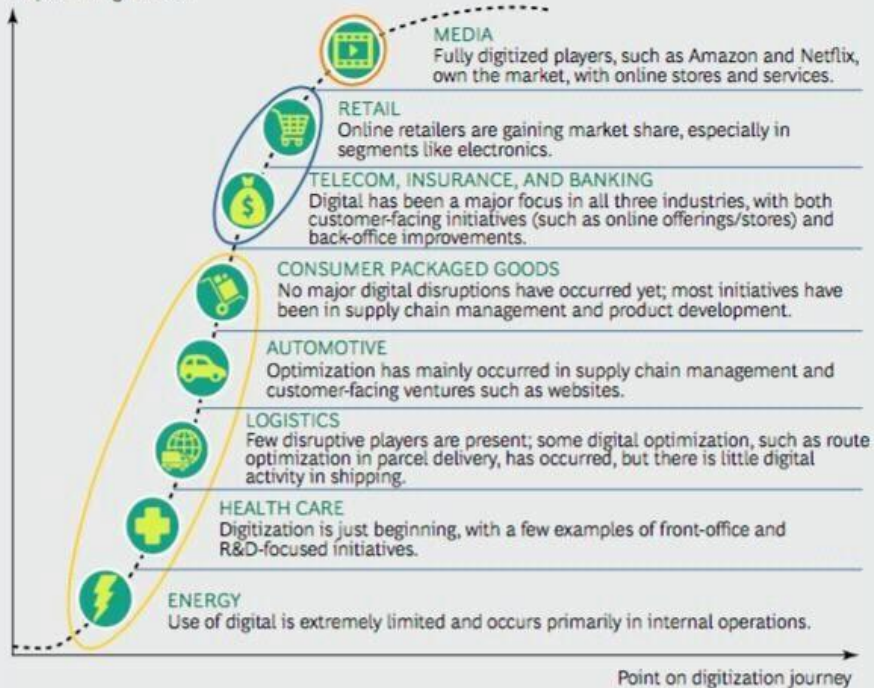
Respondents were asked: "How would you classify the current level of digitization and integration [in operations, supply chain, and related activities] in your company? What levels are you expecting in the next five years?"



Source: "Industry 4.0: Building the Digital Enterprise," PwC

## EXHIBIT 1 | Industries Are at Different Stages in the Adoption of Digital Technology

Impact of digitization



Several major disruptions have occurred

Disruptive moves (by pure online players, for example) have affected these industries, but the final outcome is still to be determined

Effect of digitization is still unknown, and disruptive changes remain to be seen; these industries are very similar in their overall level of digitization

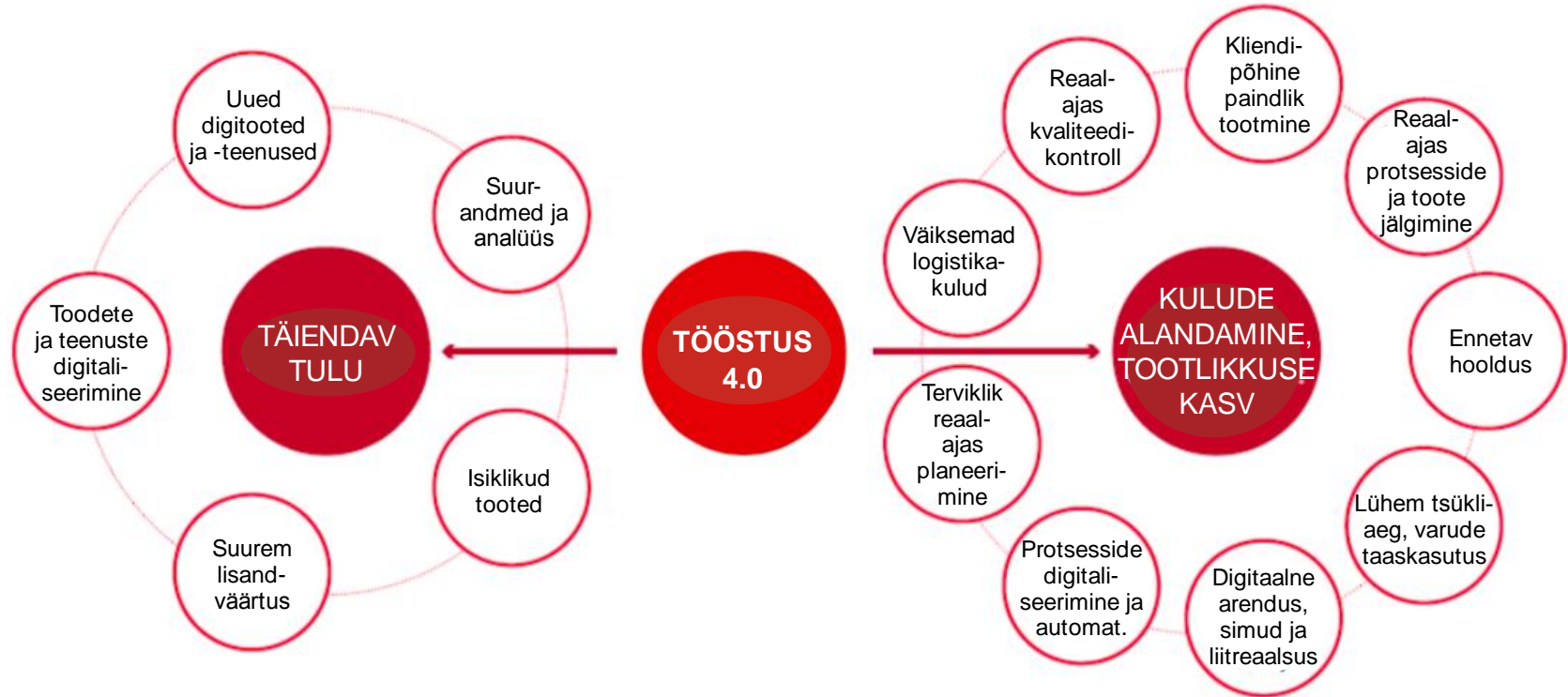
Source: BCG analysis.

# Erinevate tööstusarude digitaliseerimine

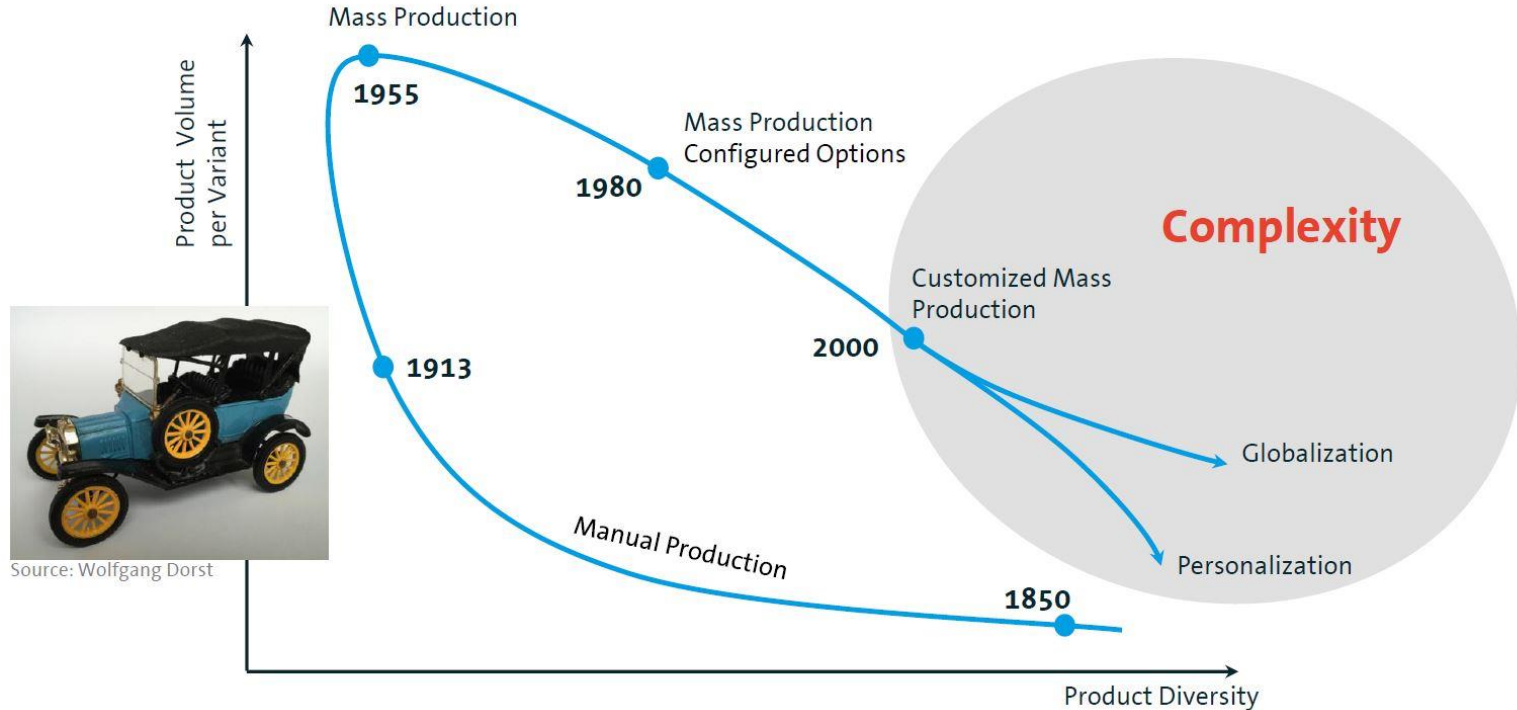
# Tööstus 3.0 vs. Tööstus 4.0

	Tööstus 3.0	Tööstus 4.0
<b>Toode</b>	Madalama lisandväärtusega lihtsad ja passiivsed tooted (toode)	Kõrgema lisandväärtusega intelligentsed tooted (toode+teenus)
<b>Tootmisprotsess</b>	Passiivsed, omavahel seostamata ja töötajate pidevat kohalolu nõudvad plaanipõhised protsessid	Autonoomsed, terviklikud töövooga, enesekontrolliga tootmiskomponendid ja –protsessid
<b>Inimene</b>	Töötajad teevad lihtsat tööd	Töötajad teevad targemat ja kõrgemat lisandväärtust loovat tööd
<b>Seadmed</b>	Erinevad tarkvara- ja seadmete süsteemid ei ühildu, visuaal ja loogikad on erinevad	Täielik ühilduvus, seostatus ning läbipaistev andmete ja info liikumine
<b>Ärimudel</b>	Jäigad ja standardiseeritud äriprotsessid ning väärtusahelad, mis on suunatud masstootmisele	Võime paindlikult äriprotsesse kohandada ja muuta ning personaliseerida
<b>Info liikumine</b>	Andmed on, kuid ei kasutata	Kõigi andmete kasutamine kogu väärtusahelas

# Kasud ?

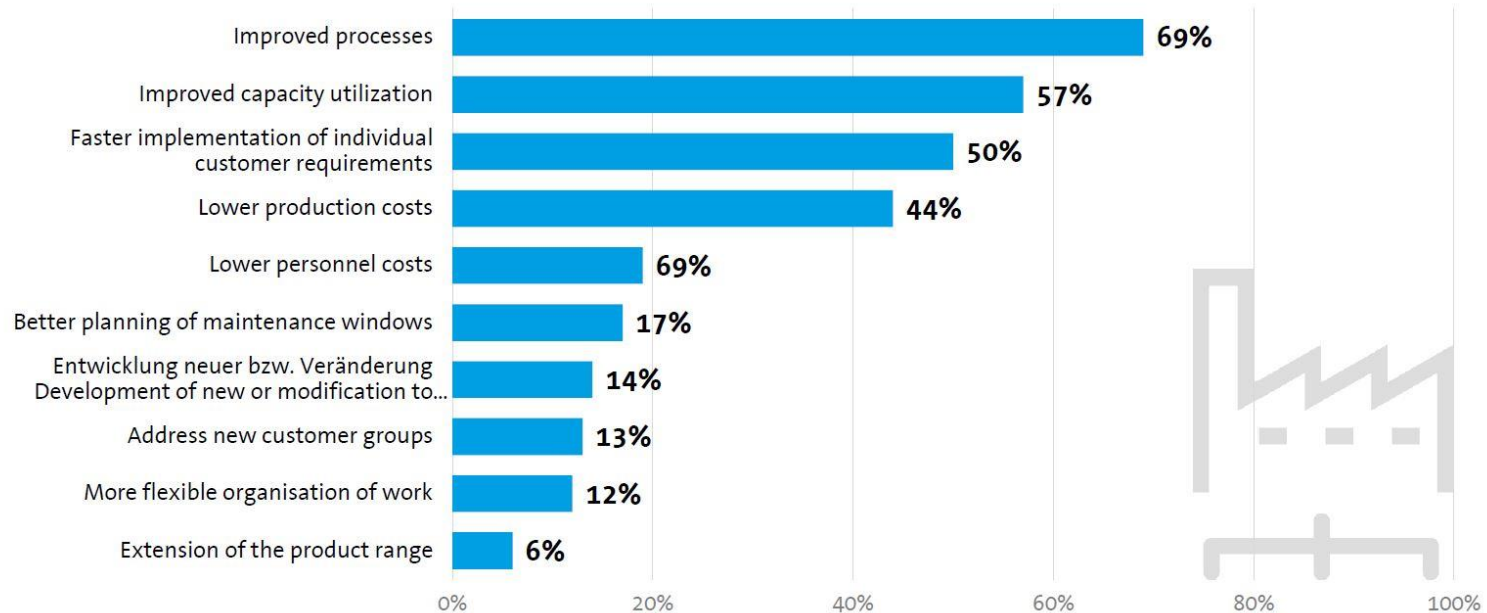


# Motivation – the individualisation of the markets

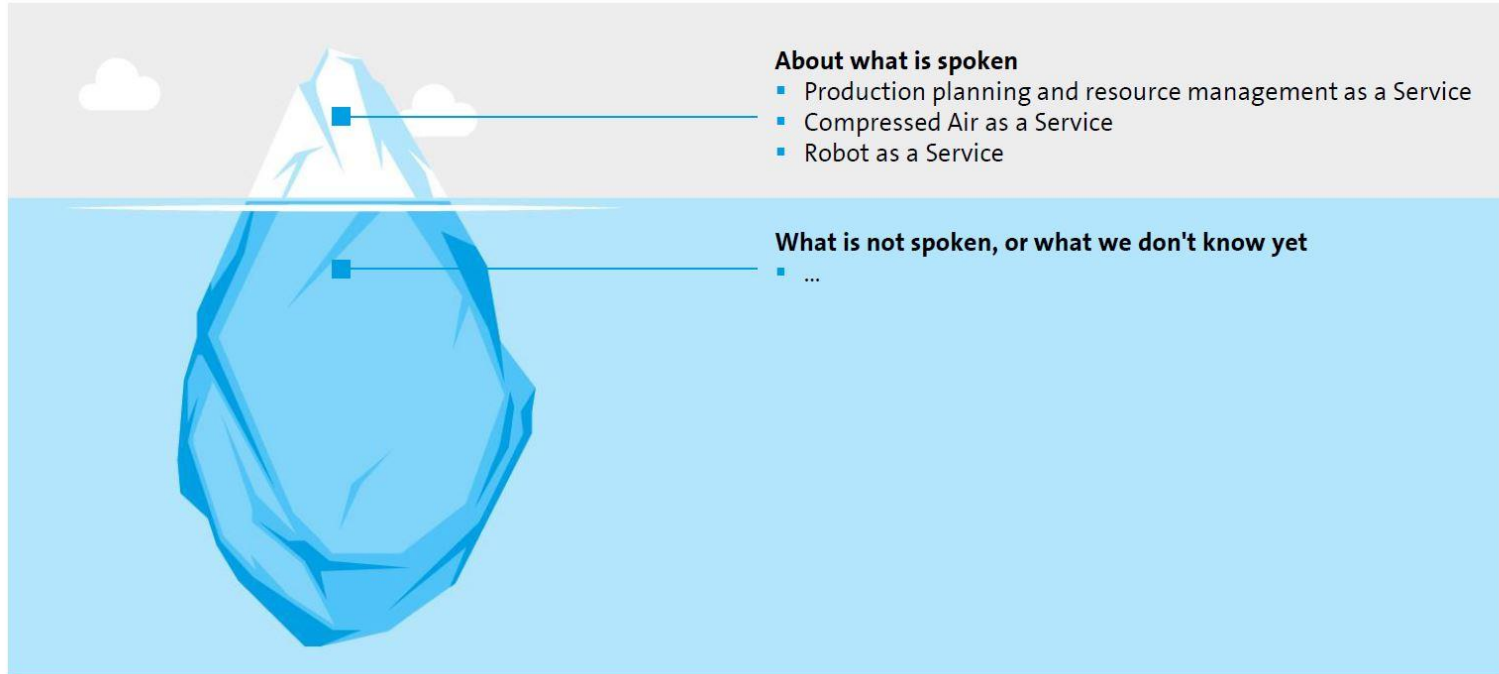


# Top goals: Better processes and capacity utilisation

What goals are you pursuing with the use of industry 4.0 applications in your company?\*



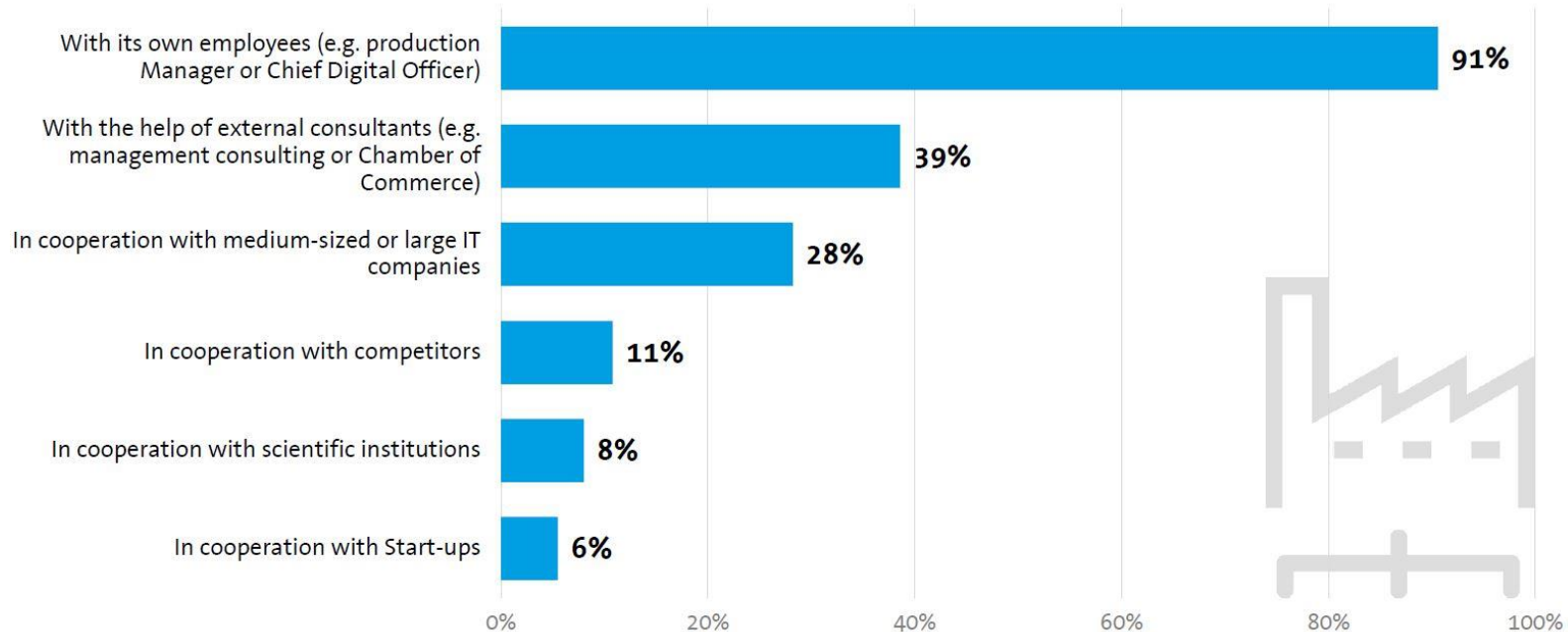
# Business models





# Strategy is primarily development internally

How did your company develop the strategy for Industrie 4.0?



# Where to start?

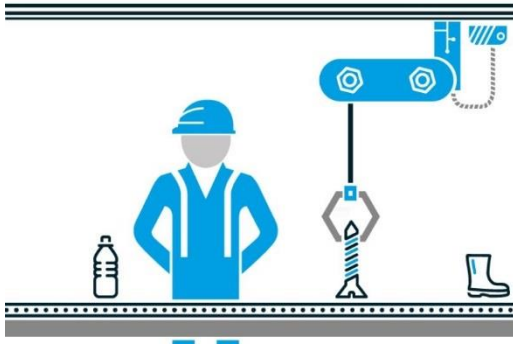
Standing on the shoulders of giants?



Innovation by start-ups?



Internally?



Lighthouse project?



# Lighthouse projects – not powerpoint will unlock your transformation value?

- Lighthouse projects simply focus on implementation, fast delivery and creating a positive culture for digital transformation. A lighthouse project is a
  - short-term,
  - well defined,
  - measurable project that serves as a model — or a “lighthouse” for other similar projects within the broader digital transformation initiative.
- Show, Don't Tell via a Lighthouse Project
- Lighthouse Projects, Not PowerPoints, Will Unlock Your Transformation Value



# Digitalisation requires mastering six fields of action



## Customer

- Customer Experience Management
- Customer Insights
- Multi/Omni Channel Management
- Hybrid Customer Interaction



## Value Proposition

- Smart Products
- Smart Services
- Individualization
- Digital Ecosystems



## Operations

- Integrated IT
- Flexible Operations
- Digital Supply Network
- Digital Manufacturing



## Data

- Data Integration
- Data Analytics
- Data Ownership & Privacy
- Data Security



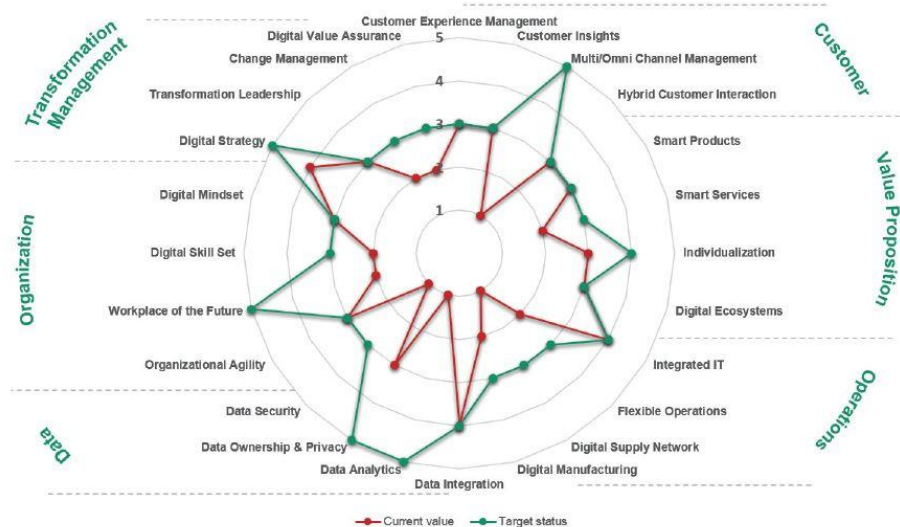
## Organization

- Organizational Agility
- Workplace of the Future
- Digital Skill Set
- Digital Mindset



## Transformation Management

- Digital Strategy
- Transformation Leadership
- Change Management
- Digital Value Assurance

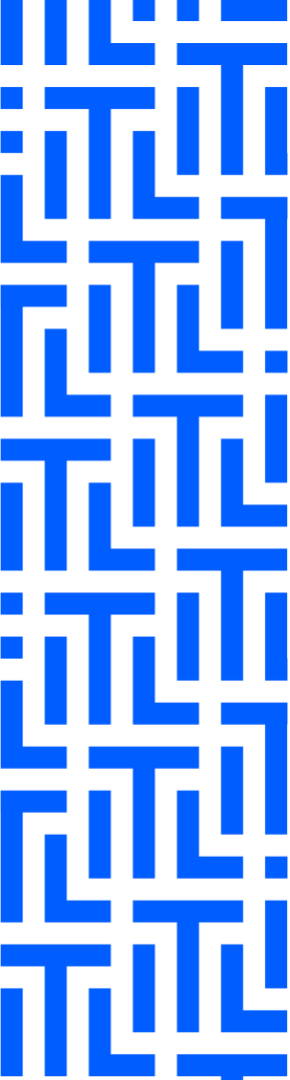


# Management tips for digital transformation

- No customer benefits? No Action! Assure that there is a customer-centric use case for your digital initiatives
- Wherever you are in the supply chain, focus on the end-user
- Focus on people (i.e., users and employees), not on technology
- Smartify your products and extend them by services
- “All digital” will seldom be the winning model; it is about smart digital-physical fusion
- Destroy your business model, before others do
- Being digital is much more than having an app; it is back-end to front-end

# Management tips for digital transformation

- Utilize the collective intelligence of your staff, and then augment it by the wisdom of your customers and partners
- Start with a lighthouse Project
- Digital transformation is about creativity and implementation; technology is not the limiting factor
- Tidy up your room before playing outside – smooth processes, data, and infrastructure are must-haves
- Do not turn everything upside down; digital transformation requires a managed evolution
- Continuously reassess your digital transformation with an eye on the moving target



2017