

# Digital transformation

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What are your expectations about the professor and the course content ?



# My expectations ...

- Interaction
- Challenge ... up to a certain point

There is no wrong question, the only wrong question is the one you  
have not asked

# Do you really want to know ?



« When you don't know  
where you go and why  
you go there, you end up  
lost elsewhere »



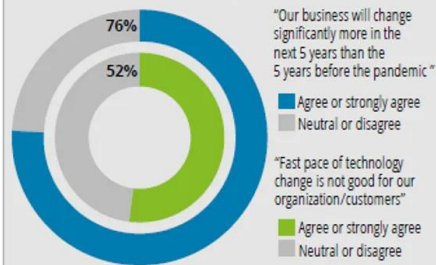
# What are we going to address ?

- Beyond the buzz, what is a true digital transformation
  - Trends, threats and opportunities of the digital era
- Strategic shift
  - Incl. Innovation strategies
- Organizational dimension
  - Incl . human skills
- Toolbox





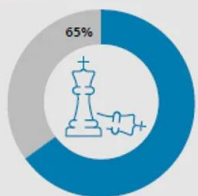
### COVID highlighted challenges of rising uncertainty<sup>1</sup> and accelerating change



### Most respondents agree: companies must digitize in <5 years or face “doom”

“Companies that haven’t digitally transformed within 5 years are ‘doomed’”

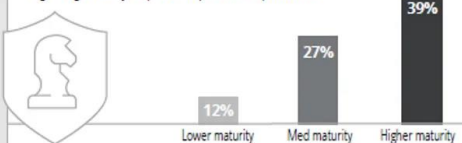
Agree or strongly agree  
Neutral or disagree



<sup>1</sup> Commercial respondents only

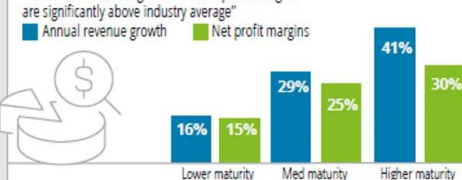
### Digitally mature organizations are more resilient and navigate change better, per our survey

“Digital significantly helped us cope with the pandemic”



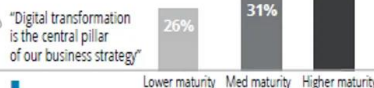
### And they do significantly better financially as a result

“Our annual revenue growth and net profit margins are significantly above industry average”



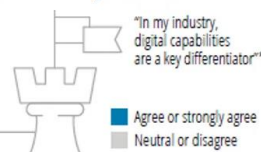
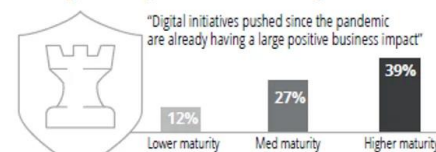
### Higher-maturity organizations also put digital at the heart of strategy

“Digital transformation is the central pillar of our business strategy”



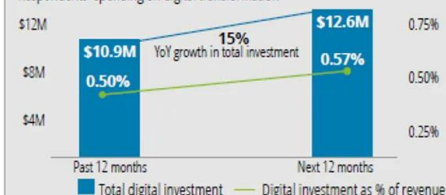
## This enables success by...

boosting resiliency to thrive amid change and uncertainty... and driving differentiation to offer unique value



### Organizations accelerated digital transformation efforts during the pandemic

Respondents' spending on digital transformation

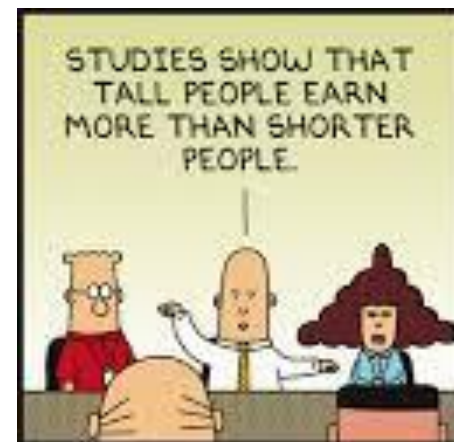


### As digital efforts intensify,

**Digital and Strategy must shape each other**

- Digital creates new where-to-play and how-to-win options
- Digital investments should align with business strategy
- Digital tools (i.e., analytics, simulation tools) can help identify/model new threats and opportunities

# Monkey business



Dilbert.com DilbertCartoonist@gmail.com

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## Directors





# Digital transformation is like teenage sex

- Everyone is talking about it all the time
- Everyone thinks everyone else is doing it
- Those who are doing it are :
  - Doing it poorly
  - Sure it will be better next time
  - Not practicing it safely
- Everyone is bragging about their successes all the time, even though few have experienced success or done it all



90% OF CEOS BELIEVE THE DIGITAL ECONOMY  
WILL IMPACT THEIR INDUSTRY, BUT LESS  
THAN 15% ARE EXECUTING ON A DIGITAL  
STRATEGY.

MIT SLOAN AND CAPGEMINI

- « 40 % of the company who are supposed to be active in AI, are not at all »
- « Start-ups who claim to be active in AI attract between 15 to 50 % more funding »
- Most of the rest simply conduct experiments (Chatbot, ChatGPT, ...) and not full scale AI operations



Kolibree

# Why, what and how ?

- This lecture will the *why* and the *macro how*



# Why ?

- Innovation
- From Michael Porter competitive advantage to Blue Ocean
  - Being cheaper or better to being fundamentally and systematically different

# Macro how

- Numerization -> analogical information in numerical format -> data
- Digitalization -> data treatment with digital technology to change/improve the process.
- Digital Transformation
  - Strategic vision part, and often the cornerstone, of the global strategy



**JOHN DEERE**

We  
innovate  
on behalf  
of  
humanity

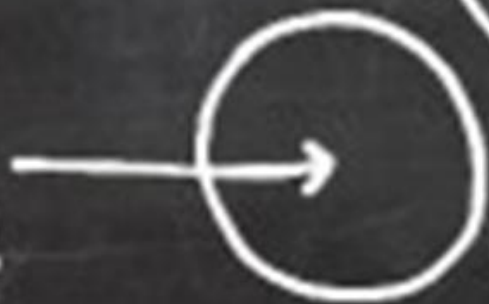


# What is digital transformation ?

- It's about new business models and new business performance
  - It's about innovation
  - It's about customers' experience
  - It's about totally new mindsets
- 
- It's not about numerization, digitization, tools, IT, ...
  - It's not an inconsistent collection of IT/digital experiments
- 
- It's about why you do it and not how !



Your  
Comfort  
Zone



Where the  
magic happens

The context

VUCA ?

Volatility  
Uncertainty  
Complexity  
Ambiguity

# Context









# VUCA

- Middle age was horizontally linear
- End of middle age up to the Renaissance was characterized by upward steps
- XIX & XX centuries had an upward linear trend (industrial revolution)
- XXI century : welcome to VUCA ... end of growth ?

Agriculture

Industrial

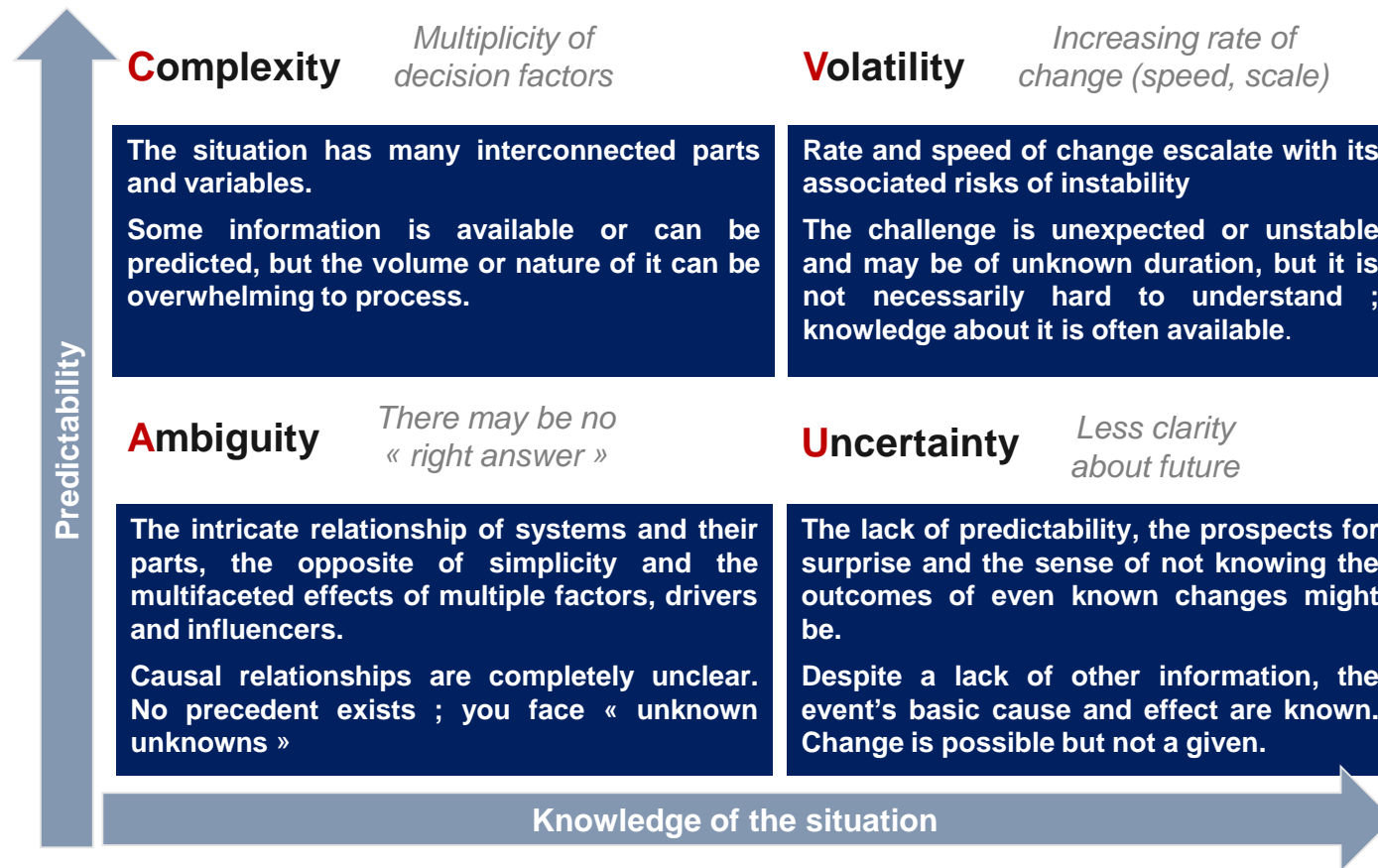
Information / data

- 19th & 20th centuries
  - Economies of scale
  - Efficiency
    - Up to 1980 automation from blue collars
    - From 1980 automation for white collars as well

Automation = static, stable, fully mastered, batch

- 21st century
  - Complexity
    - Cooperation
      - Dynamic solutions & Digitalization
      - Coopetition

Digitalization = flexibility, customization, tracking, ...



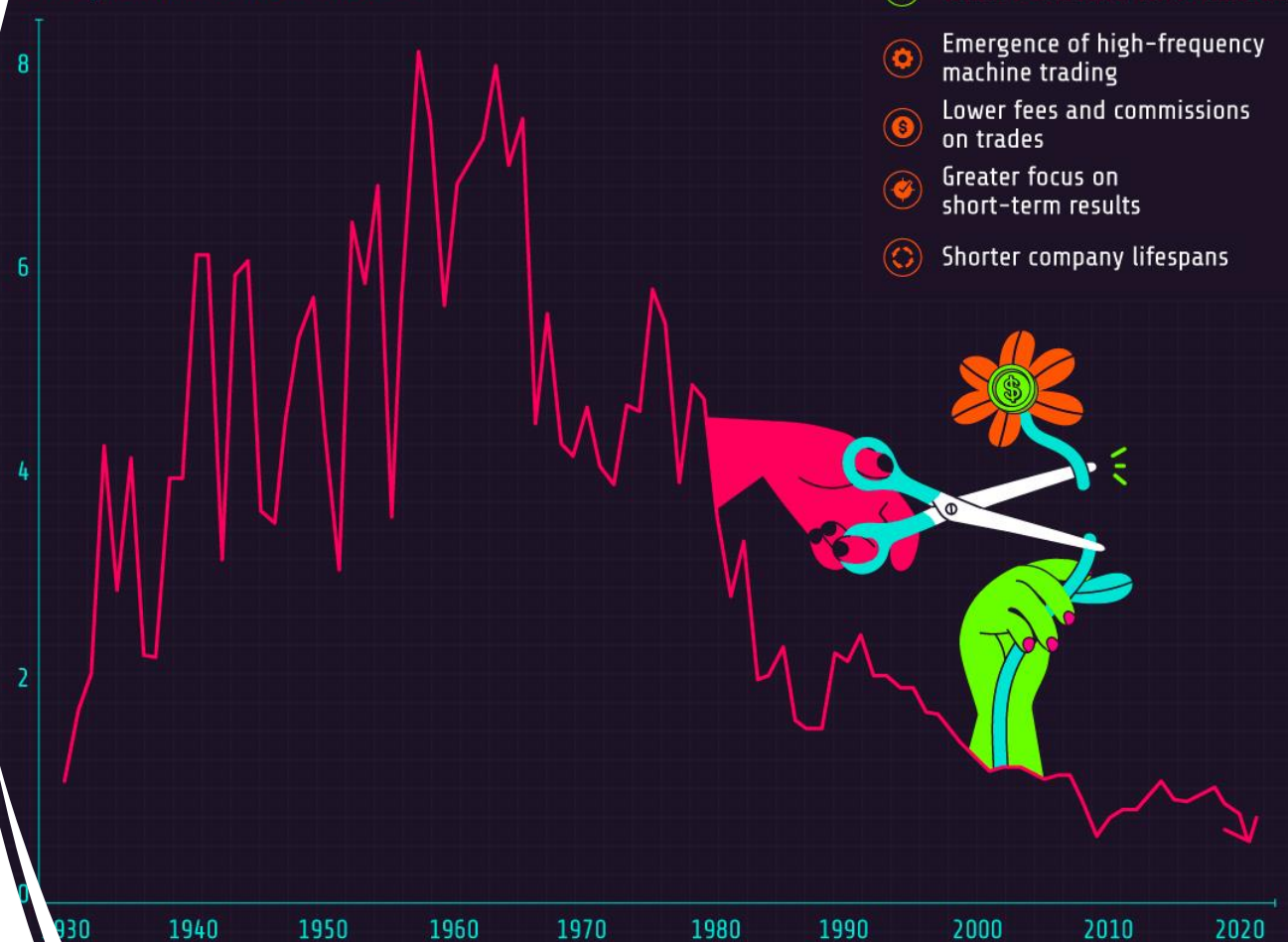
# Volatility

- From 8 years to 5,5 months

## DECLINE OF LONG-TERM INVESTING

The average holding period of shares on the New York Stock Exchange has fallen to **new lows**.

Holding Period of Stocks in Years —



### WHAT'S DRIVING THIS CHANGE?

- Emergence of high-frequency machine trading
- Lower fees and commissions on trades
- Greater focus on short-term results
- Shorter company lifespans

Note: Holding periods measured by value of stocks divided by turnover

Source: NYSE, Refinitiv

# Uncertainty

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## 6 Macro Factors Will Reshape Business This Decade



[gartner.com](https://www.gartner.com)

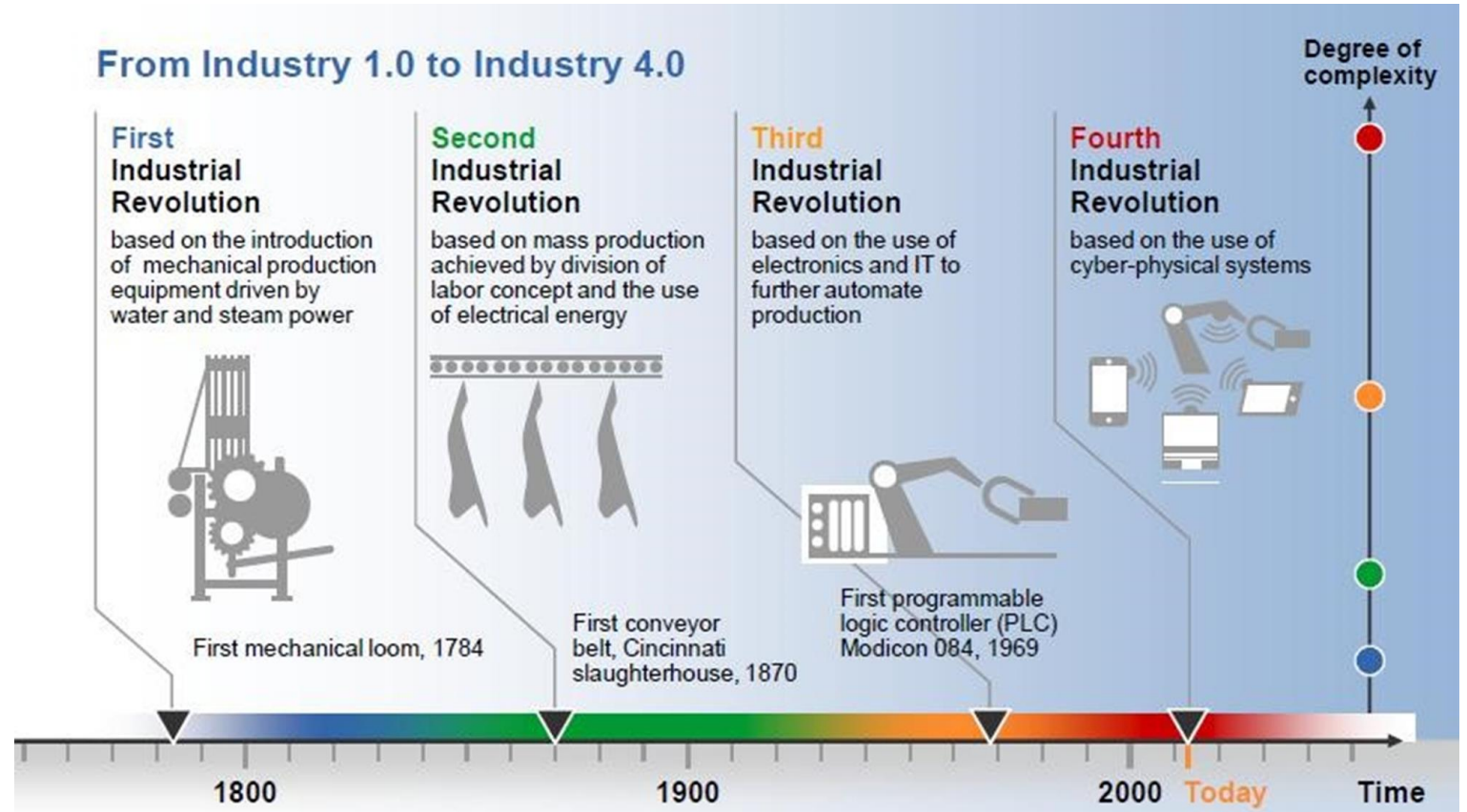
Source: Gartner  
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**Gartner**



# Complexity

What does an engineer master ?



# Ambiguity

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Wher are we heading to ?



## HOW TO NAVIGATE IN A VUCA WORLD ?

### **V**olatility

Prepare for WSHF and hope for the best  
Stop seeking permanent solutions

### **U**ncertainty

Work on different scenarios  
Invest in information, collect, analyse and share it  
Trial and error

### **C**omplexity

Develop collaborative leaders  
Move to open innovation, open source

### **A**mbiguity

Listen and Communicate clearly  
Ensure your intent is understood  
Experiment  
Make assumptions