

# Vision Development

## The University of The 21<sup>st</sup> Century



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21 January 2025 – NCEE

# About me



## Prof. Dr. Bruno Tindemans

- **Chief Foresight Officer**, Government of Flanders (Brussels, BEL)
- **CEO Syntra** (2012-2029)
- **Visiting Professor** Erasmus University, R'dam (NL)
- **Founder**
  - [Flanders Business School](#) (acquired by KULeuven, BEL)
  - Futures Research Center (UGhent, BEL)
  - Uncharted Company: strategy consulting (EU)
  - [Talentguide.com](#), AI startup for strategic workforce planning with IMEC (BEL)

Entrepreneurship =

“The pursuit of opportunity beyond the resources you currently control”

Prof. Howard Stevenson, Harvard University

Organizational or Institutional Entrepreneurship =  
Entrepreneurship in an existing organization

Organizational Entrepreneurship =

Organizational behavior characterized by:

1. Innovativeness
2. Competitive aggressiveness
3. Risk-taking
4. Autonomy
5. Pro-activeness

Source: Lumpkin & Dess, 1996

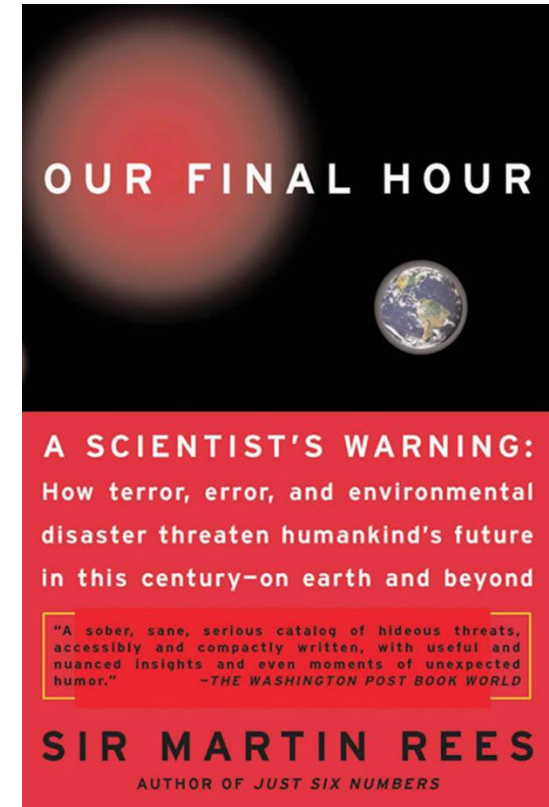
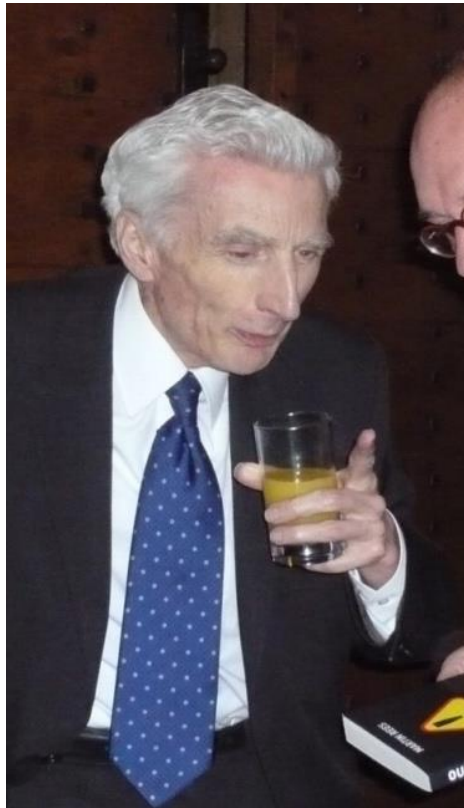
Focus on Pro-activeness  
(future orientation)

= Sense making activity

# Thinking the unthinkable



# Thinking about the unthinkable

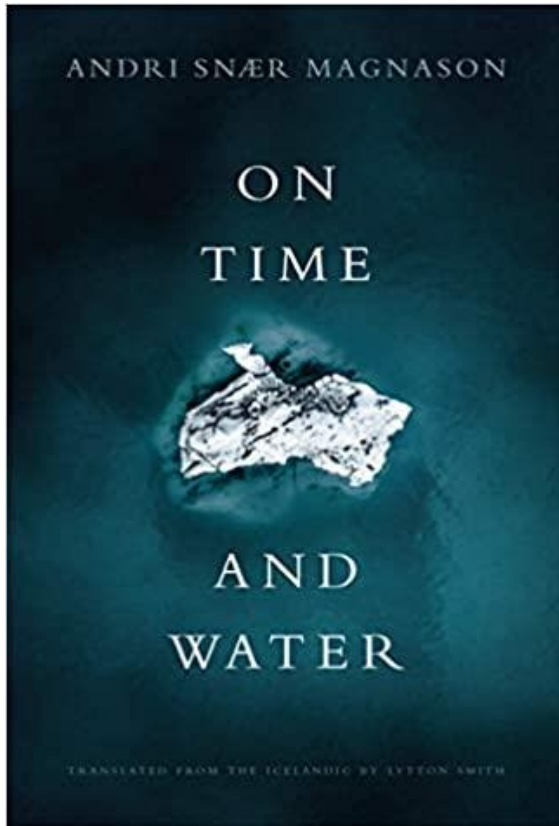


Lord (Martin) Rees of Ludlow,  
PRS

*Divinity School, Oxford,  
2009*



# Thinking about the unthinkable

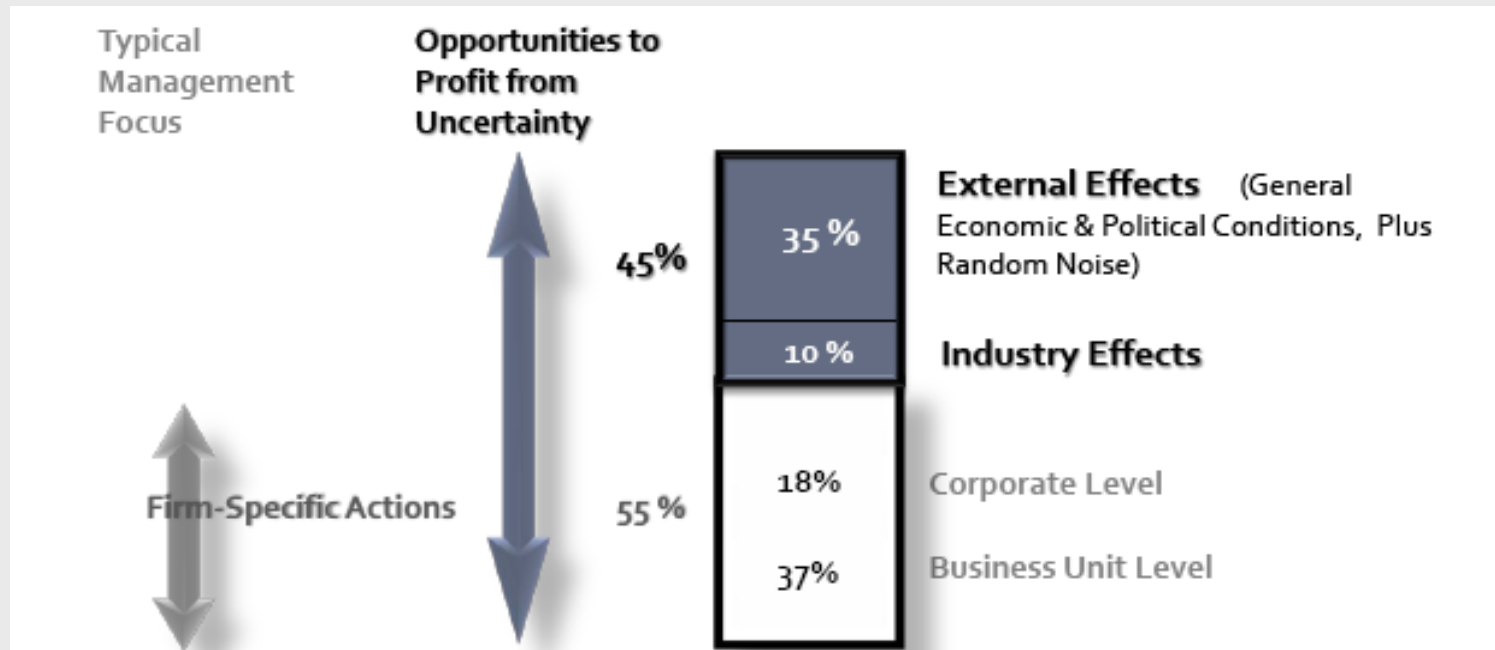


On Time and Water (2020) by [Andri Snær Magnason](#)

These high-speed changes, including the rise of the world's waters, will alter life irrevocably within a more familiar time frame:

“All this will happen during the lifetime of a child who is born today and lives to be my grandmother's age, 95.”

# Half of the company left to fate...?



The percentages refer to how much of the variance in ROA (return on assets) is due, on average, to various influences. The data, over 100 US manufacturing firms, consisting of at least two strategic business units covering 160 industries.


Source : Jaime Roquebert et al. (1996), Strategic Management Journal, Vol. 17 (8).



# SOCIETY AS A HIGH COMPLEX AND INTERDEPENDENT SYSTEM IN TRANSITION



# Making better predictions...



11:30  
Safari

## Ben Bernanke to lead Bank of England review into forecasting

Appointment of former Fed chair follows criticism of UK's central bank for failing to predict persistence of inflation



Ben Bernanke said he was delighted to be leading the work © Al Drago/Bloomberg

By **Delphine Strauss** in London JULY 28 2023 176

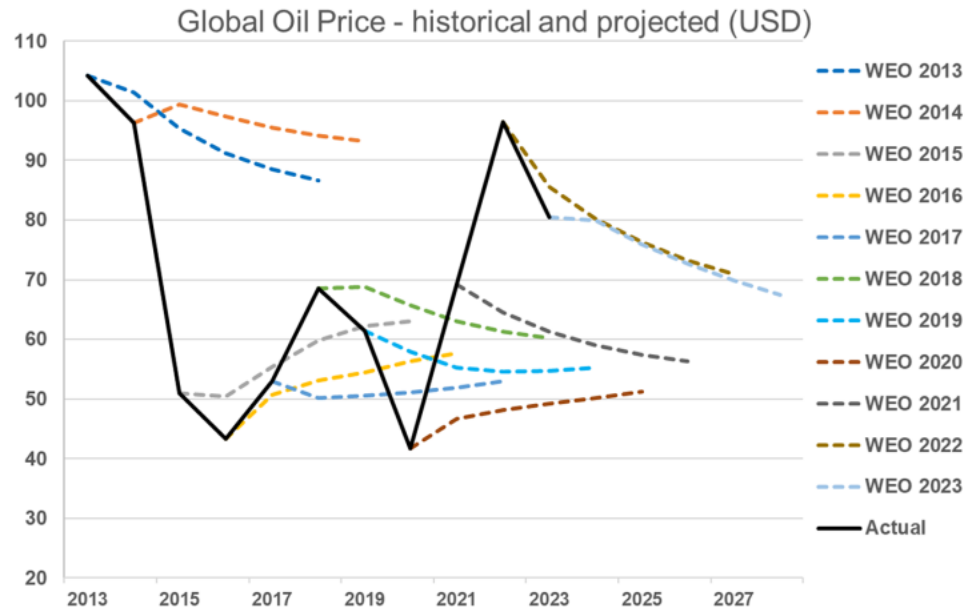
 **Listen to this article**  
3 min listen

The Bank of England has asked former US Federal Reserve chair Ben Bernanke to review its economic forecasting after it came under heavy criticism for underestimating inflation.

# Making better predictions...



## OIL PRICES ARE MORE DIFFICULT TO PREDICT



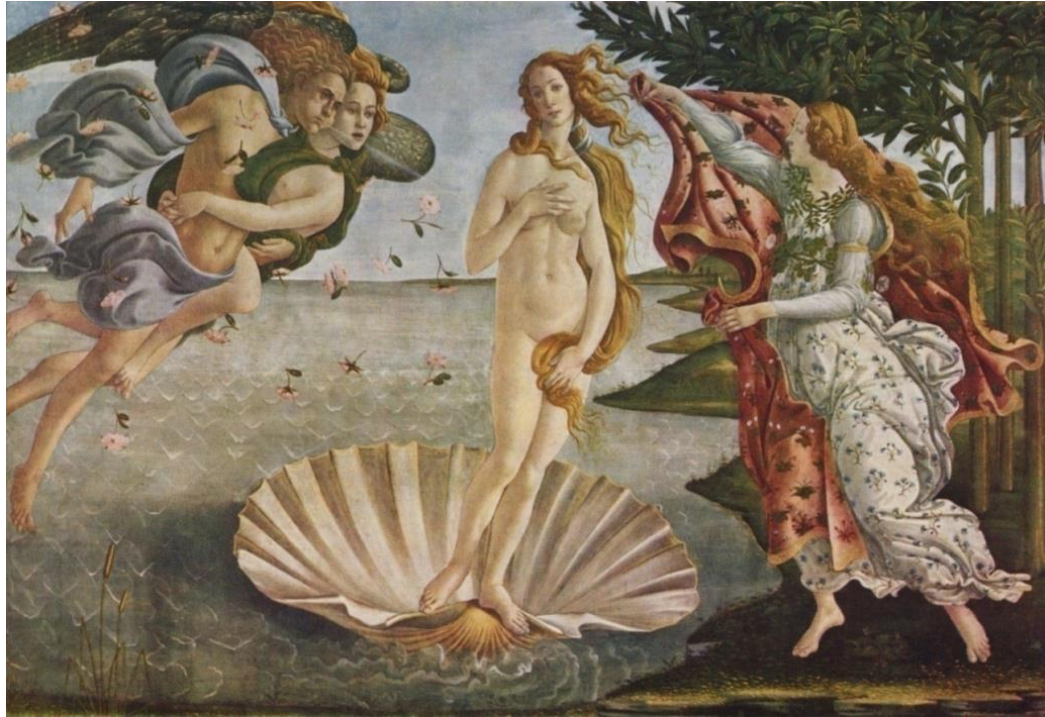
Source: World Economic Outlook Database, 2013-2023

4



## About *wicked* problems...

People see different environments or see the environment differently



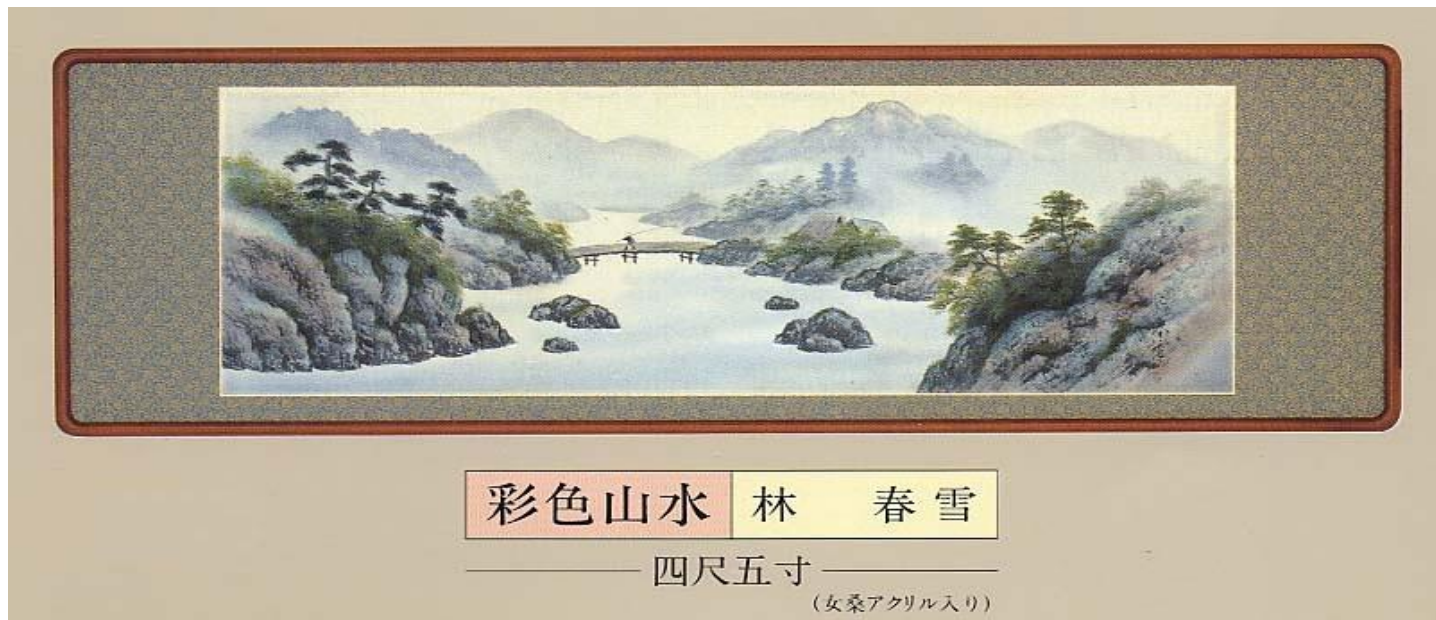
Traditional Western Painting (Venus by Sandro Botticelli):

**Find the context around the individual...**

Prof. Richard Nisbett

## About wicked problems...

People see different environments or see the environment differently



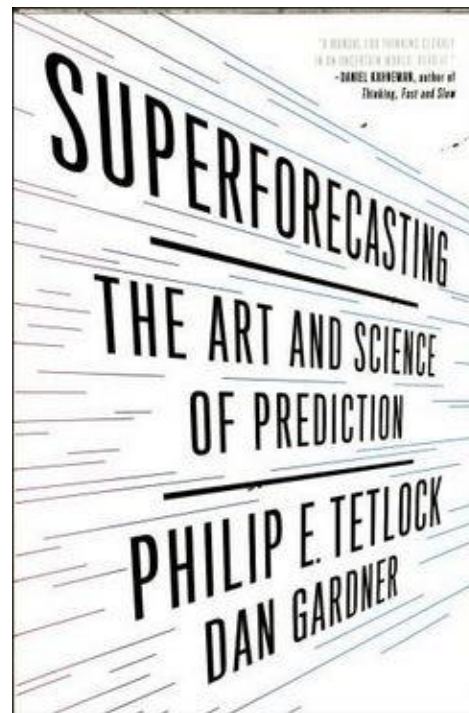
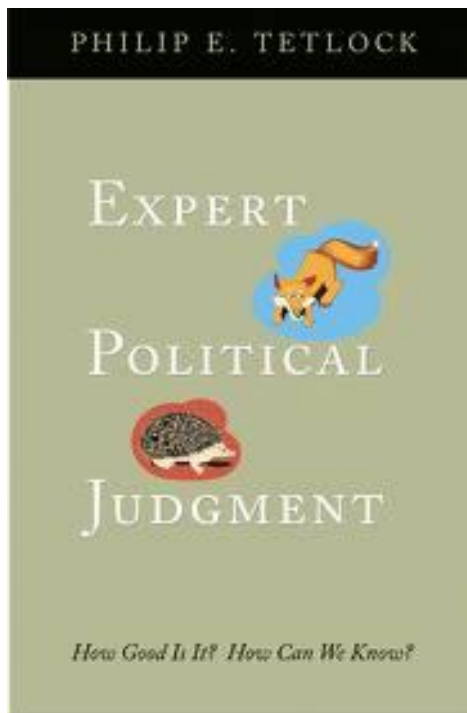
Traditional Chinese Sanshui Painting ("mountain & water"):

**Find the individual in the context...**

Prof. Richard Nisbett

# About *wicked* problems...

About hedgehogs and foxes



**Professor Philip Tetlock**  
University of Pennsylvania



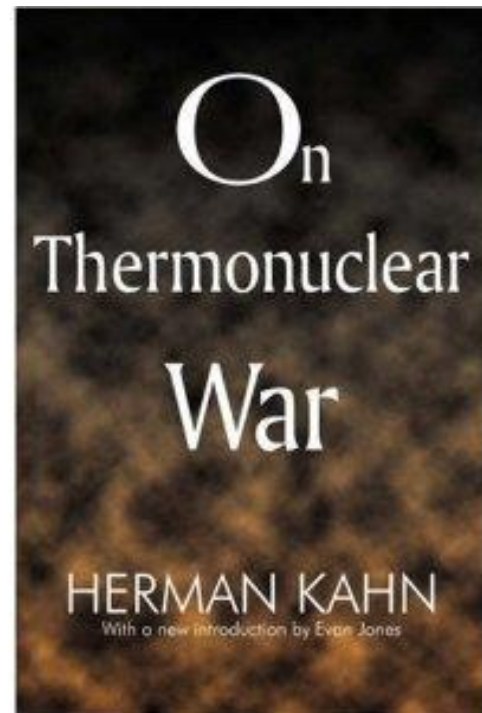
## **About *wicked* problems...**

About hedgehogs and foxes

### **Research by Professor Tetlock:**

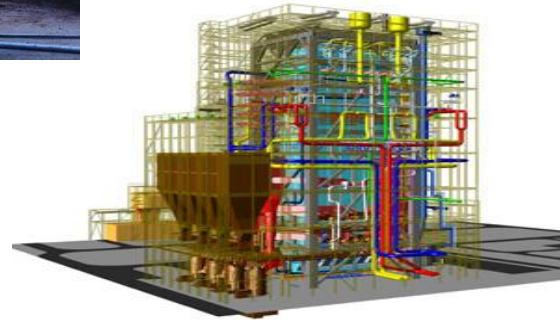
- How come experts are so often wrong in their forecasts?
- What constitutes good judgment in predicting future events?
- Which styles of thinking are more successful in forecasting?
- How to judge if someone gives trustworthy advise?

# Thinking about the unthinkable



# About wicked problems

The problem with problems...



Prof.dr.Keith Grint (2008) “Forward to the Past or Back to the Future?” In Mapping the Management Journey, Dopson, S., Earl, M., Snow, P.(Eds), Oxford University Press.

Increasing complexity, uncertainty, and speed of change (in the context)

# What kind of leadership is needed?

- Focus on asking the right questions
- Open up team to external experts and developments
- Collaborative effort
- Organize for data collection/interpretations of the future environment
- Constant effort
- Regular and documented strategic conversations (mixed team with knowledge institute)
- Make followers face up to responsibilities

# Drivers of Change in Higher Education

## **1. Technology**

## 2. Work in the Future

3. Globalization - Deglobalization
4. Demographics
5. Sustainability: going Green
6. Economic pressures
7. Changing student expectations
8. Policies and regulations
9. ...

# 1. Promising Technologies with Transformative Impact

1. Quantum Technology

2. Bio and Human Enhancement Technologies (BHET)

3. New Materials and Advanced Manufacturing (Nano)

Source:

[https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/4/pdf/190422-ST\\_Tech\\_Trends\\_Report\\_2020-2040.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/4/pdf/190422-ST_Tech_Trends_Report_2020-2040.pdf)

## 2. Disruptive Technologies Impacting Work (2024-2035)

1. Robotics and Autonomous Systems
2. New Energy Sources and Propulsion Technologies
3. Big Data and Artificial Intelligence
4. Space and Hypersonic Technologies

Source:

[https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/4/pdf/190422-ST\\_Tech\\_Trends\\_Report\\_2020-2040.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/4/pdf/190422-ST_Tech_Trends_Report_2020-2040.pdf)

# 3. Technological Convergence Creating Greater Impact

1. Data + AI + Autonomy
2. Space + Hypersonics + Materials
3. Space + Quantum
4. Data + AI + Biotechnology

Source:

[https://www.nato.int/nato\\_static\\_fl2014/assets/pdf/2020/4/pdf/190422-ST\\_Tech\\_Trends\\_Report\\_2020-2040.pdf](https://www.nato.int/nato_static_fl2014/assets/pdf/2020/4/pdf/190422-ST_Tech_Trends_Report_2020-2040.pdf)



# Drivers of Change in Higher Education

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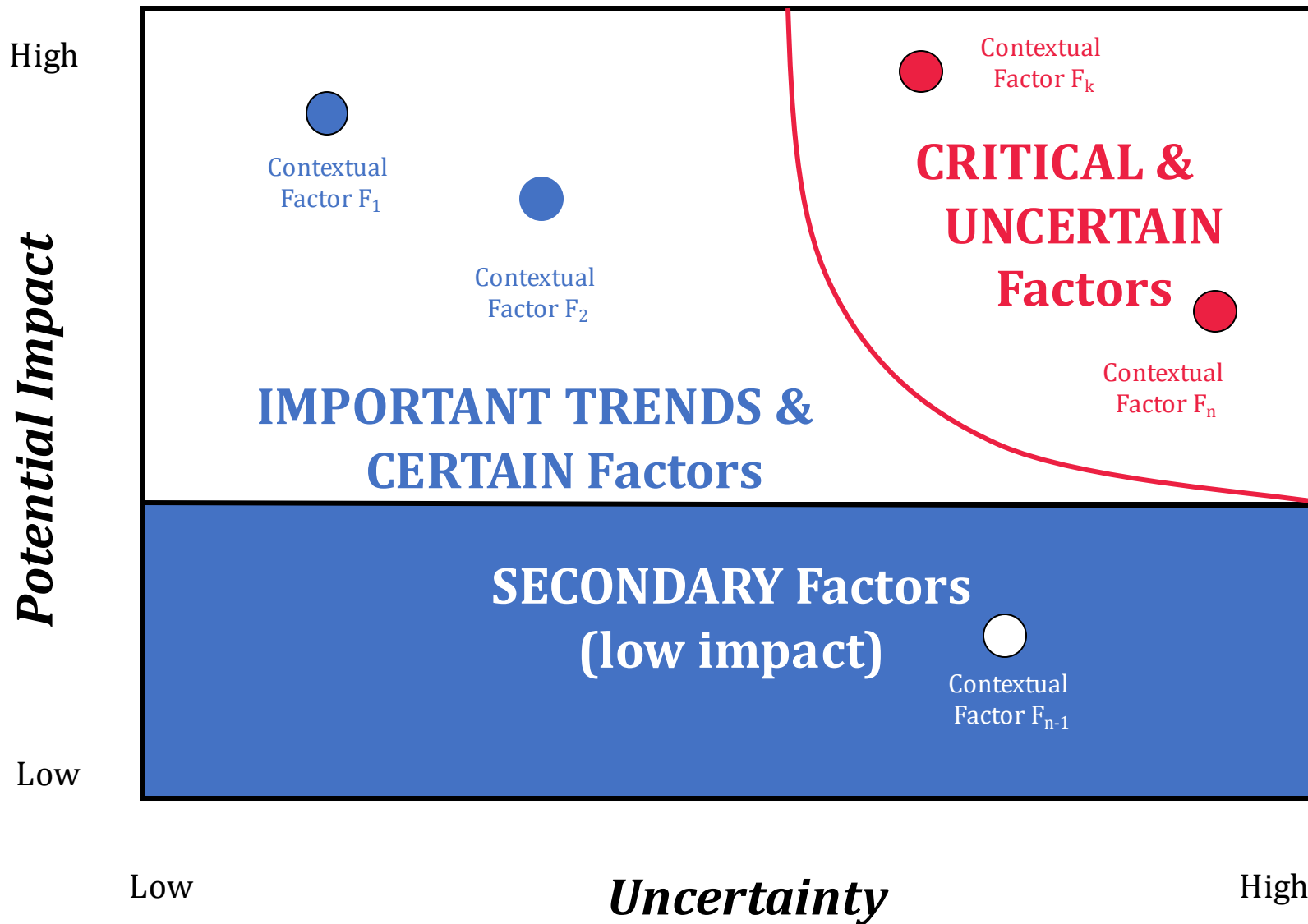
- Climate Change and Green Transition
- Globalization, Local Anchoring, and Energy Scarcity
- Geopolitical Shifts
- Aging Population and Migration Complexity
- Shifts in Work Values, Behavior, and Motivation
- Growing Importance of Well-being and Resilience
- Increased Uncertainty and Political Engagement
- Technological Acceleration

**However,**  
**success in the future depends not on the study of**  
**the future but on the **future success of decisions****  
**taken today**

# Methodology

No Future without method

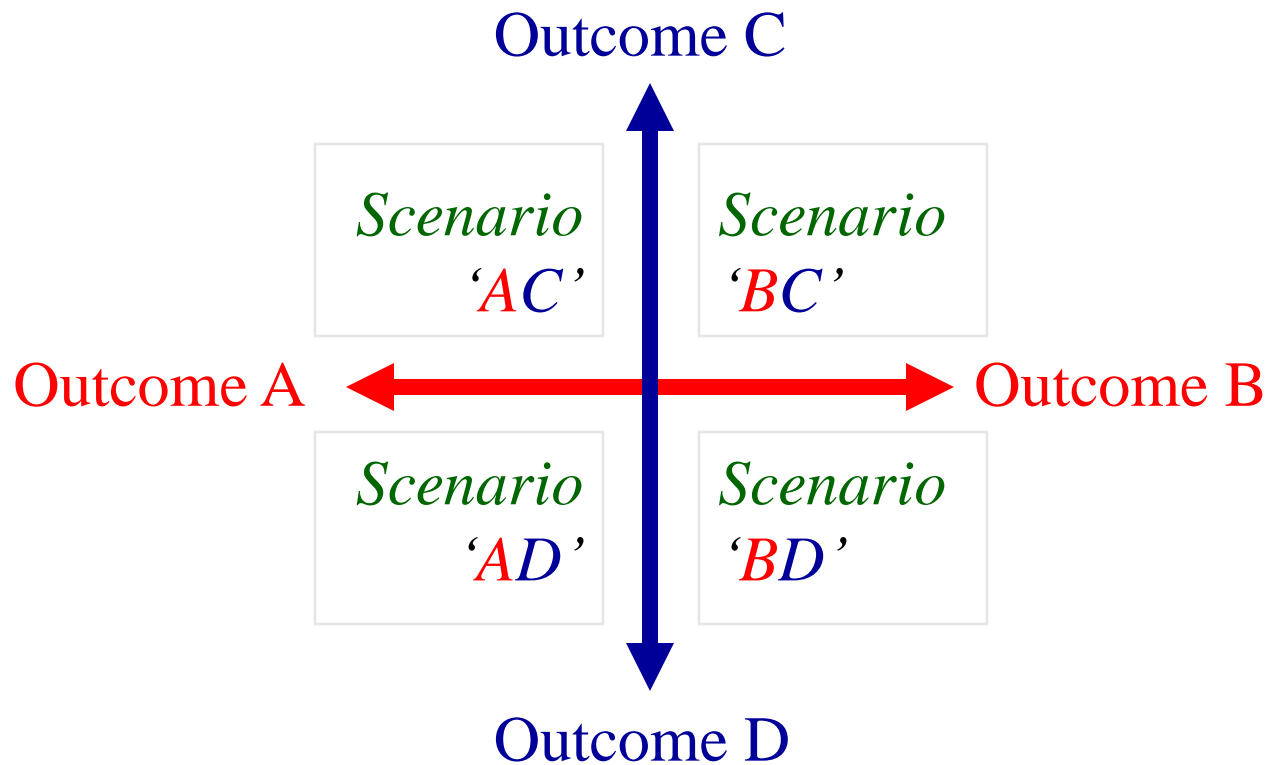
# The impact/uncertainty matrix



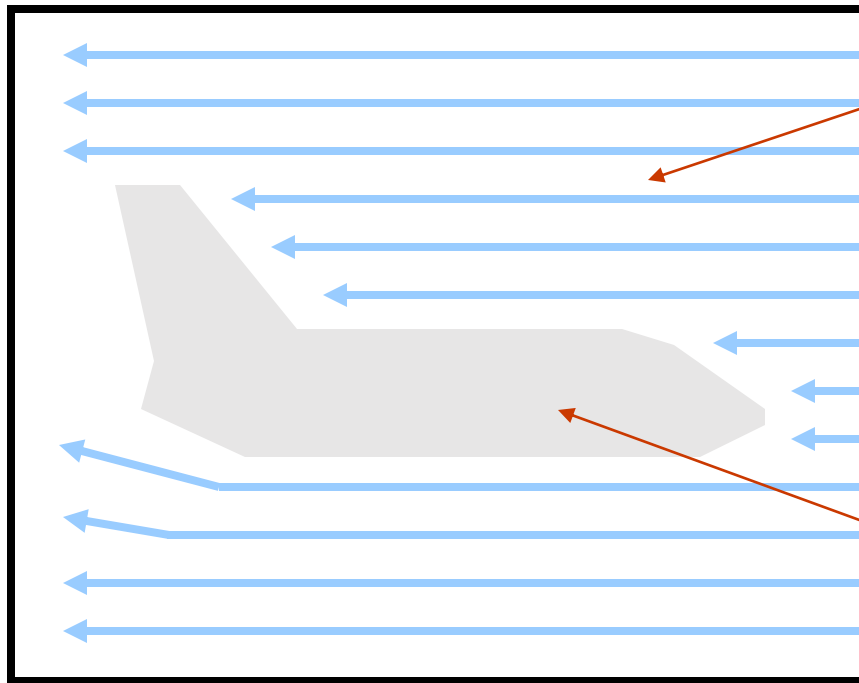
Source: based on Van der Heijden (2005)

# Creating EXTREME scenarios:

The two scenario axes are combined to create a matrix



# Scenarios & wind tunneling



conditions in the wind  
tunnel  
=  
scenarios

aircraft model  
=  
intended or possible policies

Source: Hardin Tibbs

**The more uncertain the future, the more  
foresight thinking is needed**



# Do you bring the future into your organisation?

- **How** do you increase proactiveness in a turbulent environment?
- **How** to orient the organisation more towards the future?
- **Where and when** do you organise for informed strategic conversations on the future environment of your institutions?
- **Where** do we develop strategic visions on plausible future environments of your organisation?
- **How** do you monitor the context by identifying weak signals of change?
- **Where and how** do you make sense of these signals as to make things clear and enable the creation of options and take positions proactively before others do?

Thank You!



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