



# IAOM Sustainable Food Security in a Changing Climate

## Sustainable Food Security in a Changing Climate

25 September 2024 – Baku



An aerial photograph of a two-lane highway cutting through a dense forest. The road is flanked by metal guardrails. Two cars, one white and one dark, are visible on the road. The trees are a mix of green and yellow, suggesting an autumn setting. A large orange banner with white text is overlaid on the left side of the image. There are also small orange and pink squares in the top corners and a yellow square in the bottom right corner.

Xoş Gəldiniz

# Participants



**Gözde Sağlam**

Senior Sustainability Manager, PwC Türkiye



**Ali Kırallı**

CEO, TMEX, Türkiye



**Sabina Mammadli**

Head of Department, Ministry of Economy of the Republic of Azerbaijan



**Şevval Barut**

Sustainable Pest Control Manager, BERVA/Environment and Health



**Charles Loubersac Dhotel**

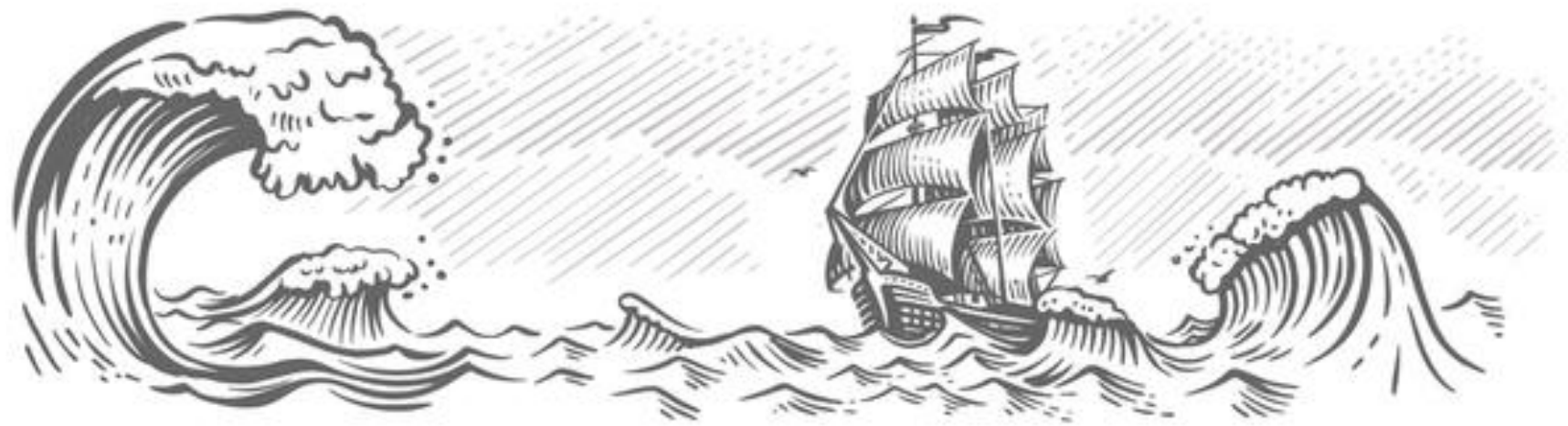
Sales Manager “Sampling grain according to international standards, TPLG | Tout pour le Grain

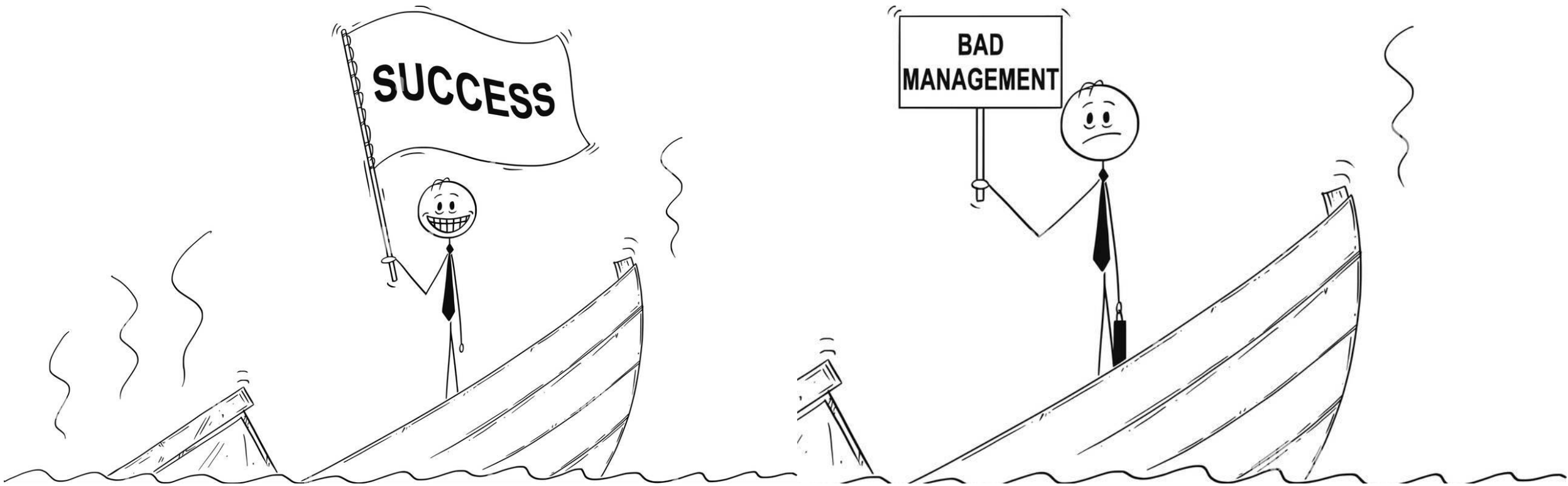


**Vladimir Wengorz**

Head of Customer Technical Service bei Muehlenchemie GmbH & Co. KG







**sustainability**



**sustain-ability**





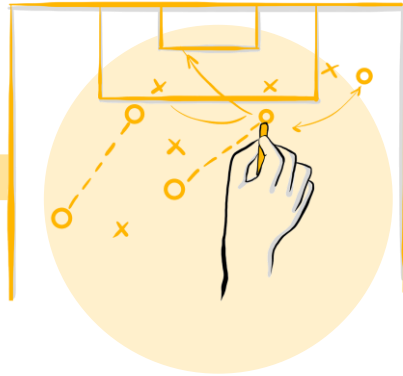
# Key Conversion Factors

1



**Investor Interest  
and Questions**

2



**Effective and  
Efficient Risk  
Management**

3

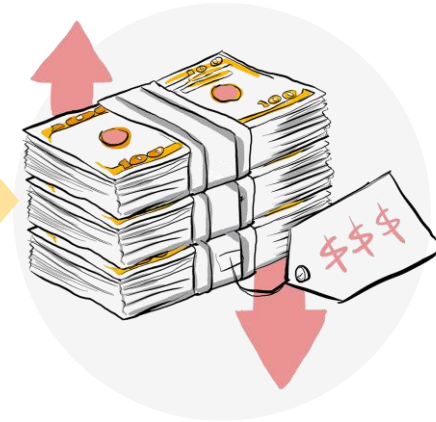


**Customer  
Demand**

4



**Employee  
Demand**



**Financial  
Return**



# Key Conversion Factors



**Investor Interest  
and Questions**



**PwC Global  
Investor Survey  
2023**

**75%**



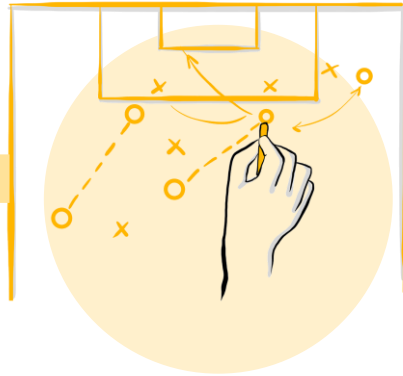
# Key Conversion Factors

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**Investor Interest  
and Questions**

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**Effective and Efficient  
Risk Management**

3

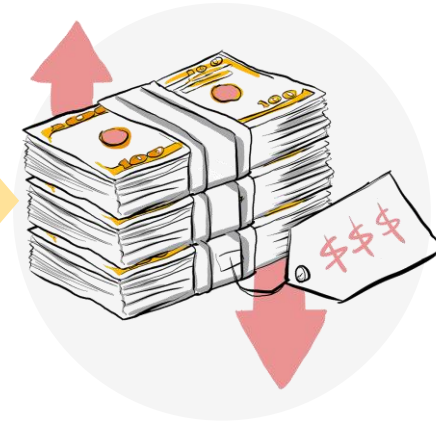


**Customer  
Demand**

4



**Employee  
Demand**



**Financial  
Return**



# Key Conversion Factors



**Employee  
Demand**



**PwC Global  
Investor Survey  
2022**

**83%**



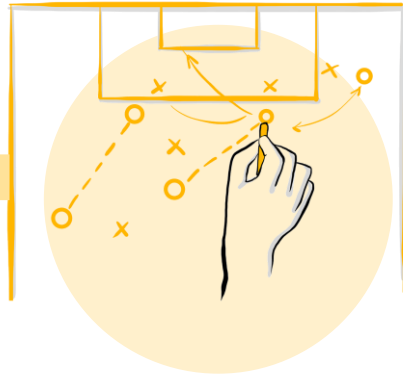
# Key Conversion Factors

1



**Investor Interest  
and Questions**

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**Effective and Efficient  
Risk Management**

3

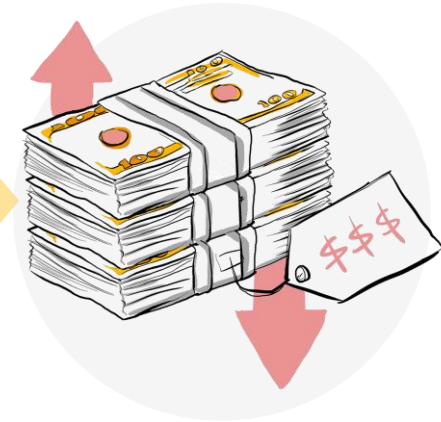


**Customer  
Demand**

4



**Employee  
Demand**



**Financial  
Return**



# Facts



# PwC 27th Global CEO Survey



## Major global concerns

- Inflation
- Macroeconomic turbulence
- Cyber risks
- Geopolitical conflicts
- **Climate change**
- Health risks



# WEF 2024 Global Risks Report

## 2007-2020

Top 5 Global Risks in Terms of Likelihood

|     | 2007                     | 2008                      | 2009                       | 2010                    | 2011                | 2012                     | 2013                     | 2014                   | 2015                           | 2016                   | 2017                  | 2018                   | 2019                   | 2020                              |
|-----|--------------------------|---------------------------|----------------------------|-------------------------|---------------------|--------------------------|--------------------------|------------------------|--------------------------------|------------------------|-----------------------|------------------------|------------------------|-----------------------------------|
| 1st | Infrastructure breakdown | Blow up in asset prices   | Asset price collapse       | Asset price collapse    | Storms and cyclones | Income disparity         | Income disparity         | Income disparity       | Interstate conflict            | Involuntary migration  | Extreme weather       | Extreme weather        | Extreme weather        | Extreme weather                   |
| 2nd | Chronic diseases         | Middle East instability   | China economic slowdown    | China economic slowdown | Flooding            | Fiscal imbalances        | Fiscal imbalances        | Extreme weather        | Extreme weather                | Extreme weather        | Involuntary migration | Natural disasters      | Climate action failure | Climate action failure            |
| 3rd | Oil price shock          | Failed and falling states | Chronic diseases           | Chronic disease         | Corruption          | Greenhouse gas emissions | Greenhouse gas emissions | Unemployment           | Failure of national governance | Climate action failure | Natural disasters     | Cyberattacks           | Natural disasters      | Natural disasters                 |
| 4th | China hard landing       | Oil price shock           | Global governance gaps     | Fiscal crises           | Biodiversity loss   | Cyberattacks             | Water crises             | Climate action failure | State collapse or crisis       | Interstate conflict    | Terrorist attacks     | Data fraud or theft    | Data fraud or theft    | Biodiversity loss                 |
| 5th | Blow up in asset prices  | Chronic diseases          | Deglobalization (emerging) | Global governance gaps  | Climate change      | Water crises             | Population ageing        | Cyberattacks           | Unemployment                   | Natural catastrophes   | Data fraud or theft   | Climate action failure | Cyberattacks           | Human-made environmental disaster |

Top 5 Global Risks in Terms of Impact

|     | 2007                      | 2008                        | 2009                        | 2010                        | 2011                    | 2012                    | 2013                        | 2014                     | 2015                        | 2016                        | 2017                        | 2018                        | 2019                        | 2020                        |
|-----|---------------------------|-----------------------------|-----------------------------|-----------------------------|-------------------------|-------------------------|-----------------------------|--------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 1st | Blow up in asset prices   | Blow up in asset prices     | Asset price collapse        | Asset price collapse        | Fiscal crises           | Financial failure       | Financial failure           | Fiscal crises            | Water crises                | Climate action failure      | Weapons of mass destruction | Weapons of mass destruction | Weapons of mass destruction | Climate action failure      |
| 2nd | Deglobalization           | Deglobalization (developed) | Deglobalization (developed) | Deglobalization (developed) | Climate change          | Water crises            | Water crises                | Climate action failure   | Infectious diseases         | Weapons of mass destruction | Extreme weather             | Extreme weather             | Climate action failure      | Weapons of mass destruction |
| 3rd | Interstate and civil wars | China hard landing          | Oil and gas price spike     | Oil price spikes            | Geopolitical conflict   | Food crises             | Fiscal imbalances           | Water crises             | Weapons of mass destruction | Water crises                | Water crises                | Natural disasters           | Extreme weather             | Biodiversity loss           |
| 4th | Pandemics                 | Oil price shock             | Chronic diseases            | Chronic disease             | Asset price collapse    | Fiscal imbalances       | Weapons of mass destruction | Unemployment             | Interstate conflict         | Involuntary migration       | Natural disasters           | Climate action failure      | Water crises                | Extreme weather             |
| 5th | Oil price shock           | Pandemics                   | Fiscal crises               | Fiscal crises               | Energy price volatility | Energy price volatility | Climate action failure      | Infrastructure breakdown | Climate action failure      | Energy price shock          | Climate action failure      | Water crises                | Natural disasters           | Water crises                |

■ Economic 
 ■ Environmental 
 ■ Geopolitical 
 ■ Societal 
 ■ Technological

*While economic risks were at the forefront in the past, environmental and social risks have come to the fore in recent years.*





# WEF 2024 Global Risks Report

## 2007-2020

While economic risks were at the forefront in the past, environmental and social risks have come to the fore in recent years.

Top 5 Global Risks in Terms of Likelihood



■ Economic ■ Environmental ■ Geopolitical ■ Societal ■ Technological



Source: World Economic Forum 2007-2020, Global Risks Reports.

# WEF 2024 Global Risks Report

## 2 Years

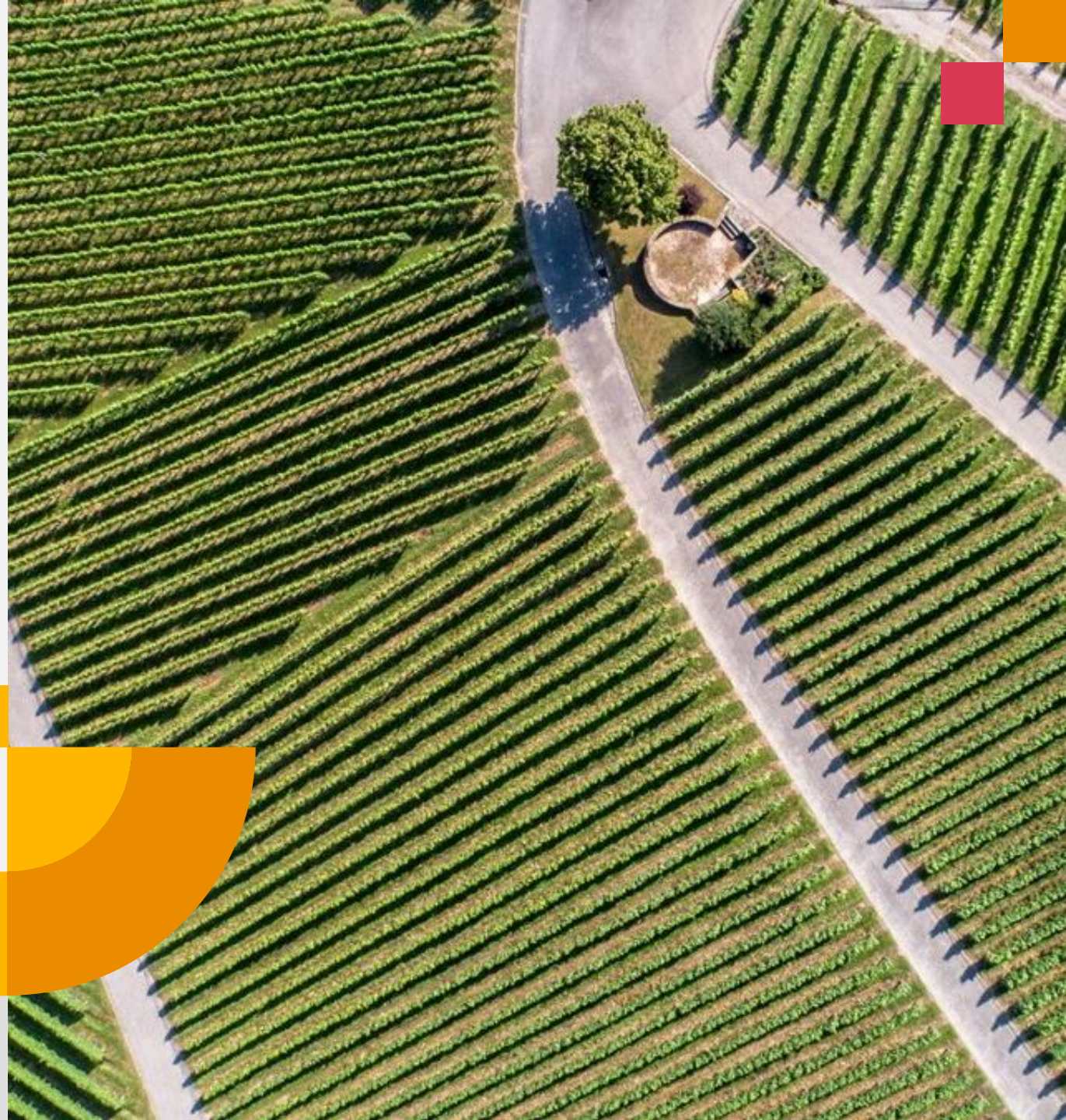
- 1 Misinformation and disinformation
- 2 Extreme weather events
- 3 Societal polarization
- 4 Cyber insecurity
- 5 Interstate armed conflict
- 6 Lack of economic opportunity
- 7 Inflation
- 8 Involuntary migration
- 9 Economic downturn
- 10 Pollution

## 10 Years

- 1 Extreme weather events
- 2 Critical change to Earth systems
- 3 Biodiversity loss and ecosystem collapse
- 4 Natural resource shortages
- 5 Misinformation and disinformation
- 6 Adverse outcomes of AI technologies
- 7 Involuntary migration
- 8 Cyber insecurity
- 9 Societal polarization
- 10 Pollution



# Sectoral Outlook — Food Industry



# Sectoral Outlook of Climate Change in the Food Industry



**Agricultural Efficiency  
and Production Risks**



**Agriculture and Food  
Safety Challenges**



**Energy Demand and  
Emission Obligations**



**Water Scarcity and  
Management**

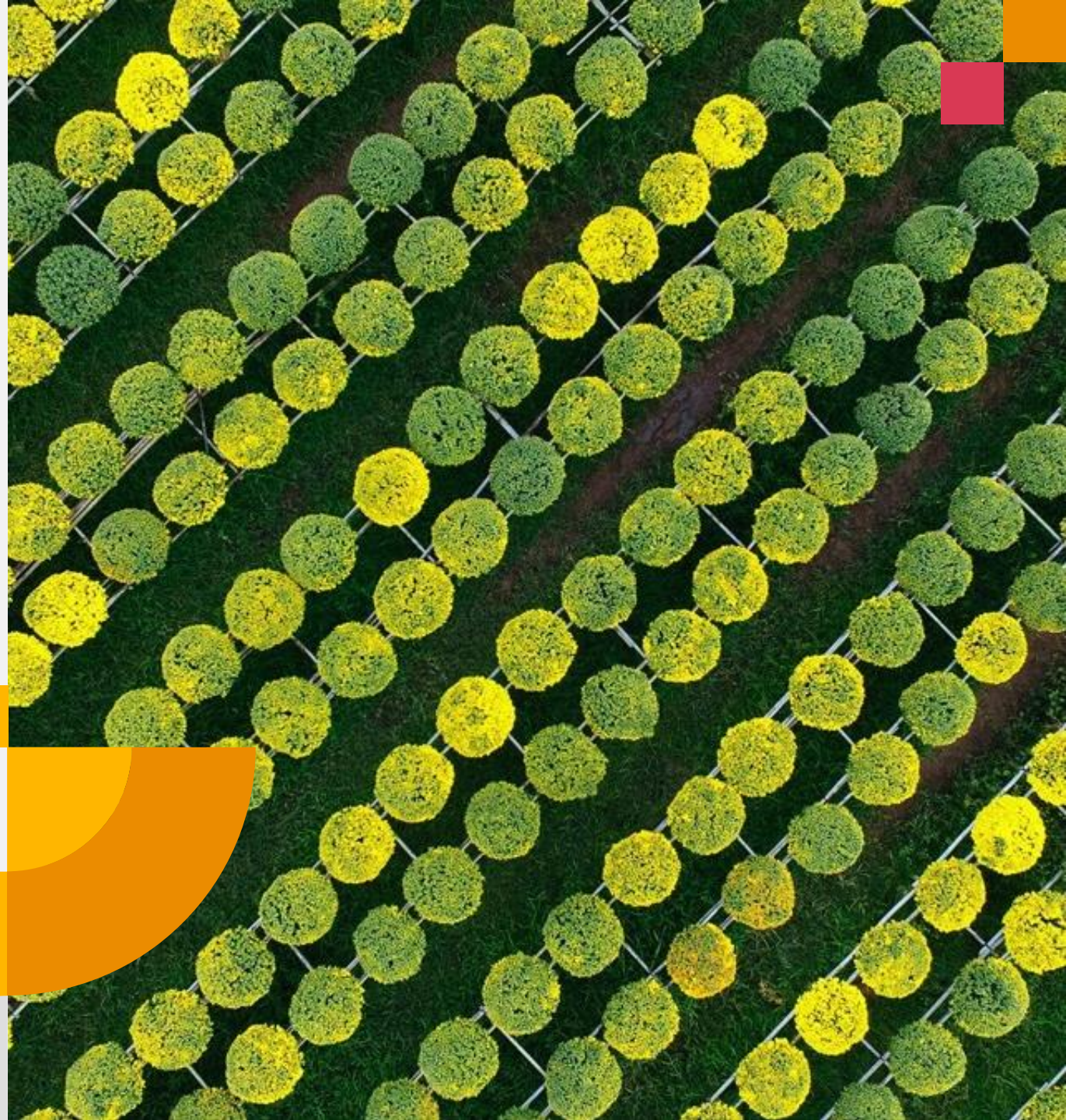


**Ecosystem and  
Biodiversity Threats**



**Adaptation and  
Innovation Risks**

# Driving Forces



# COP 28

## Outstanding Decisions at COP28

- By 2030, **tripling** global renewable energy capacity and **doubling** the annual rate of energy efficiency improvement
- By 2030, significantly reduce non-carbon dioxide emissions globally, including **methane emissions**
- Accelerate the reduction of emissions from **land transport** by a number of means, including **infrastructure development and the rapid deployment of zero and low emission vehicles**

For the first time, a call for a 'transition away' from fossil fuels to tackle the climate crisis



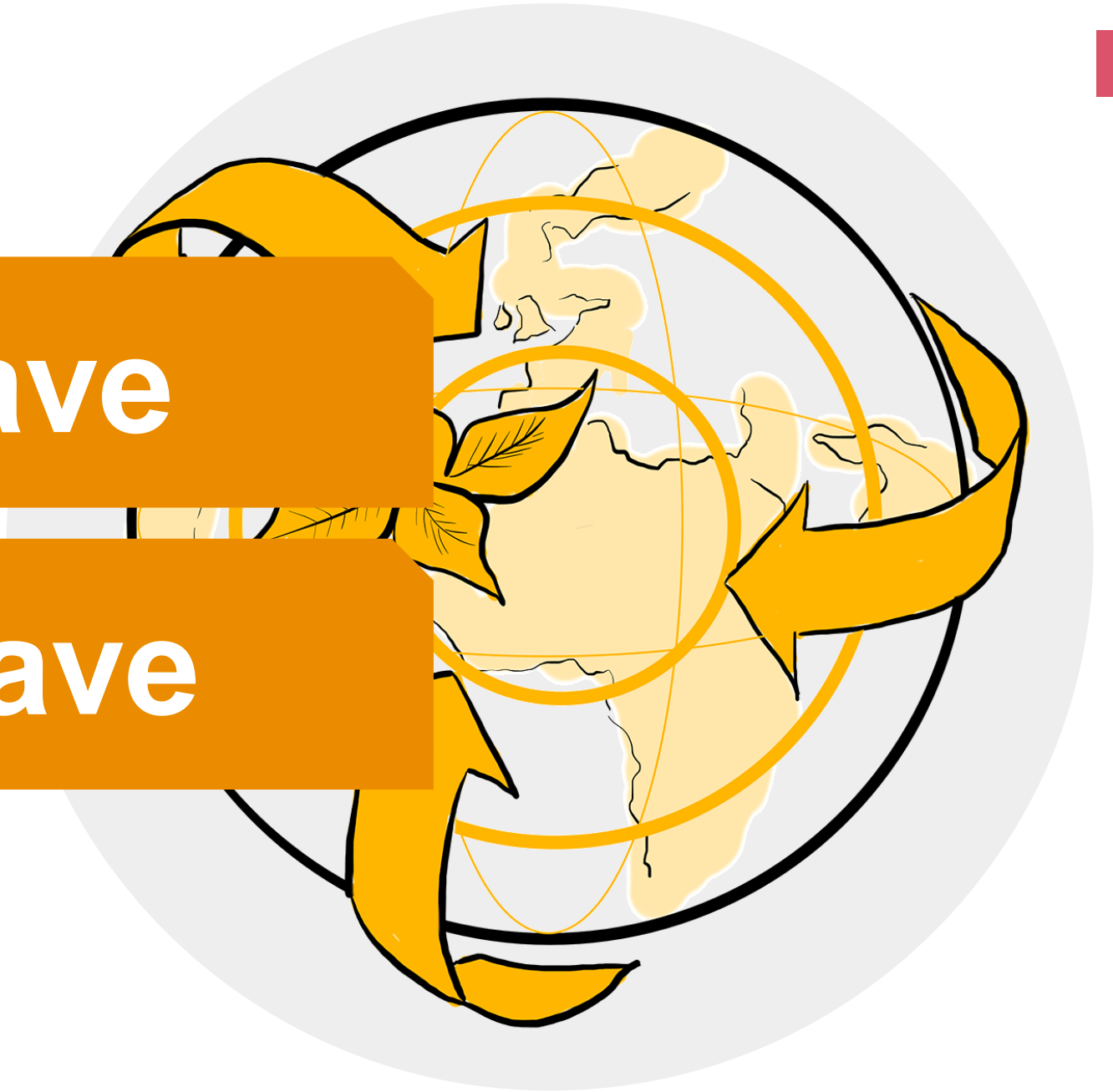
- Accelerating efforts to phase down **energy from coal**
- Accelerating global efforts **towards net zero emission energy systems using zero and low carbon fuels**
- Accelerate the application of technologies such as **renewable energy, nuclear energy, carbon capture, utilization and storage**, and low-carbon **hydrogen** production, especially in hard-to-reduce sectors
- Phase-out as soon as possible of **fossil fuel subsidies** which do not address energy poverty or just transition

# Regulations



**nice to have**

**must to have**





**must to have**



# Thank you

**Gözde Sağlam**

Senior Sustainability Manager, PwC Türkiye



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