

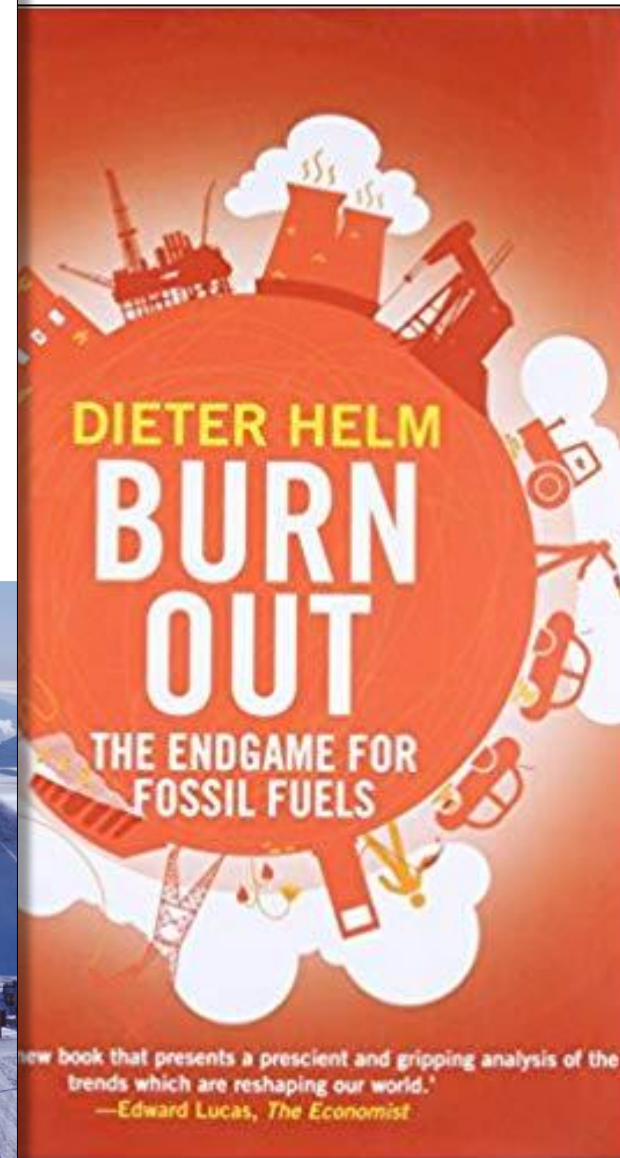
# The Endgame is on

Options for Oil Producing Countries

Svein Grotli Skogen  
IAIA19, Brisbane, 2 May 2019

Official Norwegian Reports NOU 2018: 17 Summary

## Climate risk and the Norwegian economy



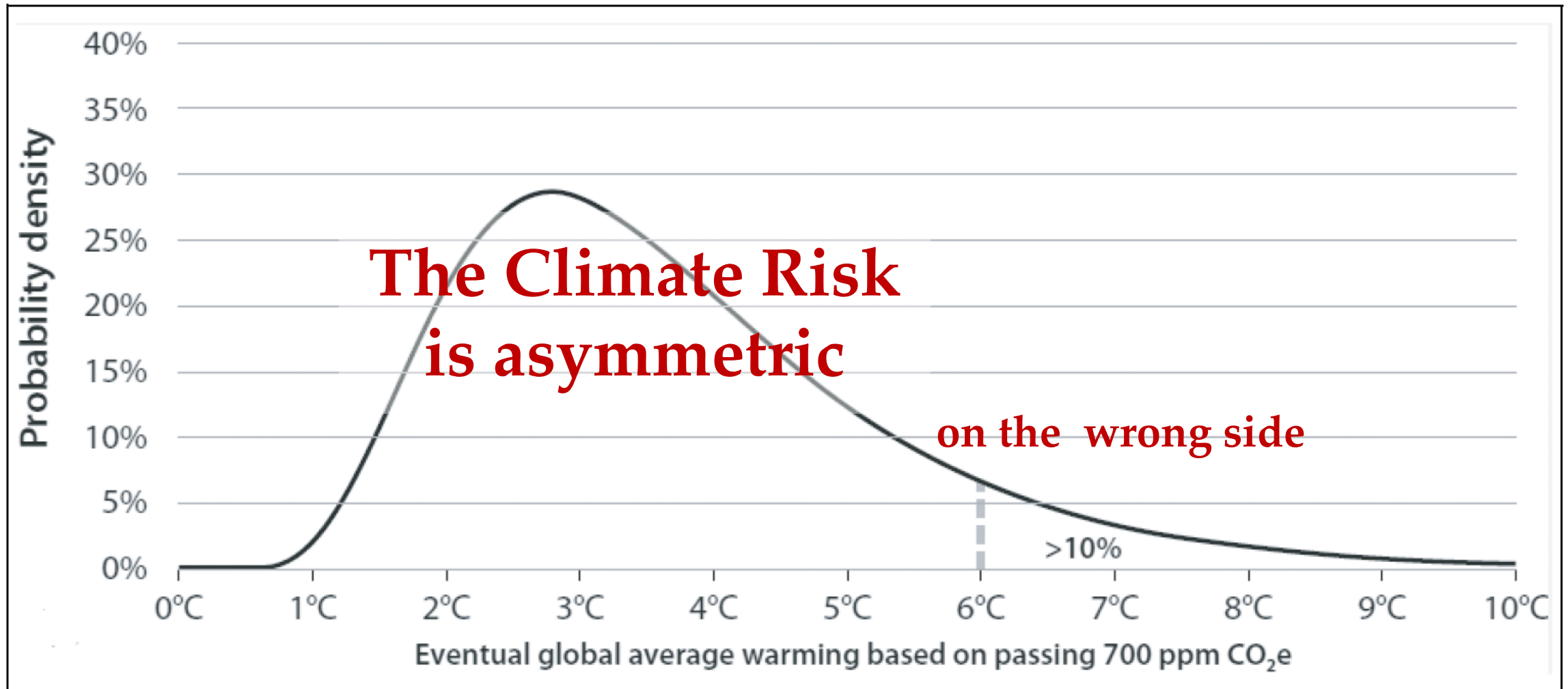


# Climate Risk

Physical	Transitional
<b>The Global Warming itself</b>	<b>Implications of the change to a low emission society</b>
	Ways of living
	Modes of Production
	Sources of Energy
	Value of Financial assets
	Cost from possible Litigations



<b>Severity</b> <b>Probability</b>	<i>Catastrophic</i>	<i>Critical</i>	<i>Marginal</i>	<i>Negligible</i>
<i>Certain</i>				
<i>Likely</i>				
<i>Possible</i>				
<i>Unlikely</i>				







# The importance of time

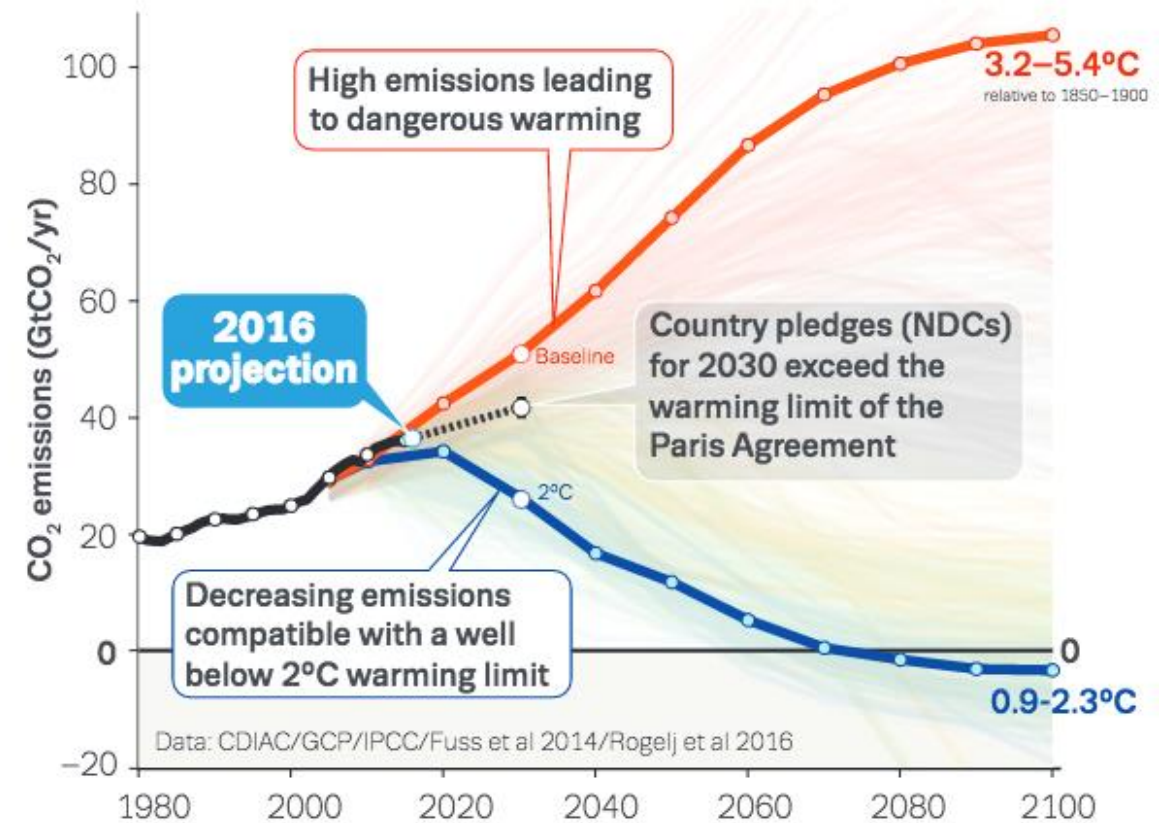
## The Tragedy of the Horizon

(Mark Carney, Bank of England, 2015)

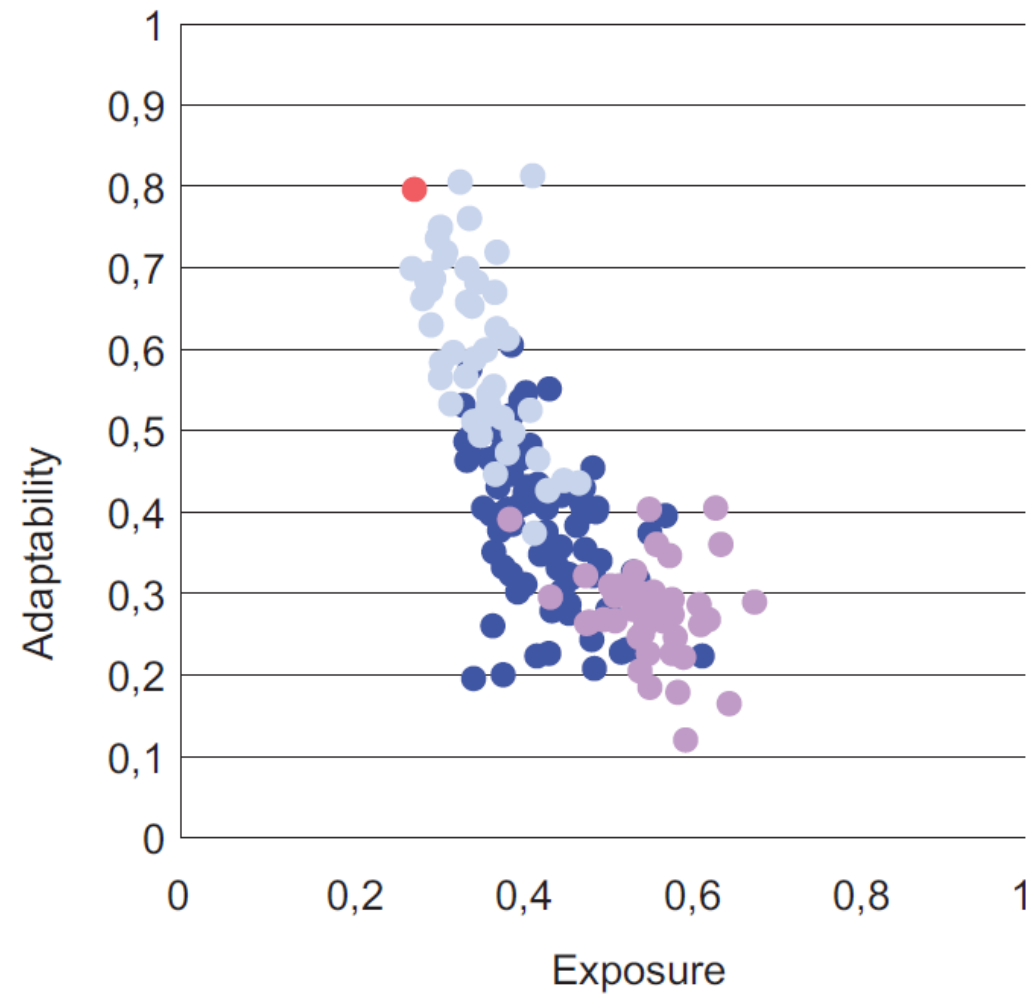
Life beyond the limitations of models, politics, business transaction etc.

## Earlier is better than later

If *later* is not exceptionally better and best without *earlier*

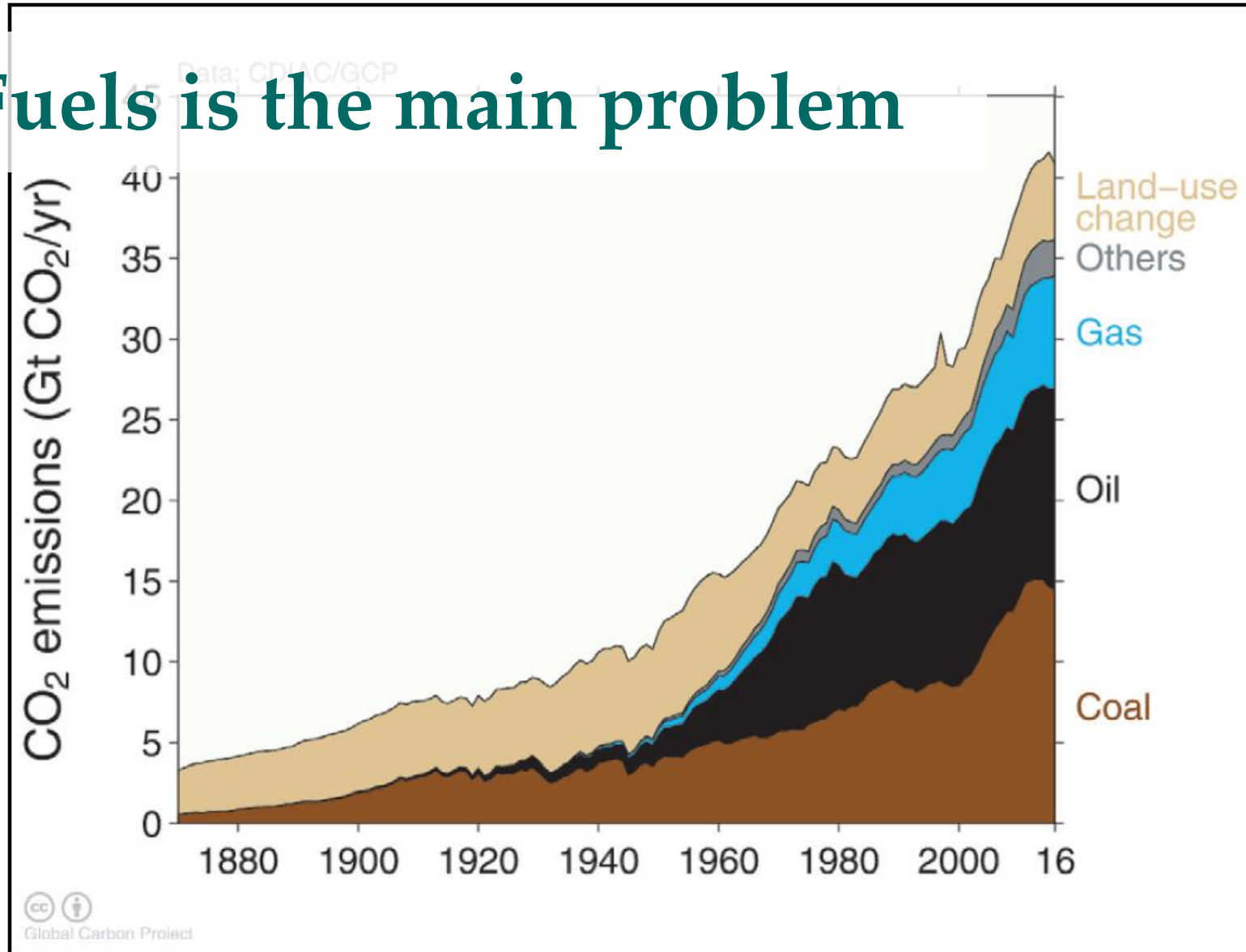


# The Poor are loosing (again)



Income by country: ● Middle ● Low ● Upper

# Fossil Fuels is the main problem







# O&G Business and Global Warming

## NO IMPORTANT RISK

Non-adaptable Physical  
Consequences on O&G  
Activity

## POSSIBLE SERIOUS RISK

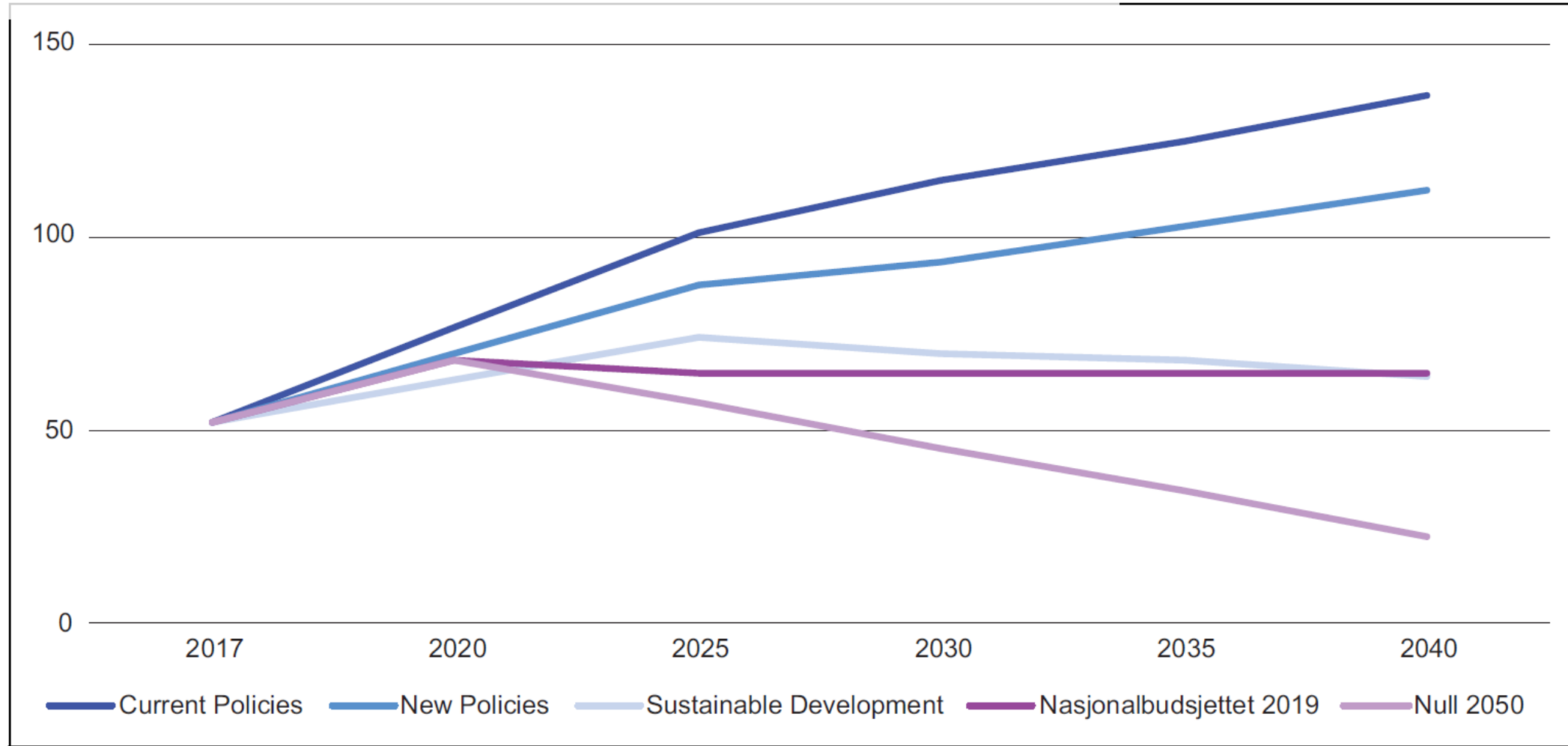
- **Market disruptions**  
Volume; Price; Quality (climate-motivated)
- **Political interventions** (outside the Market)
- **Litigations**
- **Ownership & financing**  
Persistent expectations and requirements beyond operational logic and/or legal limitations



macrotrends.net



# The average also matters





# High Profit Requirements – trouble and a (surprising) possibility

1. It's all about Profits
2. High Risk implies High Profit + preference for Quick Cash

1+2 → A Conservative Investment Strategy



# High Profit Requirements – trouble and a (surprising) possibility

1. It's all about Profits
2. High Risk implies High Profit + preference for Quick Cash
3. Climate Risk added to other uncertainties

1+2 → A Conservative Investment Strategy

1+2+3 → An even more conservative Investment Strategy ???



## Private Sector “needs”

- Incentives & regulation: sufficient, relevant & reliable
- Knowledge/insight: support
- Stress testing: climate specific, on demand





# TCFD

## Task Force on Climate-related Financial Disclosures

Governance	Risk description	Risk management measures	Risk measurements and methods
Description of general framework and key principles for managing	Description of climate-related risk faced by the Norwegian economy, and how it may affect key national objectives and strategies	Description of measures aimed at managing climate-related threats and opportunities	Description of how to measure and monitor climate-related threats and opportunities



# When & How to deal with the Climate Risk

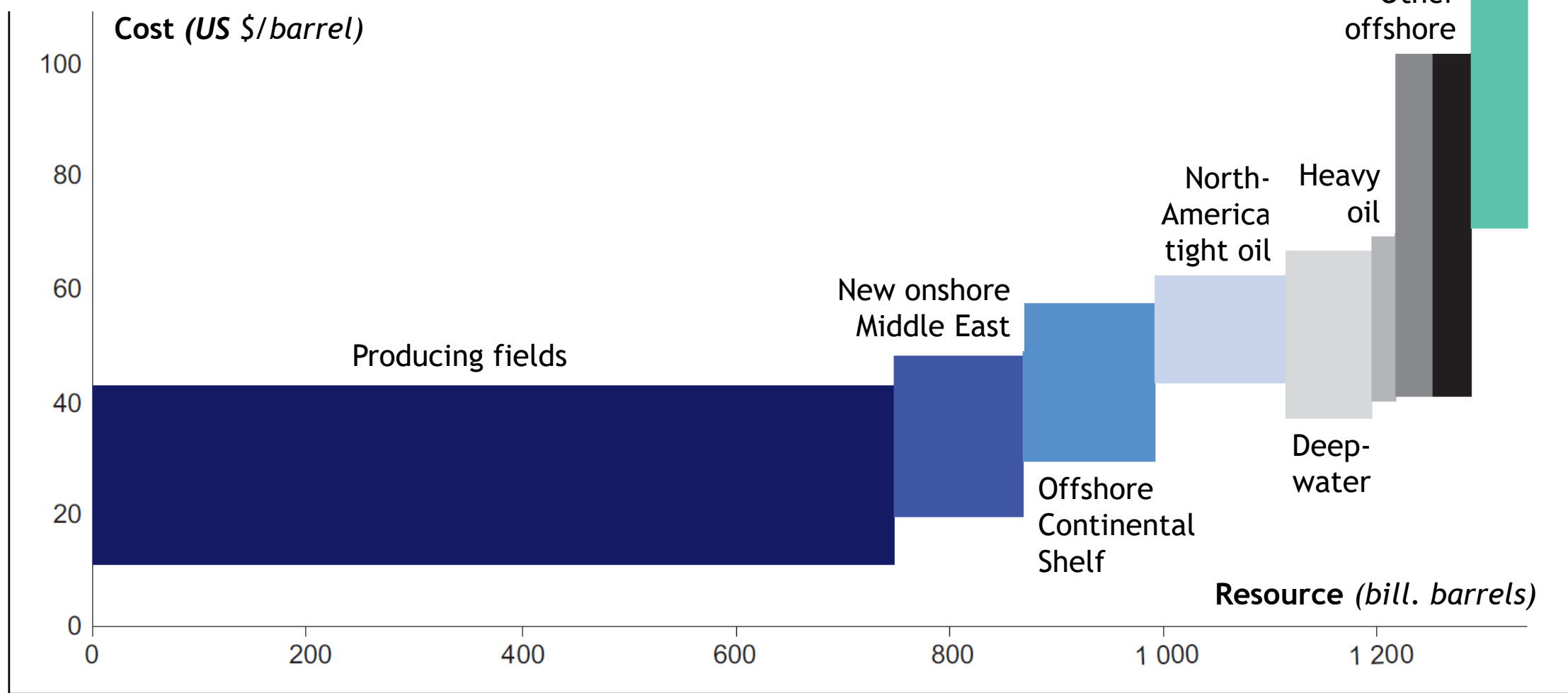
## The activity

- Invite (dream)
- Explore (search)
- Extract (operate)
- Close down (clean up)
- Domestic Use

## The revenues

- Subsidise
- Tax
- Pay for clean up
- The spending/saving pattern
- Return on saved capital

# Know where you belong in this chart



# When will you build the last one?



## Thank you