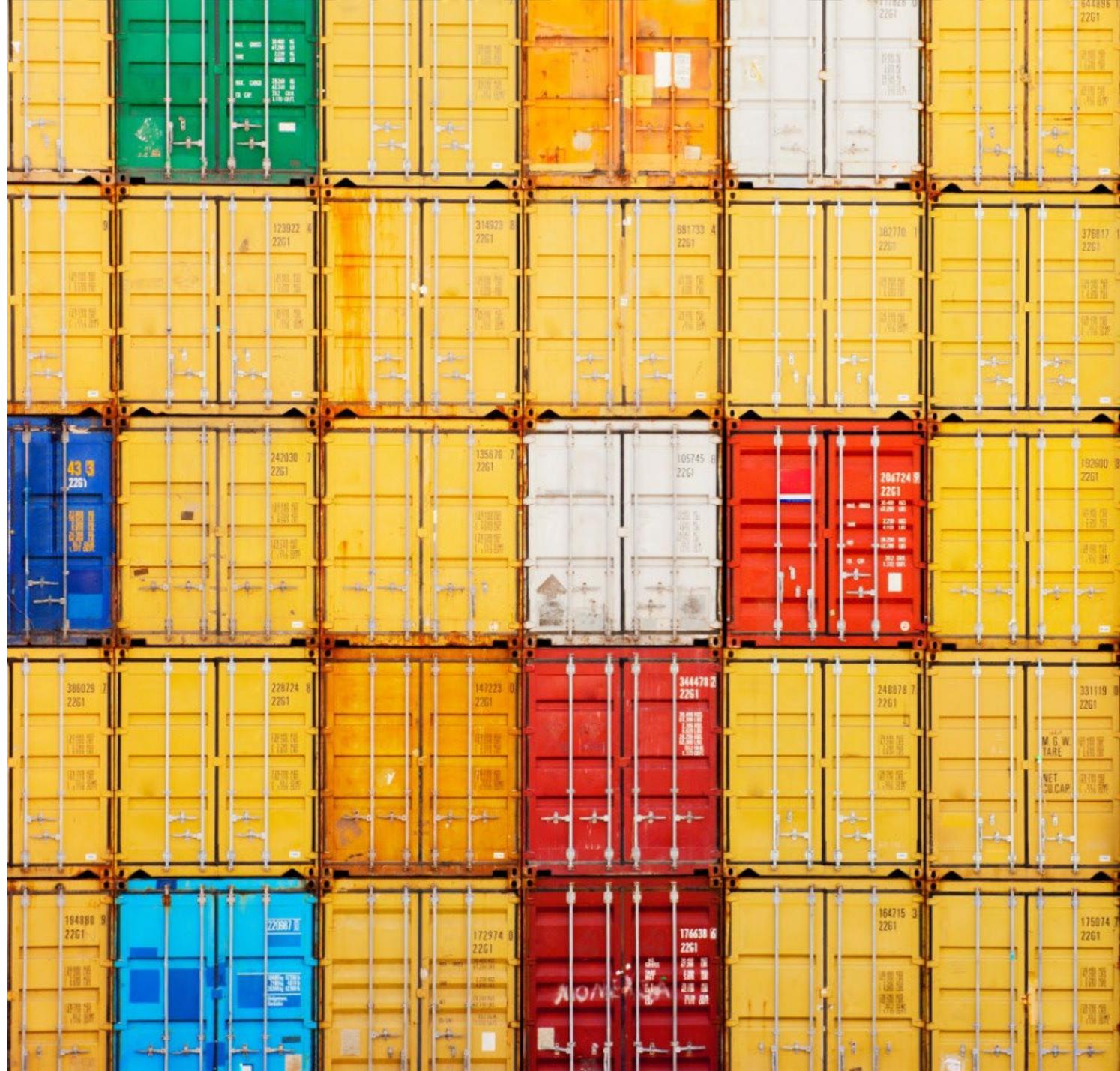


Climate Excellence – Assessing climate risks and opportunities in the transport & logistics sector

BVL regional workshop
January 2020



Agenda

1. Climate Excellence – Connecting carbon management and financial impacts
2. Scenario analysis is a key component of financial risk assessments
3. Outlook: Financial implications for logistics exemplified for MSCI



ClimateExcellence –

Connecting carbon
management and
financial impacts

Current EU regulatory initiatives combine the financial impact with the sustainability impact of greenhouse gas emissions

Financial materiality

“Outside-In”

Impact of climate change on businesses, development, performance etc.



Company



Climate



Climate Impact of Company can be financially material

Environmental and social materiality

“Inside-Out”

Impact of company on climate, environment and society



Company



Climate

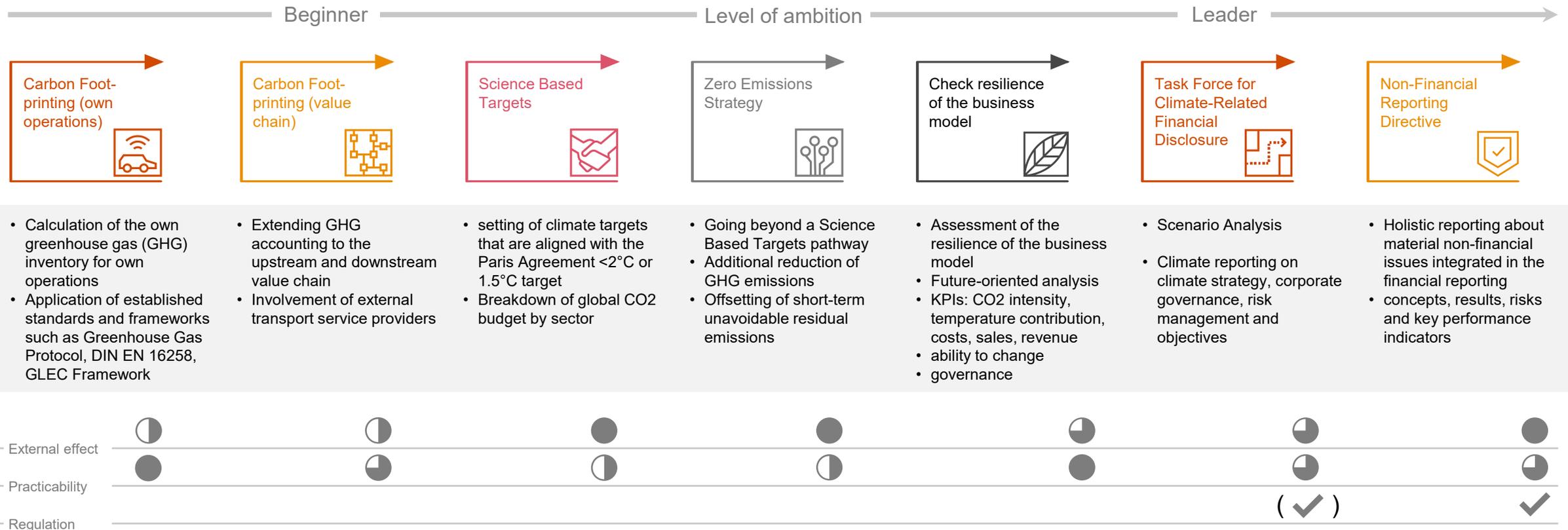


Recommendations of the TCFD

Non-financial reporting directive of the EU

Quelle: PwC based on European Commission

Previous activities in the field of climate management are complemented with new requirements



Science Based Targets

Aligning climate strategies with the level of ambition of the Paris Agreement

Science Based Targets logic

- **Climate science** specifies remaining **carbon budgets** and requirements for greenhouse gas emission reductions in line with the <math><2^{\circ}\text{C}/1,5^{\circ}\text{C}</math> goal of the **Paris Agreement**
- **Current good practice**: Check corporate climate strategy against the level of ambition of the Paris Agreement
 - for own operations
 - for upstream and downstream emissions (if relevant and material)



Benchmark & orientation

Company



Science Based Targets initiative

- Initiative by CDP, WWF, UN Global Compact and World Resources Institute
- Provides **methods and tools** for science-based target-setting and a communication platform
- Provides **mechanism for official validation of targets** against a set of criteria
- **>300 companies** with approved SBTs, >400 committed to set SBTs within two years (incl. Deutsche Post DHL, BLG Logistics Group, DB)
- **Current best practice**: Align corporate climate strategy with the level of ambition of the Paris Agreement and get SBTi approval



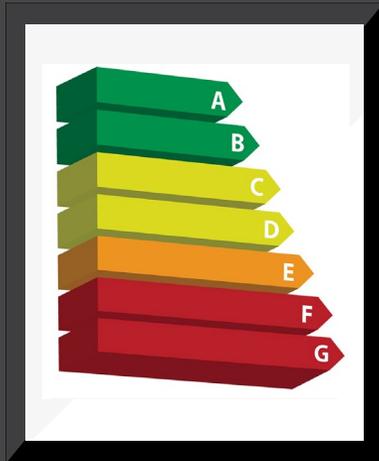
Official validation

Company



Transport service providers

Key areas of action in the context of the climate strategy



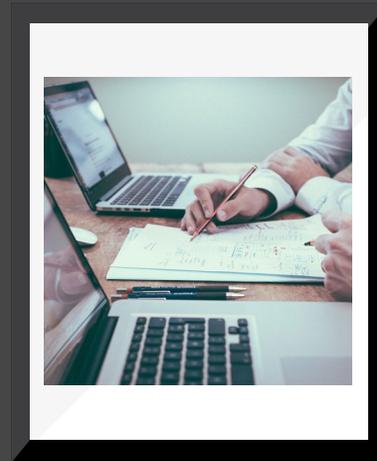
Efficiency increases

- Fuel-efficient conventional vehicles
- Energy efficiency in own buildings



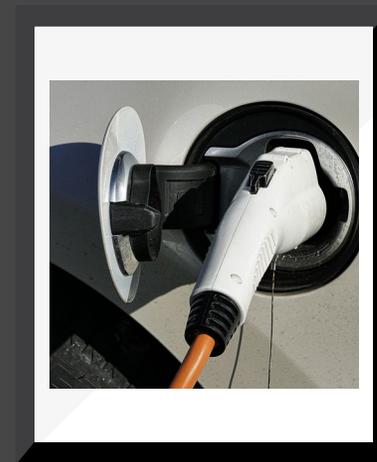
Process optimization

- Network optimization
- optimized route planning, driver trainings, etc.



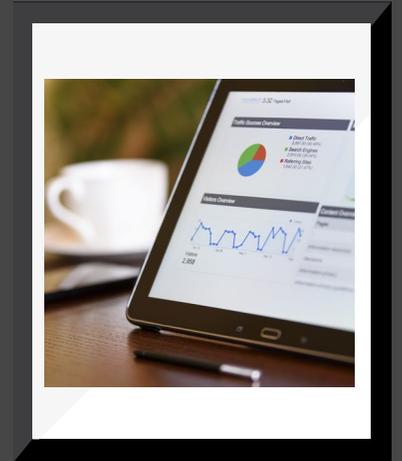
Modal shift

- Rail transport
- Sea/inland waterways transport



Alternative drives & renewable energy

- Green electricity in own buildings
- Alternative fuels in the fleet



Green Products

- Low-carbon/zero carbon transport solutions
- High level of transparency (CO₂/tkm)

2

Scenario analysis is a key component of financial risk assessments

The TCFD recommendations consist of five essential building blocks and scenario analysis is a core component

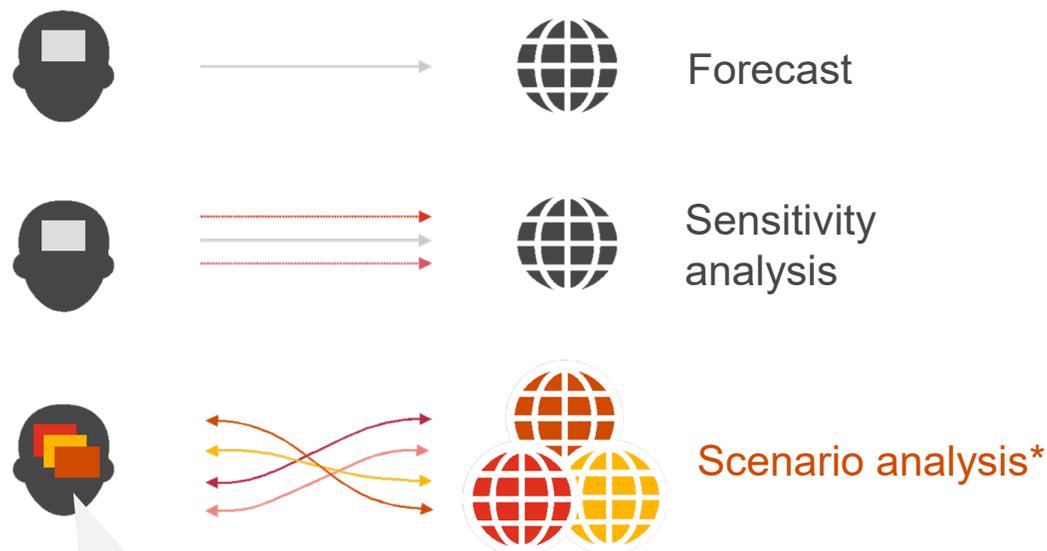
Task Force on Climate-Related Financial Disclosures building blocks



As a rule, it is only necessary to **supplement** existing processes in order to comply with the recommendations.

Scenario analysis aims at testing strategic resilience of companies in face of disruptive change

A scenario describes different possible future worlds ...



External Sources such as IEA, Greenpeace etc.

* Scenarios have **no probability**

The focus is exclusively on climate-related risks. All other risks are to be considered by analysts as today.

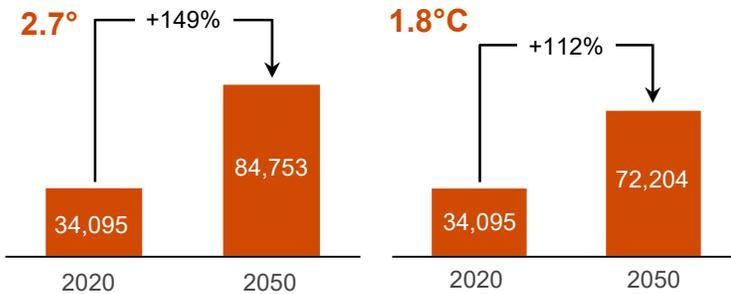
Scenario analysis tests the **resilience of a company's or a portfolio's strategy** against various climate-related scenarios, including a scenario of 2°Celsius or lower.

Scenario fundamentals

The relevant changes for the freight transport (trucks) sector comparing two scenarios

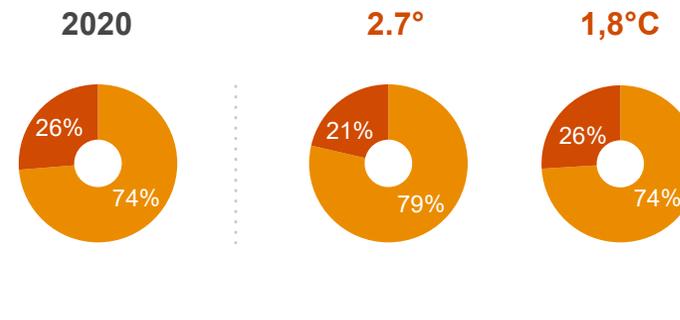
Market

Trucking services demand [bio. tkm]



Growth for trucking services is much smaller in 1.8°C than in 2.7°C.

Modal shift freight transportation 2050 vs. 2020



Globally, there is no modal shift in a 1.8°C, whereas in 2.7°C a shift towards trucking is present.

■ Rail ■ Road

Technology

Fuel intensity (final energy consumption per tkm) 2050 vs. 2020

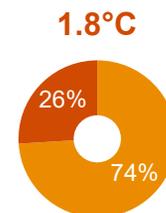
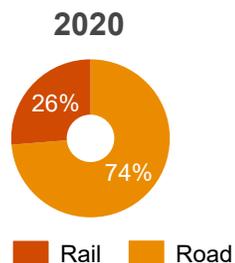


To reach 1.8°C fuel intensity needs to improve by 59% in the next 30 years.

Even though market changes do not imply modal shifts on global level, they exist in some geographies

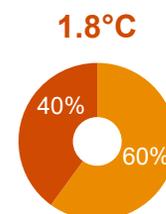
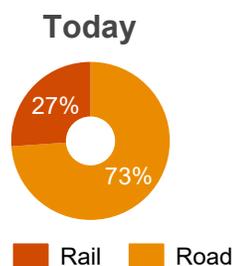
Modal shift freight transportation 2050 vs. today

Market – Global



Globally, there is no modal shift in a 1.8°C

Market – Germany



In Germany, a transition is more ambitious with a significant modal shift.

Source: IEA ETP 2017, BMU (2015) Klimaschutzszenario 2050

3

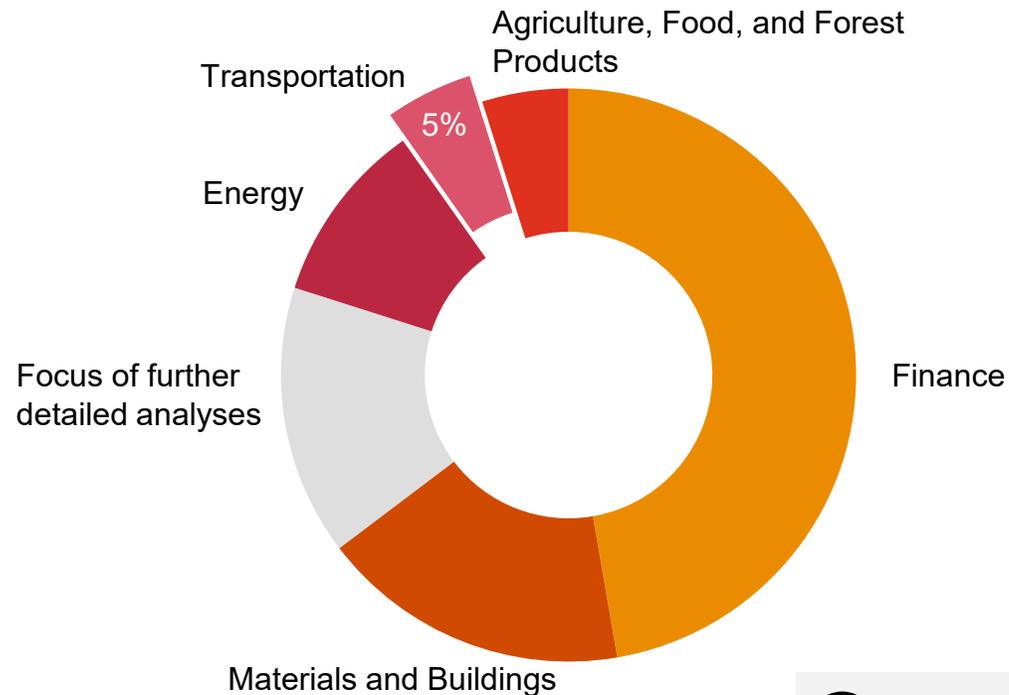
Outlook: Financial
implications for logistics
exemplified for MSC

5% of the MSCI World Index in Transportation sector

Proportion of industries identified as “higher risks” and other investments of the MSCI World Index

Illustrative

Breakdown of the MSCI portfolio* (~1600 titles)



*Retrieved August, 31st 2019. ** Examples for Other sectors: Communication Services or Information Technology. They have no material climate risk due to transitional effects..

TCFD has identified these sectors as potentially “higher risk”

Energy	Transportation	Finance
<ul style="list-style-type: none"> Oil Gas Coal Electric Utilities 	<ul style="list-style-type: none"> Air Freight Passenger Air Transportation Maritime Transportation Rail Transportation Trucking Services Automobiles Automotive components 	<ul style="list-style-type: none"> Banks Insurances Asset Managers Brokers

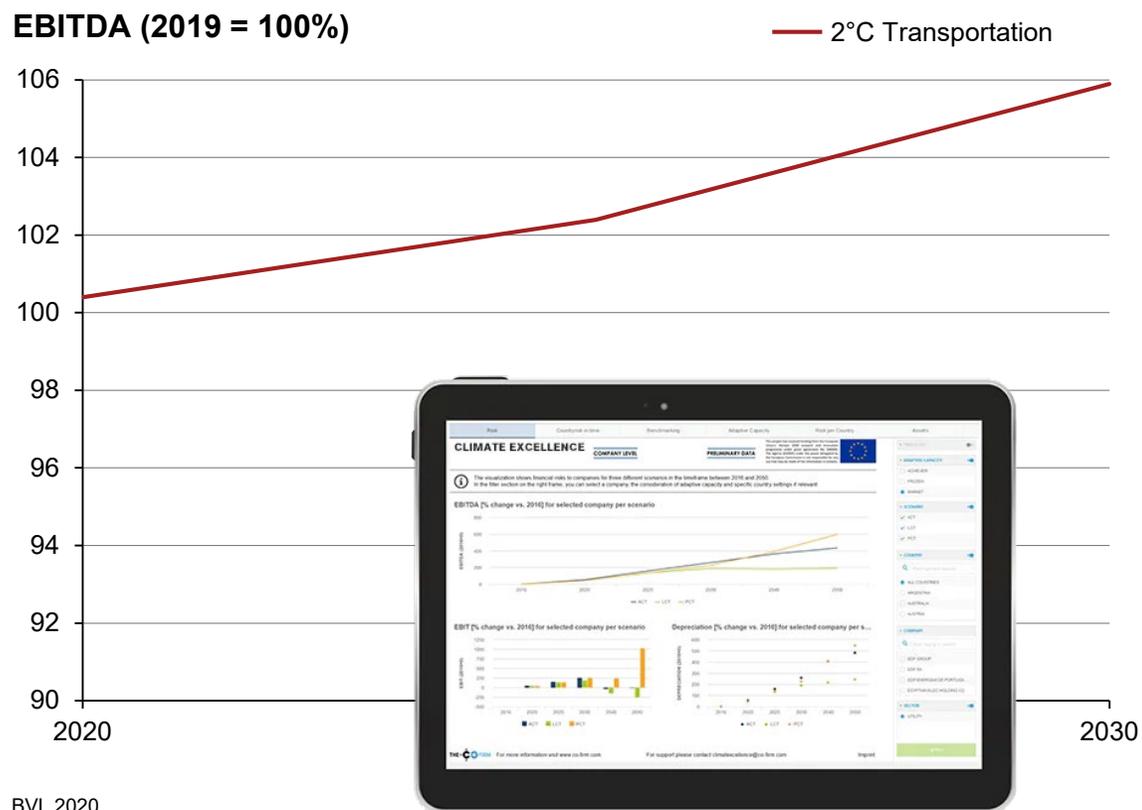
i Financial institutions are influenced indirectly.

Materials and Buildings	Agriculture, Food, and Forest Products
<ul style="list-style-type: none"> Metals and Mining Chemicals Construction Materials Capital Goods Real Estate Management and Development 	<ul style="list-style-type: none"> Agriculture Beverages Packaged Foods & Meats Paper & Forest Products

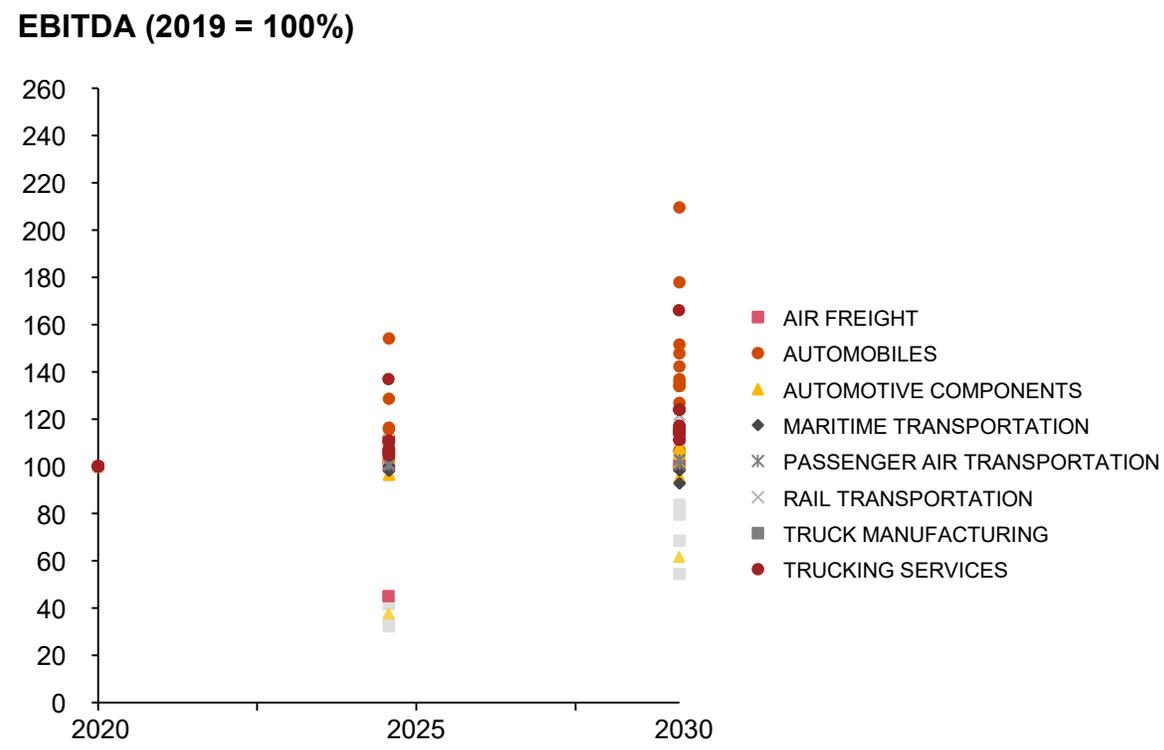
In a 2°C scenario companies listed in MSCI would on average grow until 2030, with a large spread among transportation companies

Illustrative

2°C scenario – sector average



2°C – individual companies



Overall, under a 2°C pathway, MSCI transportation would be resilient regarding transition risks except truck manufacturing in 2025

Illustrative

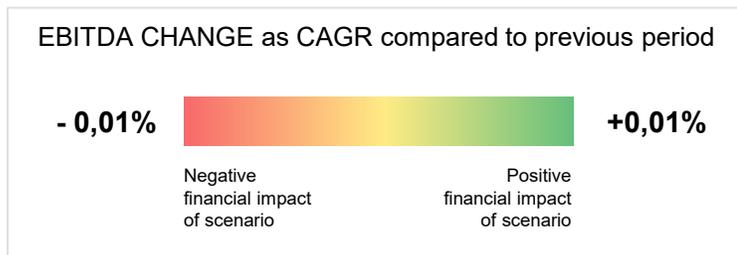
Filters

2°C Weighted results

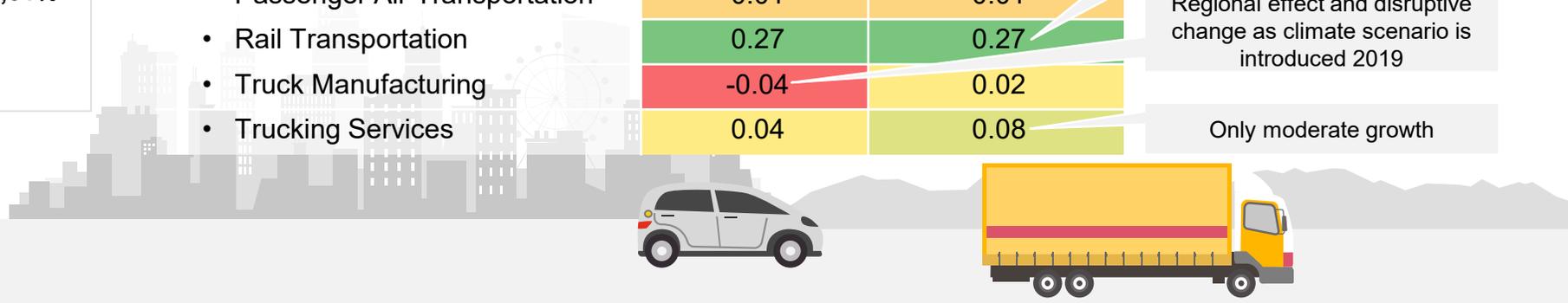
Sector Level₂ 2019 - 2030

Sectoral heatmap

Showing the financial impact of the transition across regions for relevant sectors within the portfolio



	2019 - 2025 (in %)	2025 - 2030 (in %)	
Agriculture, food & forest products	0.09	0.05	Negative impact of fossil sectors (e.g. oil) becomes material
Energy	1.95	-1.55	
Materials and buildings	0.25	0.45	Performance of electric utilities outperforms fossil sector
Transportation:	0.4	0.7	Rail winning in climate scenarios
• Air Freight	0.01	0.01	
• Automobiles	0.11	0.31	Regional effect and disruptive change as climate scenario is introduced 2019
• Automotive Components	0.02	0.02	
• Passenger Air Transportation	0.01	0.01	
• Rail Transportation	0.27	0.27	Only moderate growth
• Truck Manufacturing	-0.04	0.02	
• Trucking Services	0.04	0.08	



Conclusion

1. Climate change is increasingly unfolding financial implications for the business models of companies.
2. Companies are called upon to develop their climate action from pure carbon footprinting to a strategic management and evaluation of financial implications.
3. Scenario analysis helps to test the resilience of the business model against different future worlds, to measure possible financial impacts and to make companies fit for the future.

Climate Excellence Coverage

	Energy	Transportation	Materials and Buildings	Agriculture, Food and Forest Products
				
All TCFD Sectors	<ul style="list-style-type: none"> • Oil and Gas • Coal • Electric Utilities 	<ul style="list-style-type: none"> • Air Freight • Passenger Air • Maritime • Rail • Trucking Services • Automobiles and Components 	<ul style="list-style-type: none"> • Metals and Mining • Chemicals • Construction Materials • Capital Goods • Real Estate 	<ul style="list-style-type: none"> • Beverages • Agriculture • Packaged Foods and Meats • Paper and Forest Products

 Financial Sector

 High-level analysis of all other sectors

- Countries → More than **50** countries
- Companies → More than **35,000** companies
- Assets → More than **230,000** physical assets
- Adaptation measures → More than **135** unique technical adaptation measures across sectors

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Thank you.

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