CLIMATE COMPATIBILITY ASSESSMENT

2° Investing Initiative

INTRODUCTION

Background

Climate alignment and climate risk perspectives

Paris Agreement Art. 2.1.c

- “Making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development.”
- Swiss implementation by **voluntary** measures of financial market actors, government is providing relevant technical background

Addressing TCFD recommendations

- Using **scenario-analysis**
- Using backward as well as **forward-looking data**

Climate Compatibility Assessment

Voluntary pilot tests at no charge for all Swiss pensions funds (~1800) and insurances (~75)

- Model is part of the SEI Metrics and ET Risk Projects -> EUR 5 Mio. EU Research Funding
- Developed by the independent, non-for-profit Think Tank 2°Investing Initiative
- Already tested by more than 100 FIs
- FOEN supports development and automatization
- Upon completion, model available as unlicensed model in the market (2018)

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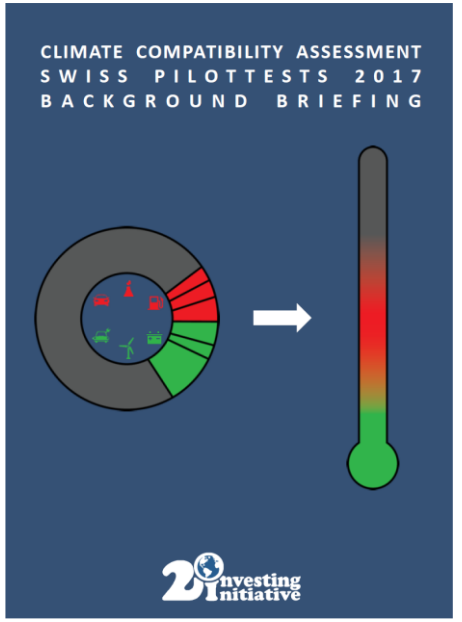


Goals for government

Basis for monitoring, broad awareness rising

- International coordination and standardization of measuring methods
  - Basis for monitoring on macro (State, Central banks) and micro level (individual financial institutions)
  - Input for new ISO standard 14097
  - Reducing (research and transaction) costs for small/medium financial institutions

- National implementation of the Paris Agreement
  - Future reporting of the parties
  - Broad awareness rising

Goals for financial institutions

2°C Scenario analysis, including national comparison

- Individual 2°C scenario assessment
- National and international comparison
- Anonymous, voluntary, no charge, easy and non time consuming
- Covers ~70-90% of GHG emissions for the average portfolio
- Basis for implementation of climate-goal aligned strategies
- Can be used as a portfolio management tool

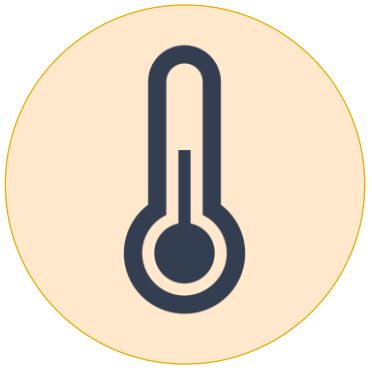
Limitations

- No direct CO_2-reduction impact
- Not covering all sectors, activities and asset classes
- No direct instruction of action
- No direct quantification of financial risks
- No comments on financial performance

Principles of the project

Comparability

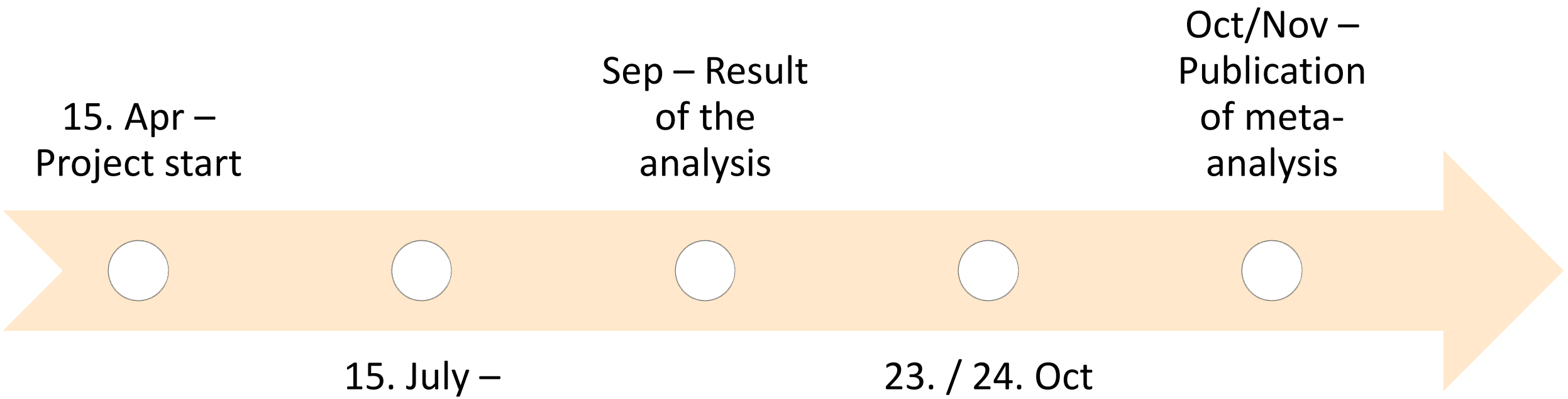
Open-Source // Free replication



2°C scenario analysis

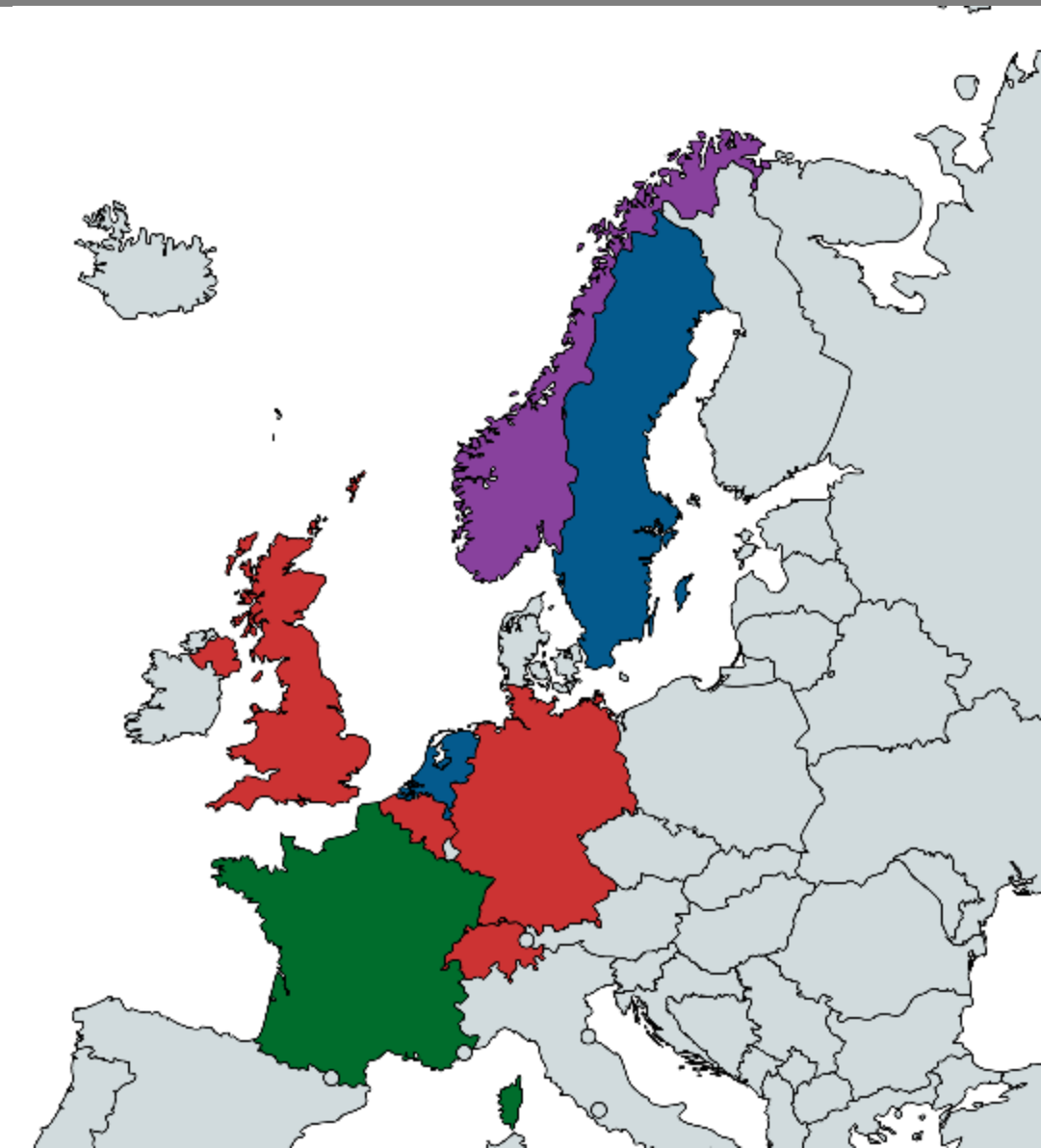
Connection to other approaches

Timeline


15. Apr – Project start
15. July – Deadline for submitting portfolios
Sep – Result of the analysis
23. / 24. Oct – Workshops on the results
Oct/Nov – Publication of meta-analysis

Project in the European context

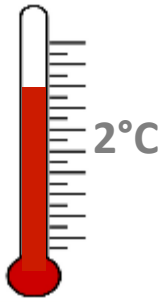
- **Red = Governmental research initiatives**
- **Green = Mandatory disclosure regulation**
- **Blue = Planned regulatory initiatives**
- **Purple = Investment mandates**

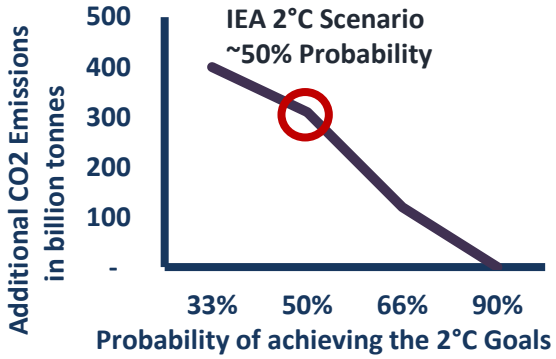


Source: 2° Investing Initiative

Model Description

FROM CLIMATE GOALS TO THE FINANCE SECTOR…

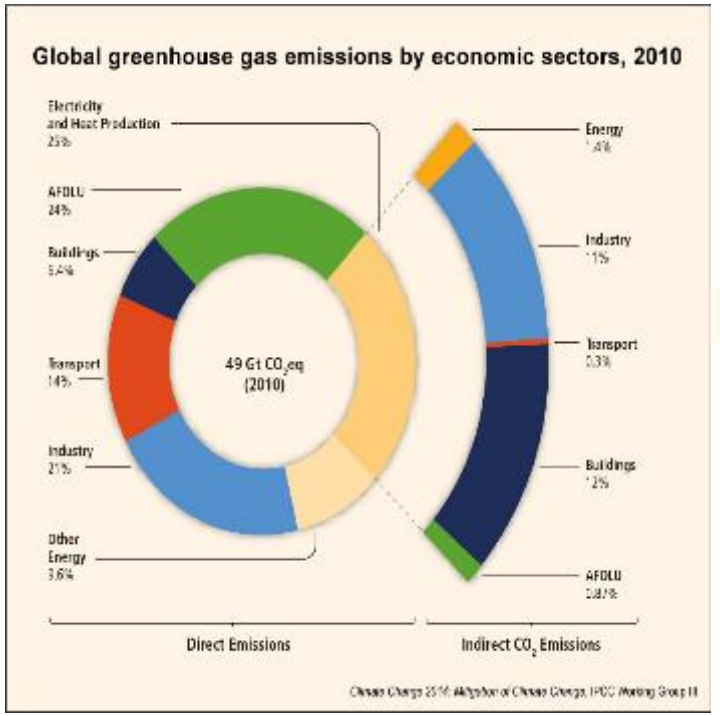


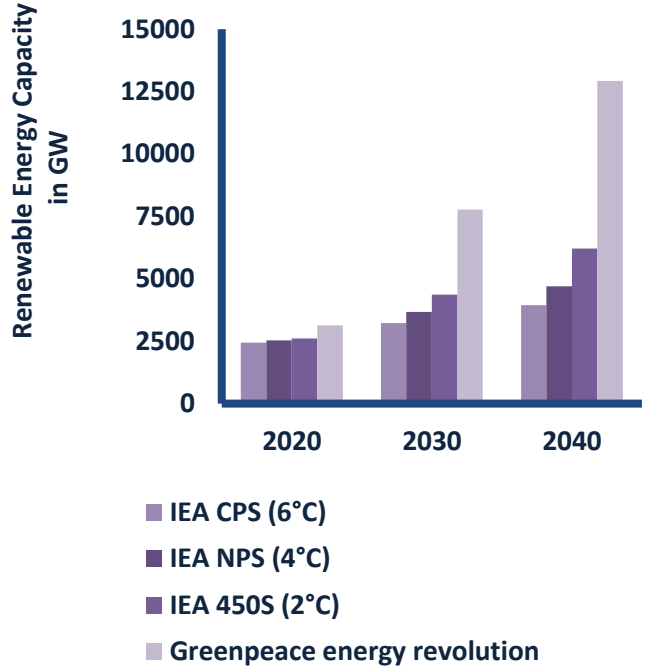


Translation into CO_2 Budget

Translation into Economic data

CLIMATE SCENARIOS





Implications for the Finance Sector

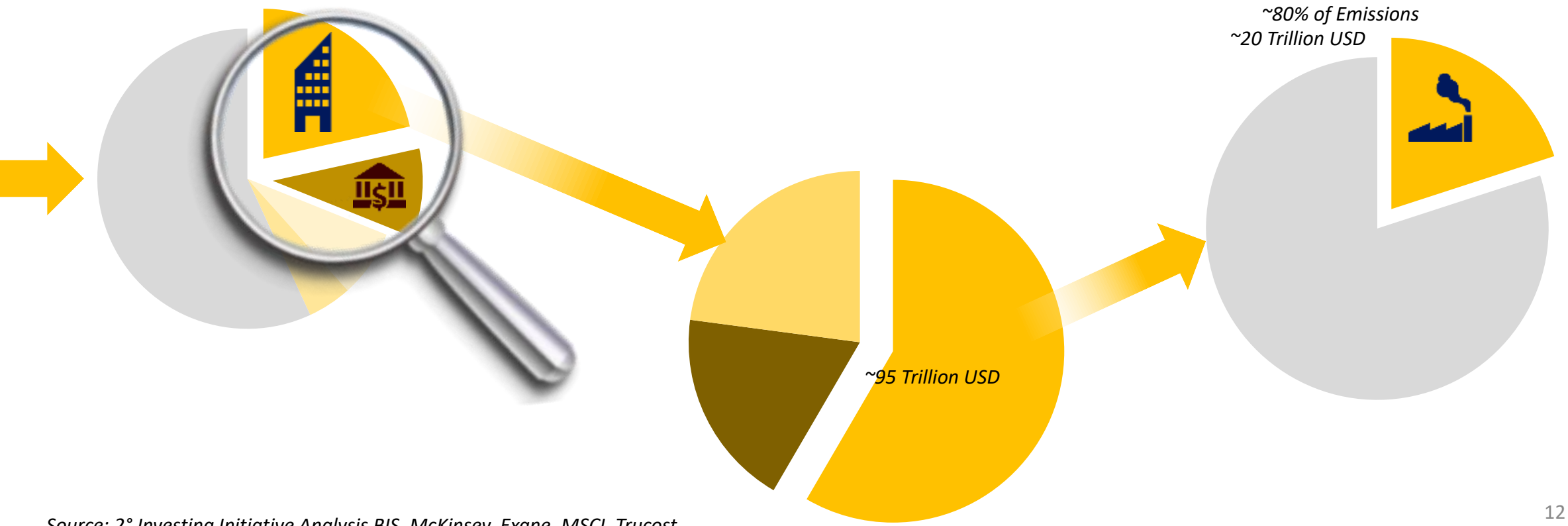
ECONOMIC ANALYSIS

FROM CLIMATE GOALS TO THE FINANCE SECTOR…

GLOBAL FINANCIAL SERVICES

FINANCIAL ASSETS

‘CLIMATE RELEVANT’ ASSETS - RELATED FINANCIAL ASSETS (EXAMPLE: STOCKS)



Source: 2° Investing Initiative Analysis BIS, McKinsey, Exane, MSCI, Trucost

BUILDING BLOCKS FOR THE MODEL

Ambition

Speed

Scope

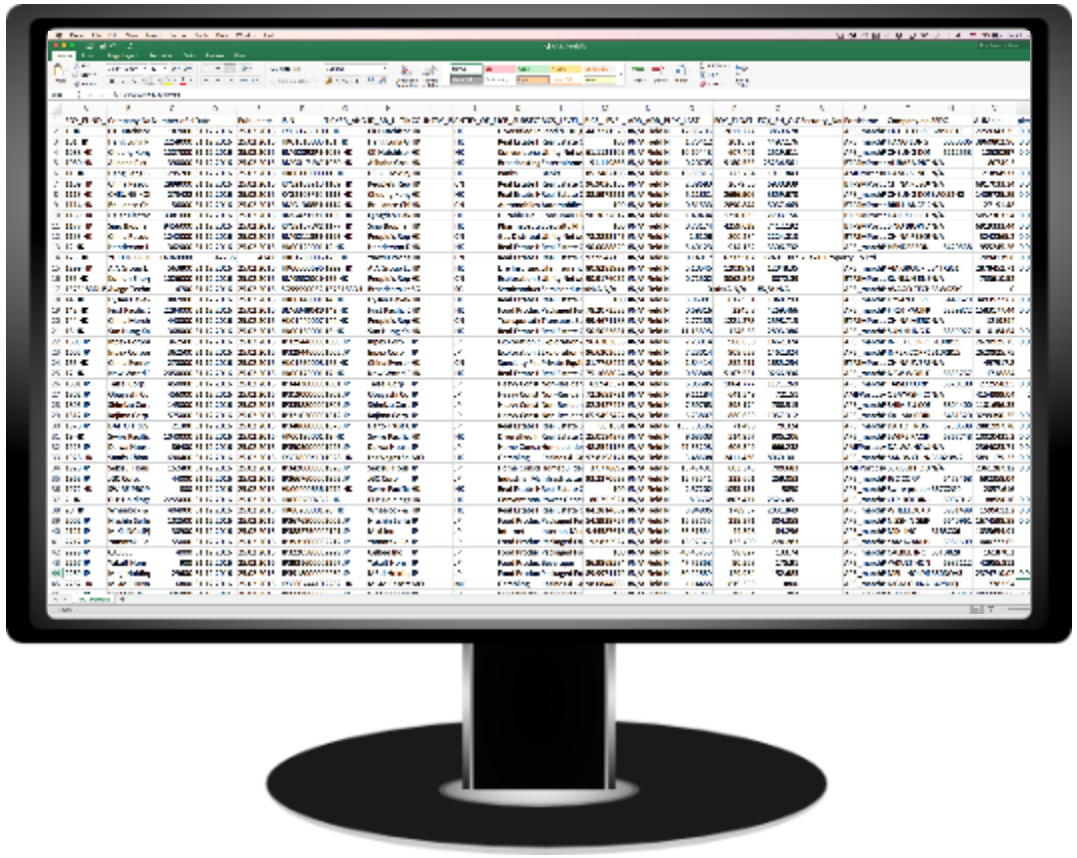
Technologies

Time Horizon

...

ECONOMIC SCENARIOS PORTFOLIO DATA INDUSTRY DATA FINANCIAL DATA MODEL FACTORS

BUILDING BLOCKS FOR THE MODEL

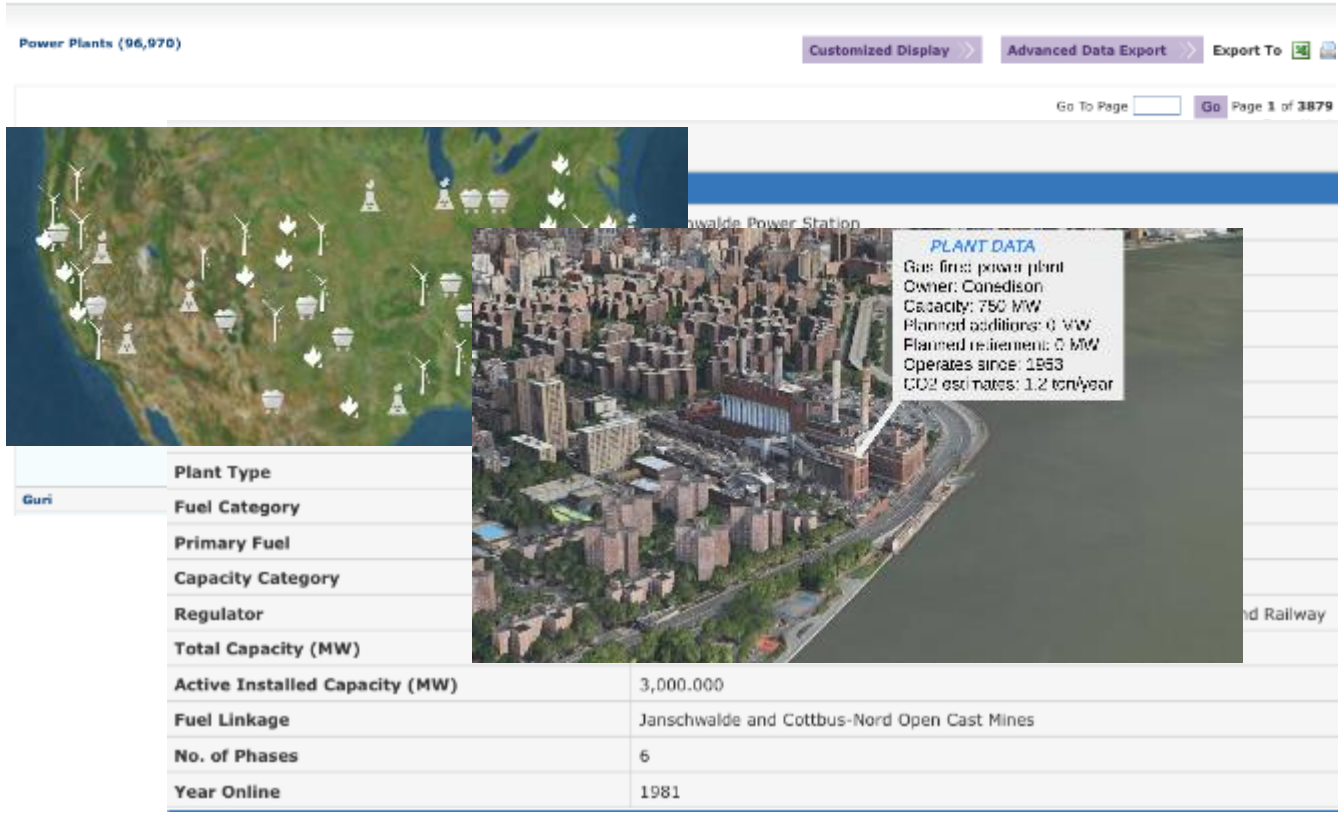


3 Data Points:

- Number of stocks or total size of the portfolio and weighting
- Unique Identifier (z.B. ISIN, SEDOL)
- *Company Name (for quality control)*

BUILDING BLOCKS FOR THE MODEL

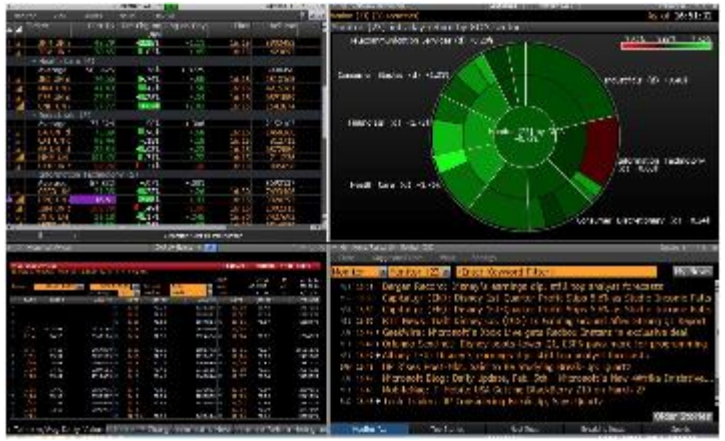
Challenges remain for certain sectors (e.g. Agriculture)



Data:

- 96.970 Power Plants
- 22.526 Oil- und Gas Fields
- 95 Million Produced Cars
- *36.507 Planes*
- *10.015 Ships*
- *2.231 Cement Factories*
- *12.810 Steel works*

BUILDING BLOCKS FOR THE MODEL



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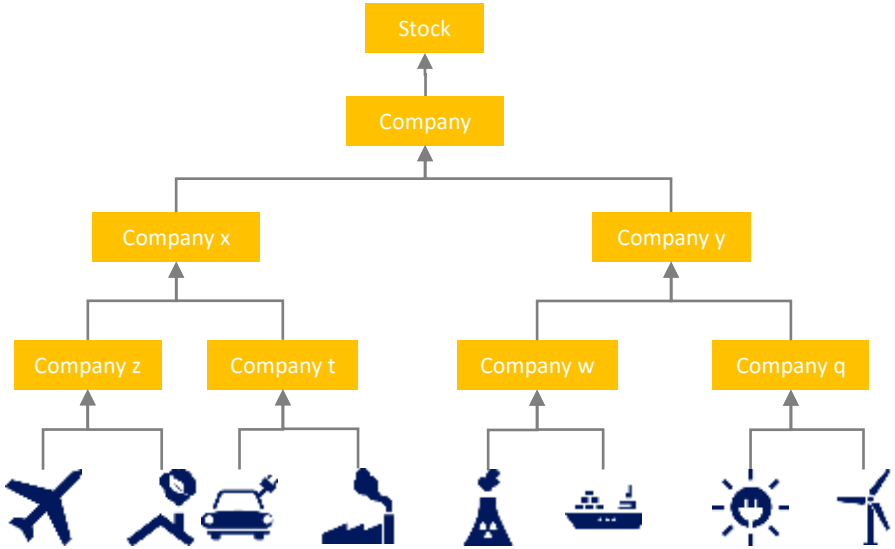


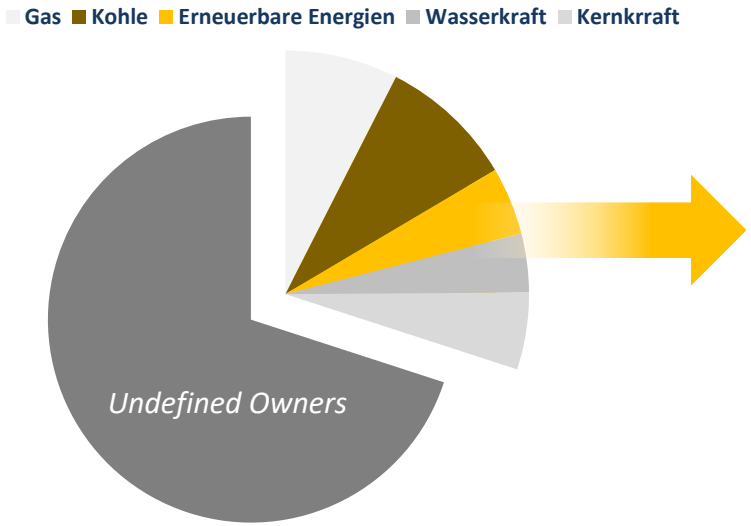
Bloomberg

Morningstar >70.000 Funds

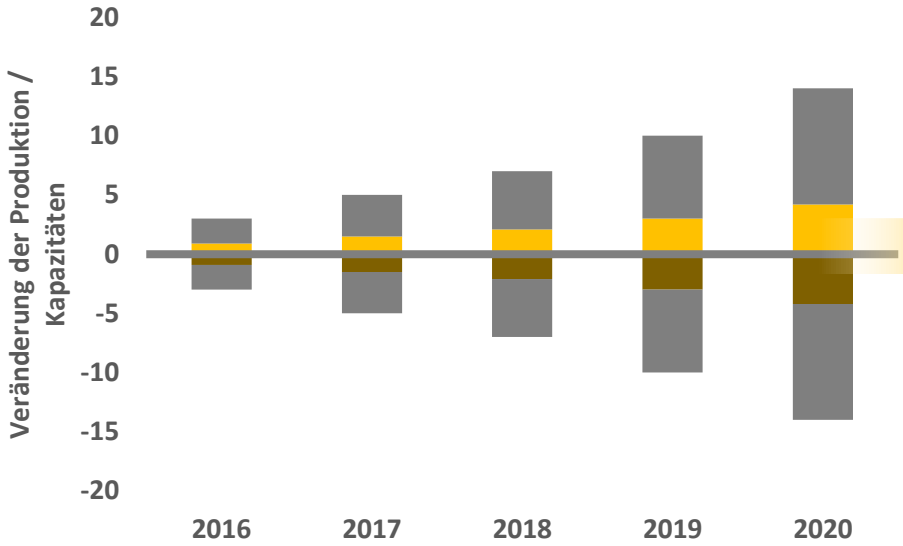
S&P Cross-Reference Services
Matching of 25 million 'unique identifiers'

ECONOMIC SCENARIOS PORTFOLIO DATA INDUSTRY DATA **FINANCIAL DATA** MODEL FACTORS

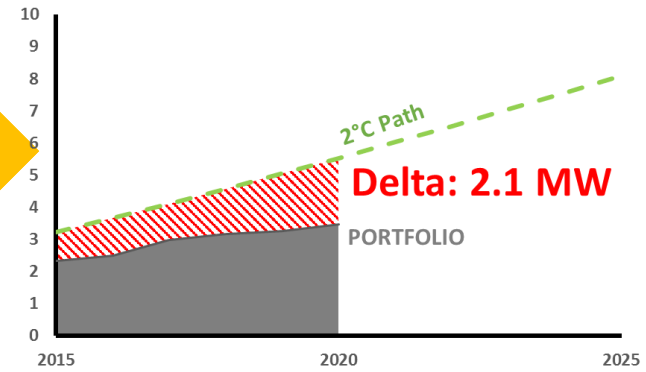
BUILDING BLOCKS FOR THE MODEL



1.Determination of the ownership in Global Production/Capacity by Technology



2. Allocation of production/capacity changes under the scenario path to producers on the basis of the 'fair share' principle with credit to existing assets

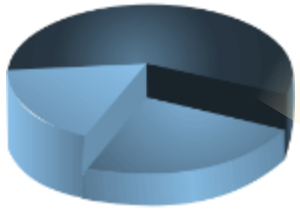


3. Portfolio and Market Analysis 2015-2020

ECONOMIC SCENARIOS PORTFOLIO DATA INDUSTRY DATA FINANCIAL DATA **MODEL FACTORS**

THE ANALYSIS

COMPARISON WITH PORTFOLIO



STOCK TICKETS

LISTED PARENT COMPANIES

OWNERS

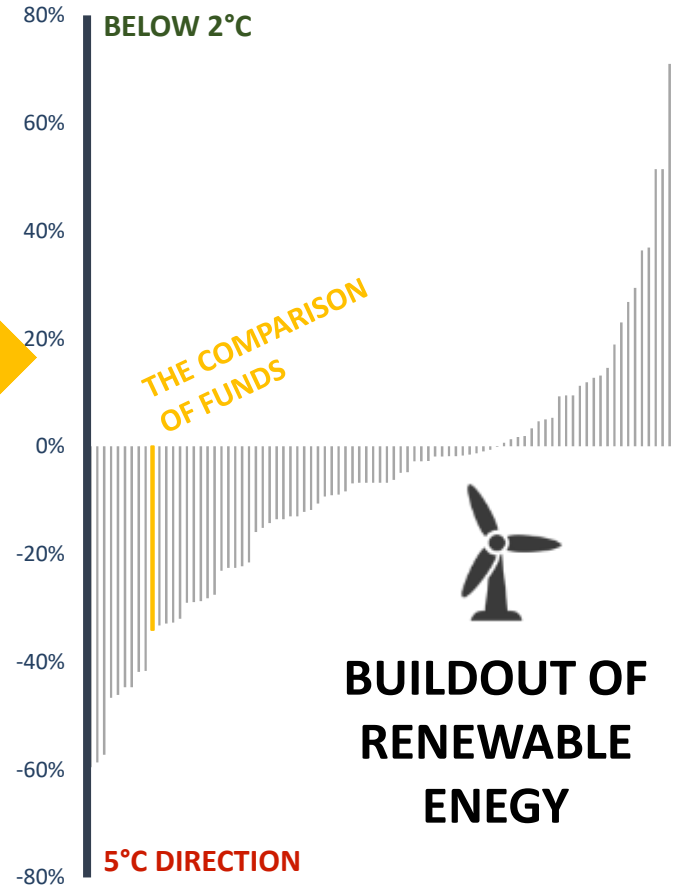
INDUSTRY DATA

ANALYSIS

	Fossil Fuels			Automotive			Power					
	Gas Production	Oil Production	Coal Production	Electric Vehicles	Hybrid Vehicles	ICE Vehicles	Renewable Capacity	Hydro Capacity	Nuclear Capacity	Oil Capacity	Gas Capacity	Coal Capacity
Global	16.5%	-26.1%	-100%	-94.7%	-85%	5.9%	-19.2%	-58.1%	189.2%	-39.3%	-32.1%	15.4%
GlobalAggregated	-70.3%	-79.7%	NaN				-21.9%	-40.4%	163.9%	-31.6%	-32.9%	43%
OECD	-4.4%	-32.2%	-100%				-23.1%	-39.1%	163.9%	-34.5%	-33.4%	41.2%
Non-OECD	-91.2%	-94.6%	-100%				-3.3%	-86.6%	-100%	-3.3%	-24.7%	58.7%
U.S.	-30.9%	-67.1%	-100%				384.8%	-100%	177.7%	-100%	-18.7%	-100%
EU28	-70.6%	-34.3%	-100%				-42.6%	-59.5%	115%	-7.2%	-19.1%	62.2%

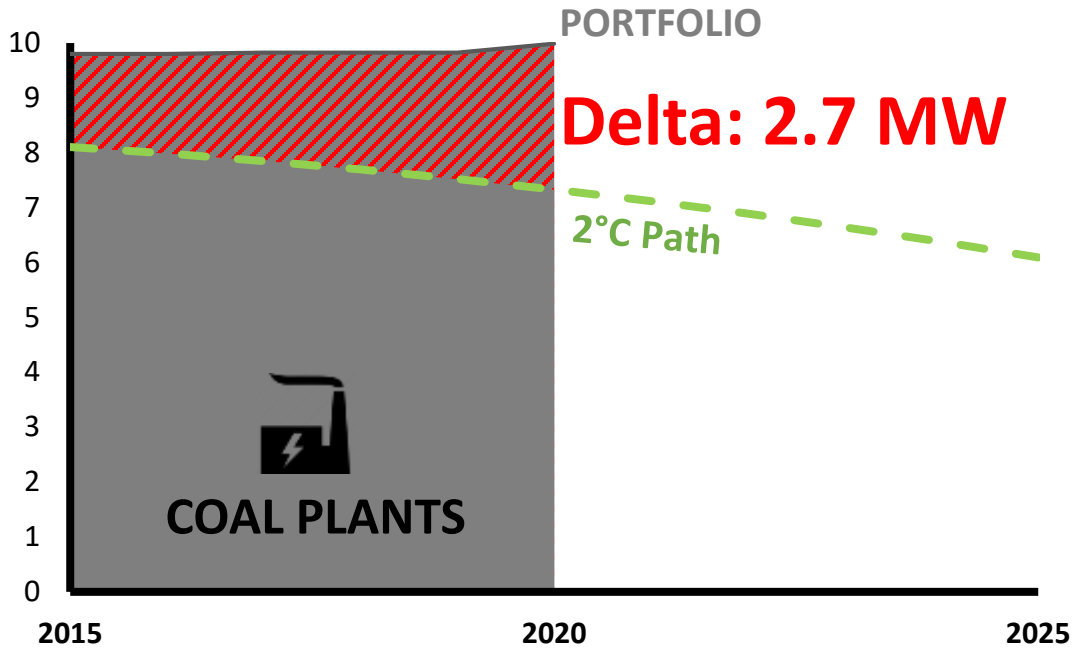
No regional benchmark for automotive sector

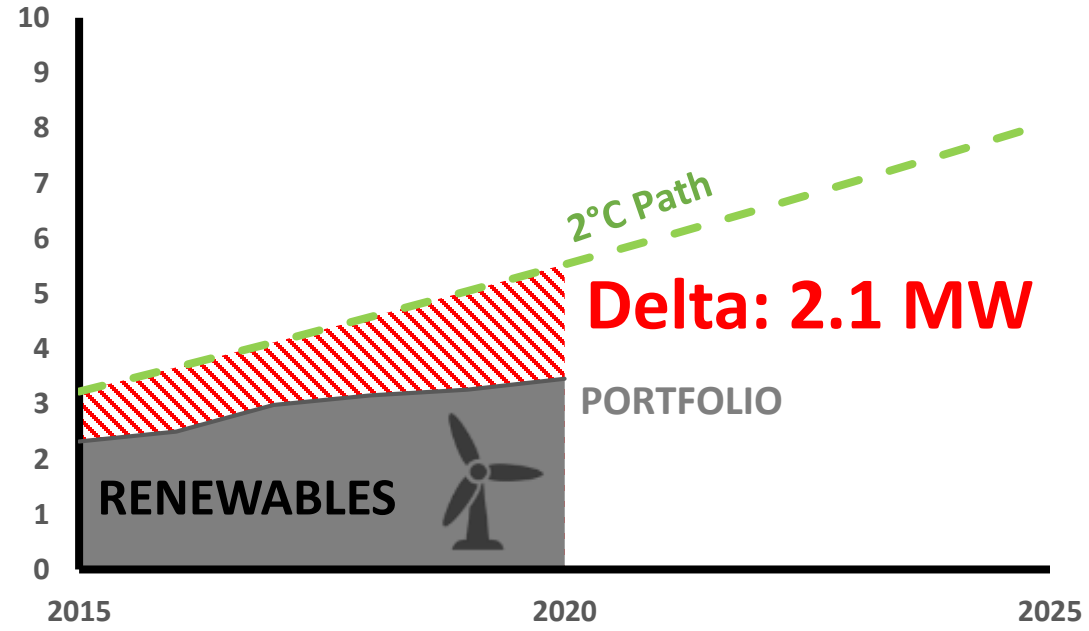
100 50 2°C 0 -50 5°C -100



BUILDOUT OF RENEWABLE ENEGY

EXPOSITIONS & CAPTIAL ALLOCATION FOR AN EXAMPLE PORTFOLIO





CAPACITY
(MW)

EMISSIONS
(Kt CO_2e in next 5 years)

INVESTMENT
($M in the next 5 years)

SALES
($M in the next 5 years)

Options for External Actors

Further Engagement

- **Own application of the model as a follow up to the project (as well as additional application with consulting services) – Bilateral training options**

- **Analysis of options for climate friendly financial products and investment strategies in the final report** (*NB: Interested fund managers and banks offering products are encouraged to reach out to transitionmonitor@2degrees-investing.org)*

- **Overview of service providers:**
  - Self Description (max 50 words), method of determining climate impact
  - Link (website or online-documentation)
  - Contact, Location
  - Coverage of analysis (sectors, asset classes)
  - # of clients

Where do I find further information?

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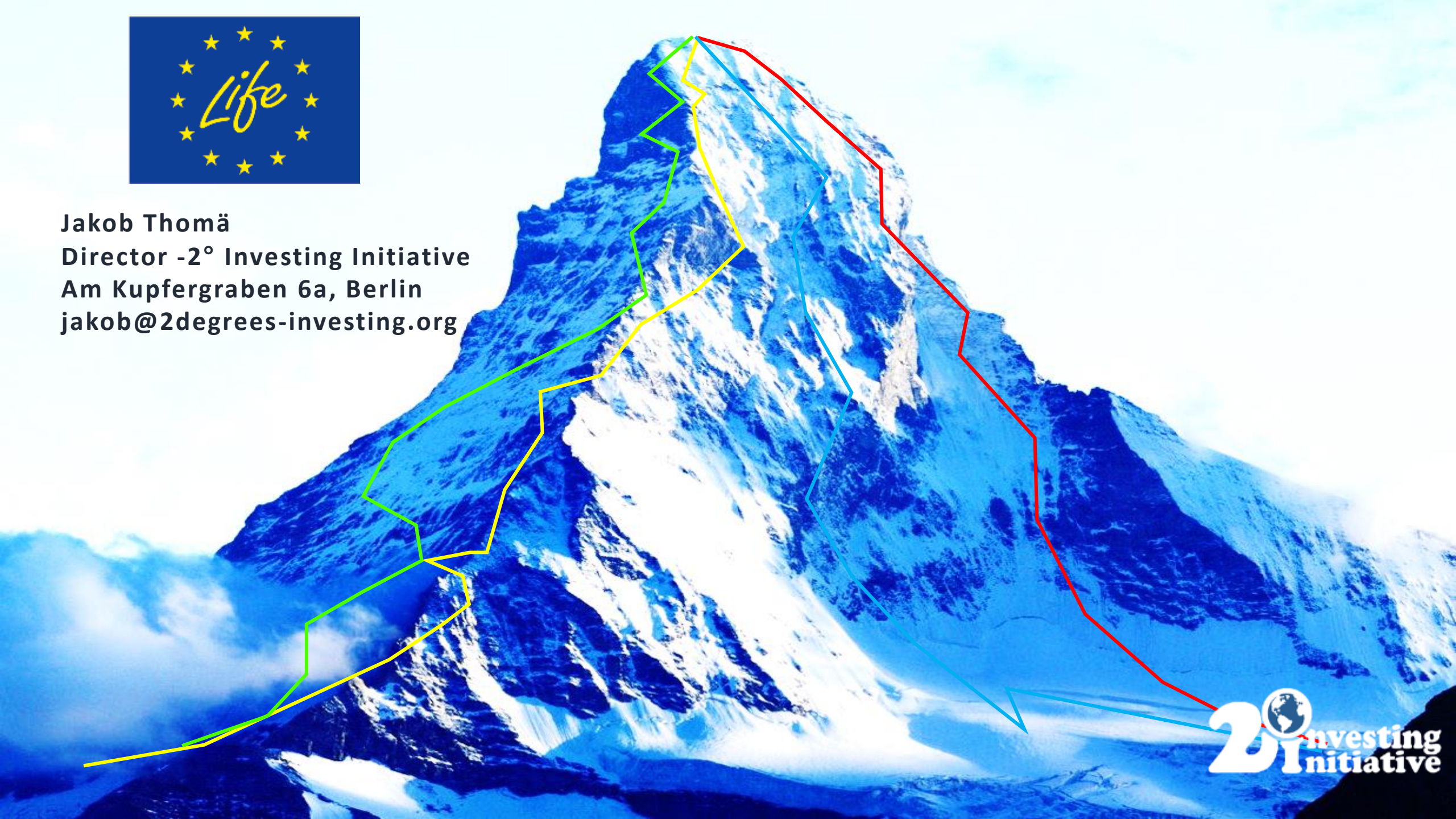

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