



PACTA for Investors Use Cases II

Climate Risk Assessment and Climate Disclosure and Reporting

***Case study:** Norway's largest pension company KLP: how PACTA fits into their climate analysis*

November 2022



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Disclaimer: The views expressed in this presentation are the sole responsibility of the authors and do not necessarily reflect the opinion of UK PACT.

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Case study:

*Norway's largest pension company KLP:
how PACTA fits into their climate analysis*

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Closing remarks



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PACTA methodology and Use Cases II

PACTA methodology

Physical assets
in the real economy



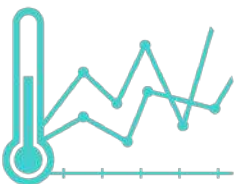
Physical assets in
the real economy
and their
corresponding
production values
are mapped to
loans, equities and
bonds

Financial institutions
Portfolios

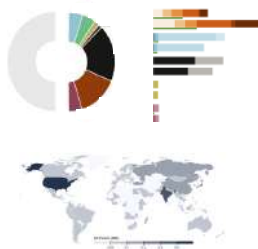


Alignment of loan
books, or
investment
portfolios are
benchmarked
against **climate
change scenarios**
and the **market**

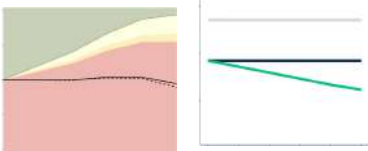
**Climate change
scenarios**



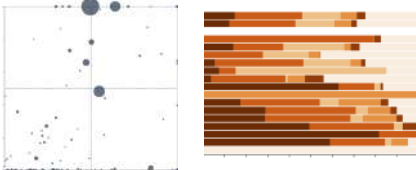
Metrics



Exposure



Alignment



Company



Risk

PACTA Use Cases



Climate decision
making and strategy



Climate risk assessment



Engagement



Climate disclosure and
reporting

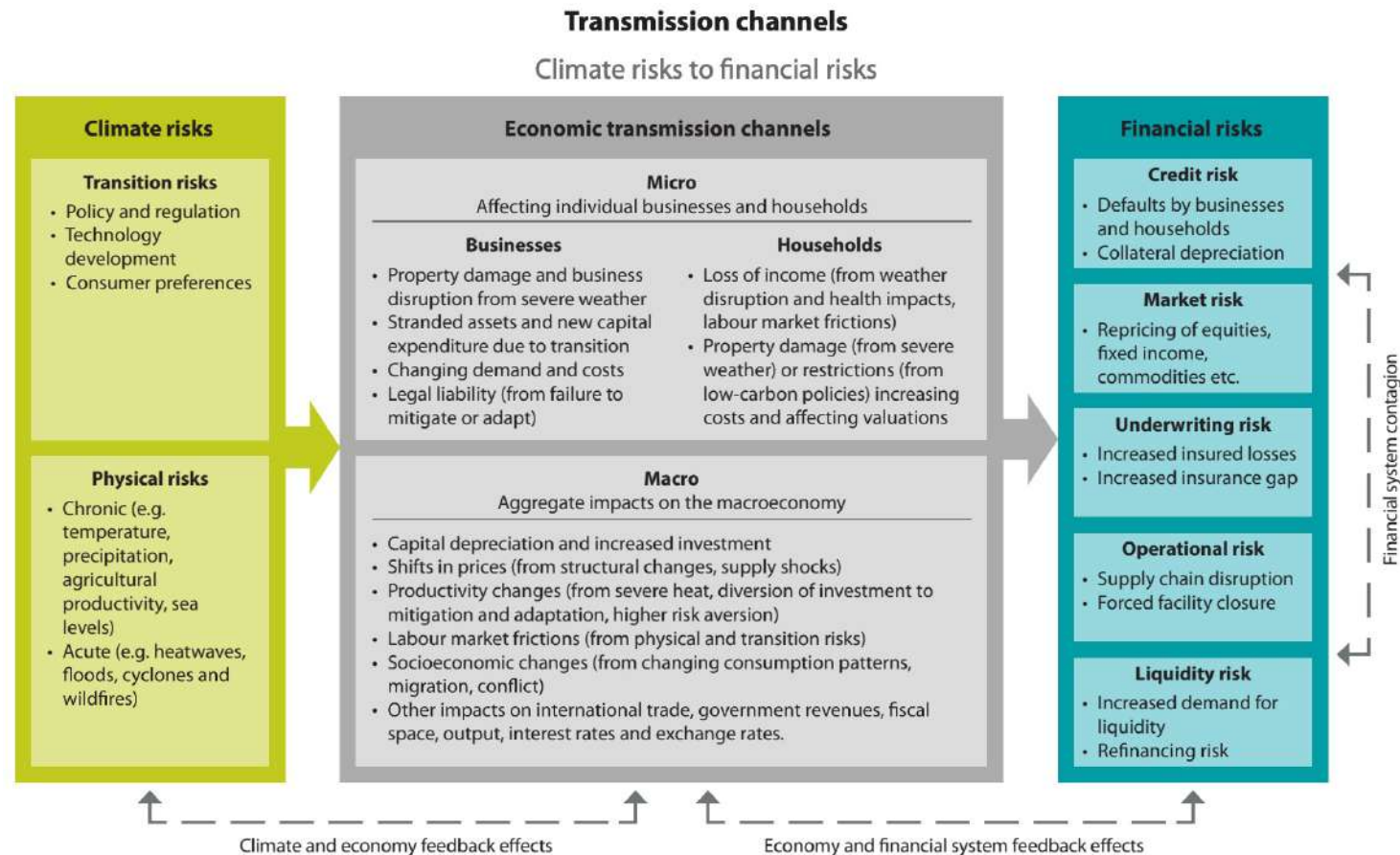
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Climate Risk Assessment Use Case



Climate risk assessment

“Climate risks could affect the economy and financial system through a range of different transmission channels.” NGFS, 2022.



Some examples of climate risk assessment approaches

Portfolio alignment:

- Used for measuring the gap between existing portfolios and a portfolio consistent with a specific climate target or **scenario**.
- According to the TCFD Portfolio Alignment Team report of October 2021:
 - *portfolio alignment is “...the action of assessing the net-zero transition progress of the individual counterparties that make up a given financial portfolio, and determining whether or not, at an aggregate level, that group of counterparties are collectively Paris-aligned.”*
- Portfolio alignment looks to answer the following question:
 - *How does a portfolio compare with a climate goal and what needs to happen to ensure they align in the future?*
 - This can be used as a tool to help inform an understanding of exposure to climate transition risk:
 - alignment to climate goal negates the exposure to future transition risks
 - misalignment to climate goals implies exposure to future transition risks

Some examples of climate risk assessment approaches

Scenario analysis: Looks at what might happen should a given **scenario** or set of scenarios unfold?

Typically conducted in four steps:

1. Identify physical and transition risk scenarios
2. Link the impacts of scenarios to financial risks (e.g., solvency, liquidity)
3. Assess counterparty and/or sector sensitivities to those risks
4. Extrapolate the impacts of those sensitivities to calculate an aggregate measure of exposure and potential losses.

Whereas **Stress testing** and **Sensitivity analysis** look at *what potential financial losses would a given portfolio be exposed to in the future and how might this vary under differing assumptions?*

Stress testing:

- A specific subset of scenario analysis, typically used to evaluate a financial institution's near-term resiliency to economic shocks, often through a capital adequacy target. Two main types: 1) Macroprudential, and 2) Microprudential

Sensitivity analysis:

- Also a specific subset of scenario analysis that is used to evaluate the effect of a specific variable on economic outcomes. In these analyses, one parameter is altered across multiple **scenario** runs to observe the range of scenario outputs that result from changes in that parameter.

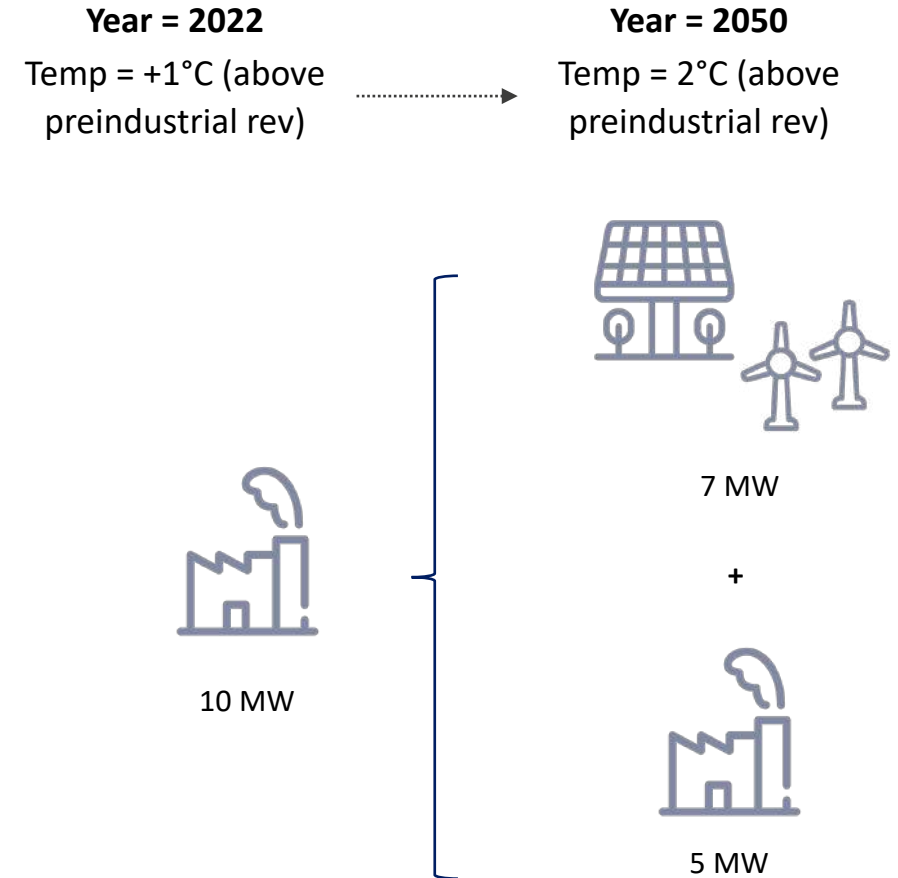
The relevance of (climate) scenarios in climate risk assessments

Scenario:

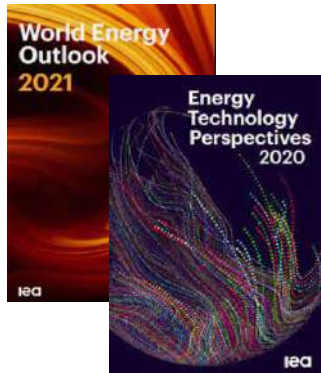
A plausible description of how the future may develop based on a coherent and internally consistent set of assumptions about key driving forces (e.g., rate of technological change, prices) and relationships. (IPCC, 2022)

In the realm of climate change...

Climate change mitigation and transition scenarios (decarbonization scenarios) provide one possible pathway for the technology deployment and /or carbon emission that one or multiple sectors and the economy as a whole may follow to reach a targeted goal.



PACTA selected scenarios



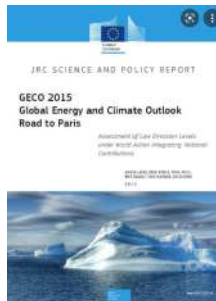
The International Energy Agency (IEA):

- WEO
- ETP



The Institute for Sustainable Futures (ISF):

- NZAOA



The European Commission's Joint Research Centre (JRC):

- GECO



The Inevitable Policy Response (IPR)
Forecast Policy Scenario (FPS)

IPR FPS

The **IPR** provides a forecast acceleration of policy responses to climate change, under the premise that governments will be forced to act more decisively than they have thus far, leaving financial portfolios exposed to significant transition risk.

The **FPS** is the scenario that lays out the major climate policies that are likely to be implemented in the 2020's and quantifies the impact of this response on the real economy and various sectors.

The growing odds of a late and disorderly transition



Global circumstances

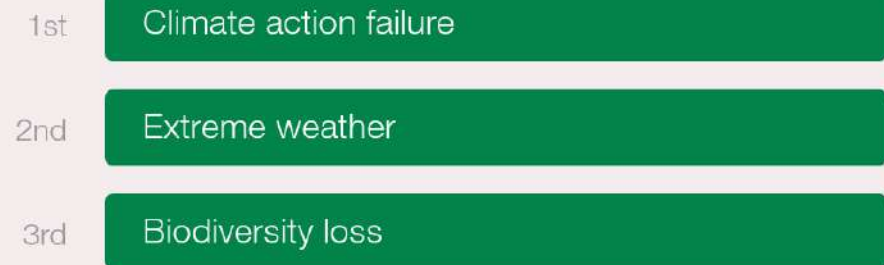
Opportunity to
accelerate the
transition



Regulation and commitment

Source: *Not too late – Confronting the growing odds of a late and disorderly transition*, NGFS September 2022

The top 3 Global Risks by Severity



Source: World Economic Forum Global Risks Perception Survey 2021-2022

PACTA Transition Disruption Metric

Managed disruption (1 to 1.5):

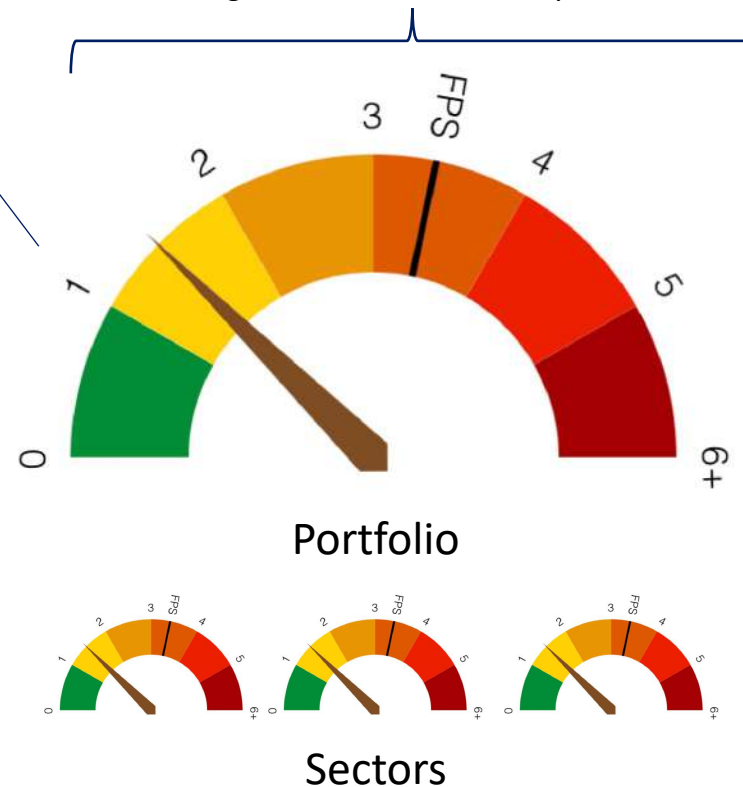
The portfolio has not fully mitigated the FPS transition disruption by 2030, but the residual disruption can be 'managed'.

Managed mitigation (from 0 to 1):

The portfolio is ahead or on track (when the value is 1) to fully mitigate the FPS transition disruption by 2030.

Full mitigation (0): The portfolio has fully mitigated the FPS transition disruption by 2030.

Unmanaged or high disruption (over 1.5): Increased unmanaged or high disruption, where the portfolio significantly lags in the mitigation of the FPS transition disruption by 2030. The acceleration of the pace of the capital stock evolution must be much higher than in the first five years.



The TDM helps investors prepare for potential portfolio disruption stemming from risks associated with a disorderly transition to a low-carbon economy.

It indicates the degree of potential portfolio disruption under the Inevitable Policy Response's (IPR) new Forecast Policy Scenario (FPS), going out to 2030.

Examples

The **European Central Bank (ECB)** cites the use of PACTA amongst other methodologies in its “non-exhaustive list of examples of tasks performed by the risk management function” in the “Walking the talk” report – [here](#).

Table 6

Non-exhaustive list of examples of tasks performed by the risk management function

Task type	Description of task
Expert opinion on client transactions	To analyse and provide expert judgement on exposures to clients from high-risk industries.
Recommendations for risk mitigation	To provide recommendations for actions to mitigate risk for transactions assessed as high risk.
Veto right	To veto transactions that are assessed as high risk.
Methodology development: risk management policies	To prepare and maintain the institution's climate-related risk management policies (e.g. exclusion policies).
Methodology development: portfolio alignment	To develop and roll out the institution's methodology for portfolio alignment assessments (e.g. using PACTA).
Methodology development: financed emissions	To develop and roll out the institution's methodology for measuring financed emissions (e.g. using PCAF).
Methodology development: client questionnaires	To develop and roll out the institution's climate-related client questionnaires for due diligence and data collection purposes.

Source: ECB, “Good practices on climate-related and environmental risks”, November 2022.

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Climate Disclosure Use Case



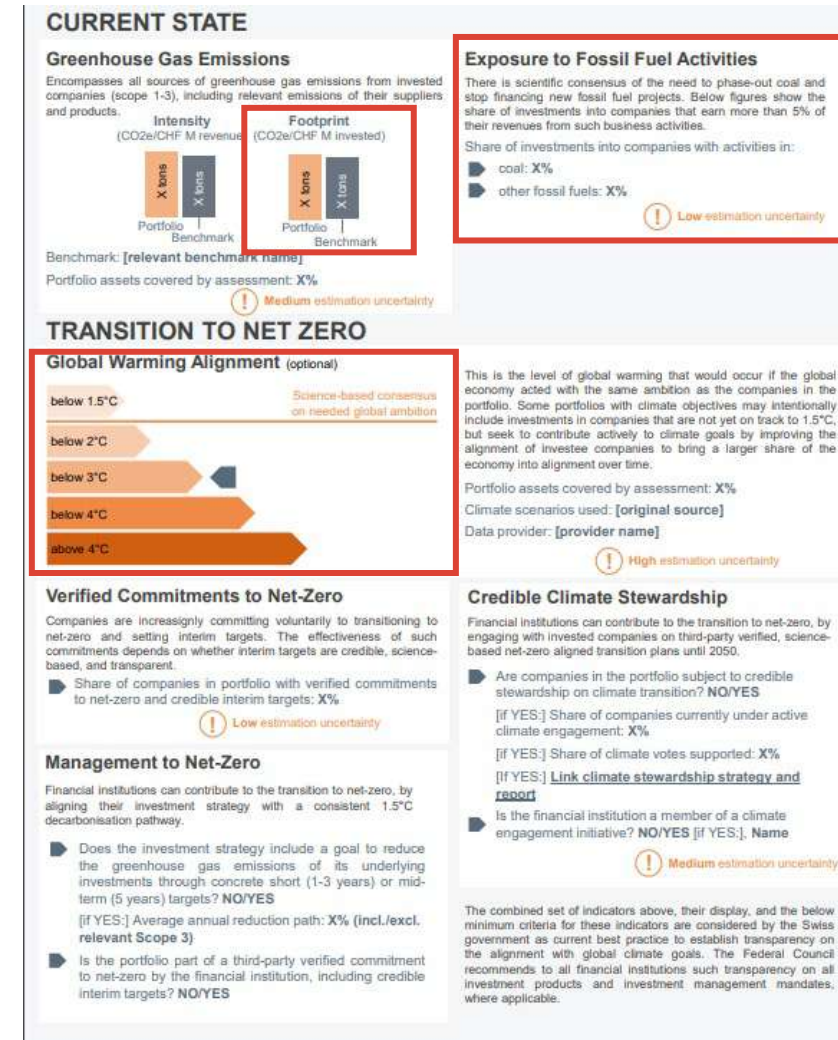
Climate disclosure and reporting

There are different reasons as to why an FI would report and disclosure its climate positioning (some examples given):

- Regulatory reasons:
 - SFDR** Sustainable Finance Disclosure Regulation
 -  EU taxonomy Regulation
- Communicating risk and opportunities:  Task Force on Climate-related Financial Disclosures
- Transparency and accountability on climate position: Sustainability reports

How can PACTA help in reporting and disclosing – Regulatory requirements

- Whereas PACTA in itself is never likely to directly meet regulatory requirements, it can be useful in understanding and contributing to them.
- Note that the TCFD (see next slide) is now a regulatory requirement for UK Fis.
- The PACTA approach aligns with elements of the “Swiss Climate Scores” (currently voluntary).



How can PACTA help in reporting and disclosing – TCFD requirements

“Given the importance of forward-looking assessments of climate-related risk the TCFD believes that scenario analysis is an important and useful tool for an organization to use...”

TCFD, The Use of Scenario Analysis in disclosure of Climate-related Risks and Opportunities

The core elements of disclosures



Source: Recommendations of the Task Force on Climate-related Financial Disclosures, June 2017

PACTA COP Survey:

- Engagement
- Climate initiatives
- Commitment

PACTA as a portfolio alignment and scenario analysis methodology and tool

PACTA data inputs for:

- Climate stress testing
- Sensitivity analyses

PACTA climate alignment metrics:

- Volume trajectory
- Technology mix

How can PACTA help in reporting and disclosing – Sustainability reports

Portfolio alignment (PACTA) can be an effective way to communicate on climate positioning via sustainability reports.

CIMB



ING



BNP Paribas



Why is PACTA good for reporting and disclosure?

PACTA's sectoral approach helps to communicate accurately in a disaggregated way:

- Demonstrating risks and opportunities per sector
- Aggregation at the portfolio level can lead to details being obscured

However, PACTA is limited...

- to the PACTA sectors and...
- can be harder to communicate to certain audiences

PACTA is forward looking:

- Allowing a FI to communicate what their alignment looks like in the future assuming all remains constant

However, PACTA is limited...

- In that it doesn't show your alignment today

PACTA is free and open-source methodology and tool:

- with no commitments required. i.e., you are not bound by the results of PACTA in any way
- It is not a black box – meaning stakeholders can see the methodology
- the scenarios used are provided by international recognized 3rd parties

Why is PACTA good for reporting and disclosure – Data?

Comparable data points:

- As PACTA is based on production values it does not suffer from inconsistencies in carbon accounting methodologies
- PACTA does not use estimates or proxies to fill in data gaps

Consistent data points:

- As PACTA is based on production values the alignment between yearly assessments will not vary based on market price fluctuations

PACTA is forward looking helping it to be decision useful:

- As PACTA shows where the alignment will be in 5 years as opposed to where it is today. It gives decision useful insight to stakeholders on what is and what needs to happen from a climate alignment perspective



Source: Centre for Climate-Aligned Finance, RMI 2022

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Case Study: KLP and PACTA





KLP's approach to Net Zero and how we use PACTA



Norway

Country in Europe

Norway is a Scandinavian country encompassing mountains, glaciers and deep coastal fjords. Oslo, the capital, is a city of green spaces and museums.

[More info](#)

[Add to project](#)

Points of interest in Norway



Google 100% Google Landsat / Copernicus Data SIO, NOAA, U.S. Navy, NGA, GEBCO IBCAO U.S. Geological Survey INEGI

1,000 km Camera: 11,357 km 39°05'17"N 27°21'50"E

This is KLP

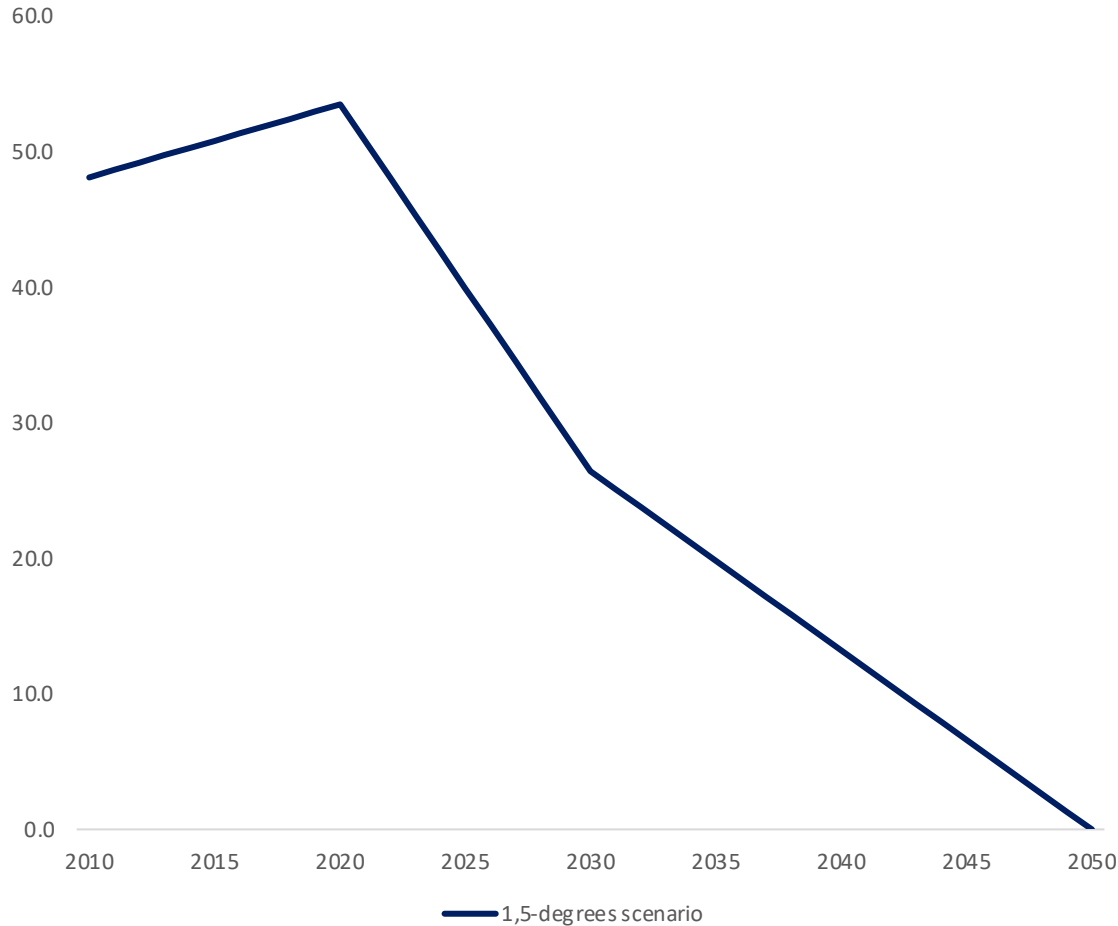
- Established by the municipalities in 1949 to secure pensions within a strong community
- Norway's largest pension company and expert on public-sector occupational pensions
- Manages USD 91 billion in pension assets for the Norwegian local government and healthcare sector
- Owned by municipalities, companies affiliated to the public sector and health enterprises

The road to Paris – KLP's roadmap to net zero

KLP supports the Paris Agreement and the 1,5-degree target. Now, the board has adopted KLP's roadmap to net zero emissions by 2050. The roadmap describes how KLP will work towards and measure our contribution to the goals in the Paris Agreement.



IPCC's global carbon emission pathway is the foundation for KLP's Net Zero target



But what does this mean?

How to know if an oil company is aligned with this pathway?

How about an IT company?

Can we use (EU) taxonomy data? But it's not here yet...

But what about the investments which we don't know so much about (from a climate perspective) yet?

Introducing the Paris Alignment Percentage

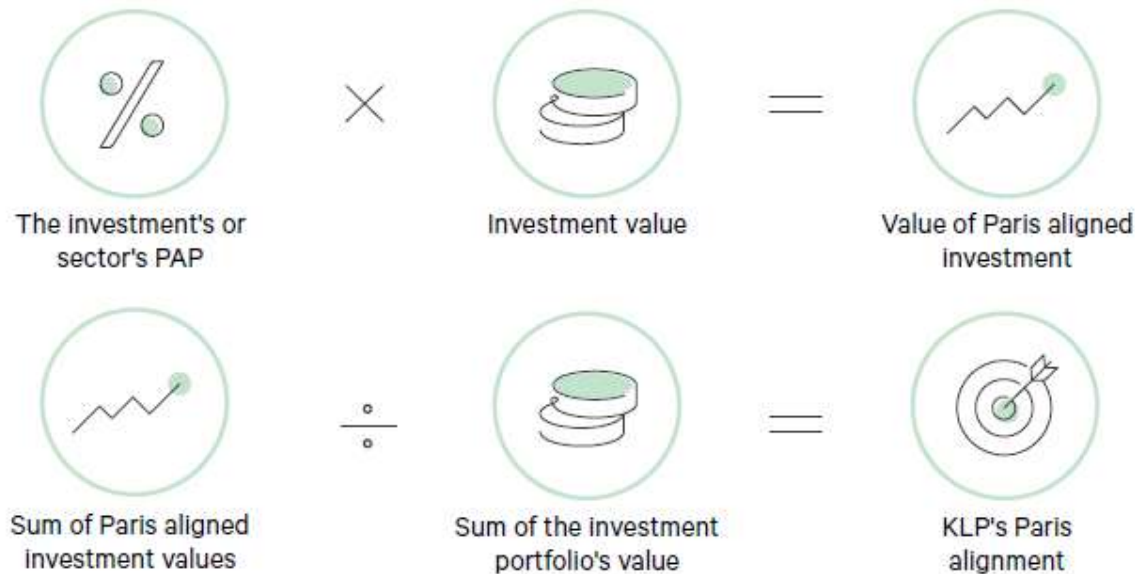
0%

100%



Moving in the wrong direction or no basis for evaluation

Net zero or doing (more than) its share towards net-zero in 2050



An indicator which facilitates **different approaches** to measuring different sectors with regards **to alignment**.

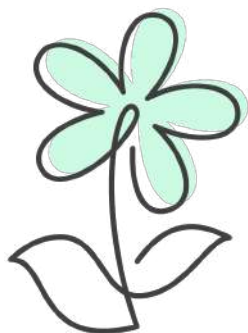
Able to adapt to new and improved methods and data

Sector by sector focus: Should incentivise decarbonising companies, not divesting from the sectors where decarbonisation is the most needed

Punishes lack of data, and incentivises more and better climate data

Input for KLP's total Paris Alignment Percentage

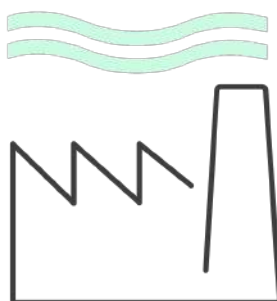
Aligned investments



Investments that are aligned with the goals in the Paris Agreement – Net zero, or nearly net zero emissions

100% Paris aligned

High emission sectors



Emissions intensive sectors where KLP can use scientifically based pathways to measure alignment

0-100% Paris aligned

Remaining investments



Sectors where KLP relies on best-in-class approaches to measure alignment

(Reduction in carbon intensity and Implied Temperature Rise (CDP/WWF))

0-100% Paris aligned

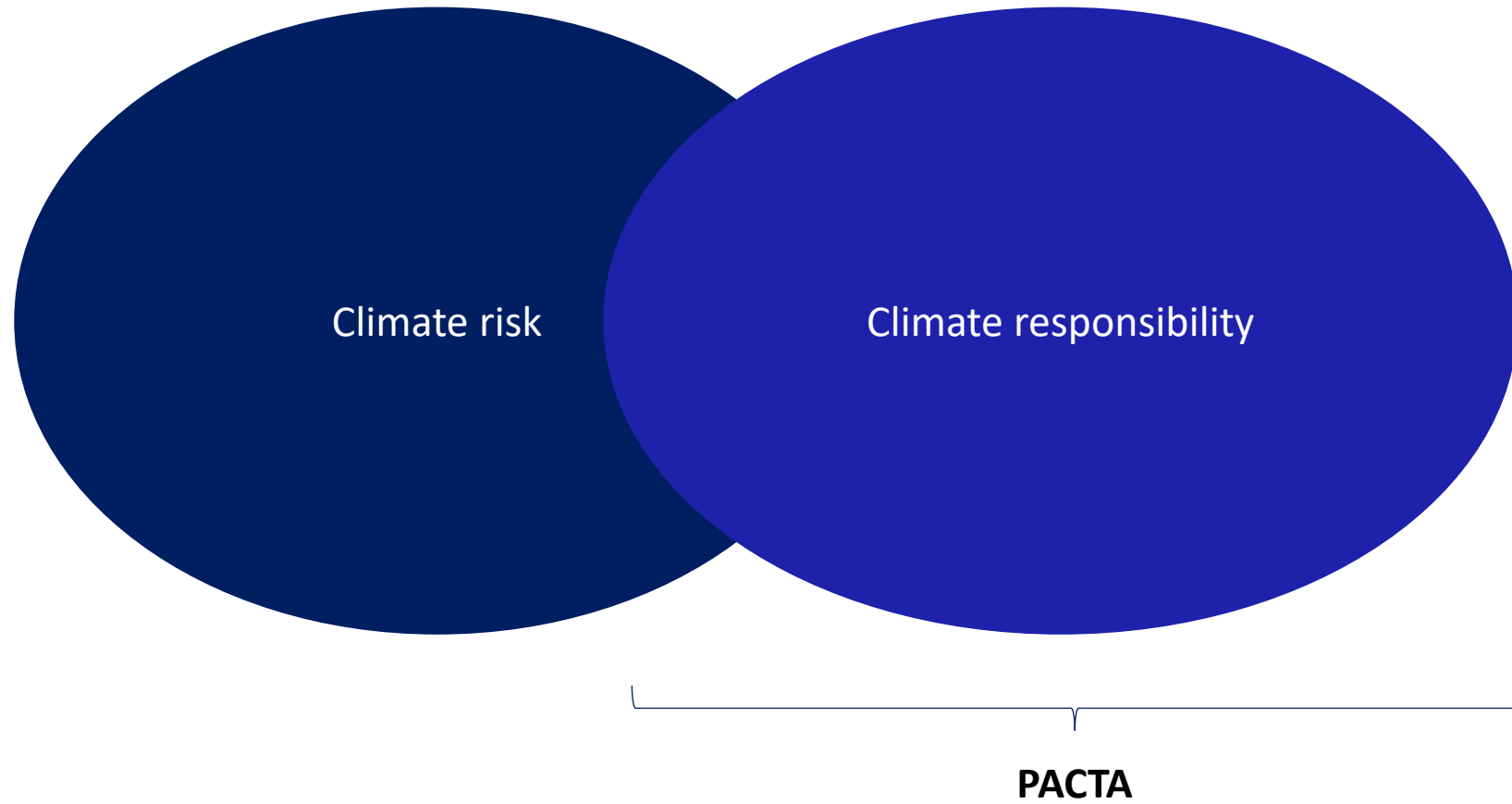
No data



In cases where KLP does not have enough data, or there exists no feasible method of estimating Paris alignment, we penalize these investments with a worst-case result

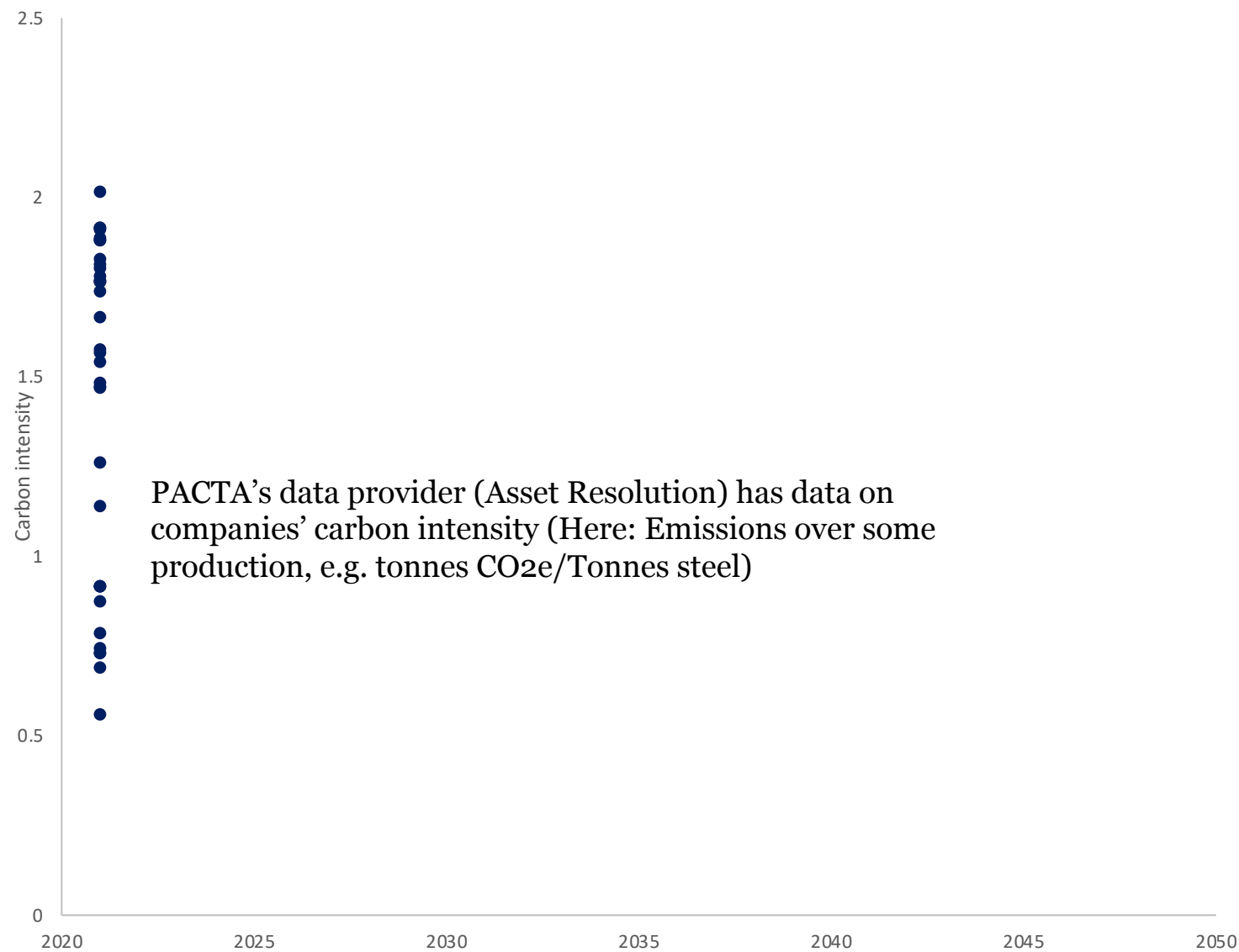
0% Paris aligned

KLP's use of PACTA methodology

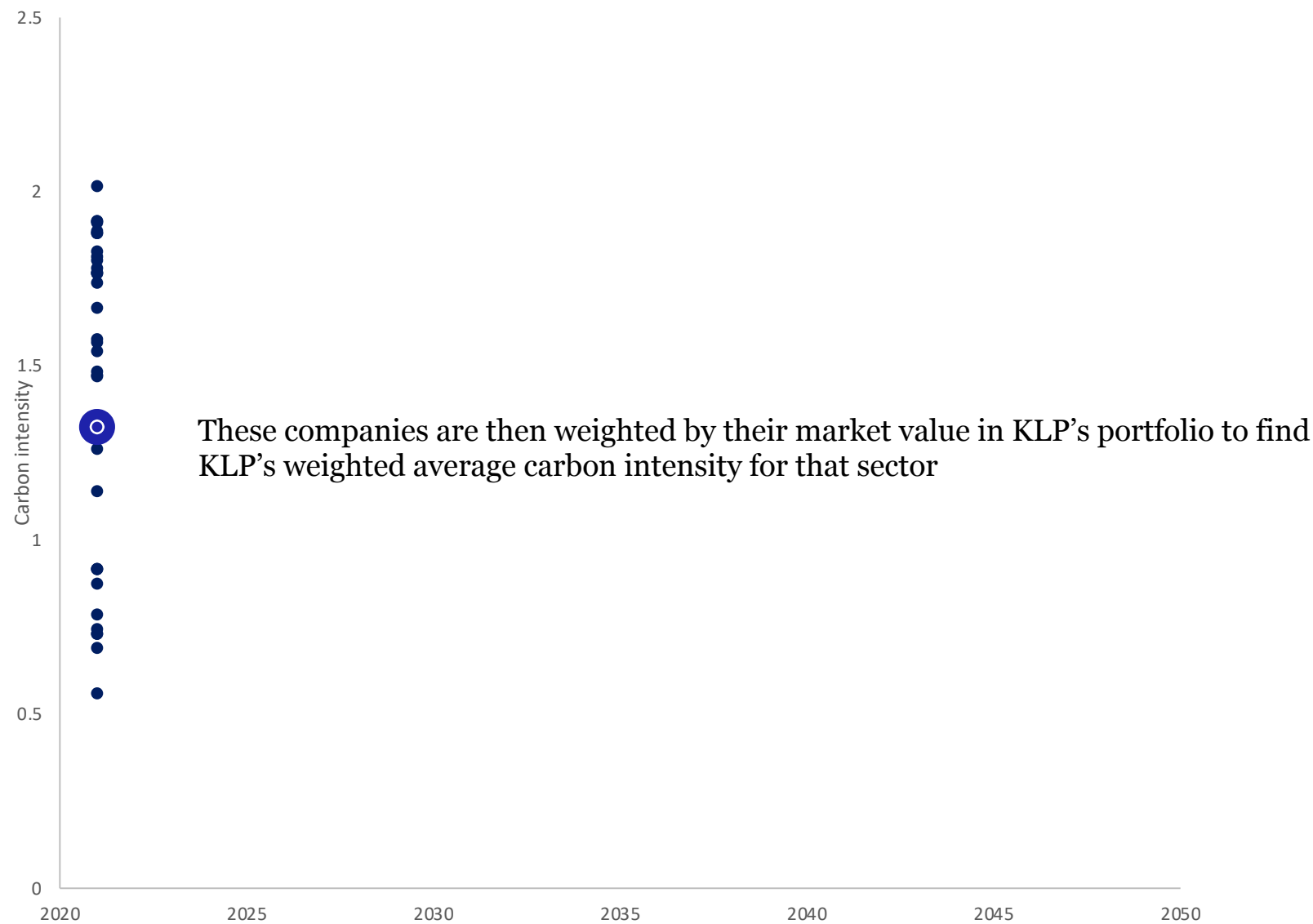


Sectoral Decarbonization Approach

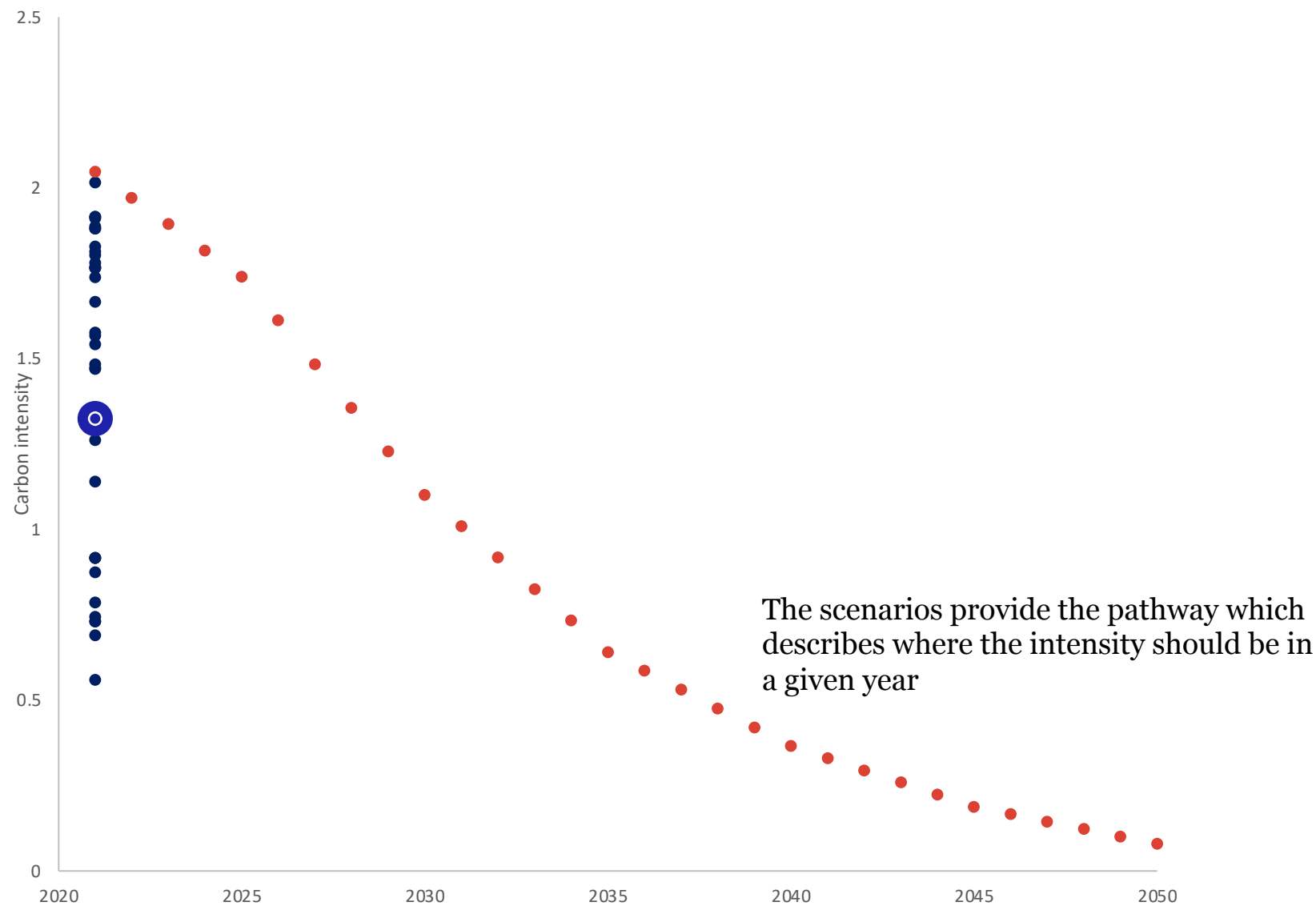
Measuring KLP's PAP using Sectoral Decarbonization Approach



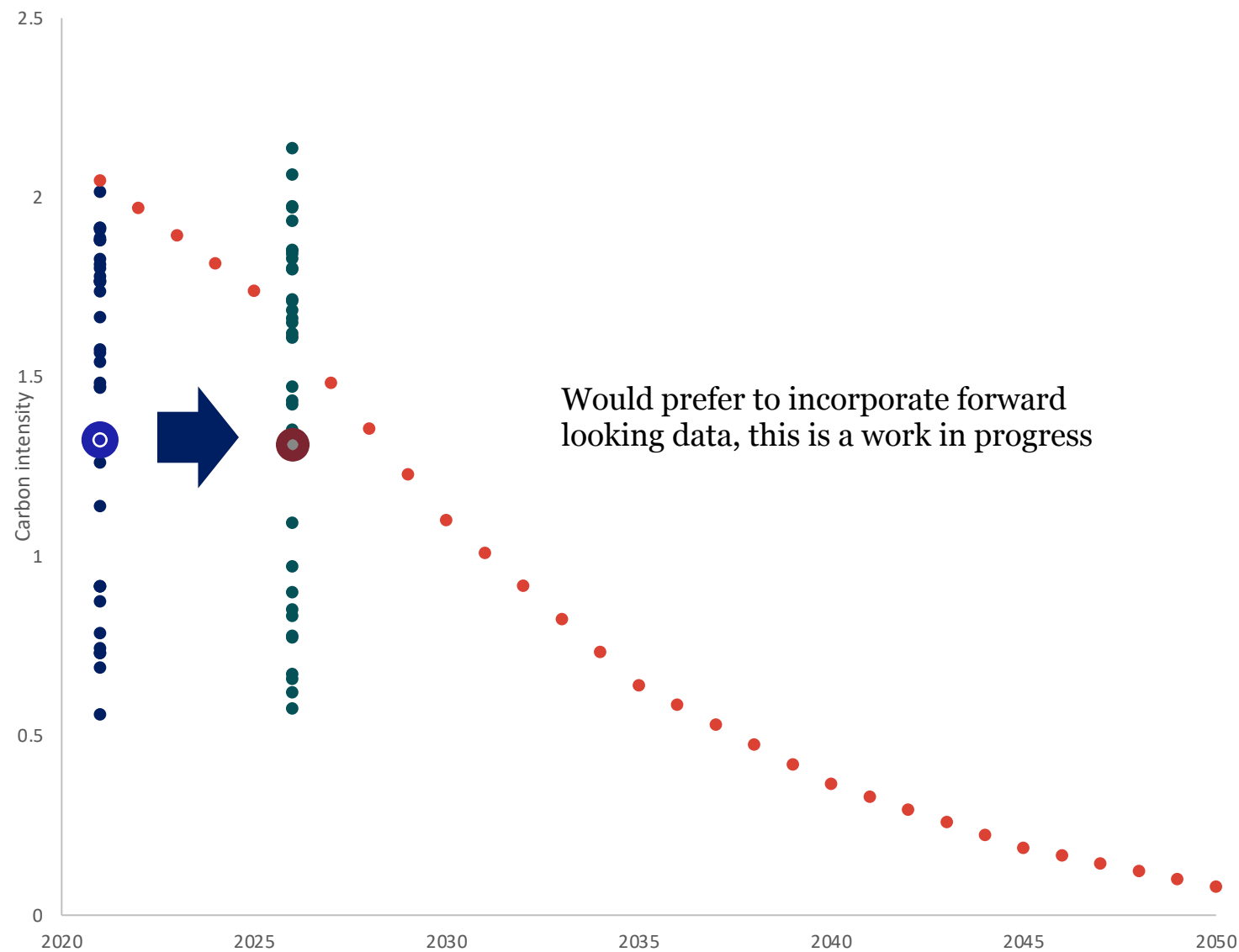
Measuring KLP's PAP using Sectoral Decarbonization Approach



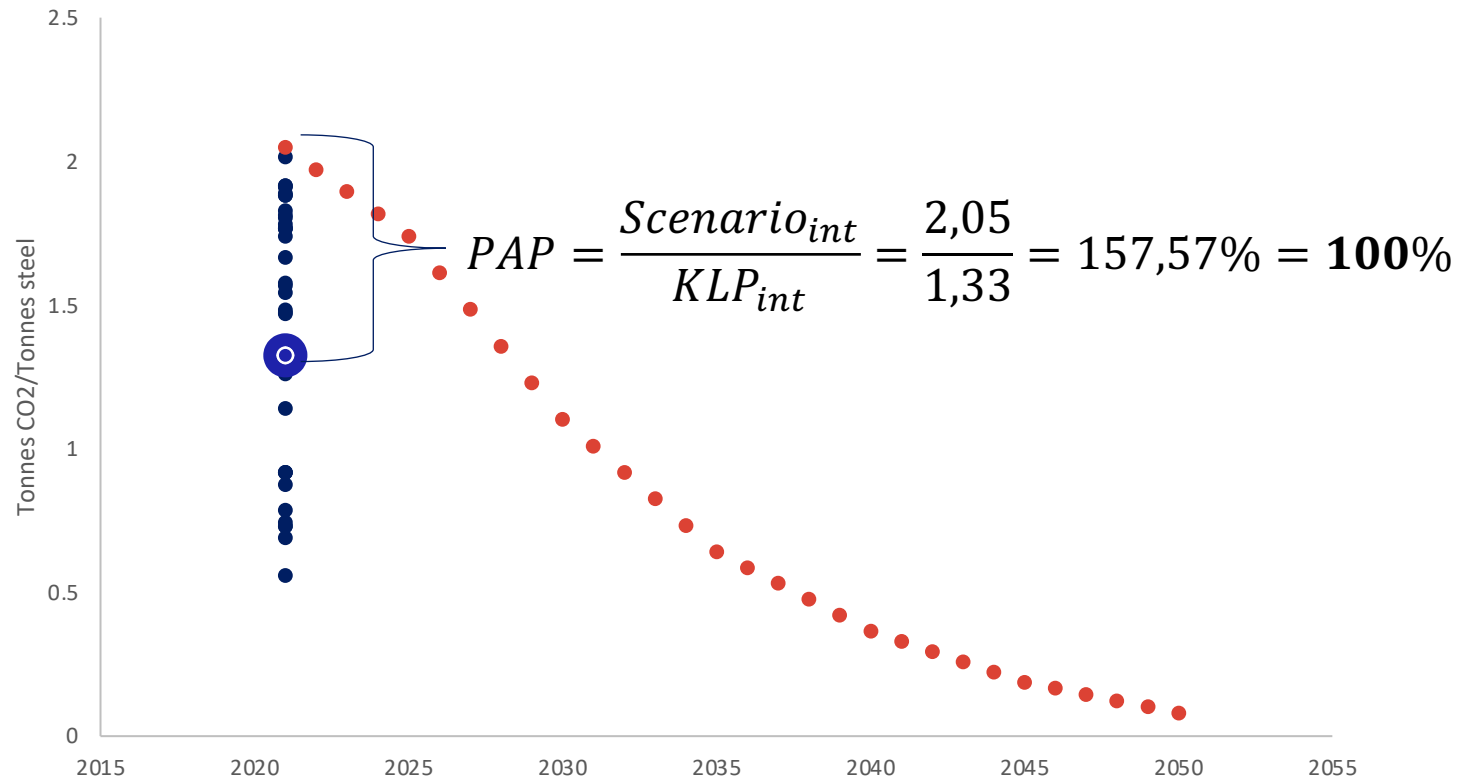
Measuring KLP's PAP using Sectoral Decarbonization Approach



Measuring KLP's PAP using Sectoral Decarbonization Approach



Steel companies – aligned, but not for very long

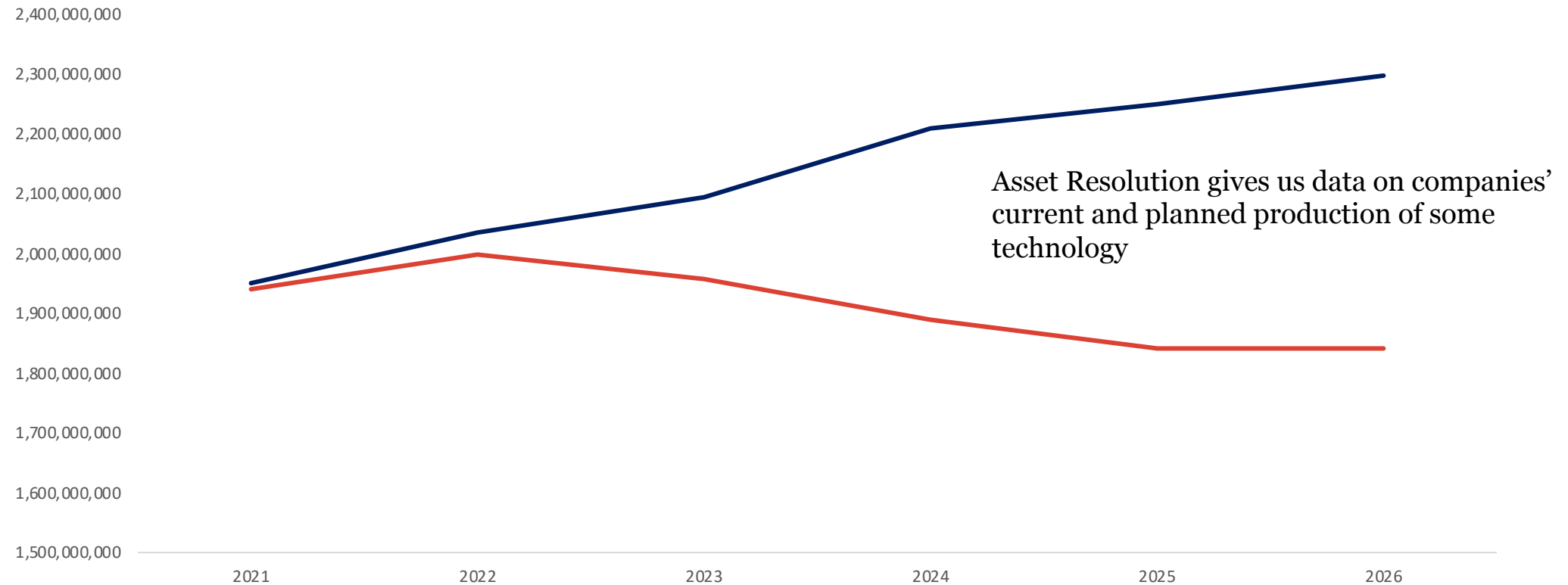


What does the EU taxonomy say?

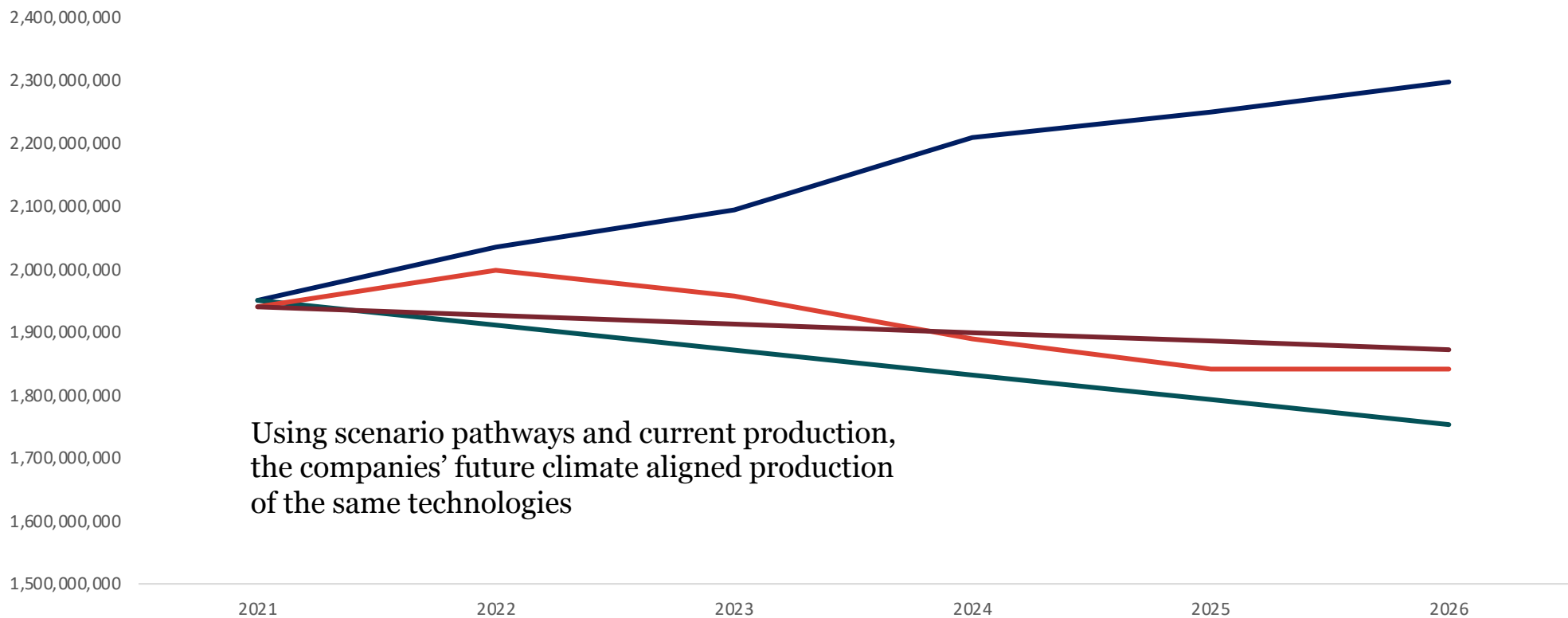
- i. hot metal = **1,331**
- ii. sintered ore = **0,163**
- iii. coke (excluding lignite coke) = **0,144**
- iv. iron casting = **0,299**
- v. electric Arc Furnace (EAF) high alloy steel = **0,266**
- vi. electric Arc Furnace (EAF) carbon steel = **0,209**

Market Share Approach

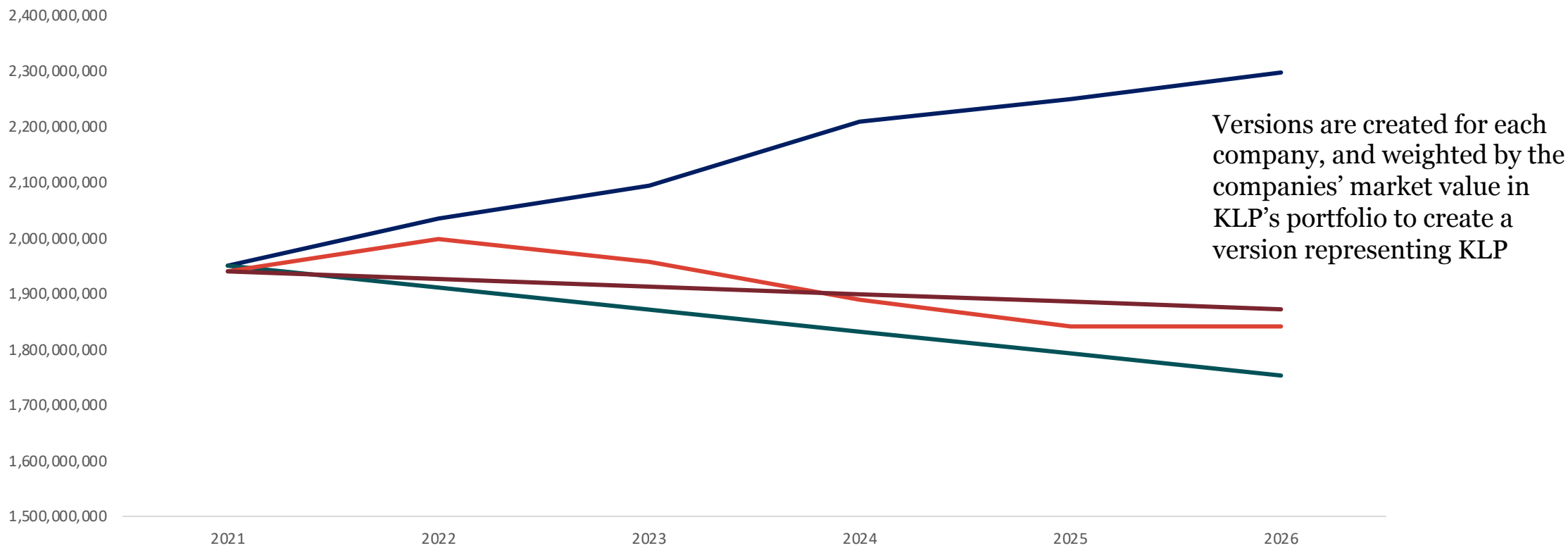
Measuring KLP's PAP using Market Share Approach



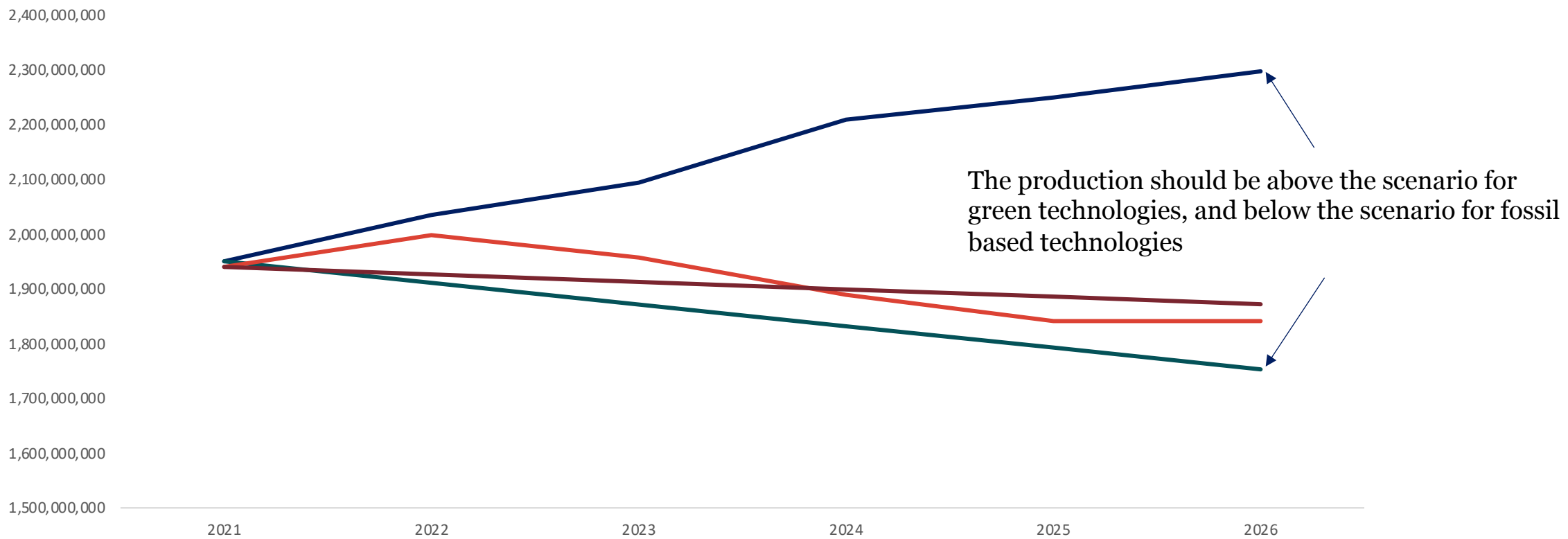
Measuring KLP's PAP using Market Share Approach



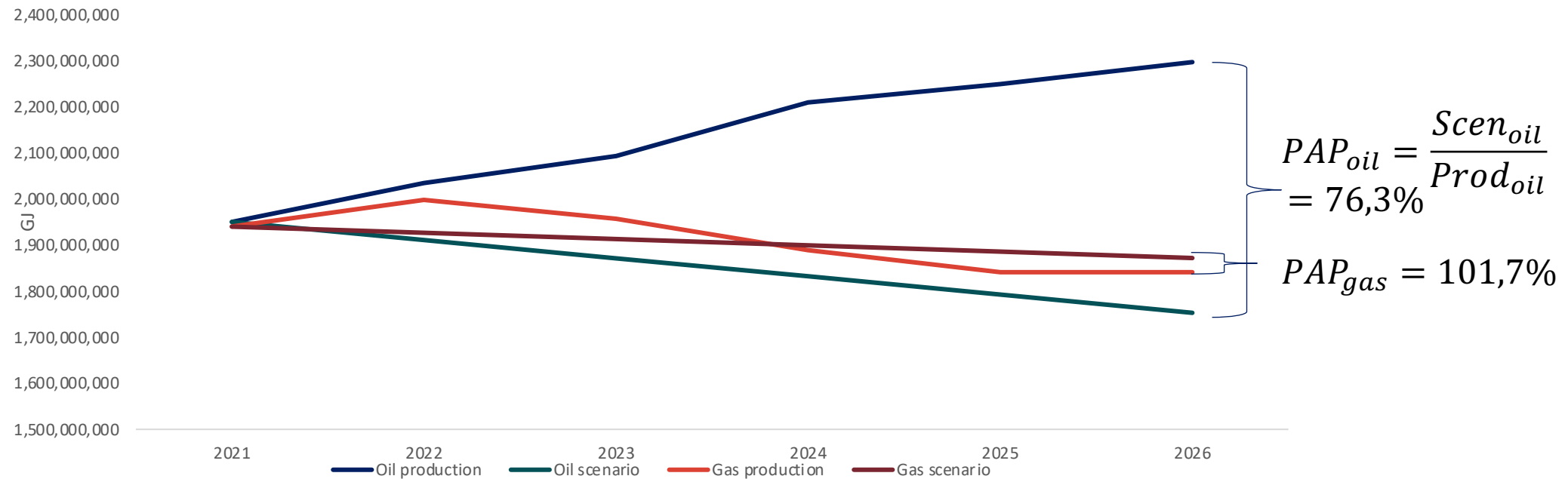
Measuring KLP's PAP using Market Share Approach



Measuring KLP's PAP using Market Share Approach



Oil and gas – Too much planned oil production, just about right with regards to gas



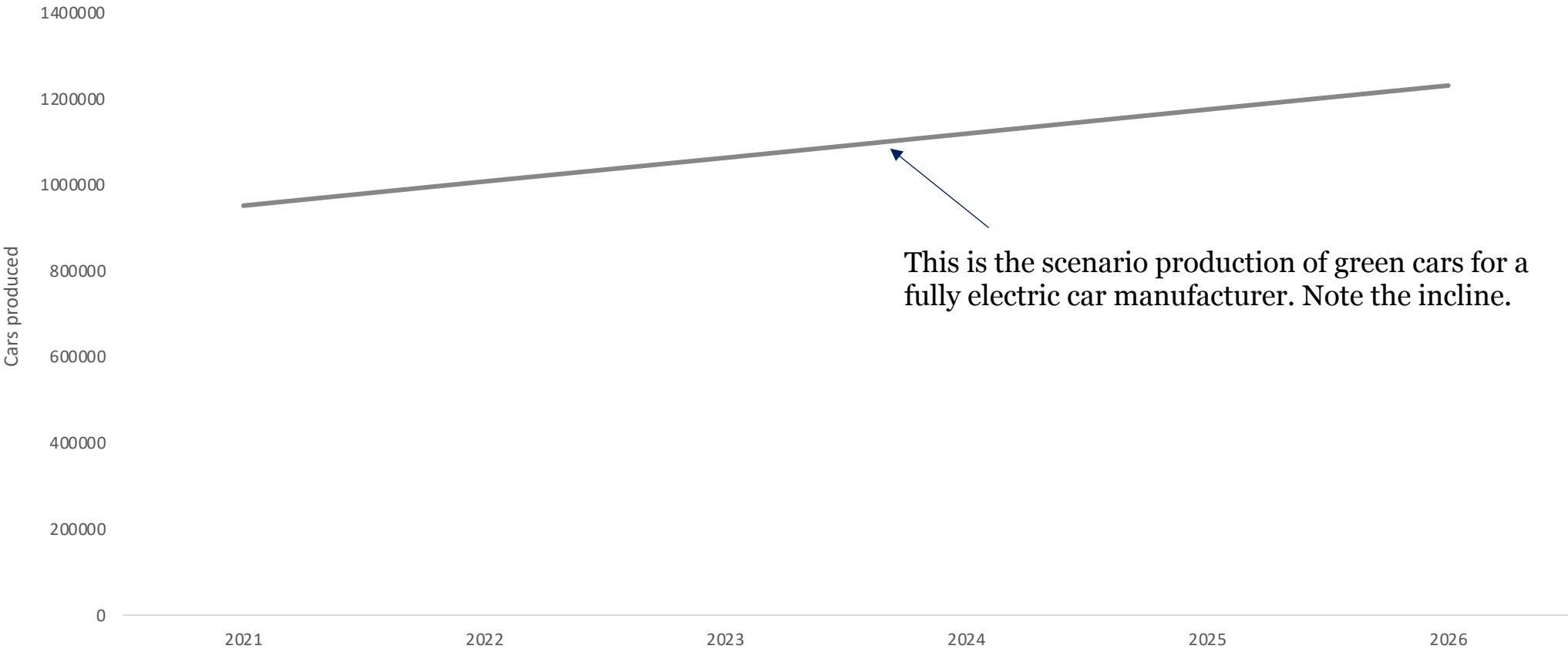
$$PAP_{OG} = Share_{oil} * PAP_{oil} + Share_{gas} * PAP_{gas} = 55,5\% * 76,3\% + 44,5\% * 101,7\% = \mathbf{87,6\%}$$

Summary of alignment calculations

Sector	Method	Paris Alignment Percentage
Steel	SDA	100,0 %
Airlines	SDA	100,0 %
Cement	SDA	100,0 %
Oil and gas	MSA	87,6 %
Energy production	MSA	77,9 %
Car manufacturers	MSA	64,5 %

Food for thought and consideration

Being 100% green isn't enough for the Market Share Approach



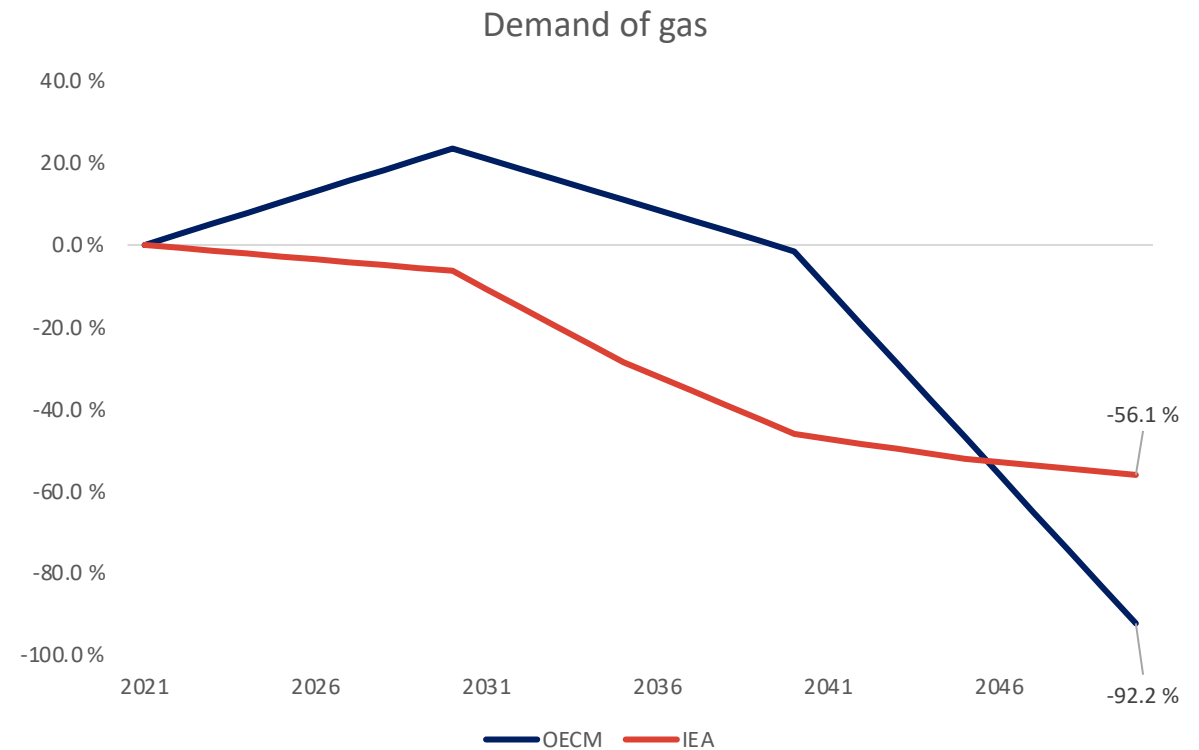
There isn't just one path to net zero, and that is an issue

Several developers of scenarios

- International Energy Agency (IEA)
- One Earth Climate Model (OECM)
- Network for Greening the Financial System (NGFS)
- To name a few...

Variations over

- Technology optimism
- Carbon capture and sequestration
- Differentiated responsibilities
- Carbon pricing
- Intention (risk or alignment)
- To name a few...



KLP uses the IEA Net Zero 2050 scenario for alignment considerations

Important elements for this choice

- Consistency across the sector
 - The European Banking Authority demands use of the IEA NZ 2050
- Is updated yearly
- Covers the most important sectors
- Has a good scientifically based foundation



But in the end, the general direction is the most important one, and all arrows point in the same direction: We need decarbonisation



Input?
Comments?
Ideas?



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Closing remarks

Closing remarks

- PACTA, is an approach to measuring climate portfolio alignment
- PACTA is predicated on decision useful data points
 - with the intention of supporting financial institutions in better understand climate change risk and opportunities...
 - to inform their decision making and strategy processes...
 - In such a way to steer investments towards decarbonization in the real economy.
- It is a free and open-source methodology and supporting tool
- The case studies presented in this webinar series are only two examples of how PACTA results can be turned into practical actions
- PACTA is constantly iterating, improving and expanding its scope
- This webinar series is publicly available, via the SIP website [here](#), covering:
 1. The PACTA methodology,
 2. PACTA practical implementation – the online tool,
 3. PACTA and the use case of “design investment strategies and inform investor engagements” SURA and CA100+ Case Studies
 4. PACTA and the use case of “climate risk assessment and climate disclosure and reporting” KLP Case Study

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Q&A



THANK
YOU



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