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'Paris Alignment'

Methodologies, Challenges and Alternative Approaches

Key Takeaways

Businesses from all sectors are increasingly expected to demonstrate that their targets and plans for reducing carbon emissions are consistent with the goals of the Paris Agreement – commonly referred to as 'Paris Alignment'. This is now a critical board level issue, exemplified under the climate governance pillar of the TCFD reporting framework, which has become the gold standard of climate related corporate reporting. There is an accelerating trend towards it becoming a mandatory reporting standard in certain markets, for example in the United Kingdom, the host of COP26 in November 2021.

However, there is currently no standardized approach to demonstrating Paris Alignment, especially the framework and assumptions used in transition pathways. In response to growing societal pressure and the expectation from investors becoming responsible stewards of capital, the financial sector, together with other stakeholders, has pioneered a number of initiatives to develop their own assessment criteria and guidelines. This has given rise to a variety of expectations, methodologies and outcomes. Regulators, asset owners, companies and other stakeholders are now all calling for the standardization of data, methodologies and reporting standards to address the challenges.

The Science Based Targets Initiative (SBTi) and the Transition Pathway Initiative (TPI) are prominent examples of such initiatives. These initiatives have the potential to significantly influence the shape of future global energy supply and consumption. Therefore, businesses need to understand the methodologies being adopted - and the limitations and challenges in their application.

This brief review of the two Paris Alignment methodologies highlights:

- **SBTi and TPI methodologies draw on the work of a complex ecosystem** of supra-national bodies, councils, panels and other institutions. Revisions to any of these elements may create unforeseen impacts and/or require regular updates to documentation (see Fig 1).

- **SBTi and TPI methodologies are helpful but imperfect in assessing the Paris Alignment of a company**. This paper highlights some challenges and areas of potential enhancement. One area of focus is the scenario used to define the emissions reduction pathway to be followed.
- **IHS Markit has the tools, data sets and expertise** to address these issues and assist companies in assessing, reporting and communicating the alignment of their emissions reduction targets and plans with the goals of the Paris Agreement.

Introduction

Companies operating in all sectors are under increasing pressure from investors and other stakeholders to demonstrate that their targets for emissions reduction are aligned with the goals of the Paris Agreement – namely that they are on a trajectory consistent with a global temperature rise of 'well below 2C' compared to pre-industrial times. This is increasingly being taken to mean trajectories consistent with a maximum warming of 1.5C and which achieve Net Zero emissions by 2050.

There are however multiple issues to be addressed in demonstrating such 'Paris Alignment' including:

- The lack of a standard agreed emissions reduction pathway to achieving Paris objectives; multiple global ***decarbonization scenarios*** have been developed by many organizations, many of which claim to represent Paris-aligned pathways;
- Multiple ***methodologies*** for assessing the Paris alignment of companies' targets;
- ***Significant challenges*** to achieve the short to mid-term rates of decarbonization required by commonly referenced 'Paris aligned' emissions scenarios;
- The use of ***approximations*** and ***estimates*** in the current methodologies; for example, in assessing the carbon intensity of products sold
- ***Inconsistent*** metrics and methodologies adopted by companies for reporting emissions which make comparisons infeasible and potentially meaningless;
- Inconsistent levels of ***disclosure*** of material assumptions, with resulting difficulty for stakeholders to compare the application of the scenarios
- Limited understanding and acknowledgement of the ***practical challenges and broader socio-economic impacts*** of rapidly decarbonizing the global energy system by those setting the rules. For example, trade-offs may be required against other ESG metrics, but there is little acknowledgement of this and no agreed basis for making these trade-offs.

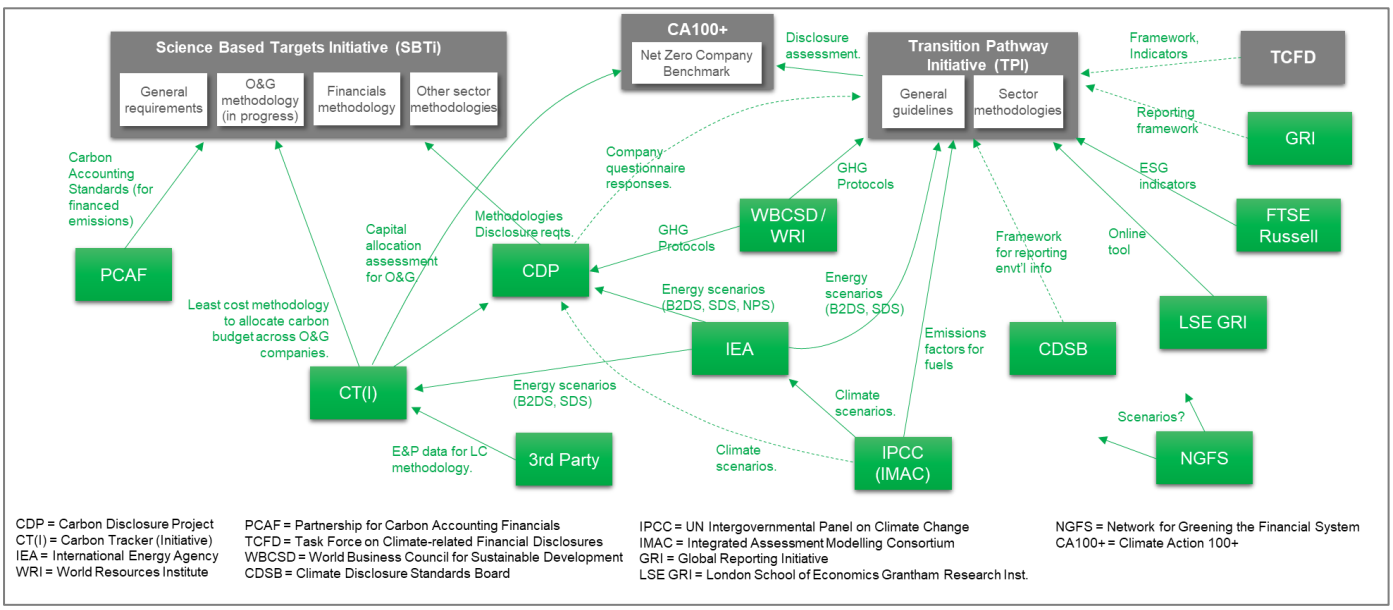
The above issues are causing significant challenges for companies to demonstrate Paris Alignment of their current portfolios and future investment plans. This in turn is creating a significant and growing risk of forced divestment from emissions intensive sectors and companies, including those fully committed to achieving climate goals.

Assessing Paris Alignment: SBTi and TPI

The assessment of whether companies are Paris aligned has spawned a complex ecosystem of organizations and associated methodologies (Fig 1 provides a simplified overview). Some general observations from this overview are as follows:

- Many parties involved, including advocates driving specific narratives/outcomes
- Minimum regulatory involvement to date in setting rules and standards
- Substantial financial sector involvement compared to involvement from the energy sector itself in developing the methodologies
- Extensive cross-referencing between organizations, requiring frequent updates of guidelines.

Figure 1. Assessing Paris Alignment: a complex web of organizations and methodologies, with SBTi and TPI increasingly prominent



Within this system two initiatives are gaining prominence with the global investment community[1]:

- Science-based Targets Initiative (SBTi)
- Transition Pathway Initiative (TPI)

SBTi is a partnership of CDP, UNGC, WRI and WWF (see Fig 1 for definitions) which promotes the adoption by companies of 'Science Based Targets' for emissions reduction – i.e. targets aligned with objectives of the Paris Agreement. SBTi sets the requirements which must be met for companies' targets to be classified as SBTs. Over 1,400 companies have committed to setting such targets and submitting them to SBTi for verification and endorsement.

TPI was founded by a small group of UK-based asset owners. It is now supported by around 100 financial institutions managing over $26 trillion of assets. TPI assesses companies on their climate-related Management

[1] The requirements of the Task Force on Climate-related Financial Disclosures (TCFD) are also widely adopted and are becoming mandatory in certain jurisdictions. However, the TCFD does not provide specific methodologies for setting emission reduction targets in line with the Paris Agreement. Rather the TCFD provides a framework for climate risk assessment and reporting. Other initiatives within the investment community include Network for Greening the Financial System (NGFS), Portfolio Alignment Team, and Climate Action 100+.

Quality and on their Carbon Performance; it provides public reports on the extent to which the company's emissions reduction targets are Paris Aligned. TPI focuses on publicly listed companies in 16 high-emissions business sectors.

SBTi and TPI have both developed assessment methodology guidelines, with sector-specific methodologies for emissions-intensive sectors. SBTi has also developed guidelines for financial institutions holding portfolios of assets.

Both SBTi and TPI provide transparent and relatively detailed guidance on their methodologies to define Paris Alignment, and the decarbonization scenarios they select or recommend. They both extensively reference the work of the IPCC and the IEA in defining the required decarbonization pathway(s) for specific sectors within the global economy. Both methodologies typically define Paris Alignment for a company in terms of convergence of the company's Carbon Intensity (per unit of output)[2] with the required sectoral CI pathway to achieve 'well below 2C' - based on Scope 1 & 2, and where relevant Scope 3, emissions. In addition, for oil & gas producers, the SBTi requires that any new source supply fits within the industry's remaining (uninvested) carbon budget.[3]

Whilst both approaches have merit, there are also some potential issues – issues which can create significant problems for companies in demonstrating their commitment to climate action, especially those in energy-intensive sectors. For example, in their latest report in April 2021 not a single company in the oil & gas sector was rated as Paris Aligned by the TPI, and in no sector were companies considered to be reducing emissions fast enough to meet targets[4].

Some of the key issues include:

- Methodologies are still 'work in progress' and subject to change
    - For several sectors the detailed methodology guidance notes provided by both SBTi and TPI are still in development or are undergoing revision. Furthermore, the referencing of IEA scenarios raises the question of whether the methodologies will be updated to align with the IEA's recently published Net Zero 2050 Roadmap. This lack of established, stable and agreed 'rules' creates a significant risk for companies and investors.
- Choice of global decarbonization scenario
    - Both initiatives reference IEA scenarios which posit an immediate and linear emissions reduction pathway. Other Paris aligned scenarios, such as IHS Markit's Net Zero Emissions scenarios, include a bridging period of 5+ years with slower emissions reduction followed by a more rapid decline. Such scenarios may better represent the reality of policy and investment lag.
- Sectoral definitions used in the Sectoral Decarbonization Approach (SDA)
    - All companies within an economic sector are measured against the same decarbonization pathway, so sector definition greatly influences the required pathway. For example, the TPI assesses all

[2] SBTi also permits, and in some cases requires, targets based on absolute emissions reduction

[3] In the IEA's new Net Zero Roadmap published 18 May 2021, the remaining uninvested carbon budget for oil and gas is assessed to be zero, i.e. no further investment in exploration or development of discovered resources.

[4] 'State of Transition 2021', Transition Pathway Initiative, 13 April 2021

primary energy producers (oil, gas, coal, biofuels, nuclear etc.) against the same decarbonization pathway for primary energy, as defined by the IEA scenarios. Similarly, the (draft) SBTi methodology for oil and gas requires integrated oil and gas companies to set targets aligned with the "integrated energy" sector, which encompasses the overall provision of energy to the economy.

- Treatment of Scope 3 emissions
    - Climate scenarios do not distinguish Scope 1, 2 and 3 emissions – these are attributes of individual organizations. Since the same Scope 3 emissions can 'belong' to more than one company (e.g. an auto manufacturer and an oil company) there is potential double counting of Scope 3 emissions in company targets and hence potential misalignment of required sectoral decarbonization pathways with company targets.
- Treatment of carbon offsets
    - According to the SBTi Corporate Manual v1.0 published in April 2021, "Offsets shall not be counted as reductions toward meeting an SBT". However, according to a blog published by CDP[5], "Good offset projects should lead to real reductions or sequestration of carbon. They should be monitored, verified and must have concrete ownership". Companies would benefit from clarity from regulators and standard setters on the treatment of offsets, the sooner the better. Offsets could be a valuable stop gap whilst long term technologies are being developed and deployed. Applying a limit to the level of offsets allowed may be appropriate in incentivizing the desired corporate behaviour.
- Use of approximated industry-wide assumptions
    - Due to limited and inconsistently defined publicly available data, the methodologies necessarily have to use simplistic assumptions, approximations and averages when defining emissions reduction pathways and/or assessing individual companies against them. This can result in inaccuracies and misrepresentations.
- Consideration of other sustainable development goals
    - SBTi and TPI provide no guidance on how companies should assess the multiple trade-offs that need to be made between emissions reduction and other ESG performance metrics. A more principles-based approach such as one that seeks co-benefits such as improvement of livelihood of communities to enable a just transition could create win-win outcomes.

How IHS Markit Can Help

IHS Markit has the tools, data sets and expertise to assist companies in assessing, reporting and communicating the alignment of their emissions reduction targets and plans with the goals of the Paris Agreement. Where appropriate, we can also help companies understand and address the challenges in the current approaches and provide a comprehensive, in-depth and robust analysis.

Examples of the type of support we can provide include:

[5] https://www.cdp.net/en/articles/forests/how-do-carbon-offsets-fit-into-a-net-zero-future

Modeling Paris Alignment for Portfolio(s):

- Help companies benchmark their current portfolio emissions against sectoral averages – for example to understand current positioning and to identify the short to mid-term reductions needed.
- Assess a company's required emissions reduction pathway: define the metrics and targets over 10, 20, and 30-year timeframes to meet the current requirements of SBTi and/or TPI, i.e. the minimum targets which would be endorsed as SBTs / Paris Aligned using current methodologies.
- Assess the required emissions reduction pathway if the IEA Net Zero 2050 Roadmap is used as the baseline.

Methodology Development:

- Help companies design and apply refined methodologies for demonstrating Paris Alignment, using SBTi/TPI as a basis. This could include methodology enhancements such as:
  - Using alternative Paris-aligned scenarios such as IHS Markit's Net Zero scenarios. Our scenarios recognize the challenge of immediate rapid decarbonization of hard to abate sectors. Adopting IHS Markit scenarios will allow the setting of realistic mid-term decarbonization targets (e.g. 2030) which are consistent with the Paris goals.
  - Including more granular scenario assumptions around end-user carbon capture, utilization & storage (CCUS) in calculating the CI of energy product, i.e. improving consistency of assumptions between scenarios and company targets.
  - Providing more granular and more accurate assessments of the emissions intensity of a company's supply chain and sold products.

Developing Portfolio Choices:

- Identify and assess a range of portfolio actions which would Paris-align the company emissions trajectory. These could include divestment of high CI assets, investments in low CI activities and/or investments in emissions abatement technologies.

Communication and Engagement with External Stakeholders:

- Provide intelligence on the climate positions, declared expectations and voting histories of the company's main institutional investors.
- Support companies in communicating their emissions reduction targets and strategies to investors and banks; support companies in responding to challenges from advocacy groups.
- Through IHS Markit's ESG Reporting Repository, facilitating the reporting of ESG information across multiple voluntary frameworks such as TCFD and SASB, through a central portal. IHS Markit provides a one-stop online platform for information and data relevant for ESG-focused investors and other stakeholders.

Key contacts

Nick Lowes

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Nick leads IHS Markit's Energy Transition consulting activities, with over 30 years experience across the energy sector. He currently focuses on providing advisory services to governments, investors and energy companies related to climate change, energy transition and low carbon technologies. Over his career he has worked as an advisor to many national and international energy companies and governments on issues ranging from energy policy and strategy development to investment analysis and asset valuation. During a recent period based in the Middle East, Nick led the IHS Markit team acting as the Industry Consultant for Saudi Aramco's IPO and Bond offerings.
Nick holds a BA in Engineering Sciences from Cambridge University; an MBA from the UK Open University Business School; and an MSc from Imperial College, London University.

Christine Chow, Ph.D.

Executive Director - Global Head of Strategic Governance Advisory & ESG Integration

Before joining IHS Markit, Christine was Head of Federated Hermes EOS in Asia and global emerging markets. Her PhD thesis on responsible investment was short-listed for a United Nations award in Sweden for industry relevance and academic excellence. She is a Member of Court and Investment Committee of the London School of Economics (LSE), a Board Member of the International Corporate Governance Network (ICGN) and appointed an honorary adviser to the Financial Reporting Council (FRC) Hong Kong. She was named as one of the top 30 Inspirational Women in the City of London. In 2020, she won the Finance Monthly Women in Finance Award as the Investment Management Leader of the Year (Asia). Christine is a graduate of the London School of Economics and the University of Melbourne. She completed an executive education course on financial engineering at Stanford University. She was a member in the Data Governance Task Force of the UK All Party Parliamentary Group (APPG) on Artificial Intelligence (2018 – 2021) and an Adjunct Professor in Finance at the Hong Kong University of Science and Technology (2014-2016).

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Chief Energy Strategist and Senior Vice President

Atul Arya is Senior Vice President and Chief Energy Strategist at IHS Markit. He is responsible for integrating energy content, analysis and insights across the entire energy value chain and for c-suite client engagements. His areas of expertise include energy sector strategy, energy transition, climate change science/policy, value chain analysis and cleantech. He has previously led Energy Insight, Research and Analysis and Energy Research teams at IHS. Atul previously worked for BP for over 20 years in a number of operational, business, technical and strategic positions around the world. His career includes international leadership experience in a diverse array of energy fields spanning strategy development, business planning, field operations, solar PV and technology commercialization. Atul has served on boards of several companies and institutions and the World Economic Forum's Global Future Council on Advanced Energy Technologies. He is 25+ year member of the Society of Petroleum Engineers. Atul is a sought-after speaker and moderator at public conferences, company boards and industry events and a member of the CERAWeek leadership team. He holds B.S., M.S. and Ph. D. degrees in engineering.

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IHS Markit (NYSE: INFO) is a world leader in critical information, analytics and expertise to forge solutions for the major industries and markets that drive economies worldwide. The company delivers next-generation information, analytics and solutions to customers in business, finance and government, improving their operational efficiency and providing deep insights that lead to well-informed, confident decisions. IHS Markit has more than 50,000 business and government customers, including 80 percent of the Fortune Global 500 and the world's leading financial institutions. Headquartered in London, IHS Markit is committed to sustainable, profitable growth.

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