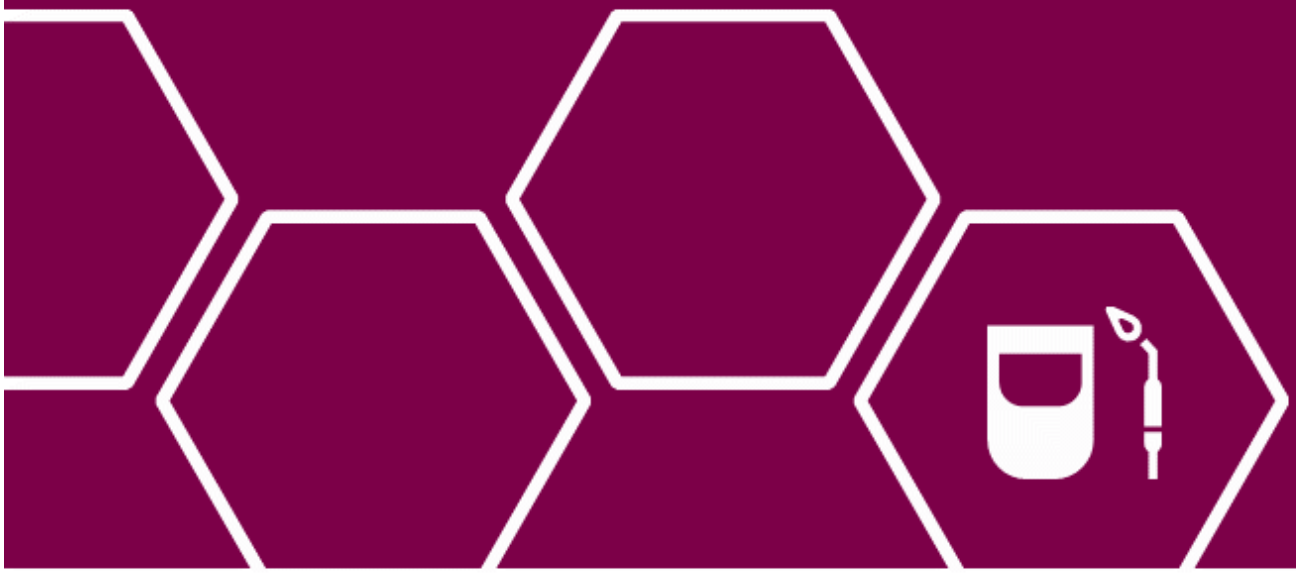
ACT

ROADTEST REPORT

Assessing low-Carbon Transition

Iron & Steel



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Background and purpose of this document

This document is part of the Assessing low-Carbon Transition (ACT) initiative and provides the main details of the ACT Iron & Steel road test. As part of the development of a new ACT sector methodology, this road-test is conducted to improve the existing methodologies and adjust the tools and inputs used to assess companies in this sector.

This report aims to provide the key findings of the assessments and an overview of results for the sector. Additional materials prepared during the assessment process, including detailed company data and feedback, informed the results summarised in this report but remain confidential.

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1. ACT Iron & Steel Road Test

1.1. CONTEXT OF THE ROAD TEST

IRON AND STEEL SECTOR

Among heavy industries, the iron and steel sector ranks first when it comes to CO_2 emissions, and second when it comes to energy consumption. Steel production is highly energy- and emissions-intensive, accounting for around 8% of global energy demand and 7% (2.6 Gt CO_2) of total emissions from the energy system[1].

The use of steel is associated with economic growth. In 2019, the amount of steel used globally reached 1768 Mt with the four main markets being building and infrastructure (52%), mechanical equipment (16%), automotive (12%), and metal products (10%)[2]. According to the IEA, global demand for steel is projected to increase by more than a third through to 2050 as a result of growth in these four markets.

IEA analysis for the iron and steel sector states that "the direct CO_2 intensity of crude steel has been relatively constant (within a 20% range) during the past two decades, and in the last couple of years has returned to roughly the 2000-08 level. To align with the SDS (Sustainable Development Scenario), the CO_2 intensity of crude steel needs to fall an average of 2.5% annually between 2018 and 2030. Achieving this reduction and maintaining it after 2030 will not be easy. For primary production energy efficiency improvements spurred much of the reduction in recent years, returning CO_2 intensity to previous levels, but opportunities for further efficiency improvements will likely soon be exhausted. Thus, innovation in the upcoming decade will be crucial to commercialise new low-emissions process routes, including those integrating CCUS (carbon capture use and storage) and hydrogen, to realise the long-term transformational change required. Governments can help by providing R&D funding, creating a market for near-zero-emissions steel production, adopting mandatory CO_2 emissions reduction policies, expanding international co-operation and developing supporting infrastructure."[3]

In fact, steel recycling is possible through the use of electric arc furnaces (blast furnaces can also incorporate 15 to 20% of scrap), by recovering steel scraps from dismantled buildings, infrastructure, cars, machinery and equipment. Nearly all Endof- Life (EoL) steel is recycled (80 to 90%). Nevertheless, the continuous increase of steel consumption, associated with growth at a global level (China, India and emerging economies), together with the relatively long lifespan of steel products means there is still a significant need for primary steel production for the years to come.

According to the IEA, "*secondary production of steel should also be increased through more effective scrap collection and sorting. Stakeholders should work to increase scrap collection and recovery by improving recycling channels and sorting methods, and by better connecting participants along supply chains. The steel industry can also take advantage of opportunities for industrial symbiosis – including using the waste or by-products from one process to produce another product of value – to help close the material loop, reduce energy use and reduce*

[1] Iron and Steel Technology Roadmap, IEA, 2020

[2] World Steel Association Fact Sheet: https://Steelfacts.worldSteel.org/fact/105

[3] IEA website, Iron and Steel analysis, https://www.iea.org/reports/Iron-and-Steel

emissions in the case of carbon capture and utilisation. Examples include using steel blast-furnace slag in cement production and carbon from steel waste gases to produce chemicals and fuels."[4]

The ACT initiative considers these diverse views and levers of the Iron and steel sector transition. ACT assesses and evaluates companies' sustainability strategies to determine whether their proposed actions align with a below 2°C scenario. In the context of this road test, 15 companies were analysed and scored according to the first of the ACT Iron & Steel Methodology (version 0.9, dated March 2021). The results of the road test are detailed in this report.

CONTRIBUTING TO ACT: NEW SECTOR DEVELOPMENT

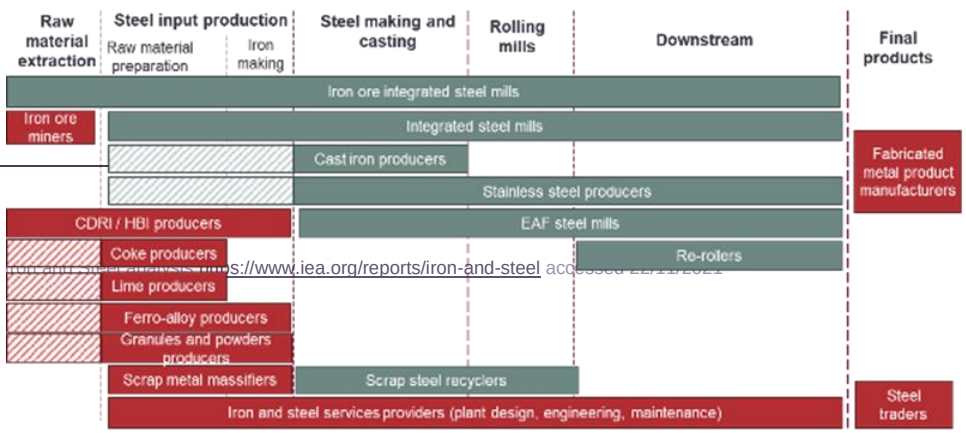
For the past six years, ADEME and CDP have been working together on developing the 'Assessing low-Carbon Transition' (ACT) initiative, a mechanism for assessing companies that have set climate commitments and want to take climate action in line with the Paris Agreement. The ACT methodologies use a holistic approach to assess a company's climate strategy and determine its readiness to transition to a low-carbon economy. The ultimate goal is to drive action by companies and encourage them to set their business on a below 2°C compatible pathway.

ACT's ambition is to prioritise the most GHG emissions-intensive sectors. This approach implies that tools and methods have to be adapted for each new sectoral development process in order to accurately reflect their impact on climate change. So far, the methodologies for the Auto, Electricity, Retail, Building, Real Estate and Property Developer, Cement, Transport and Oil & Gas sectors have been released. As of October of 2021, road tests for the Iron & Steel and Agrifood & Agriculture Methodologies are all in their final stages.

The stages of methodology development are as follows:

- Stage 1: Methodology development
- Stage 2: Methodology experimentation (road test)
- Stage 3: Methodology refinements & release

The Iron & Steel Methodology is designed to assess a company's climate impacts across its value chain. In practice, not all companies have activities at all stages of the value chain, and, as a result, the ACT methodology categorises companies as steel-making, steel-shaping or integrated, according to the type of activities they engage in (see Figure 1). This classification influences the overall ACT performance results through score weightings, which adapt raw scores according to the relevance of each indicator to a company's activities.



[4] IEA website, [illegible] https://www.iea.org/reports/iron-and-steel accessed 22/11/2021

FIGURE 1: COMPANIES THAT CAN BE ASSESSED BY THE ACT IRON AND STEEL METHODOLOGY

GOALS OF THE ROAD TEST

The project's objectives were:

- to road test the ACT Iron & Steel draft methodology and accompanying tools;
- to provide recommendations to refine the methodology;
- to ensure that ACT Iron & Steel is relevant and robust for the sector;
- to engage companies and other stakeholders in the low-carbon transition.

The road test for the ACT Iron & Steel Methodology has been carried out, on behalf of ACT, by I Care and Deloitte.

ASSESSED COMPANIES

The ACT methodology relies on the principle of relevance, and therefore only the companies that have both significant climate impact and significant mitigation levers can be assessed with ACT's approach. For the iron and steel sector, ACT determined the following types of companies to be covered by the methodology:

- Integrated steel mills (the company could be assessed as integrated whether or not it includes Iron ore mining)
- Cast Iron producers
- Stainless steel producers
- EAF mills
- Re-rollers

Conversely, certain activities and subsectors are excluded from the ACT Iron & Steel Methodology due to their limited levers and scope of action. These include:

- Final metal product manufacturers
- Steel traders
- Iron and steel services providers
- Iron ore miners
- CDRI / HBI/ lime / ferro-alloy, granules and powders producers
- Scrap metal massifiers

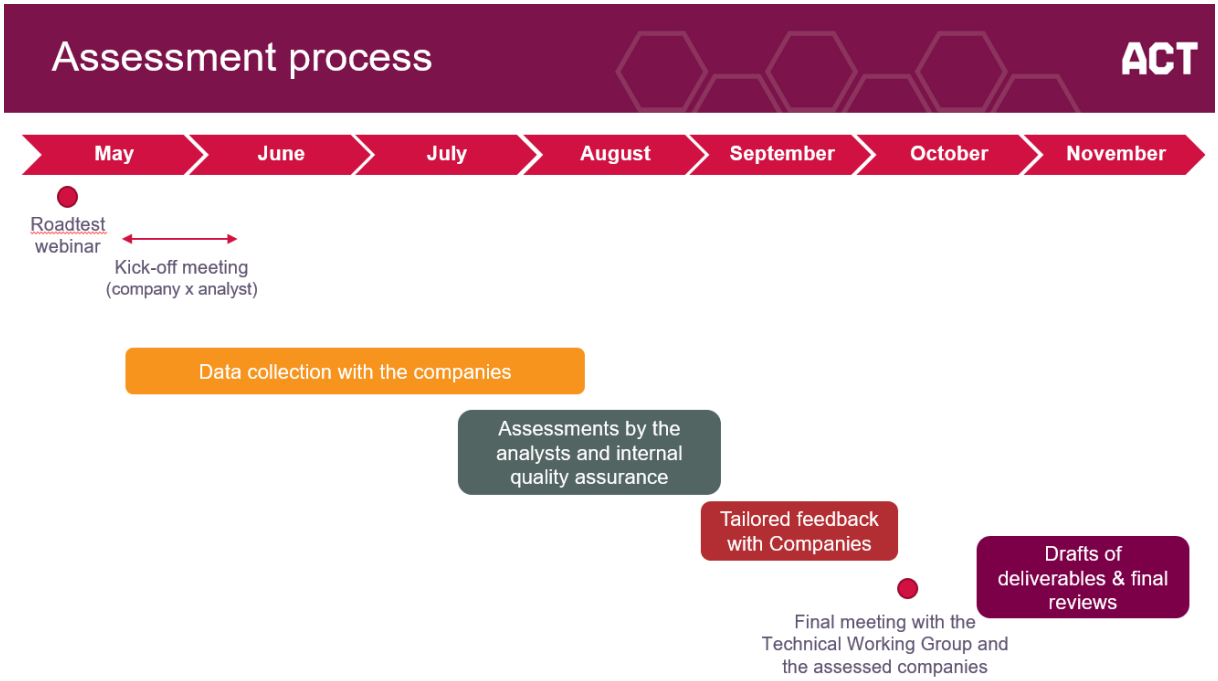
The road test companies were carefully considered to ensure that different regions and steps in the value chain were represented. Initially, 8 companies volunteered for the road test (see Figure 2). However, due to availability issues, one participant was not able to complete the assessment. 7 additional companies were assessed using publicly available data.

+

7 companies assessed using publicly available data

FIGURE 2: COMPANIES SELECTED FOR THE ROAD TEST

ASSESSMENT PROCESS



I Care and Deloitte planned and conducted the assessment, which involved direct engagement with companies and leading monthly meetings with ACT's Iron & Steel Steering Committee. Engagement with companies was conducted by analysts from I Care and Deloitte directly and followed the steps described in Figure 3.

FIGURE 3: IRON & STEEL ASSESSMENT PROCESS

The main inputs for undertaking the assessment were provided to I Care and Deloitte by way of 4 complementary files:

- **The ACT Iron & Steel Methodology**. This document contains the scoring criteria for each of the indicators and lists how the scores are calculated and weighted. The methodology also provides relevant context for each of the indicators and an overview of the main goals of each Module.

- **The Excel calculation tool**. Companies were asked to directly fill out their response to the ACT questionnaire, which is an Excel data collection tool, with the assistance of the assessor. Once completed, analysts review the responses and score according to the methodology. They record

their scores and comments in this same tool, which automatically calculates a weighted score based on the evaluation the analyst registers in the file.

- **The narrative scoring tool**. This is an Excel-based tool which includes the narrative scoring maturity matrix (as per the methodology).

- **The trend scoring tool**. This is an Excel-based tool which includes assessment guidance based on the scoring of some indicators of the ACT questionnaire.

In addition, analysts used the ACT Framework and Analyst Guide to ensure consistency with other ACT methodologies.

The road test started with an opening webinar to introduce the tools and the key methodological aspects of the ACT Iron & Steel Methodology. This webinar provided initial guidance and explanation to the participating companies. Discussions with companies commenced with an initial call between the companies and an analyst from I Care or Deloitte. During the one-hour call, the companies' teams were given a brief explanation of the ACT initiative, the expected timeframes and deadlines, a general description of the relevant inputs, and an overview of the Excel tool. Companies were subsequently sent the Excel calculation tool and the methodology documents and were encouraged to send questions via e-mail or through follow-up calls. Company questions were collected in a spreadsheet accessible to all analysts to ensure shared learnings, and consistency in the responses. A bi-monthly checkpoint meeting was organised to track the progress of the data collection process. These meetings allowed the companies to share their feedback and challenges regarding the data collection, the tool and some methodological aspects.

Once companies submitted the completed Excel calculation tool with their inputs, analysts reviewed the responses and began the scoring process. Analysts listed their scoring questions and additional questions sent by companies in a 'post-review' company-specific spreadsheet. These questions were often more precise, referring to the company's business model and/or to the interpretation of the scoring criteria given the assessed response. These spreadsheets were reviewed by I Care and Deloitte "Technical" teams and ultimately shared during monthly Steering Committee meetings with ADEME and CDP, with customised solutions to improve the methodology.

After the analysts finalised a company assessment, the lead team would review the Excel responses, and ensure scores gave a consistent and accurate reflection of the company response.

All through the road test, an independent third party (Eco2 Initiative and ClimateCheck – the MHQA team) conducted a methodology harmonisation and quality assurance process.

1.2. THE ACT IRON & STEEL METHODOLOGY

GENERAL APPROACH

While each ACT methodology is sector-specific, they are all based on the ACT Framework and as such there are fundamental commonalities among all of them. The assessment's main goal is to evaluate past, present and (anticipated) future company performance to determine the company's maturity level with respect to its transition to a low-carbon economy. The ACT initiative focuses on five guiding principles to determine company performance:

1. **Commitment**: What is the company planning to do?

1. **Commitment: What is the company planning to do?**

2. **Transition plan**: How is the company planning to get there?
3. **Present**: What is the company doing at present?
4. **Legacy**: What has the company done in the recent past?
5. **Consistency**: How do all these plans and actions fit together?

These principles and guiding questions are assessed through a series of Modules composed of key performance indicators and sub-indicators, all of which are specifically designed for each sector. For the iron and steel sector, there are a total of 29 indicators organised into nine Modules.

Figure 4 shows how these indicators assess company performance at different points in time.

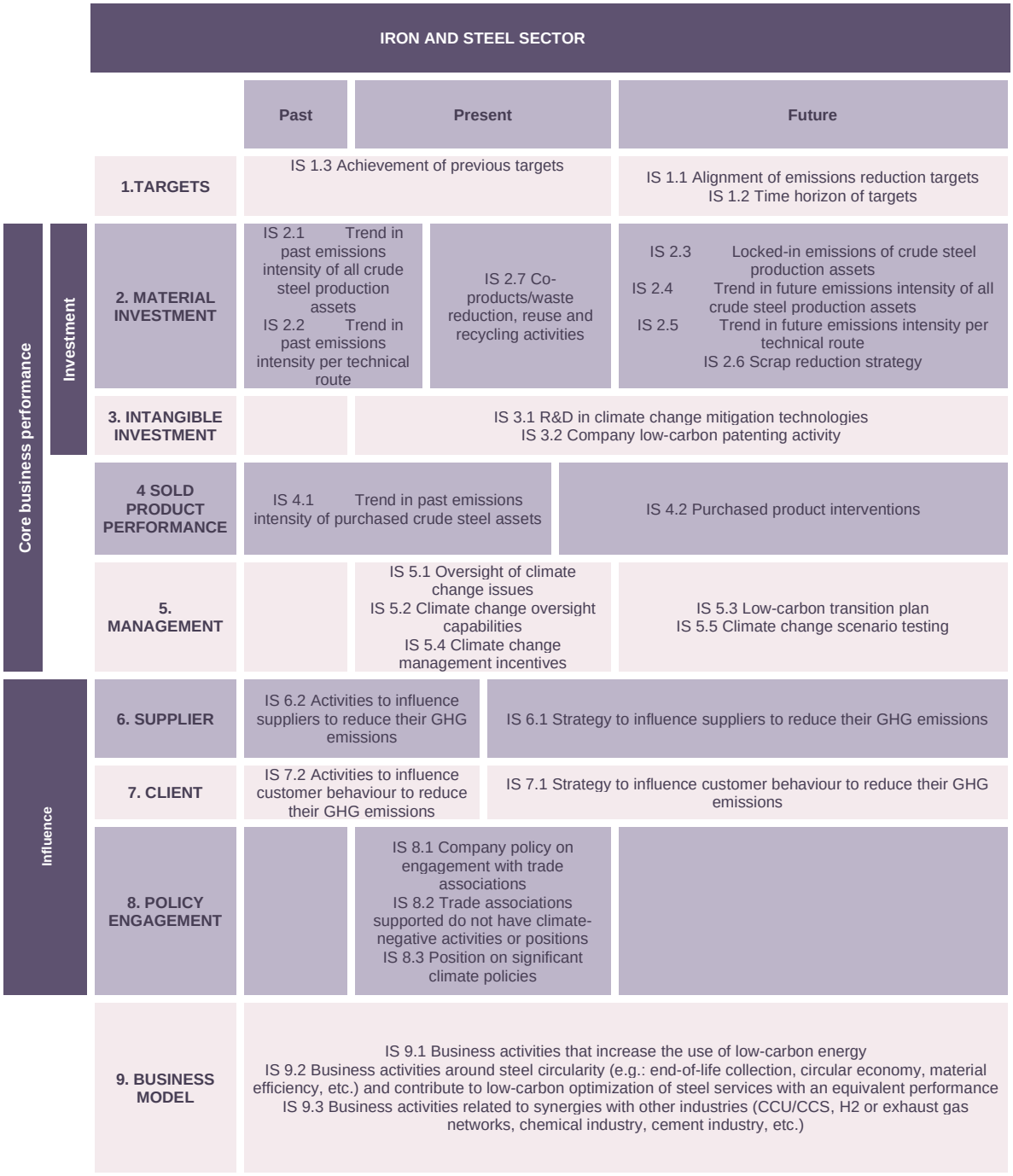


FIGURE 4: IRON & STEEL METHODOLOGY INDICATORS, MODULES AND TIME HORIZON ASSESSED

The assessment is carried out based on the information provided for each of these indicators by the company. The Iron & Steel Methodology uses a combination of quantitative and qualitative indicators. Purely quantitative indicators are scored according to a formula and based on the data provided by the company. In these cases, analysts must ensure the calculation is correct and the information provided by the company is consistent and, to the extent possible, verifiable. However, given the granularity of quantitative data required and the confidentiality of this information, it wasn't always possible to verify the data provided. Qualitative indicators are evaluated by the scorer using the company responses and indicator-level maturity matrices with up to five scoring levels: Basic (0 points), Standard (0.25 points), Advanced (0.5 points), Next Practice (0.75 points), and Low-Carbon Transition Aligned (1 point). Maturity matrices provide scoring criteria per indicator for each of these levels.

ACT IRON & STEEL METHODOLOGY ASSESSMENT

Like all ACT assessments, the Iron & Steel Methodology generates a three-part score that allows companies to understand how they scored based on the key performance indicators, how their overall strategy is rated with reference to a low-carbon (below 2°C) transition scenario, and if their strategy is being effective in reaching a low-carbon pathway. The final score is described below:

1. **The performance score** ranges from 0 to 20 and is the result of the sum of all points achieved and weighted according to the company's classification (Steel-making, Steel-shaping or integrated). The Iron & Steel Methodology includes 3 different weighting profiles, one for each company classification.

2. **The narrative score** is the result of the scorer's evaluation of the overall response, complemented by an external data review for the company in question, and graded from E (lowest score) to A (highest score). The narrative score is assessed using a maturity matrix developed by the ACT initiative and composed of 4 dimensions (Business Model and Strategy; Consistency and Credibility; Reputation; and Risk).

3. **The trend score** evaluates whether a company is increasingly aligning itself with or distancing itself from a low-carbon transition pathway. The trend score is indicated by a + sign (best score, reflecting increasing alignment), a – sign (worst score, reflecting reducing alignment), and an = sign (indicating no projected change in its alignment). A specific tool was developed by ACT for the trend score. This tool has been used as a guidance for the analyst, but the outcome could also be influenced by the analyst's final judgment. The inputs for this tool were taken directly from the Iron & Steel Methodology using a simple grading scale from -1 to 1 that analysts assigned based on the results of the following indicators:
    - IS 1.1 Alignment of emissions reduction targets
    - IS 1.2 Time horizon of targets
    - IS 2.3 Locked-in emissions of crude steel production assets
    - IS 2.4 Trend in future Scope emissions intensity of all crude steel production assets
    - IS 2.5 Trend in future emissions intensity per technical route
    - IS 2.6 Scrap reduction strategy
    - IS 3.1 R&D in climate change mitigation technologies
    - IS 4.2 Purchased product interventions
    - IS 5.3 Low-carbon transition plan
    - IS 5.5 Climate change scenario testing
    - IS 6.1 Strategy to influence suppliers to reduce their GHG emissions
    - IS 7.1 Strategy to influence customer behaviour to reduce their GHG emissions
    - IS 9.1 Business activities that increase the use of low-carbon energy

- IS 9.2 Business activities around steel circularity (e.g.: end-of-life collection, circular economy, material efficiency, etc.) contributing to low-carbon optimization of steel services with an equivalent performance
- IS 9.3 Business activities related to synergies with other industries (CCU/CCS, H2 or exhaust gas networks, chemical industry, cement industry, etc.)

The results shown by the tool implied positive scores (>0) were more likely to be trending in a carbon-aligned pathway, while negative scores (<0) were more likely to be diverging from a carbon-aligned pathway.

On completion of the assessment, companies received two main files:

1. The Excel calculation tool with the company's response and analyst score. This file includes the scores per indicator and sub-indicator, as well as explanations of the scorer's rationale. This file also contains company comments and questions about the methodology and the tool. This remains confidential between I Care, Deloitte, ADEME, MHQA Team and the reporting company.
2. An ACT company feedback report (PowerPoint) summarising the results and providing a brief overview of the challenges and opportunities the company may be facing. This presentation is shared only with the company involved and is built based on a template generated by ACT.

FOCUS ON THE ACT IRON & STEEL SCORE

The Iron & Steel questionnaire is structured according to nine Modules presented in the table below:

TABLE 1: LIST OF MODULES IN THE ACT IRON & STEEL ASSESSMENT

Modules
1. Targets
2. Material investments
3. Intangible investments
4. Sold product performance
5. Management
6. Supplier engagement
7. Client engagement
8. Policy engagement
9. Business model

Modules 1 to 4 contain mostly quantitative indicators that are evaluated by the scorer based on the results of a quantitative calculation. These Modules rely both on companies entering internal data (financial and GHG data) and also the use of the "Calculator for Inclusive Scope 1+2".

> ***Calculator for Inclusive scope 1+2****: The Calculator allows users to calculate the Scope 3 upstream emissions that form part of the inclusive Scope 1+2 emissions intensity, according to the definition available in the ACT Iron & Steel methodology. Based on inputs provided by the company using the Eurofer Tool template (based on EN 19064-2 standard), it allows analysts to compute Scope 3 upstream emissions for a specific plant, and the additional*

Scope 1+2 emissions intensity. The calculator is designed to consider only emissions included in the scenario used in the IEA benchmark.

- Another element specific to the ACT Iron & Steel Methodology and scoring is the weightings used to adjust the scores according to company activities along the value chain. ACT has defined three categories for which different weightings are applied per indicator (see**Module 6. Supplier engagement** is focused on relationship with supplier, which is not material for steel-making companies and Integrated companies but is very strategic for steel-shaping companies which can have a high level of influence on the upstream part of the value chain.

Table 22). Modules 1, 5, 7 and 8 have the same weightings for all categories. As regards the other Modules, weightings can differ per indicator. Important differences need to be highlighted:

- **Module 2. Material investment** is focused on the actions of the company to reduce its inclusive Scope 1+2 emissions. Therefore, Integrated companies and Steel-making companies have a higher weighting as they own assets (production sites) and could represent a high source of emissions.
- **Module 3. Intangible investment** is focused on R&D expenditures and patent activity for low-carbon innovation. This is considered crucial for Integrated and Steel-making companies and less for steel-shaping companies.
- **Module 4. Sold product performance** is focused on the actions of the company to reduce its Scope 3 upstream emissions. The upstream emissions represent a large part of emissions for steel-shaping companies and stainless steel producers.
- **Module 6. Supplier engagement** is focused on relationship with supplier, which is not material for steel-making companies and Integrated companies but is very strategic for steel-shaping companies which can have a high level of influence on the upstream part of the value chain.

TABLE 2: IRON & STEEL SCORE WEIGHTINGS

	INTEGRATED		STEEL-MAKING		STEEL-SHAPING	
Modules	**Weight**	**Rationale**	**Weight**	**Rationale**	**Weight**	**Rationale**
1. Targets	**15%**	Fixed weight across all sectors	**15%**	Fixed weight across all sectors	**15%**	Fixed weight across all sectors
2. Material Investment	**32%-10%**	Owned assets (production infrastructure) could represent a high source of emissions	**32%-10%**	Owned assets (production infrastructure) could represent a high source of emissions.	**10%**	Owned assets do not represent a high source of emissions, but they need investments
3. Intangible Investment	**10%**	R&D investments for low-carbon innovation are crucial for the value chain	**10%**	R&D investments for low-carbon innovation are crucial for the value chain	**2%**	R&D investments for low-carbon innovation exist but not crucial for the value chain
4. Sold Product Performance	**10%-32%**	Raw materials could be critical, especially for stainless steel producers	**10%-32%**	Raw materials could be critical, especially for stainless steel producers	**32%**	The upstream emissions represent a large part of emissions and can be assessed through the Sold product performance Module.
5. Management	**10%**	Fixed weight across all sectors	**10%**	Fixed weight across all sectors	**10%**	Fixed weight across all sectors
6. Supplier	**2%**	Suppliers for upstream are not strategic, compared to the rest of the value chain.	**2%**	Suppliers for upstream are not strategic, compared to the rest of the value chain.	**10%**	High level of influence on the upstream
7. Client	**6%**	Improvement potential by working with client on the right steel for the right application (including reducing scrap production and increasing scrap recycling)	**6%**	Improvement potential by working with client on the right steel for the right application	**6%**	Improvement potential by working with client on the right steel for the right application
8. Policy engagement	**5%**	Average weight compared to the other sectors	**5%**	Average weight compared to the other sectors	**5%**	Average weight compared to the other sectors
9. Business Model	**10%**	Fixed weight across all sectors	**10%**	Fixed weight across all sectors	**10%**	Fixed weight across all sectors

1.3. RESULTS OF THE COMPANY ASSESSMENTS

INTRODUCTION

This section presents the results of the ACT Iron & Steel Methodology road test. It includes an overall comparison of results per Module and a brief overview of indicator-level results per company.

OVERALL RESULTS

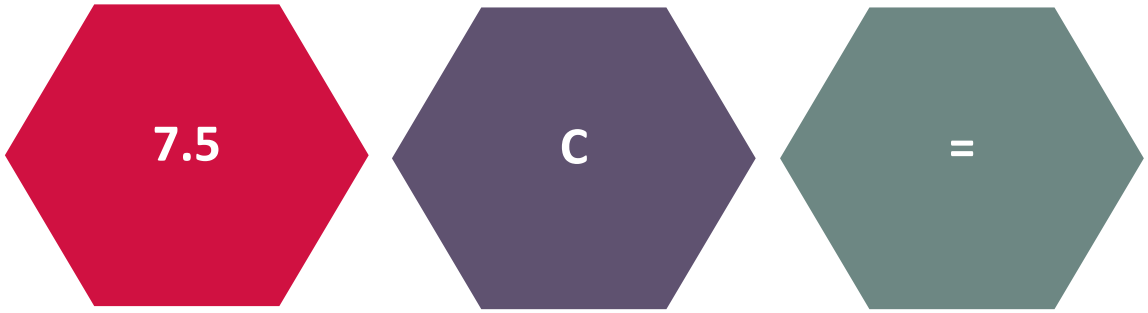


FIGURE 5: OVERALL RESULTS

The average final score for each score dimension is **7.5C=**

The average performance score was 7.5 where 10.4 was the highest and 3.9 the lowest score. The top performer's score is driven by its effective strategy aimed at implementing new business models around low-carbon energy (production of hydrogen) and steel circularity (using domestic scraps). The best scores are also the result of more transparency in companies' disclosure, as they provided detailed information at asset level (performance and CAPEX plan). Conversely, most companies struggled to achieve a good score in these sections because of non-disclosure.

The average narrative score was C, indicating an overall medium alignment with a low-carbon scenario. In general, companies received lower narrative scores for the Consistency and Credibility dimension, where analysts noted issues with data availability and consistency between Module 1 and Module 2. Risk was another dimension that received lower scores in general. Companies will face many business risks, regarding upcoming regulations, technology transition, demand for low-carbon energy and scrap, for example. Reputation analysis relied on online news research only, which may be affected by the analysts' location and therefore not be comprehensive.

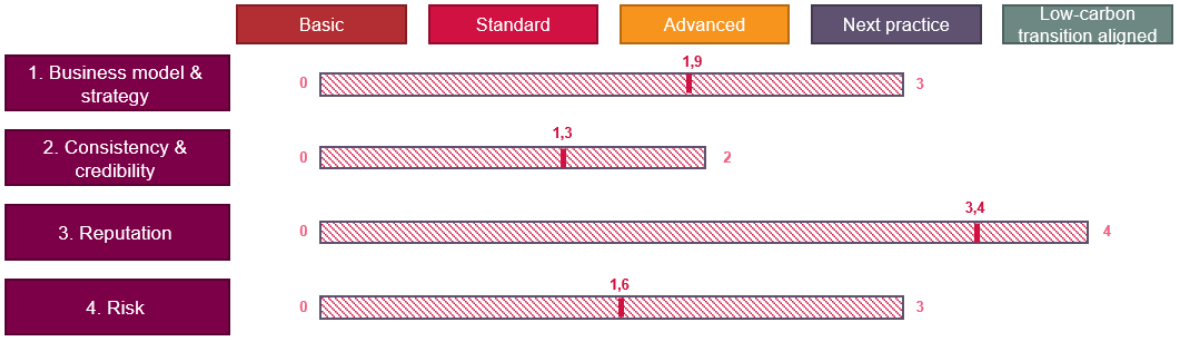


FIGURE 2: NARRATIVE SCORE RESULTS

The average trend score was rated equal (=) for the iron and steel sector. This indicates that most of the companies will receive a similar score if they take the assessment in a few years. In addition, it suggests that companies need to make additional efforts to switch to a positive trend score in the near future. The trend score considers the results of some indicators from different Modules. These specific indicators rely on companies disclosing data such as emissions intensity. Where there was a lack of information, 0 points were scored, and this directly impacted the trend score. However, as agreed with the Steering Committee, the analyst only used the trend score tool as a guide, and used other information and types of data to give the final trend score. 5 companies out of 14 obtained a positive trend score.

OVERALL PROFILE OF THE 5 ACT DIMENSIONS

Like all ACT road tests, the Iron & Steel road test provides a snapshot of sector performance in each of the 5 ACT dimensions (see Figure 7 7). The following paragraphs summarise sector-level trends and challenges in these 5 elements. These insights do not apply uniformly to all participant companies and should not be interpreted as indicative of company performance. This is a high-level analysis of common trends identified throughout the road test. Company-specific insights are given in the confidential company feedback reports.

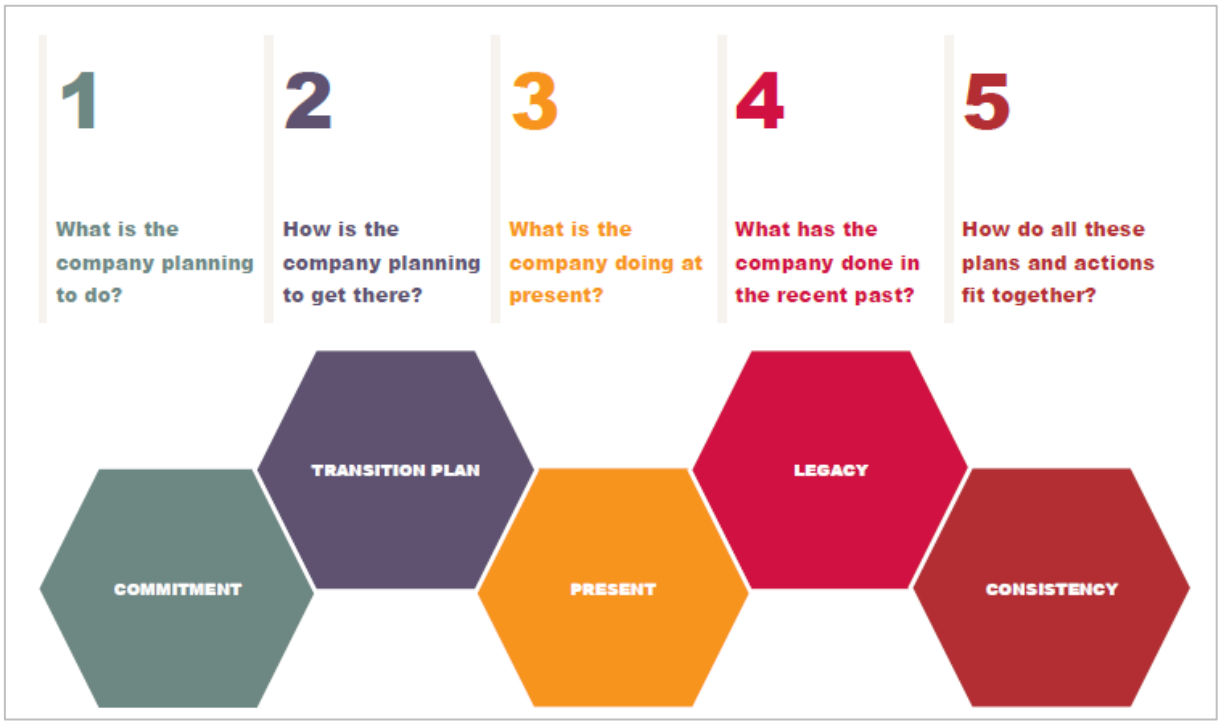


FIGURE 7: ACT ASSESSMENT FRAMEWORK

Commitment

Companies in the iron and steel sector have for the most part set emissions reduction targets. There are some companies that have yet to make these commitments public, which results in lower overall performance in this dimension. The notion of “Inclusive Scope 1+2 emissions”, which was developed in the ACT Iron & Steel Methodology to capture the main emissions within the value chain and tested during the road test, is challenging for companies. Companies must also commit to reducing upstream emissions considering their importance for the sector.

Transition plan

Companies in the sector reported exploring low-carbon business activities (scrap EAF, generation of renewable energy, etc.). However, the level of maturity varies considerably between companies. Participants rarely disclosed information on profitability and effectiveness, limiting the analysts’ ability to understand

progress in the implementation of transition plans. From a strategic planning perspective, some companies in the sector have developed schemes to implement low-carbon technologies. However, some gaps have been identified between targets set by companies (Module 1) and the ambition of transition plans in aligning with a low-carbon economy (Modules 2 and 5). Companies still need to strengthen their low-carbon transition plans to achieve the climate goals they set.

Present

Most companies have developed sustainability strategies and report current targets to tackle their climate impacts. Current levels of data availability are still below ACT's standard, and this is an overall challenge for most companies in the sector.

Legacy

Past performance varies between companies. Some companies in the road test have not yet made their low-carbon strategies public and are just starting their sustainability journey. Overall, while some companies are implementing sustainability strategies, the sector is not widely recognised for previous achievements in tackling its climate impact, and this is consistent with the ACT assessment results.

Consistency Overall, assessments have shown that climate strategies were consistent for each company and fairly reflected the level of maturity of the company. However, some incoherencies and gaps have been identified between companies' commitments and their transition plans. This has been reflected in the narrative score.

AVERAGE RATINGS PER MODULE FOR THE PERFORMANCE SCORE

Overall, the sector had a low performance in the ACT assessment (see Figure 8), with most Modules scoring below 50% on average. Only **Module 5. Management** and **Module 8. Policy engagement** had average scores above 50%. The lowest scoring Modules were **Module 3. Intangible Investment** and **Module 4. Sold Product Performance**. The poor overall results in the quantitative Modules were in part caused by a lack of available data.

Disclosure for the qualitative Modules (5-9) was more complete, especially for companies already disclosing to CDP. Despite this, Modules 6 and 7 obtained rather low scores. While companies had multiple comments on the concepts and definitions used throughout the Excel tool and the maturity matrices, most participants provided relevant information. Higher achievement in the qualitative Modules indicates that many companies have implemented and are reporting on their sustainability strategies. High scores in Modules **5. Management** and **8. Policy engagement** show that the sector has begun to adopt a governance structure whereby commitments related to climate actions are addressed at the top levels of management. The road test highlighted that the main challenges for companies lie in the implementation and effectiveness of their sustainability strategies.

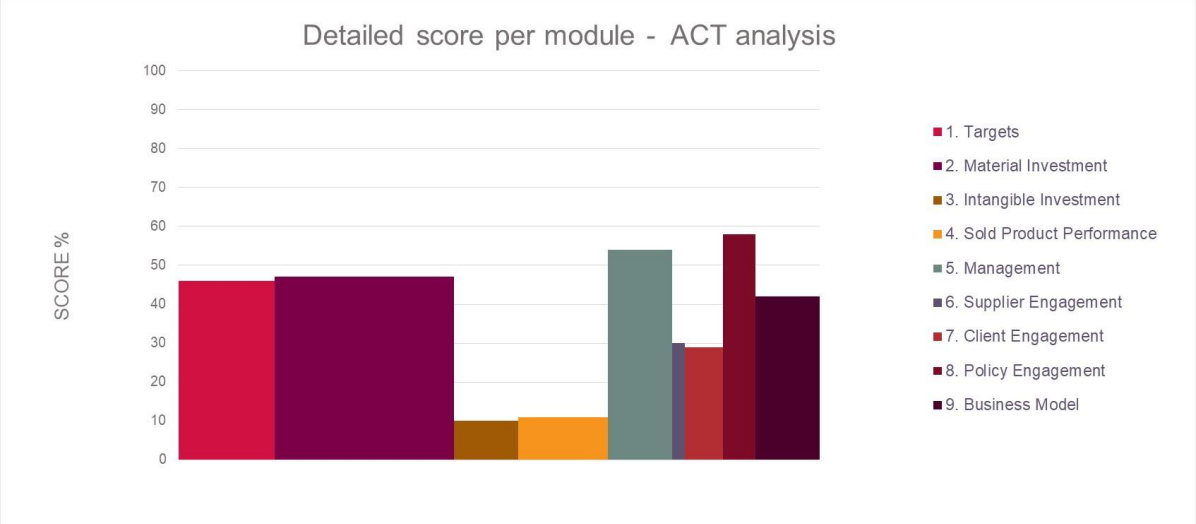


FIGURE 8: AVERAGE SCORES PER MODULE – IRON AND STEEL SECTOR

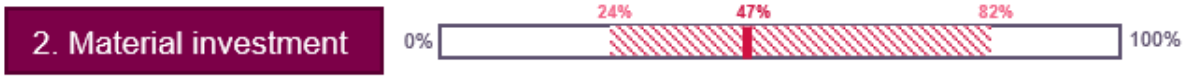
MODULE 1. TARGETS (46%)

Module description for ACT Iron & Steel: Module 1 assesses a company's long-term targets and aims to compare these with future projected emissions intensity values.

Materiality for iron and steel sector: This Module is material in the definition of a climate strategy with a weighting of 15%.

Main feedback / conclusions: Most companies (13 out of 14) reported a target and received a score for this Module. However, the level of ambition differs from one company to another. Also, some companies have reported net zero targets, which can lead to the score being downgraded if the company does not provide the distribution between mitigation and offsetting within the target, according to ACT guidelines.

MODULE 2. MATERIAL INVESTMENT (47%)



Module description for ACT Iron & Steel: Module 2 measures material investments in low-carbon activities and technologies. It uses the Calculator for Inclusive EF, based on the Eurofer Tool template, to estimate the Scope 1+2 emissions intensity of upstream activities that are included in the IEA scenario for the sector. It also requests figures for the impact of upcoming CAPEX investment at asset level to see if the level of ambition is consistent with the actual transition plan. Module 2 also looks at scrap reduction strategies, co-products/waste management and the reuse of off-gases.

Materiality for iron and steel sector: This Module assesses the consistency between a company's investment plan and the targets that have been set. The Module has a weighting ranging from 10 to 32%.

Main feedback / conclusions: Module 2 received rather good scores, mostly due to the Locked-in Emissions indicator. However, several companies did not have specific figures for the year of asset modernization. The impact of modernization on the emission intensity of company's assets was not always available. Inclusive

Scope 1+2 was a hard concept to capture and needed to be clarified for analysts and companies. The asset-level table was time-consuming to complete.

MODULE 3. INTANGIBLE INVESTMENT (10%)

Module description for ACT Iron & Steel: Module 3 measures investments in the research and development of low-carbon and mitigation technologies. Companies are required to present expenditure figures in “mature” and “non-mature” technologies.

Materiality for iron and steel sector: In the long term, investment in R&D for iron and steel – especially in low-carbon electricity (hydrogen, for example) and CCS/CCU – could facilitate access to these types of technologies in other sectors. This Module is therefore important, especially for steel-making and integrated companies, and has a weighting ranging from 2% (steel-shaping) to 10% (steel-making and integrated).

Main feedback / conclusions: This Module received a low score because companies are not willing to share their expenditure in future research and development or cannot isolate R&D budget in low-carbon technologies. Over half of the assessed firms have a 0% score regarding their low-carbon R&D and patents.

An issue that might arise when scoring these indicators is how the figures for R&D are measured and whether all companies include similar expense concepts and report them consistently. Providing clearer guidance on what elements of the R&D spend are relevant for the ACT assessment will strengthen the quality of the information obtained and the comparability of the expenditure information provided by companies.

MODULE 4. SOLD PRODUCT PERFORMANCE (11%)

Module description for ACT Iron & Steel: Module 4 analyses the trend in companies’ past emissions intensity and the specific interventions taken by companies to reduce the impact of their hotspots. These include raw materials such as ferroalloy, lime fluxes, H_2, iron ore or graphite for anodes, which are critical to iron and steel production.

Materiality for iron and steel sector: This Module is material for the sector with a weighting ranging from 10% to 32%. ACT aims to encourage iron and steel companies to reduce the impact of hotspot suppliers by taking actions. This is captured by the indicator *“Purchased product interventions”.*

Main feedback / conclusions: Companies generally did not implement specific strategies to reduce their emissions from hotspots. Nearly half of the assessed firms have a 0% score regarding the way they address their hotspots at supplier level. The remaining companies have started work in this area, but still need to strengthen their strategy.

MODULE 5. MANAGEMENT (54%)

Module description for ACT Iron & Steel: Module 5 evaluates whether companies have sound policies, structures, and oversight on climate-related issues. It incorporates many sub-indicators that together draw a picture of the company's management and strategic approach to the low-carbon transition.

Materiality for iron and steel sector: This Module assesses companies' ability to carry out their transition plan and meet ambitious science-based targets. It is therefore material with a weighting of 10%.

Main feedback / conclusions: This was one of the highest-scoring Modules, with an average score of 54%. However, the dispersion of the score (ranging from 15% to 85%) shows that companies from the road test are at different stages along their low-carbon transition journeys. Some already display active management and leadership in this area (transition plan, incentives, oversight of climate change issues, etc.), while others are further behind.

MODULE 6. SUPPLIER ENGAGEMENT (30%)

Module description for ACT Iron & Steel: This Module scores companies' strategies and actions for influencing their suppliers to improve their sustainability performance and decrease GHG emissions. .

Materiality for iron and steel sector: While upstream suppliers are not necessarily of strategic importance to steel-making and integrated companies, steel-shaping firms have a high level of influence on upstream actors, making this Module material for them. Thus, the weighting ranges from 2% (steel-making and integrated) to 10% (steel-shaping).

Main feedback / conclusions: As was the case with most qualitative Modules, almost all companies were able to provide answers for Module 6. However, the dispersion of the score (ranging from 0% to 95%) and the low average score shows variation in the level of supplier engagement maturity between companies. Companies with a robust and developed reporting system also performed better in this Module, due to more available data.

MODULE 7. CLIENT ENGAGEMENT (29%)

Module description for ACT Iron & Steel: The client engagement Module is focused on the companies' efforts to promote low-carbon products, more efficient use of iron and steel (the right steel for the right use, in the right quantity) and the recycling of products to their customers.

Materiality for iron and steel sector: This Module represents a relatively less significant aspect of the sector transition, and the materiality is therefore medium with a weighting of 6%.

Main feedback / conclusions: The criteria for this Module require companies to implement a mix of actions to encourage customers to decrease their climate impact, including awareness and education campaigns, monetary incentives, offering low-carbon products, etc. These actions must also target over 90% of customers and must include personalised support for clients representing over 60% of revenues to decrease their GHG emissions. Most companies reported implementing some of these action levers. Results suggest companies

are not implementing multiple strategies at once or covering a large enough percentage of their client base. Therefore, the road test average score is 29% in this Module, indicating that companies need to strengthen and broaden the reach of their client engagement activities. Once again, similarly to the supplier engagement Module, scoring for Client engagement can be very different from one company to another.

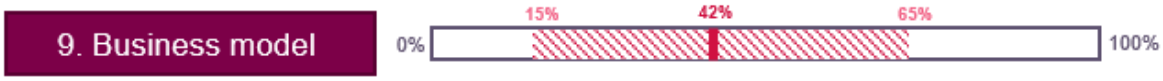
MODULE 8. POLICY ENGAGEMENT (58%)

Module description for ACT Iron & Steel: The Module evaluates companies' engagement with trade associations and their public positions on climate policies. Indicator 8.1 requires companies to disclose their internal policies and processes for joining, interacting with and influencing trade associations. Indicator 8.2 asks if companies support trade associations with climate-negative positions. Similarly, indicator 8.3 asks companies to disclose their position on significant climate policies.

Materiality for iron and steel sector: The policy engagement indicators provide a narrative about the company's stance on climate change and how the company expresses this in their engagement with policymakers and trade associations. The materiality of this Module is therefore medium with a weighting of 5%.

Main feedback / conclusions: Companies performed well in this Module. Feedback from companies revealed that more guidance was needed regarding both how to fill out the maturity matrices, and the specific topics they should address. Providing this would result in a more robust evaluation of this indicator. Companies have requested more guidance on indicator 8.2 (which addresses company support for trade associations with climate-negative positions), notably regarding the fact that criteria set by the maturity matrix do not list which associations have climate-negative positions, or which topics and positions would be considered climate-negative.

MODULE 9. BUSINESS MODEL (42%)



Module description for ACT Iron & Steel: This Module aims to evaluate new business activities that are being undertaken for the low-carbon transition. It evaluates activities that 1) contribute to the use of low-carbon energy, 2) enhance steel circularity and optimization of steel services with an equivalent performance, or 3) increase synergies with other industries (CCU/CCS, H2, chemical industry, cement industry, etc.).

Materiality for iron and steel sector: This Module is future-oriented since it asks companies about their narrative on specific changes to business models and strategy that the sector can/must make to transition. As this is an important aspect of long-term future planning, it is material for the sector with a weighting of 10%.

Main feedback / conclusions: Results suggest that companies are investing in alternative business activities in line with a low-carbon economy. However, most of the activities reported are still in a pilot or early stage of development, and it is unclear if they are being implemented to the degree necessary to drive the evolution of companies' overall business models. It would be useful to have clearer guidance on the type of data that companies should submit as supporting evidence.

AVERAGE ASSESSMENT RATING BY CRITERIA FOR THE NARRATIVE SCORE

The narrative score assesses the overall response of the company on four dimensions: Business Model and Strategy, Consistency and Credibility, Reputation, and Risk. Once a company's response was reviewed and scored, analysts completed the narrative score in the tool provided by ACT. This includes the scoring criteria for each dimension using the same achievement levels as other maturity matrices, from Basic (0 points) to Low-Carbon Transition Aligned (4 points), as shown in Figure 3.

		Basic	Standard	Advanced	Next practice	Low-carbon transition aligned
1	Business model and strategy	The company does not seem to be able to be profitable in a low-carbon economy and there is no sign of internal efforts.	The company has begun to seek profitable activities in a low-carbon economy.	The company has identified profitable activities in a low-carbon economy, and climate issues have been integrated into its business model and strategy.	The company is in transition toward profitable activities in a low-carbon economy and there is evidence that mechanisms are being put in place for this purpose.	The company's activities seem to be profitable and its short-term strategy and targets are compatible with the low-carbon transition.
2	Consistency and credibility	The past and present actions, and transition plan if there is one, do not demonstrate overall coherence and the company does not seem to be able to achieve its climate objectives. Important efforts are needed for the implementation of a low-carbon transition plan.	The past and present actions are not in line with the company's potential climate objectives. However, there is some evidence that the company already begun to consider mechanisms to implement a low-carbon transition plan.	The past and present actions demonstrate that the company has a climate ambition, but additional efforts may still be needed to achieve climate targets. The company has started to establish an action plan to improve its climate performance.	The past and present actions are coherent with the company's transition plan. Additional efforts are needed but the company has always demonstrated the will to implement the needed mechanisms to stay aligned with its climate goals.	The past and present actions are coherent and already in line or beyond with a low-carbon transition.
3	Reputation	Existence of serious or several environmental controversies harming the company's climate commitments. There is no evidence that the company is addressing or taking the controversies seriously.	Existence of minor environmental controversies. There is no evidence that the company is working to avoid this kind of controversy.	Existence of minor environmental controversies. The company has made reliable commitments to address these types of controversies.	Existence of negligible environmental controversies that do not hamper the company's climate commitments. The company has always resolved environmental controversies with due importance.	No environmental controversies.
4	Risk	There are serious risks that could undermine the company's profitability and its ability to successfully implement a low-carbon transition plan. The company does not consider climate issues related to its activities and remains passive in the face of climate risks.	There are minor risks that could undermine the company's profitability and its ability to successfully implement a low-carbon transition plan. The company has begun to consider climate issues related to its activities.	There are minor potential risks that could undermine the company's profitability and its ability to successfully implement a low-carbon transition plan. However, there is evidence that the company is directing efforts to reduce these risks.	Risks that could undermine the company's profitability and its ability to implement a low-carbon transition plan are very limited. In addition, the company has always addressed and considered climate risks in its strategy.	No potential risk to the future profitability of the company or its ability to implement its transition to a low-carbon economic model.

FIGURE 3: NARRATIVE SCORING MATURITY MATRIX

The final average narrative score for the sector is C, suggesting companies display an overall medium performance and still need efforts to be aligned with a low-carbon pathway. This score is calculated by assessing each scoring dimension with a maximum score of 4 points. Reputation was the highest-scoring dimension with an average score of 3.36. The dimensions Consistency and Credibility and Risk obtained the lowest average scores, with 1.35 and 1.65 respectively.

Business Model and Strategy

This dimension obtained an average score of 1.85, which is below 50% achievement. No company obtained the maximum possible score. 9 companies received an average score of 2. This suggests that these companies are adapting their business activities to a low-carbon economy, by investing and taking advantage of low-carbon market opportunities but are still in the early stages of this transition. Companies that received lower scores (0 or 1) reported limited investments for developing a low-carbon offering or have not yet begun implementing a low-carbon strategy.

Consistency and Credibility

The average score for this dimension was 1.35. This dimension evaluates past, present and future performance and how it drives companies' low-carbon plans and commitments. The maximum score was 2 for this Module. Some companies failed to provide information for previous or future sustainability performance, meaning analysts were unable to properly assess progress in this topic. Most companies have a Basic or Standard achievement, indicating that they are not yet taking sufficient climate action to transition

to a low-carbon economy. It also reveals some mismatches between targets set and actual plans to achieve those targets.

Reputation

This is the highest scored dimension of the narrative score, with 3.36 points. Most companies have obtained the maximum score possible (4) as research indicated they have no controversies or reputational issues related to climate impact.

Risk

The average score for this dimension is 1.65. No companies obtained the maximum possible score in this dimension and only one company obtained a “Next Practice” rating. This result suggests companies are still exposed to transition risks as they have not implemented scenario testing or have not prepared sufficiently for alignment with a low-carbon economy. Most companies obtained a Basic or Standard rating, suggesting they need to develop more advanced processes for identifying climate-related transition risks, and better strategies to mitigate them.

Final narrative scores

The average narrative score obtained was 11.4/20, which is equivalent to a C letter score.

Most companies obtained a B or a C score, suggesting they are in the development phase of low-carbon transition plans, but need to go further in the implementation of activities aiming to push forward the evolution of their business models. Companies in the sector should work on increasing transparency, boosting their low-carbon offering, and increasing their understanding of climate-related transition risks which might affect their future business activities.

TREND SCORE

Companies that received a positive trend score (5 companies) have reported relevant investments in low-carbon products and are working to substantially increase their offering with more sustainable fuels and low-carbon technologies. These companies have also incorporated suppliers and customers into their sustainability strategies and are attempting to reduce their indirect GHG emissions by implementing marketing strategies (promotion of low-carbon products or training of sales team) or diversifying their sold products.

However, the sector faces serious challenges, as evidenced by the 4 companies that obtained a negative trend score. Areas of improvement can be found in most areas assessed by ACT . Beginning with more transparency in reporting their performance, companies must prepare for a more demanding market, in which sustainability impacts are increasingly being scrutinised.

5 companies obtained an equal trend score, suggesting that current efforts by these companies are not sufficient to align their climate strategies with low-carbon pathways and practices.

FEEDBACK FROM PARTICIPATING COMPANIES

At the end of the assessment, analysts shared a form with participating companies to collect insights and feedback. The answers have been gathered to identify key findings. Several topics have been addressed through this form:

Key topics	Feedback from companies
Data collection process	• Data collection took longer than initially expected • Key role of the analyst in the guidance to answer / understand the indicators and provide relevant answers • Could be hard to gather all the data as the questionnaire covers many topics • Questionnaire can be scary • On-site visit would have been a plus
ACT Assessment	• Scope: Scope has been unclear, for Inclusive Scope 1+2 especially, where back-and-forths were needed with the analyst • Results: Results were clear and consistent with expectations • Quantitative score: Some difficulties have been encountered for Module 2 (Inclusive Scope 1+2, Eurofer Tool) and Module 4 on the hotspots. • Qualitative score: Some indicators might not be completely adapted to iron and steel sector (awareness of low-carbon products for clients or public engagement) • Business model: Considered as an interesting approach to promote internal projects
ACT Methodology	• ACT Iron & Steel provides insightful guidelines to develop and improve a climate strategy and make companies ask relevant questions • Benchmarks are useful to understand what the expectations of the sector are
ACT Framework	• ACT Iron & Steel is a good reporting tool but is time-consuming to complete. Companies face many other responsibilities related to climate reporting. ACT could be a part of the climate reporting landscape if many players take assessments and become a reference. • ACT Iron & Steel can help the sector to transition to a low-carbon economy.

FEEDBACK FROM ANALYSTS

Analysts have a key role during the road test:

- To guide companies through data collection and provide a relevant assessment
- To have a critical view on the methodology and provide relevant feedback on all key aspects of the ACT Iron & Steel Methodology
- To propose solutions in order to improve the methodology and the data collection tool

Therefore, analysts were asked to complete a form to give their opinion on the road test on 3 topics:

Key topics	Feedback from analysts
Data collection process	• Some changes implemented during the road test led to confusion. For example, the scope of emissions included in the benchmark have changed. Therefore, additional questions had to be asked to the companies • Most companies were reactive and committed during data collection. However, the more effort the assessment takes, the less responsive the company becomes • More guidance could be added in the questionnaire, especially on challenging indicators (Table Module 2, Module 9) • Important to warn the key contact person that they might need the help of other departments at the beginning of the road test • Interesting discussion with companies that were really involved • Process was clear: Steering Committee and MHQA meeting were helpful to validate questions from companies • If a company does not take the time to understand the methodology, it can later be time consuming for the analyst (major errors, not enough details…) • Language could be an obstacle sometimes
ACT Assessment	• Performance score: Some indicators received few or no answers, but for different reasons: No interaction with other department, no data, not available (public assessment), no justification … • Module 4 could be improved to be more practical for the company and extend the indicator 4.1 to integrated company. • Narrative score: Not enough guidance (categories affecting the narrative score if data not available or not justified) • The process is very interesting and permits a constructive dialogue with the company. It helps to point out weaknesses and strengths from the company's climate strategy • Guidelines on trend score could be improved
ACT Methodology	• ACT Iron & Steel is a challenging methodology as it's a very specific industry and the analyst needs to really dive into the methodology to understand the details of the methodology (ACT sectoral training?) • Maturity matrices could be more detailed, or examples could be provided to define the level of ambition of each level. • Clearer rules should be established regarding ACT assessment to ensure comparability within the sector and between sectors (objective of MHQA) • ACT Iron & Steel: More data per route would be a key improvement (not available at that point) •

2. Conclusion and Outlook

SUCCESS OF THE ROAD TEST

- Companies involved in the road test were in the majority highly engaged and provided, in many cases, very thorough feedback on the data collection tool.

- I Care and Deloitte believe that with some improvements to the tool and some methodological amendments (definition of the scope), the **Iron & Steel assessment will provide a fair reflection of a company's readiness to transition to a low-carbon economy**.

- **Members of other initiatives within the iron and steel sector (for example, World Steel, Responsible Steel, and SBTi) were invited to participate in the Technical Working Group.** Their contributions were constructive and insightful for key methodological points, especially on sectoral benchmarks used for quantitative Modules. The ACT initiative aims to be complementary and compliant with other existing initiatives. During this road test, this has been completely aligned with what ACT aims to do for the low-carbon transition.

- **The current assessment methodology allows companies to point out with clarity where the main gaps / areas** for improvement can be found, and encourages much greater transparency on climate performance, strategies, and transition plans. This will help to raise the bar for the sector.

- **Clear process and good coordination with key actors.** Several road tests have taken place over past years. The road test process has been clear and beneficial to key actors.

LIMITS OF THE ROAD TEST

- **Usability of the tool:** without making the tool more user-friendly, companies will continue to find it challenging to use the tool and provide the data needed for the assessment. Companies are expecting more guidance directly available in the tool, and a more detailed explanation as to what is expected from companies, especially in maturity matrices.

- **Time spent on the data collection**: As companies were involved and highly engaged in the road test, they played an important role and spent the time to understand the methodology and collect data as accurately as they could. However, this strong involvement led to them spending more time on the project than they expected.

- **Sample of companies:** No steel-shaping companies were assessed during this road test. Therefore, the weighting system for these companies as well as one specific indicator (4.1) could not be tested.

MAIN CHANGES & RECOMMENDATIONS TO EXTEND THE METHODOLOGY TO THE REST OF THE SECTOR

I Care and Deloitte have already implemented methodological enhancements as well as improvements to the questionnaire before releasing the methodology.

All inconsistencies or issues experienced by the analysts and companies during the road test have been gathered in a logbook and integrated at the end of the road test after discussion with the Steering Committee and the Technical Working Group. The following points summarise the key recommendations that have been addressed or will be addressed:

- **Provide a more user-friendly tool:** The most common feedback theme from companies and analysts participating in the road test was that more guidelines would be appreciated to support the data collection phase. This was the case for both the quantitative and qualitative Modules. The tool needed clearer instructions and more explanation of what information is required (Inclusive Scope 1+2, scrap generation or maturity matrices). This will improve companies' ability to engage with the assessment and the quality of their submission. Some amendments have been made to simplify the data collection process (past trend emissions at asset level, for example).

- **Continue the coordination with other initiatives from the sector** to improve the robustness and the completeness of the methodology (WorldSteel, ResponsibleSteel, SBTi, Net Zero Steel Pathway Methodology Project...). For example:
    - The diversification of the production routes that can be taken into account and benchmarked would improve the pertinence of the methodology (as it was initially discussed during the methodology development). However, this is directly linked to the availability of benchmarks.
    - Responsible Steel and the Net Zero Steel Pathway Project propose a new way to compare carbon performance of assets, plotting the carbon intensity vs % of scrap used. If a benchmark becomes available (at least past and present and possibly future), such an indicator could be added in the ACT I&S methodology in a future update.

- Other technical points have been addressed:
    - Change in the calculation of the locked-in emissions score. It was not tested with companies during the road test and therefore lacks feedback for the Iron and steel sector, even if it was already proofed during the ACT transport road-test.
    - Update in the wording for indicator 2.6 Scrap reduction strategy
    - Inclusion of indicator 4.1 for integrated companies
    - Definition of the exhaustive list of inclusion for "Inclusive Scope 1+2" thanks to the discussion with IEA
    - Change in the activities considered to be business models that increase the use of low-carbon energy (energy efficiency and green electricity purchase have been removed)

CONTRIBUTION OF ACT TO ENGAGING COMPANIES IN THE LOW-CARBON TRANSITION

This report concludes that the companies in this sector must strengthen their decarbonisation ambitions and efforts and increase their transparency to better allow stakeholders to understand companies' impacts and the extent of their future ambitions and action on climate change. Current activities and expected future performance are not aligned with a low-carbon pathway, exposing companies in this sector to climate and market risks.

Throughout the road test, most companies showed interest in completing the assessment and acknowledged the role of ACT in encouraging greater shifts within the sector, in relation to increased transparency and ambition around low-carbon transition plans. In addition, companies provided feedback on the assessment methodology and tools. With a few exceptions, companies in the road test demonstrated they are working towards developing and implementing effective sustainability strategies, but that there is some way to go before reaching the level of ambition required to align with a low-carbon pathway, and complementing strategies with real action, for example in transforming their business models.

Some companies have delivered a testimony on how ACT can engage companies in the low-carbon transition:

"The ACT Initiative provides a comprehensive and science-based methodology for the Iron & Steel Sector. Using a standardised calculation method allows to better compare companies and facilities of one branch. Furthermore, with this science-based approach it is possible to outline the current status and to show the transition pathway. "

“It was a very good experience to support the development of the tool and to have one more data evaluation base showing us what our gaps are in order to establish our internal strategy towards decarbonization. I believe that ACT can become a more than necessary tool to support companies in the mission of becoming carbon neutral, but for this to happen, the tool needs to evolve and show beyond the position the company is in or what it is. need to improve. The tool and methodology need to support and help companies in an assessment closer to their realities, seeking to better direct actions towards decarbonization”

“The assessment methodology appears to be very interesting, allowing to take into account every aspect related to the decarbonization. This methodology is also interesting to identify the strengths and the weakness of our decarbonization plan and also to define relevant areas of improvements.”

“ACT assessments really provides guideline to improve our climate strategy. This methodology is very interesting, complete and robust. The fact of being able to compare our activities to sectoral benchmark is also really insightful. ACT can really enable the I&S sector to transition towards a low-carbon economy if peers are getting involved”

“The three dimensions of the score is very useful. This methodology is not only about emissions but also action-driven. ACT initiative can really play a role to make the company taking actions. It is also interesting to have a multi sectoral approach and that companies could be compared across sectors”.