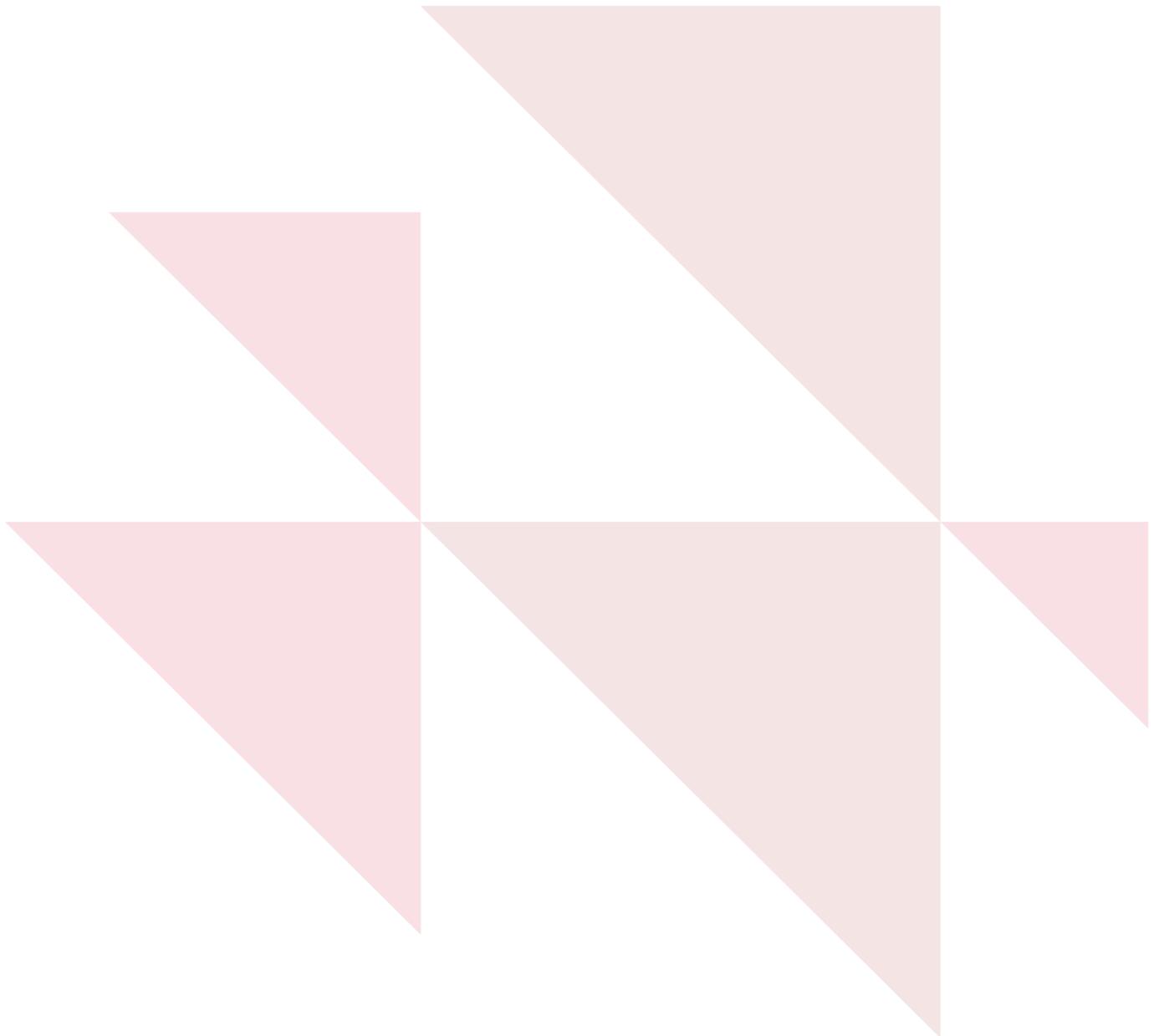


IT'S GETTING HOT IN HERE – THE GREEN RECOVERY AT RISK

Corporate temperature pathways

Focus Italy



October 2021

IT'S GETTING HOT IN HERE – THE GREEN RECOVERY AT RISK

Overview

The next decade is critical: corporate climate ambition needs to accelerate rapidly to ensure that the economy aligns with a 1.5°C temperature pathway. Taking national commitments into account, there is a 20-23 GtCO₂e global emissions gap to reach the IPCC-calculated pathway to limit global warming to 1.5°C with 66% probability.¹

This report reviews emission trends and reduction targets of Italian companies, translating the findings into corporate temperature pathways.

KEY RECOMMENDATIONS

- ▶ European policymakers and financial institutions should monitor and measure private spending during and after the crisis, ensuring that companies implement measures in line with the European Green Deal, Paris Agreement and SDGs.
- ▶ The EU Commission should request 1.5°C-aligned indicators in Member States' budgets in recovery planning.
- ▶ Companies need to set science-based, 1.5°C-aligned emissions reduction targets and show progress towards those targets, to ensure they are contributing to a green recovery and the Paris Agreement goals.
- ▶ Governments need to accelerate their leverage to drive companies to adopt science-based targets, by setting clear requirements in upcoming disclosure regulation and standard-setting.
- ▶ Disclosure requirements must be strengthened to ensure companies publicly disclose high-quality environmental information.
- ▶ Scope 3 emissions disclosure requirements of companies need to be improved.

KEY OUTCOMES – TEMPERATURE ANALYSIS ITALY

- ▶ Italian companies are falling far short of aligning with the 1.5°C Paris goal. They are currently projected on a 2.8°C temperature pathway based on their emissions reduction targets (covering scope 1, 2 and 3).
- ▶ Only a few companies (approx. 10%) have detailed mid-term targets in place to be included in the analysis of temperature alignment.
- ▶ Over the last five years, Italian companies reduced their scope 1 and 2 emissions by 22%.
- ▶ Under linear BAU assumptions, Italian companies are projected to reduce emissions by 3.3% annually from 2019 until 2030, which is below the needed 4.2% annual linear reduction for a 1.5°C compatible pathway.
- ▶ The share of total GHG emissions in the sample is 46% aligned with a 1.5°C pathway and 56% aligned with 2°C or below 2°C.

¹ CDP and United Nations Global Compact (2021): Taking the Temperature. Assessing and scaling-up climate ambition in the G7 business sector, Science-based Targets Initiative, <https://sciencebasedtargets.org/resources/files/SBTi-TakingtheTemperatureReport2021.pdf>

The Covid-19 pandemic presents significant economic challenges to the EU and its Member States. In light of the climate crisis and its imminent impacts, an economic recovery from Covid-19 should be in line with the climate ambition of the EU, a so-called green recovery. However, if current national and EU plans for a green recovery fall short of meeting the climate objectives, it could instead lock the EU and Member States into a pathway incompatible with limiting the global temperature rise to 1.5°C above pre-industrial levels.

The green recovery in the EU – insufficient plans are putting the ‘decade of action’ at risk

About a year into the Covid-19 pandemic, the European institutions agreed on a recovery fund. Over €2 trillion (€1.8 trillion in 2018 prices) are dispersed across different loans, grants and initiatives for a greener, more resilient and more digital EU post Covid-19. 30% of the recovery funds need to be allocated towards preventing dangerous climate change.²

The Recovery and Resilience Facility (RRF) is the ‘centrepiece’ of the EU’s green recovery. Almost €700 billion are split into loans and grants to support Member States’ reforms and investments on the way to recovery.³ At least 37% of expenditure for these reforms and investments by Member States have to support a green transition.⁴ By the end of April 2021, Member States applying for the RRF had to submit Recovery and Resilience Plans (RRPs) with an implementation timeframe until 2026 in order to receive funds. After approval by the European Commission and the Council, Member States can receive 13% of their allocated funds, after Member States meet their targets, more funds can be received.⁵ 16 Member States’ RRFs received approval by the European Commission.

Yet, opposing the approval of the European Commission, based on analysis by the Green Recovery Tracker, the stipulation of 37% green expenditure directed at the green transition has not been met by most Member States that submitted RRFs. Only Germany and Finland overshoot this target, the other 14 Member States fall short, according to the Green Recovery Tracker.⁶

This indicates that further it is important to track the implementation of Member States’ plans to ensure the at least 37% climate expenditure is met. As part of this, expenditure and commitment to green recovery investments for the corporate sector need to be clearly tracked and monitored to ensure spending is directed towards climate action. Transparency and accountability of the corporate sector is therefore vital, as well as showcasing of 1.5°C aligned targets.

² European Commission: Recovery plan for Europe, https://ec.europa.eu/info/strategy/recovery-plan-europe_en [Accessed on 07/07/2021]

³ European Commission: Recovery and Resilience Facility. The Recovery and Resilience Facility is the key instrument at the heart of NextGenerationEU to help the EU emerge stronger and more resilient from the current crisis, https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en [Accessed on 07/07/2021]

⁴ European Commission: Questions and answers. NextGenerationEU: Questions and answers on the Recovery and Resilience Facility, 16 June 2021, https://ec.europa.eu/info/sites/default/files/nextgenerationeu_questions_and_answers_on_the_recovery_and_resilience_facility_en.pdf [Accessed on 07/07/2021]

⁵ European Commission: Recovery and Resilience Facility. The Recovery and Resilience Facility is the key instrument at the heart of NextGenerationEU to help the EU emerge stronger and more resilient from the current crisis, https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en [Accessed on 07/07/2021]

⁶ Green Recovery Tracker (2021): Is the EU recovery and resilience enabling a green recovery? Summary of findings from the Green Recovery Tracker, 03 June 2021, https://9tj4025ol53byww26jdkao0x-wpengine.netdna-ssl.com/wp-content/uploads/Green-Recovery-Tracker_Key-Findings_06_2021-1.pdf [Accessed on 07/07/2021]

Italy, as the biggest recipient of recovery funds⁷ with over €190 billion in grants and loans⁸, subsequently also has a great opportunity to ensure the necessary climate expenditure is met. Despite the European Commission approving the Italian RRP, attesting to a 37% allocation towards climate expenditure, the Green Recovery Tracker's analysis shows only a 16% spending towards climate.⁹ If Italy successfully reaches the allocated climate expenditure, it can avoid locking Italy into a high-temperature pathway. Taking the corporate sector into account is crucial, to ensure expenditure supports climate goals.

Companies need to step up to close the gap – focus on Italy

Italy's corporate sector needs to step up and take more ambitious action to accelerate emissions reductions. This analysis of Italy's corporate sector shows a clear misalignment of corporate ambition with the 1.5°C pathway, as well as a lack of data availability on corporate emissions trends and targets.

Italy, as a Member State of the EU, G7 and G20 and as the (co-)host of the G20 and COP26, has an opportunity to shine this year, show leadership and show a strong commitment to the decade of climate action. Currently, Italy's per capita greenhouse gas emissions (GHG) are on a downward trajectory, having reduced 8.6% between 2012 and 2017, and are slightly below the G20 average. Italy's total GHG emissions (excl. land use) also decreased by 17.5% between 1990 and 2017. While this trend is encouraging, Italy is far from a 1.5°C aligned trajectory.¹⁰

CDP's analysis shows, with current ambition levels of companies and emission trends, Italian companies are on a 2.8°C temperature pathway, which falls short of the goals of the Paris Agreement.

Corporate disclosure in Italy has significantly increased over the last decade. From only 29 Italian companies disclosing information through CDP's disclosure platform in 2010, a significant increase can be seen, with 240 companies disclosing in 2020.¹¹ Despite a positive trend in the climate disclosure rate, verifiable ambition on reducing climate impacts and aligning with the Paris Agreement goals by Italian corporations are still insufficient. Just 7 out of 20 companies with valid mid-term targets considered in this analysis have targets approved by the Science Based Targets initiative (SBTi).¹²

This analysis is based on data provided by companies through CDP's disclosure platform. The sample for this analysis is based on a set of quantitative and qualitative criteria (see Annex). Disclosure rates and the quality of information provided vary annually, leading so

⁷ Euronews with AFP (2021): Brussels greenlights Italy's €191.5 billion COVID-19 recovery plan, euronews, Updated: 23/06/2021, <https://www.euronews.com/2021/06/22/brussels-greenlights-italy-s-191-5-billion-covid-19-recovery-plan> [Accessed on 07/07/2021]

⁸ European Commission (2021): NextGenerationEU: European Commission endorses Italy's €191.5 billion recovery and resilience plan, Press release, 22 June 2021, Brussels, https://ec.europa.eu/commission/presscorner/detail/en/ip_21_3126 [Accessed on 07/07/2021]

⁹ Green Recovery Tracker (2021): Italy, <https://www.greenrecoverytracker.org/> [Accessed on 07/07/2021]

¹⁰ Climate Transparency (2020): Italy. Climate transparency report. Comparing G20 climate action and their responses to the Covid-19 crisis, <https://www.climate-transparency.org/wp-content/uploads/2020/11/Italy-CT-2020-WEB.pdf>

¹¹ This includes stocklisted companies responding through CDP's investor request, as well as companies disclosing publicly to customer(s) via CDP supply chain.

¹² This number relates to 2020 data. Hera, Terna S.p.A., ERG spa and Cementir Holding N.V. are in the 2020 disclosure sample, yet their SBT was approved in 2021. Thus, they are not listed as part of those 7 companies.

some companies providing insufficient information for assessment and thus could not be included in the analysis.

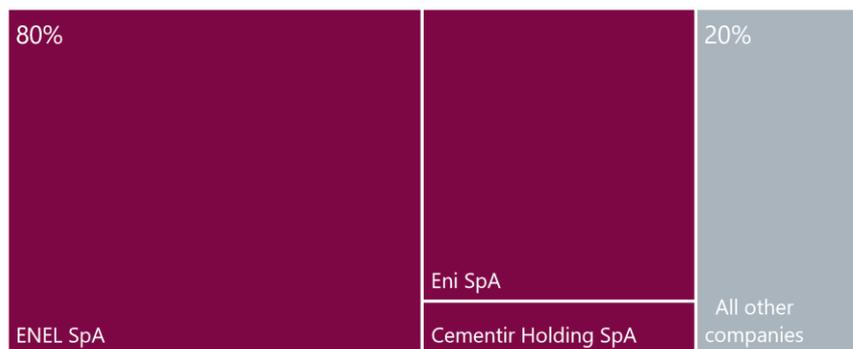
Table 1: Overview of sample for analysis¹³

Sample	Assessment
Full temperature assessment sample (analysis specific sub-samples based on valid data points)	194 companies
GHG emissions trend sample	71 companies
Valid mid-term emission reduction targets sample	20 companies

GHG emission trends of Italian companies

71 companies disclosed their scope 1 and 2 emissions data between 2015-2019 that meets the quality criteria for a trend assessment.¹⁴ In 2019, reported scope 1 and 2 emissions stood at 156 million tCO₂. The largest three companies by reported scope 1 and 2 emissions made up 80% of the total scope 1 and 2 emissions in that year. These companies are Enel, Eni and Cementir Holding. All other reporting companies together are only responsible for 20% of reported scope 1 and 2 CO₂e emissions emitted in that year.

Figure 1: Emission shares (scope 1 and 2) for top three emitting Italian companies (public disclosure)

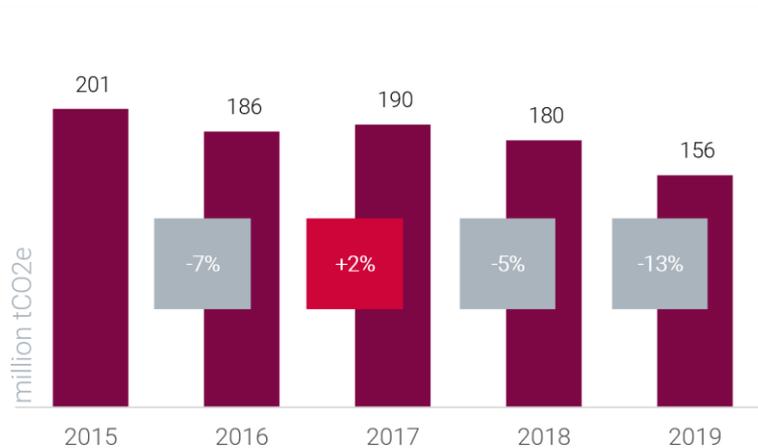


Overall, the disclosed scope 1 and 2 emissions within the GHG Trend sample have decreased by approximately 22% over the five years from 2015-2019 (from approx. 201 million to 156 million tCO₂e). From 2018 to 2019 reported emission decreased significantly by 13%, with a decline from 180 million to 156 million tCO₂e.

¹³ A full outline of samples and assessment methodology can be found in the Annex.

¹⁴ See Annex for more information.

Figure 2: Disclosed emissions (scope 1 and 2) by Italian companies between 2015 and 2019



While longer timeseries could provide a clearer trend, this five-year overview shows an encouraging downwards trend in companies scope 1 and 2 emissions. Yet, scope 1 and 2 emissions do not provide a full picture of companies' climate impacts. Depending on the sector, scope 3 emissions can account for the vast majority of company emissions. Previous CDP analysis has shown, supply chain emissions are on average 11.4 times higher than operational emissions. This is more than double compared to previous estimates. These new insights are possible due to improved emissions accounting by suppliers.¹⁵

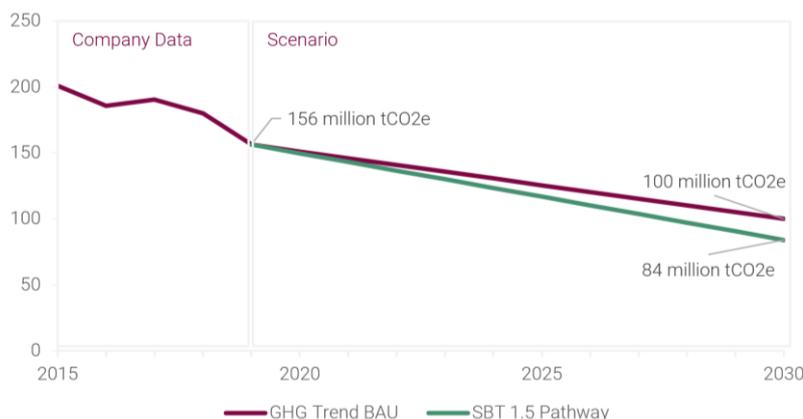
Unfortunately, since many companies are still lacking when it comes to reporting scope 3 emissions at all or in the quality needed for assessment, this analysis focuses on scope 1 and 2 emissions. While it is encouraging that scope 3 reporting has improved over the last years, it is still not sophisticated enough to be included in such a trend analysis.

Using the five-year trend analysis, a business-as-usual (BAU) trend analysis can be projected into the future, based on annual emissions changes continuing at the same rate as they have over the last years. The individual reductions by all companies in the sample can then be aggregated to determine a collective reduction for all companies in the sample. Under the assumption of a linear reduction trend over 11 years (from 2019 to 2030), a 36% emissions reduction would be achieved by Italian companies. Specifically, this BAU reduction would lead to a reduction from 156 million in 2019 to 100 million tCO₂e by 2030. The implied linear annual reduction rate (LAR) is 3.3%.

To compare the BAU trend with the SBT 1.5°C pathway, the analysis draws out the future emissions that companies in the GHG Trend sample could emit if they were to follow a 1.5°C aligned pathway, as defined by the SBTi. A 1.5°C emissions pathway from 2019 to 2030 implies a LAR of 4.2% for the economy as a whole. This would result in a 46% emission reduction from 156 million to 84 million tCO₂e over 11 years, to be compliant with the SBTi 1.5°C pathway. The resulting gap in emissions is 16 million tCO₂e, or 0.9% (almost 1%) of linear annual reductions.

¹⁵ CDP (2020): Transparency to Transformation: A Chain Reaction. Global Supply Chain Report 2020, <https://www.cdp.net/en/research/global-reports/transparency-to-transformation>

Figure 3: Business-as-usual (BAU) and 1.5°C emission pathways



As the scenario based on past emissions trends clearly shows, more reductions are needed to close the gap between the BAU trend and the SBTi 1.5°C pathway. It is also important to note that this BAU emissions trend is based on companies providing sufficiently high-quality GHG-related information via CDP. The emissions gap could be even higher than that shown here if a complete assessment of all Italian companies were able to be undertaken. To track companies' emissions reduction progress, fuller and more consistent GHG emissions data over a longer timeframe need to be provided by companies.

Emissions reduction targets of Italian companies

Our assessment revealed that 194 Italian companies disclosed some form of information to CDP over the last 5 years (2016-2020). Significantly, only 10% of these disclosing companies have valid targets in place which are used for temperature alignment analysis. These targets cover the timeframe 2025-2035 and, besides a valid mid-term timeframe, provide sufficient information and granularity on ambition of reduction, scope and boundary coverage to be assessed against temperature trajectories. Seven of these companies have approved science-based targets in place, which are by design also valid mid-term targets.

Table 2: List of Italian companies with a valid mid-term target and an approved science-based target¹⁶

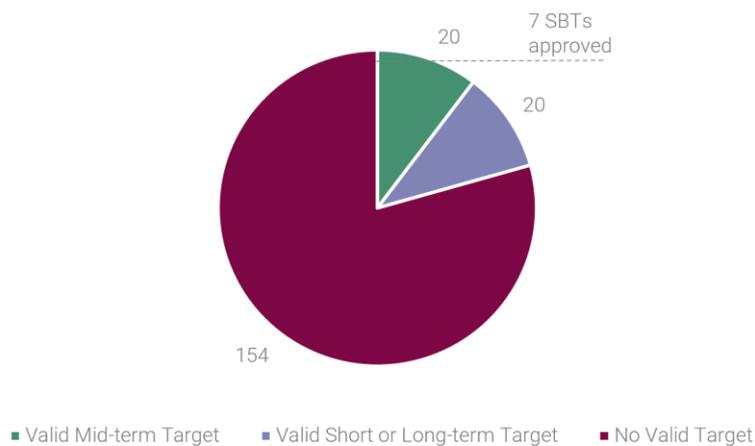
Company name	Temperature classification of approved SBT targets
Enel SpA	1.5°C
A2A	2.0°C
Sofidel S.p.A.	Well-below 2°C
Danieli & C Officine Meccaniche S.p.A.	Well-below 2°C
Pirelli	Well-below 2°C
Barilla Holding SpA	2.0°C
Salvatore Ferragamo SpA	1.5°C

¹⁶ Table 2 relates to the analysis sample, i.e. to 2020 data. Hera, Terna S.p.A., ERG spa and Cementir Holding N.V. are in the 2020 disclosure sample, yet their SBT was approved in 2021. Thus, they are not included in table 2. Please find more information on science-based targets provided by the Science-Based Targets initiative: <https://sciencebasedtargets.org/companies-taking-action>

A further 10% of companies have valid short- (2021-2024) or long-term (2036 and beyond) targets. While these targets fulfill the general criteria for valid targets, for the temperature analysis only mid-term targets are considered.

But most companies (80%) do not disclose targets with enough information to be accurately measured.

Figure 4: Valid targets in place



The new EU Corporate Sustainability Reporting Directive (CSRD), obliging nearly 50,000 companies to disclose information on company-wide targets, will not cover all companies in Italy. High impact companies, mostly covered by the CSRD due to their climate impacts, are of higher importance. Nevertheless, better and more ambitious target setting should be further encouraged. Specifically, future EU disclosure requirements should be, and are expected to be, much more explicit about disclosure of targets, asking for targets across different timeframes and disclosure details such as scope and boundary coverage to address this gap in available information.

With the first CSRD compliant disclosures only available in 2024, companies need to be encouraged to take voluntary action before this point. Companies already disclosing relevant information through CDP are well prepared for upcoming mandatory reporting requirements. As a result, increasing CDP disclosure and the quality of reported data supports the success of the CSRD.

Temperature analysis of Italian companies

The temperature analysis of Italian companies considers their valid mid-term targets as well as their GHG emissions trends. Only a very small fraction of companies analysed are aligned with 1.5°C (6 companies, or 7%). In total, 19 companies (21%) are aligned with 2°C or well-below 2°C.

In comparison, when looking at the share of total GHG emissions in the sample, 46% of GHG emissions are aligned with a 1.5°C pathway, and 56% are aligned with 2°C or below 2°C. This can mainly be explained by the distribution of emissions across companies. Large companies who account for a major proportion of emissions have relatively ambitious targets. In

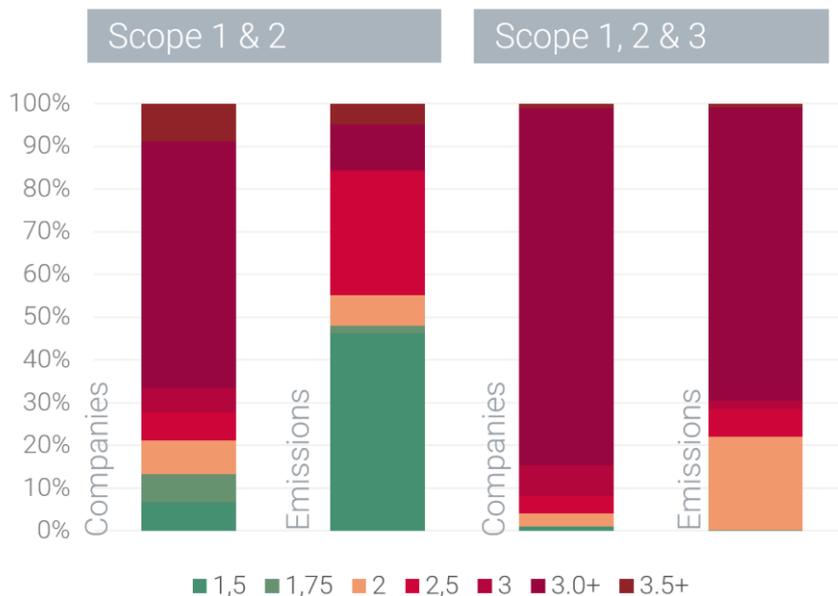
particular, three companies (Enel, Eni and Cementir Holding) account for approximately 80% of scope 1 and 2 emissions in the sample (see figure 1).

Thus, there is a strong divergence between the share of companies and of the share of scope 1 and 2 emissions that are attached to sufficiently ambitious targets to reach the 1.5°C goal. Meaning some companies, depending on their emissions levels, have a higher climate impact yet also higher potential to give the achievement of the climate goals a major jump start.

The outcome changes significantly when assessing companies across scopes 1, 2 and 3. Covering the total value chain emissions of a company is essential for a more representative assessment of a company's temperature trajectory. The number of companies on a 3.0+°C pathway is substantially higher, as very few companies have set mid-term targets covering their scope 3 emissions.

More interestingly, however, the distribution by share of total emissions (across scope 1, 2, and 3) shows that the influence of Eni and Enel is much less pronounced. Other Italian companies contribute (in comparison to the assessment only taking scope 1 and 2 emissions into account) more substantially when taking all scopes of GHG emissions into account.

Figure 5: Distribution of temperature ratings



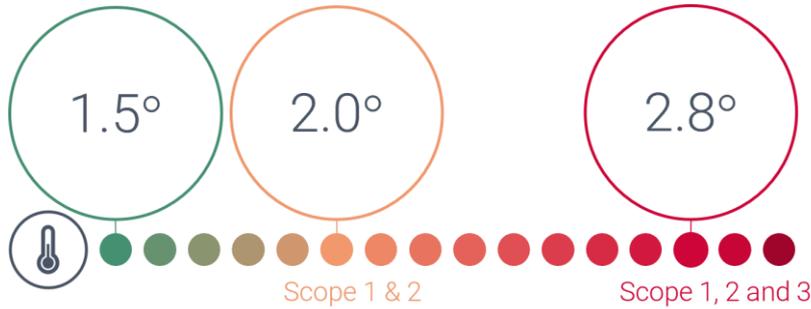
If all companies delivered against their current mid-term GHG emissions targets, their operational scope 1 and 2 GHG emissions would, on average, decarbonize at a rate consistent with a rise in global temperatures of 2.0°C by 2100 compared to pre-industrial levels.

However, when looking at companies' entire value chains including scope 1, 2 and 3, the picture is different. With most companies lacking scope 3 targets and the share of the two major emitters (Eni and Enel) dropping to 50% of total emissions, the analysed companies are on a 2.8°C trajectory.

As the assessment is based on GHG weighted aggregation of individual temperatures pathways, the temperature rating of those companies has a particularly strong impact on the overall temperature assessment. Both Eni and Enel have relatively ambitious scope 1 and 2

targets, which influences the overall temperature rating positively. The large difference in temperature alignments (2°C vs. 2.8°C) is driven by two aspects: by the widespread application of the 3.2°C default rating due to no valid target being available (80 companies), and by some of the top emitters having less ambitious scope 3 targets than scope 1 and 2 targets.¹⁷

Figure 6: High-Level temperature rating for Italian companies



¹⁷ Companies without any relevant, disclosed targets, or without targets covering a particular GHG emissions scope (e.g. scope 3), are assigned a default temperature rating of 3.2°C consistent with end of century temperature rise based on the current global policies. For details see public CDP Temperature Rating methodology available here: <https://www.cdp.net/en/investor/temperature-ratings>

ITALIAN STOCK MARKET – FTSE MIB 40 Index*

Looking at the FTSE MIB 40 as a representation of the Italian economy, the temperature assessment shows a 2.7°C pathway. In this analysis, 27 out of 40 companies in the MIB 40 Index could be assessed based on their CDP disclosures. These companies cover 91% of the MIB companies' scope 1, 2 and 3 GHG emissions, mostly from the fossil fuel and infrastructure sectors.

While the FTSE MIB 40 based on this analysis slightly outperforms the temperature analysis, there is no significant difference. 15% of companies in the FTSE MIB 40 have approved SBTs in place. These SBTs cover 41% of emissions from companies in the FTSE MIB 40. Additionally, 10% of companies have committed to align with 1.5°C and Race to Zero through the Business Ambition for 1.5 campaign.

Figure 7: High-Level temperature rating for FTSE MIB (covering scope 1, 2 and 3)



* This analysis summary is taken from CDP and United Nations Global Compact (2021): Taking the Temperature. Assessing and scaling-up climate ambition in the G7 business sector, Science-based Targets Initiative

Even though current targets enable Italy's companies to reach 2°C alignment across their operations, it is still far from the 1.5°C target that climate science dictates is necessary. Further, with a 2.8°C trajectory including value chain emissions more representative of the emissions pathways until 2030, closing the gap to 1.5°C increases in urgency. This large mitigation potential needs to be addressed.

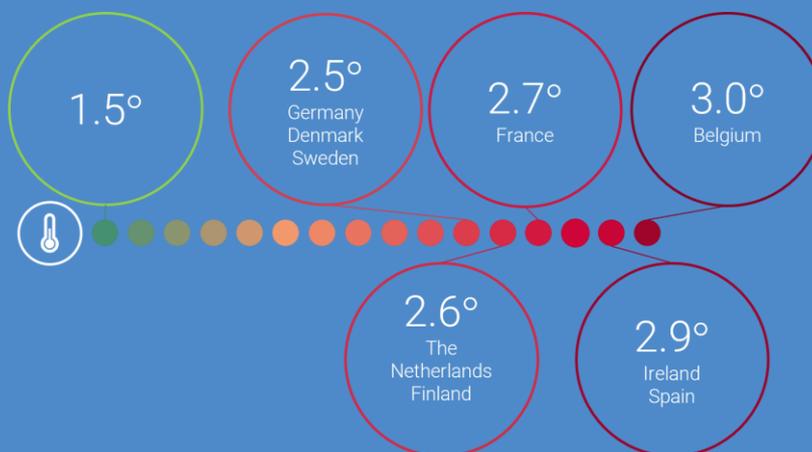
A set of key outcomes can be found from the temperature rating:

- ▼ First, a large number of Italian companies do not disclose relevant information, or disclose target data of an insufficient quality. Relevant information includes, in particular, company-wide emissions reduction targets with timeframes and scope coverage provided, and emissions disclosure across scopes 1, 2 and 3.
- ▼ As the assessment clearly indicates, more companies need to set mid-term, science-based emissions reduction targets. These SBTs should cover not only scope 1 and 2, but the full value chain.
- ▼ A few high-emitting companies in Italy are particularly important for the transition and could potentially unlock significant mitigation potential if these companies set 1.5°C aligned targets (covering scope 1, 2 and 3 emissions) and successfully track and reduce their emissions against these targets.

COMPARISON OF TEMPERATURE PATHWAYS OF EU MEMBER STATES

Analysis by Oliver Wayman and CDP* shows companies in other EU Member States are still far off from 1.5°C alignment as well. Companies in Denmark, Sweden and Germany are leading with 2.5°C temperature pathways, which is still a full degree off from the 1.5°C. Even further misalignment of target yet still below Italy’s temperature pathway at 2.6°C can be seen by Dutch and Finish companies, and at 2.7°C of French companies respectively. Slightly higher temperature pathways are shown by Spanish, Irish and Belgium companies.

Figure 8: High-Level temperature rating for selected EU Member States (covering scope 1, 2 and 3)



Looking at the largest indices in Germany and France**, analysis shows that companies in the German DAX30 are outperforming the average of all Germany companies by 0.3°C. While at 2.2°C DAX30 companies are still not close to the 1.5°C alignment, it nevertheless indicates that larger companies in Germany are taking on a leadership role. Companies in the French CAC40 are showing the same temperature alignment of 2.7°C as the average French companies.

Figure 9: High-Level temperature rating for the German DAX30 and the French CAC40 (covering scope 1, 2 and 3)



* This analysis summary is taken from CDP Europe report 2020: Running hot: accelerating Europe's path to Paris, Oliver Wyman / CDP

** This analysis summary is taken from CDP and United Nations Global Compact (2021): Taking the Temperature. Assessing and scaling-up climate ambition in the G7 business sector, Science-based Targets Initiative

The way forward

European policymakers and financial institutions should monitor and measure private spending during and after the crisis, ensuring that companies use public funds received for the green transition. The EU Commission should request 1.5°C-aligned indicators in Member States' budgets in recovery planning, which would contribute not only the RRF's guidelines are met, but also move the EU towards realizing the Paris agreement goals.

Likewise, it should implement monitoring systems and measures to ensure public spending reaches the 37% climate expenditure stipulated in the RRF, and that the corporate sector moves towards 1.5°C aligned targets.

Companies should implement measures in line with, or investments in technologies that will help deliver on, the European Green Deal, the EU 2030 and 2050 targets, Paris Agreement and SDGs. Recipients of recovery funds should have to clearly account for which areas funds were, are and will be allocated to.

The role of disclosure and why we need science-based approaches by governments and non-state actors¹⁸

Governments need to accelerate their leverage to drive companies to adopt science-based targets, by setting clear requirements for science-based, trackable emissions reduction targets in upcoming disclosure regulation and standard setting. High-quality disclosure and the setting of science-based, 1.5°C aligned emissions reduction targets are key for the corporate sector to move towards achieving the Paris goals. As a result, strengthened policies and measures addressing these issues are needed to drive the decarbonization of the economy.

While environmental non-financial disclosure on EU will improve significantly through the Corporate Sustainability Reporting Directive, there are still many areas for improvement. Firstly, national implementation of the Directive should reflect the ambition of the Paris goals and national ambition. Further, it needs to be ensured that key aspects of the CSRD, especially on target setting and value chain emission disclosure, are not watered down in the negotiations for the adoption of the CSRD.

It is not only the CSRD that is a key area for more 1.5°C-alignment of requirements for companies. In the upcoming sustainability standards and sustainable corporate governance law, 1.5°C alignment is also crucial.

Key areas of improvement:

- ▼ Companies need to set science-based, 1.5°C-aligned emissions reduction targets and show progress towards those targets, to ensure they are contributing to a green recovery and the Paris Agreement goals. This needs to be part of future disclosure requirements to ensure companies' high-quality public disclosure of environmental information.
- ▼ Scope 3 emissions disclosure requirements of companies need to be improved. With better scope 3 assessment, companies can set science-based targets across all scopes.

¹⁸ CDP holds the richest and most comprehensive dataset on corporate and city action, with over 10,000 organizations disclosing information worldwide.

Annex – Assessment criteria and analysis methodology

Samples

- ▼ The full analysis sample comprises 194 companies. Companies are selected into the sample if they have reported to CDP at least once over the last five years (2016-2020) and are not privately reporting companies of the Supply Chain Program.
- ▼ The analysis for the time series assessment covers 71 companies. Those companies reported GHG emissions data that meet the quality criteria to build a timeseries of GHG emission data for the last 5 years.
- ▼ The samples for the respective temperature assessment are based on valid GHG trends and valid target criteria. Short-, mid- and long-term targets have target years which are positioned at differing points in the future: Short-term = 2021-2024, Mid-term = 2025-2035, Long-term = 2036 or later. A target is classified as invalid if companies have not disclosed a target for the 2025-2035 time-period or they have not disclosed sufficient information for it to be assessed.

Timeseries Analysis

- ▼ Scopes: The analysis focus is on Scope 1+2 and excluded scope 3 GHG data from the assessment as the quality of reported data over the last 5 years is not of sufficient quality and consistency to draw meaningful conclusions.
- ▼ At least 3 years of Scope 1+2 GHG emissions since 2015 accounting year, with at least one year of Scope 1+2 GHG emission reporting in 2018 or 2019 accounting year.
- ▼ Outlier Screening: Outliers were determined using the interquartile range (IQR), adding $1.5 \times \text{IQR}$ to the third quartile and subtracting $1.5 \times \text{IQR}$ from the first quartile to determine the upper and lower bound.
- ▼ To estimate potential future pathways of companies, projections are based on a continuing trend of historic GHG emissions. This is then weighted across all companies in the sample.

Temperature ratings methodology

- ▼ The temperature ratings generally build on the CDP Italy sample (194 companies) evaluating companies with valid mid-term targets as well as companies with valid GHG timeseries. The methodology employed derives a temperature from the forward ambition of a target, or the trend of the past GHG emissions time series data. The LAR value (annual rate of change) is assessed and translated to a temperature using the same models for both time series and targets.
- ▼ CDP temperature ratings draw on CDP's disclosure system and expert Data Analytics team for its ratings. It uses a public, expert-reviewed and open-source protocol currently being developed by CDP and WWF for interpreting companies' emission targets under key climate scenarios. This protocol translates individual targets of varied formats into consistent and comparable temperature ratings.
- ▼ The temperature ratings are science-based as they are based on the IPCC 1.5C report and the Integrated Assessment Modelling Consortium (IAMC) compiled database of climate scenarios. These scenarios are used to develop models for each target type and sector pathway.
- ▼ See here for full methodology: <https://www.cdp.net/en/investor/temperature-ratings>

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Building on the successful previous collaboration and government endorsement encouraging Italian companies, cities and regions to disclose their environmental information and take action, CDP Europe and the Italian Ministry of Ecological Transition signed a third programme of work in November 2020. CDP Europe collaborates with the Ministry to build environmental transparency and raise climate ambitions, using CDP's data, research, and capacity building.

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CDP Government Partnerships are designed to help governments analyse the impact of policies and regulation to achieve carbon-neutrality and resource efficiency by 2050. CDP's global disclosure system equips national, EU and international policymakers and governmental bodies with the data they need to track and measure the impact of policies, identify gaps, trends and best market practice that can be tackled and incentivized through policymaking to create positive impact and drive the transition.

By endorsing the CDP disclosure system, governments can actively drive the increase in quantity and quality of climate and environmental data of corporates and local governments as well as action on climate change, water insecurity and deforestation.

See here for more information: <https://www.cdp.net/en/policy-and-public-affairs/government-partnerships>

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