

# Imerys

## Sustainability-Linked Bond Framework

### Second Opinion

November 17, 2023

This report was produced by Shades of Green using Shades of Green Methodology. On December 1, 2022, S&P Global acquired Shades of Green from CICERO.

**Imerys is a specialty mineral supplier operating mining and processing sites globally to serve diverse industrial sectors.** Its main segments are performance minerals and high temperature materials and solutions, which together provide products to end users in construction, consumer products, transportation, energy and electronics, industrial products, and paper. Headquartered in Paris, France, Imerys generated revenues of €4.3 billion in 2022, has around 14,000 employees, and is publicly traded on the Euronext Paris exchange.

**This is a second opinion on Imerys' sustainability-linked bond framework.** Shades of Green's approach to sustainability-linked frameworks includes an assessment of the issuer's climate and sustainability governance, the framework's key performance indicators (KPIs) and sustainability performance targets (SPTs), and the issuer's revenues and planned investments.

We give Imerys a governance score of **Excellent**. It has further strengthened its sustainability strategy since the previous 2021 framework through more ambitious climate targets, more robust governance structures and processes, and reporting in accordance with Taskforce on Climate-related Financial Disclosures (TCFD) guidance. Imerys continues to undertake physical climate risk assessments and mitigation measures for its operations, make progress assessing its product portfolio for environmental risks and benefits, and incorporate environmental and social considerations in its supplier engagement. Areas for potential further improvement include defining the company's climate trajectory beyond 2030, developing more quantitative sustainability performance requirements for suppliers, and evaluating and managing physical climate risks in its value chain.

**Under the sustainability-linked framework, Imerys has established SPTs to reduce absolute Scope 1 and 2 emissions in alignment with its validated near-term 1.5°C Science Based Targets (SBTs).** Strengths, weaknesses, and pitfalls of the framework are discussed below, and Table 1 at the end of this executive summary provides a snapshot of our assessment of the KPIs and SPTs.

#### *Strengths*

**It is a strength that Imerys has increased its KPI and SPT ambition from the previous framework by moving from intensity to absolute targets and from a well-below 2°C to 1.5°C reduction pathway for its Scope 1 and 2 emissions.** We are pleased to see these developments that represent meaningful further commitments to capture direct climate impacts and align both SPT 1 and SPT 2 with net zero scenarios and Paris Agreement goals for the emissions and time period covered. It is also positive that Imerys plans to continue public reporting on its climate emissions intensity, which will help investors

#### GOVERNANCE ASSESSMENT



#### SUSTAINABILITY LINKED BOND PRINCIPLES

Based on this review, this framework is found in alignment with the principles.

to assess whether any absolute reductions are related to climate performance improvements vs. exogenous factors such as volume decreases or economic recessions.

**Imerys' SPTs are more ambitious than its specialty mineral peers' Scope 1 and 2 emissions goals.** Similar companies have set well-below 2°C (rather than 1.5°C) targets, excluded more emissions from their target scopes, continued to use intensity targets, or not yet set climate targets.

**Imerys has developed a clear strategy to achieve its SPTs, including estimation of potential emissions reductions it can achieve from different measures.** Its plans to increase its renewable energy use, electrify processes, substitute waste-based biomass meeting EU Renewable Energy Directive II (RED II) requirements for fossil fuels, and mitigate emissions from chemical reactions in mineral processing through carbon capture and storage (CCS) are particularly well-aligned with a low carbon future.

#### *Weaknesses*

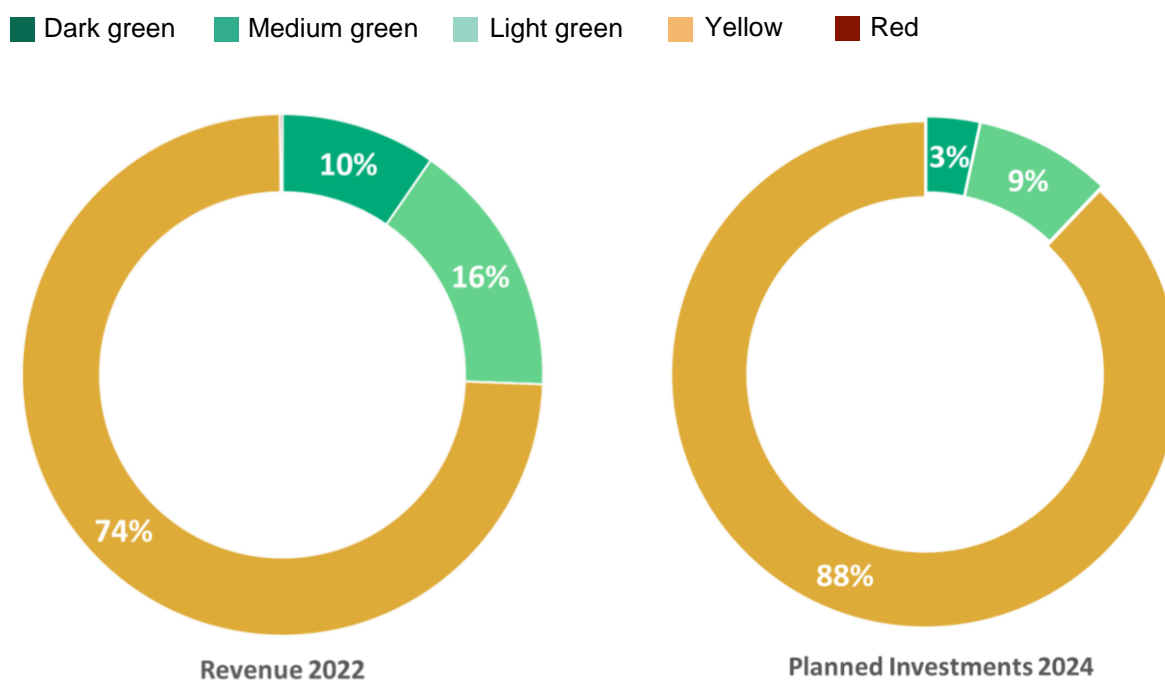
**Imerys' KPI only covers its Scope 1 and 2 emissions, or 33% of its total estimated climate impact, making it possible for Imerys to achieve its SPTs while increasing its overall climate footprint if Scope 3 emissions are not effectively mitigated.** While we still consider the KPI material, it is a weakness of the framework that Scope 3 emissions, or 66% of Imerys' total estimated climate impact, are not included in a complementary SPT. Despite the strong ambition of the SPTs as aligned with a 1.5°C trajectory through 2030 for Scope 1 and 2 emissions, we do not consider the SPTs— on their own as the basis for potential financial effects in the context of Imerys' sustainability-linked framework— as aligned with science-based net zero scenarios or Paris Agreement goals with significant Scope 3 emissions excluded. We view Imerys' company-level validated SBT for reducing its absolute Scope 3 emissions in line with a 1.5°C pathway through 2030 as highly positive and a mitigating factor to this weakness at framework level if the SBT is achieved, and we are encouraged by Imerys' commitment to improve its Scope 3 emissions data collection and calculations for potential inclusion in future frameworks.

#### *Pitfalls*

**Some elements of Imerys' plan to achieve its SPTs have clear lock-in risks.** While fuel switching from coal to natural gas and energy efficiency measures for fossil fuel powered equipment may drive emissions reductions in the near term, they can lock in significant climate impacts longer term from continued fossil fuel use. As this risk must be carefully managed, we are encouraged by Imerys' plans to assess whether conventional natural gas use can be avoided and whether electrification or fuel switching to biomass may be possible before energy efficiency measures are implemented.

**Imerys has not yet set longer-term climate targets, making its post-2030 emissions trajectory uncertain.** While its nearer-term targets are positive, both its overall climate strategy and SPTs would be strengthened by a net zero by 2050 commitment and proposed implementation measures. This kind of analysis on how to reach an ambitious longer-term goal could, for example, identify investments through 2030 with the high lock-in risks mentioned above that may need to be avoided or areas such as innovation needed for process emissions reductions that may need to be strengthened.

*Shading of Imerys' revenues and planned investments*



Source: Shades of Green analysis using Imerys' financial data from 2022 and projections for 2024.

**Figure 1: Shading of revenue and planned investments for Imerys**

**Among Imerys' 2022 revenues, 10% were assigned a Medium Green, 16% were Light Green, 74% were Yellow, and <1% were Red.**<sup>1</sup> Revenues from battery input materials supporting decarbonizing the transport sector and products related to improving the sustainability of building materials were assigned Medium Green, while Light Green revenues were associated with diverse products that likely reduce emissions or local pollution relative to conventional alternatives but still entail some climate and environmental risks that need to be managed. A Yellow shade was allocated to revenues from end uses representing business-as-usual climate and environmental impacts or product segments where data were insufficient for assessment. Red shading was assigned to products with oil and gas applications associated with high emissions and lock-in risks.

**Of Imerys' planned investments for 2024, 3% received a Medium Green, 9% received a Light Green, and 88% were Yellow.** Medium Green elements that represent positive contributions to a low carbon future include planned investments in critical battery material production, additional mineral recovery from what would otherwise be considered wastes, and diverse decarbonization strategy measures. A Light Green shading was assigned to energy efficiency investments with some lock-in and rebound effect risks, maintenance with environmental co-benefits, and water, air, and waste management that are often related to regulatory compliance. Yellow aspects include business-as-usual planned investments in maintenance, IT, and automation as well as activities with higher climate and environmental risks include mining exploration and land acquisition as well as mining and tunnelling activities.

<sup>1</sup> Our analysis is based on product groupings and descriptions by Imerys, and we have not assessed every product within the revenue streams. Within all revenue streams, there could be products that should be shaded differently.

**Table 1. Summary of KPI and SPT assessment**

<b>Assessment of KPI</b>	<b>KPI 1: Absolute Scope 1 and 2 greenhouse gas emissions (tonnes CO<sub>2</sub>e)</b>
Materiality	The KPI addresses a material issue, with caveats around Scope 3 emissions
Strategic significance	The KPI is of strategic significance, with caveats around Scope 3 emissions
Methodology	The KPI methodology is robust and transparent, with caveats around a market-based Scope 2 calculation approach that can give credit for renewable energy certificates
<b>Assessment of SPTs</b>	<b>Reduce absolute Scope 1 and 2 greenhouse gas emissions (tonnes CO<sub>2</sub>e) from a 2021 base year</b> <ul style="list-style-type: none"> <li>• <b>SPT 1: 32.7% by 2028</b></li> <li>• <b>SPT 2: 42% by 2030</b></li> </ul>
Own past performance	Ambition relative to past performance is not possible to assess due to data comparability limitations
Peers	Ambition exceeds specialty mineral peers on the basis of 1.5°C pathway alignment for absolute Scope 1 and 2 emissions through 2030
Science-based scenarios or international targets	Ambition is in line with 1.5°C goals for Scope 1 and 2 emissions through 2030, but insufficient with respect to total climate emissions due to (i) exclusion of Scope 3 and (ii) uncertainty in emissions trajectory post-2030

Shades of Green has not reviewed the degree to which the variation in the financial characteristics is commensurate and meaningful. Investors are encouraged to review the term sheets in detail and conduct their own assessment of the financial characteristics of the SLBs

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# 1 Imerys' environmental management and sustainability-linked bond framework

## Company Description

Imerys is a global supplier of mineral-based specialty products for different industrial sectors headquartered in Paris, France. Its revenues in 2022 were €4.3 billion, with 47% generated in Europe, Middle East and Africa, 32% in the Americas, and 21% in Asia Pacific. The group has around 14,000 employees and is publicly traded on the Euronext Paris exchange.

Imerys operates 210 industrial sites including 83 mines, mostly open pit, in 42 countries. In addition to owning its own mines, Imerys also sources some of its raw material. The raw minerals<sup>2</sup> are processed or synthesized by Imerys to develop the properties required for its end-use applications. The main customer market is construction & infrastructure (37%), followed by the consumer market (19%), automotive and transportation, energy and electronics, and industry and equipment (12% each), and paper (8%). Within this diverse portfolio, some products help facilitate the green transition, such as battery materials for use in electric vehicles, while others are associated with business-as-usual activities or have higher climate and environmental risks, such as products used oil and gas applications.

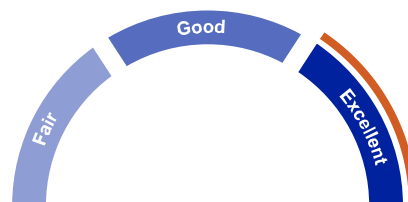
Imerys has two main segments:

- **Performance minerals segment:** Performance minerals are used as functional additives, and customers are within plastics, rubber and paints, adhesives, board and packaging, ceramics and building products, filtration and life sciences, and green energy.
- **High temperature materials & solutions segment:** The minerals in this segment serve customers within refractory, abrasives, and construction and infrastructure.

The framework reviewed in this second party opinion is an update to Imerys' previous sustainability-linked bond framework published in 2021, under which it has issued €300 million.

## Governance Assessment

Imerys' sustainability strategy and management remains strong and has continued to improve since the previous framework. The company has undertaken robust materiality analysis to update its targets and implementation plans for key issues through 2030. This included a commitment to more ambitious and comprehensive climate goals since the prior framework, shifting Imerys to absolute emissions reductions across Scopes 1, 2 and 3 and a 1.5°C pathway validated by the Science Based Targets initiative (SBTi). The company does not yet have a longer-term net zero target.



<sup>2</sup> Examples of minerals are andalusite, bauxite, bentonite, calcium carbonates, feldspars, kaolin, lime, talc, wollastonite, ball clay, chamotte, diatomite, perlite, lithium, graphite, mica, zeolite, high quality quartz, and others.

Other updates since the previous framework are that Imerys has further formalized its sustainability and climate governance structures and processes, clarifying responsibilities, oversight, and incentives for achieving these goals. It has strong transition and physical climate risk assessment and management procedures for its operations that integrate climate scenario analyses, but these do not yet extend to its value chain. The company has continued its work to assess its product portfolio for environmental risks and shift towards greener opportunities.

In its supply chain, Imerys demonstrates good management of sustainability risks through code of conduct requirements, initial screening, ongoing assessment, and engagement, such as encouraging suppliers to set their own climate targets. More quantitative sustainability performance requirements for suppliers could further enhance its approach. Social considerations including health and safety, working conditions, and human rights are incorporated in value chains and operations, with policies referencing international standards in these areas.

Imerys provides good transparency in its public reporting and follows a number of robust external standards, including Taskforce on Climate-related Financial Disclosures (TCFD) guidance, a positive update since the previous framework.

The overall assessment of Imerys' governance structure and processes gives it a rating of Excellent.

## Sector Risk Exposure

**Physical climate risks.** More extreme precipitation leading to increased environmental contamination from mining operations and tailings, rising sea levels and storms surges impairing low-lying coastal operations, and extreme weather events disrupting supply chains are physical climate risks highly relevant to the mining and mineral processing sector. The severity of this risk is highly dependent on the type and location of the mine or manufacturing plant, and detailed location and sector-based analysis should be conducted. The value chains of companies like Imerys, both downstream and upstream, are likely exposed to disruptions from extreme weather – mainly through transportation routes.

**Transition risks.** New and tightened carbon pricing policies and border tax adjustment policies could constitute both a transitional risk and opportunity for companies like Imerys, as could shifting consumer preferences. The lock-in of energy- and carbon-intensive processes that could become uncompetitive can also constitute a transition risk. Companies like Imerys sell to a range of sectors, some with high transition risks, and are therefore exposed to the risk of reduced demand for some products.

**Environmental risks.** Companies like Imerys operating mines all over the world are associated with different degrees of environmental risks, including deforestation, loss of biodiversity, and pollution (mainly soil and water pollution) from mining operations. The different level of environmental regulation in the countries where companies like Imerys operate requires that such entities have management routines to ensure compliance with accepted international environmental management when regulation is less stringent.

**Social risks.** Companies like Imerys could pose a risk to the health and safety of the employees as well as surrounding communities if local pollution is not managed effectively. There is also potential for corruption and human rights violations in these companies' supply chains, including risks of violations of workers' rights. Companies like Imerys might also face the risk of being engaged in legal proceedings, if some of its minerals are to be contaminated, having an impact on the consumer's health. For example, North American talc entities have been included in a mass tort litigation regarding potential health hazards from a product that includes talc.

## Environmental strategies and policies

### *Climate Emissions & Energy Use*

Imerys' mining and mineral processing operations are associated with Scope 1 emissions (1,478 ktCO<sub>2</sub>e as of 2022) from both fuel combustion and chemical reactions, while its Scope 2 emissions (702 ktCO<sub>2</sub>e) come from purchased electricity and steam consumption. Together, Scope 1 and 2 account for around 33% of Imerys' total climate footprint. Its Scope 3 emissions (4,696 ktCO<sub>2</sub>e as of 2022) mainly come from the purchase of goods and services such as raw materials and mining subcontractors (40.0% of Scope 3 emissions) followed by transportation and distribution (33.6%) and fuel and energy activities not covered by Scope 1 and 2 (12.3%).

To reduce its climate impact, in 2022 Imerys updated and validated its Science Based Targets (SBTs) to align with a 1.5°C pathway and reduce absolute emissions, an increase in ambition from its previous 2°C targets that were on an intensity basis relative to revenues. By 2030, Imerys will seek to reduce its Scope 1 and 2 emissions by 42% and its Scope 3 emissions<sup>3</sup> by 25%, both from a 2021 base year. The company informs us it may set a long-term

<sup>3</sup> Imerys' Scope 3 SBT covers 87% of its total Scope 3 emissions, including from its purchased goods and services, capital goods, fuel and energy related activities, upstream and downstream transportation and distribution, waste generated in operations, business travel, employee commuting, and investments.



(e.g., 2050) target in the coming years, but for now is focused on achieving these 2030 targets. Imerys reduced its absolute emissions by approximately 10% in 2022 from 2021, which it attributes to energy efficiency measures, renewable energy increases, and declines in production and sales volumes, with some contribution from biofuel substitution and increased accuracy of Scope 2 market-based measurement.

To achieve its previous and updated climate targets, Imerys is focused on improving energy efficiency such as through its I-Nergize program prioritizing its top energy consuming sites, switching from fossil fuels to waste-based biomass, increasing renewable energy procurement and process electrification, and investing in R&D to reduce other process emissions. To reduce its Scope 3 emissions, Imerys is engaging with its suppliers to set their own SBTs, increasing its use of recycled raw materials and intermodal transport, reducing waste and pursuing circular economy initiatives, and undertaking internal training. Since the previous SPO, Imerys has expanded and formalized its internal climate governance, including through the development of a Climate Change Steering Committee, Climate Change Project Committee, and specific workstreams to oversee and implement these measures.

Imerys' energy use of over 7.8 million MWh as of 2022 includes electricity (30.6% of total energy use, 2.2% of which is renewable), steam (2%, 39.5% of which is renewable), natural gas (36.9%), other fossil fuels (27.9%), and biofuels (2.6%). It procures renewable energy, including solar, hydro, and wind power, through a variety of mechanisms, including on-site and off-site power purchase agreements (PPAs), renewable energy certificates (RECs), lease agreements, and direct investments in small scale projects. Imerys informs us it expects the majority of its sourcing going forward to be through PPAs and will only use RECs as a last resort. It has launched a global PPA project prioritizing this procurement option and establishing criteria on quality, additionality, and other environmental impacts such as biodiversity. In 2022, Imerys reduced both its total energy and electricity consumption by 12%, primarily through efficiency measures, though it informs us it does not consider this a representative year due to the global energy crisis.

#### *Other Environmental Initiatives*

In 2022, Imerys established additional 2025 environmental targets on key topics such as:

- Assessing the maturity level of 100% of sites against its environmental management system (EMS) requirements.
- Ensuring 100% of major sites comply with reporting requirements on water management and mineral resources efficiency. Water resources are currently covered by Imerys' EMS, with a focus on regulatory requirements and discharge incident investigations and corrective actions.
- Meeting its act4nature<sup>4</sup> commitments and conducting biodiversity audits on 20 priority sites. This builds on Imerys' global biodiversity roadmap, scientific partnership with UMS Patrimoine Naturel, and other collaborations with universities and NGOs on this topic.

Imerys is also undertaking a sustainability assessment of its product portfolio through its SustainAgility program. By 2025, it seeks to have evaluated 75% of its portfolio by revenue (55% as of 2022) and ensure that at least 75% of new products are scored highly enough to be considered "solutions" (achieved in 2022). The assessment includes climate, other environmental, and social criteria based on the World Business Council for Sustainable Development's Portfolio Sustainability Assessment framework. Scoring is based on the net economic value created vs. potentially harmful environmental impacts as well as the level of sustainability benefits or challenges based on public data or stakeholder reviews.

#### *Supply Chain Engagement*

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<sup>4</sup> Act4nature is an initiative developed by Entreprises pour l'Environnement (EpE) focusing on scientific expertise and environmental strategy, biodiversity loss prevention, R&D, and stakeholder engagement.

Imerys has established a Code of Business Conduct and Ethics that applies to both its operations as well as suppliers and covers topics such as health and safety, human rights, environmental protection, and sustainable development. It has developed additional supplier requirements in its Environmental, Social and Governance Standards that have high-level commitments on environmental stewardship, climate change, and social and governance issues.

To ensure suppliers adhere to these policies, Imerys assesses suppliers during onboarding through due diligence processes based on level of risk and potential spend and ongoing assessment through a sustainability rating scheme. Imerys achieved 53% coverage under its sustainability rating scheme for suppliers in 2022 and is targeting 75% by 2025. If any concerns arise, Imerys follows up through supplier formal and informal assessments and internal and external audits and, if needed, timebound corrective action plans.

To manage its social risks in both operations and supply chain, Imerys has established a Duty of Care program to confirm its ongoing alignment with the EU Taxonomy minimum safeguards. It is also committed to international standards such as the International Bill of Human Rights, the Guidelines of the Organisation for Economic Co-operation and Development (OECD), the provisions of the fundamental conventions of the International Labor Organization (ILO), the U.N. Guiding Principles on Business and Human Rights.

#### *Physical Risk*

As part of its regular risk assessment processes, Imerys uses scenario analysis to evaluate acute and chronic physical climate risks to its global assets and facilities. This assessment is undertaken at site level and does not yet extend to its value chain. Imerys has selected Intergovernmental Panel on Climate Change (IPCC) Representative Concentration Pathways (RCPs) 2.6, 4.5, and 8.5 using 2030, 2040, and 2050 time horizons. It has identified increasingly frequent flooding, hurricanes and tropical cyclones, and water scarcity as key risks. Risk mitigation measures include loss prevention engineering to protect assets from extreme events and the development of a Water Management Plan. Imerys also considers physical risks in its capital expenditure project selection process and due diligence reviews for potential acquisitions.

#### *Reporting*

Imerys provides annual public reporting in alignment with external standards including the Global Reporting Initiative (GRI), CDP climate disclosures, for which it scored a B rating as of 2022, and the Sustainability Accounting Standards Board (SASB). It is a member of the UN Global Compact and as of its reporting for 2021 began providing disclosures in alignment with the recommendations of the Taskforce on Climate-related Financial Disclosures (TCDF).

### **Sustainability-linked bond framework**

Based on this review, this framework is found to be aligned with the Sustainability-Linked Bond Principles. For full details on the issuer's framework, please refer to the sustainability-linked bond framework dated 2023.

#### *Selection of key performance indicators (KPIs)*

Summary information about Imerys' KPI is provided below:

- ✓ **KPI 1:** Absolute Scope 1 and 2 greenhouse gas emissions (tonnes CO<sub>2</sub> equivalent)

Imerys selected this KPI because it views climate emissions reduction as a critical environmental challenge facing the industrial minerals industry. It is the basis of measurement for the company's broader Scope 1 and 2 climate targets that are a key element of its sustainability strategy. According to Imerys, it views the KPI as highly strategic given that any change in production activities will impact these emissions and it seeks to decouple its growth from

emissions. Scope 1 and 2 emissions account for 33% of Imerys' total climate footprint as of 2022. Imerys informs us this decrease in share of Scope 1 and 2 emissions relative to Scope 3 emissions compared to the previous SPO (45% and 55%, respectively in 2020) is partly due to improved calculation methodologies that have led to more accurate Scope 3 estimates and measurements, not any significant changes in business model.

Imerys will account for its Scope 1 and 2 emissions using the Greenhouse Gas Protocol (GHGP) methodology under a group level financial consolidation perimeter. HFCs, PFCs, SF<sub>6</sub> and NF<sub>3</sub> are excluded gases as they represent a small share of emissions (<1% of Scope 1), but all other Scope 1 and 2 emissions (>99%) will be included. Scope 2 will be calculated using a market-based approach (i.e., accounting for renewable energy purchasing mechanisms including PPAs, RECs, lease agreements, and direct investments). No external carbon credits or offsets will be included in calculations, but direct removals from carbon capture at its operational sites may be included.

According to the issuer, while it measures and has a target to reduce its absolute Scope 3 emissions that has been validated by SBTi as aligned with a 1.5°C pathway, it decided not to include a Scope 3 KPI or associated SPT due to the challenges of accurately measuring or estimating Scope 3 emissions. Imerys informs us these difficulties may lead to changes in calculated totals unrelated to emissions reduction performance as well as delays in audited data availability that would make it challenging to meet Sustainability-Linked Bond Principles reporting requirements. Imerys informs us it is taking steps to improve Scope 3 data robustness and may consider incorporating this measure into future sustainability-linked frameworks once the methodology has sufficiently evolved.

This is an update from Imerys' previous KPI under its May 2021 framework. That KPI was measured on an intensity rather than absolute basis (Scope 1 and 2 emissions per million euros of revenue).

For a discussion of the KPIs' materiality, strategic significance, and methodology, please refer to section 2—**Error! Reference source not found.**

#### *Calibration of sustainability performance targets (SPTs)*

Imerys has identified the following SPTs:

- ✓ **SPT 1:** Reduce absolute Scope 1 and 2 greenhouse gas emissions (tonnes CO<sub>2</sub> equivalent) by 32.7% by 2028 from a 2021 base year (2,485 ktCO<sub>2</sub>e)
- ✓ **SPT 2:** Reduce absolute Scope 1 and 2 greenhouse gas emissions (tonnes CO<sub>2</sub> equivalent) by 42% by 2030 from a 2021 base year (2,485 ktCO<sub>2</sub>e)

According to Imerys, it selected SPT 1 and SPT 2 to further align its financial decision making with its company climate targets and accelerate its associated implementation activities. SPT 2 has been validated by SBTi as aligned with a 1.5°C pathway using an absolute contraction approach, while SPT 1 is a linear interpolation along the same SBTi trajectory.<sup>5</sup> If SPT 1 and SPT 2 are achieved, Imerys will reduce its absolute Scope 1 and 2 emissions from a baseline of 2,485 ktCO<sub>2</sub>e in 2021 to 1,673 ktCO<sub>2</sub>e in 2028 and 1,442 ktCO<sub>2</sub>e in 2030, a 4.7% average annual reduction during both periods. Imerys informs us that achieving this SPT would go well beyond its regulatory emissions reductions requirements given its global scope where only a minority of sites, such as those in the EU and California, are covered by such regulations.

Imerys informs us that it selected 2021 as the base year given that it was the most recent year for which data was available prior to the submission of its updated SBTs for validation by SBTi. It views 2021 as a representative

<sup>5</sup> [SBTi Near-Term Target Submission Form and Guidance](#) TWG-FOR-001/ Version 5.2, March 2023. Note that a sector-based SBTi approach is not yet available for companies like Imerys.

year. 2021 emissions were 6% higher than 2020 emissions, which Imerys informs us was due to a rebound to normal from lower production volumes leading to lower emissions in 2020 during the COVID-19 pandemic.

This is an update from Imerys' previous SPTs under its May 2021 framework. Those SPTs were also based on its validated SBTi targets but were measured on an intensity basis (Scope 1 and 2 emissions per million euros of revenue) and aligned with a less ambitious 2°C pathway.

For a discussion of the SPTs' ambition level and Imerys' strategy to achieve them, please refer to section 2—**Error! Reference source not found.**

### *Bond Characteristics*

The choice of SPT(s) will be specified in transaction materials. Imerys informs us transaction documentation will specify a target observation date (TOD) of 31 December 2028 for SPT 1 and/or 31 December 2030 for SPT 2, on which the company's performance on the KPIs will be compared against the SPTs. Should the company fail to achieve any of the SPTs specified in transaction documents, a trigger event will occur, leading to the introduction of a financial effect via the adjustment mechanism. Adjustment mechanisms will be specified in transaction documentation and could include a premium payment or a step-up coupon margin until the maturity date of the financial instrument. The amount of the adjustment will be specified in transaction materials but is likely to be 0.75% on a €500 million issuance, or €3,75 million paid at the maturity of the bond.

Imerys may recalculate its 2021 SPT baseline<sup>6</sup> at the end of each fiscal year to account for events such as:

- Structural changes such as acquisitions, divestitures, or mergers.
- Amendments to applicable laws and regulations relevant to the KPI.
- Methodology changes that significantly impact the baseline such as improved emissions factors, data access, or calculation protocols.
- Discovery of significant errors in calculations.

Any changes to the baseline will be externally verified via auditor assurance in Imerys' Universal Registration Document that is published annually or published in a separate document on its website. If a recalculation event occurs, Imerys will undertake external verification by an independent body to confirm the revision is consistent with the initial ambition of the relevant SPTs. If the framework is updated, Imerys will undertake a new second party opinion.

Shades of Green has not reviewed to what degree the variation in the financial characteristics of the sustainability-linked bond framework is commensurate and meaningful. Investors are encouraged to review the terms sheets in detail and conduct their own assessment of the financial characteristics.

### *Reporting*

Imerys' Chief Sustainability Officer and Climate VP will lead the development of disclosures on the performance of the KPI against the baseline in its annual reporting, which will be publicly available on its website. Reporting will include updates on any trigger events and associated financial adjustments and any modification to bond structural and financial characteristics.

Where feasible, reporting will also cover:

- Quantitative and qualitative explanations of performance.
- Commentary on positive sustainability impacts of performance improvements.
- Any re-assessments of the KPI, restatement of the SPT or pro-forma adjustments of baselines or KPI scope if relevant.

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<sup>6</sup> Imerys informs us it would also update and revalidate its corresponding SBTi targets in accordance with SBTi requirements.

- Updates on new or proposed regulations from regulatory bodies relevant to the KPI and the SPT.

*Verification*

The KPI will be externally verified on an annual basis by auditor assurance in compliance with French law on extra-financial disclosure (“Déclaration de performance extra-financière”). This documentation will also be publicly available as part of Imerys’ Universal Registration Document available on its website.

## 2 Assessment of Imerys’ sustainability-linked bond framework

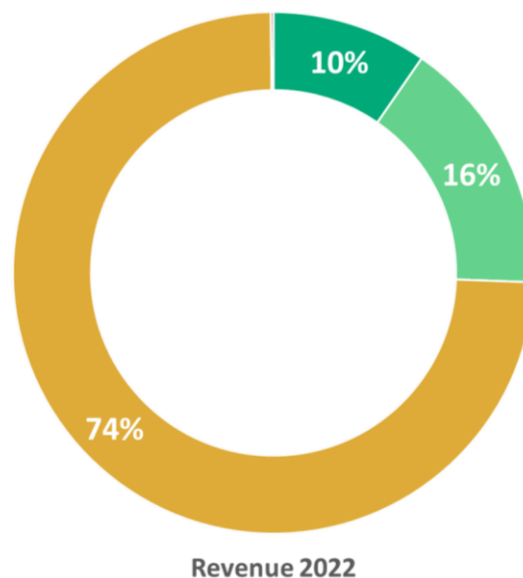
According to Shades of Green’s methodology for sustainability-linked financing frameworks, a Shade of Green should be allocated to the issuer’s revenue and planned investment streams. The shadings provide additional context around the issuer’s business model and strategy and reflect alignment of the underlying activities towards a low carbon and climate resilient future, while taking into account governance issues. (See “Governance Assessment” for further details).

In this section we also assess the KPI and SPT in Imerys’ sustainability-linked bond framework, in accordance with the Sustainability-Linked Bond Principles (SLBP). According to the SLBP, the KPIs should be relevant, core and material to the issuer’s overall business, and of high strategic significance to the issuer’s current and/ or future operations. The SLBP further recommend that three benchmarking approaches are considered during the target-setting exercise, which inform our assessment of the SPTs. We also include some comments on methodology choices including benchmarks and baselines, as well as comments on financial characteristics, reporting and verification.

### Imerys’ revenues

Of Imerys’ revenues in 2022, 26% were assigned a Shade of Green, while 74% were Yellow and <1% were Red.

Dark green
  Medium green
  Light green
  Yellow
  Red



Source: Shades of Green analysis using Imerys’ financial data from 2022.

**Figure 2: Shading of revenue for Imerys**

Imerys mineral-based products have a wide range of applications in different industrial sectors. Our shading has focused on the end use, but also takes Imerys' own emissions into account. Our analysis is based on product groupings and descriptions by Imerys, and we have not assessed every product within the revenue streams. Within all revenue streams, there could be products that should be shaded differently. This implies that there could be e.g., Light Green or Yellow shaded revenue within the Medium Green categories, or Green applications within the Yellow shaded revenue where data is not yet available for assessment.

A **Medium Green** shade has been allocated to the 10% of revenue from battery inputs and products related to improving the sustainability of building materials that are positive contributions to a low carbon future. Imerys' mobile energy segment provides conductive additives used in lithium-ion batteries that are critical for electric vehicles and decarbonizing the transportation sector. At the same time, these inputs can be energy-intensive to produce and some rely on fossil fuel inputs such as petroleum coke and anthracite, leading to a Medium Green shading. A share of Imerys' products within the building and infrastructure market contribute directly to lower emissions building materials, which are important for reducing the lifecycle emissions from this sector. Examples include products that help reduce the amount of cement in flooring applications, leading to a 40% reduction in emissions, as well as products that allow for reduced binder content in mortars reducing emissions associated with the final product by 30%.

A **Light Green** shade has been assigned to 16% of revenue. Some of product applications have positive impacts on pollution and local environments, and others contribute to lower carbon products relative to conventional alternatives. While these revenues represent products that are positive steps towards a 2050 vision, they entail other climate or environmental risks that require careful management, leading to the Light Green shading. Examples include:

- Agriculture and horticulture products such as lower impact mineral pesticides and fertilizers
- Engineering materials that reduce local pollution such as improved brake pads
- Paint inputs with up to 20% lower carbon footprints or lower environmental risks than conventional formulations
- Mineral paper coatings that increase recyclability relative to plastic alternatives
- Products such as specialty talcs that reduce the weight of plastics used in vehicles, thereby potentially decreasing fuel use and associated emissions or extending battery range in electric vehicles
- Mineral-based personal care products that are lower emissions substitutes for higher risk chemicals, petroleum products, or microplastics
- Mineral formulations for ceramic tiles that can reduce energy consumption during kiln firing by up to 15%

A **Yellow** shade has been assigned to 74% of Imerys' revenue, reflecting that the end-uses that (1) do not directly contribute to nor significantly hinder the low carbon transition, (2) have higher climate or environmental risks, or (3) require more information on specific products segments and their end uses for assessment. In the first and second categories, we have included revenues from Imerys' products that can be viewed as supporting a broad range of business-as-usual economic activities. In the third category, while work to complete its portfolio review is ongoing, Imerys has not yet assessed products for environmental risks and benefits that together account for around 38% of total revenues.

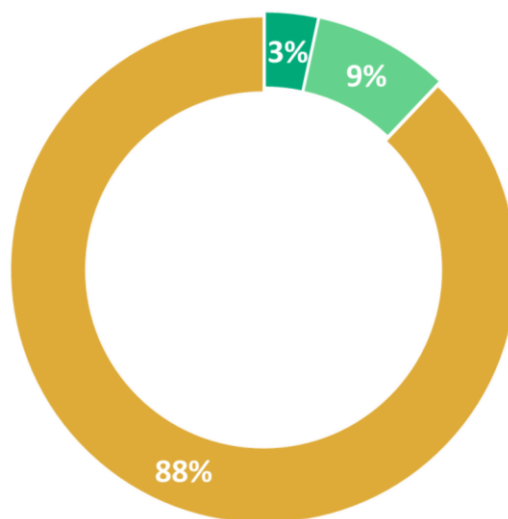
A **Red** shade has been allocated to the <1% of Imerys' revenue from products with oil and gas applications, as these represent high emissions markets with a risk of lock-in. Imerys has informed us that there are no dedicated assets that serve these markets. As under the previous framework, Imerys confirmed that a negligible share of revenue is related to improving coal-mining safety in customers' coal mines (calcium carbonate dust), and it has no applications for non-conventional oilfields (tar sands).



**Imerys' planned investments**

Of Imerys' planned investments for 2024, 12% received a Shade of Green, while 88% were Yellow and 0% were Red.

■ Dark green ■ Medium green ■ Light green ■ Yellow ■ Red



**Planned Investments 2024**

Source: Shades of Green analysis using Imerys' projections for 2024.

**Figure 3: Shading of planned investments for Imerys**

A **Medium Green** shade was assigned to 3% of Imerys' planned investments that represent positive contributions to a low carbon future. This includes planned investments in Imerys' production of carbon black and synthetic graphite, which are used in lithium-ion batteries to increase energy density and shorten charging times. While lithium-ion batteries are crucial to decarbonizing the transportation sector when used in electric vehicles, these inputs are energy-intensive to produce and rely on fossil fuel inputs such as petroleum coke and coal tar, leading to a Medium Green shading. Planned investments in measures to reclaim additional usable materials from what would otherwise be considered mineral waste are also positive in that they are well-aligned with the waste management hierarchy and avoid the climate and environmental impacts of additional material extraction and waste disposal. Other climate strategy implementation measures, including fuel switching to biomass, engineering studies to support project implementation, and an energy recovery project, are also considered Medium Green as good steps towards emissions reduction goals.

A **Light Green** shade accounts for 9% of Imerys' planned investments as transitional steps towards a 2050 vision. These include energy efficiency measures without a specific performance threshold and some uncertainty on energy use where potential energy and emissions reductions are positive but final performance is unclear and lock-in and rebound risks may be concerns. Other Light Green planned investments are in maintenance measures that improve equipment efficiency or lifespan or reduce fine mineral material loss, such as replacing pipes, lines and casings. While reducing energy consumption, equipment replacement, and new material extraction are positive, the ultimate improvements in these areas relative to potential impacts from materials sourcing (e.g., embodied emissions) are unclear. Planned investments in water reuse, recovery and efficiency, air quality improvement, and waste management following the waste hierarchy are also considered Light Green. All of these measures are positive, but energy use may include fossil fuels and going beyond regulatory requirements is not guaranteed.



A **Yellow** shade was assigned to 88% of Imerys’ planned investments that either (1) are business-as-usual activities that do not explicitly contribute to nor hinder the low carbon transition or (2) are associated with activities with higher environmental and climate impacts. Among the first category are planned investments in maintenance, IT, and automation, all without specific expected environmental benefits. In the second category with higher sustainability risks such as biodiversity or local pollution impacts, planned investments include mining exploration and land acquisition as well as mining and tunnelling activities.

No planned investments were assigned a **Red** shading. Imerys does not plan to invest in any assets dedicated to oil and gas industry products. It also has sufficient company-level safeguards to manage deforestation risks from investments in mining activities that could be considered Red if unmitigated.

Imerys informs us that the planned investment amounts used in our shading analysis are provisional. At the same time, it considers the breakdown consistent with recent prior years and the best available basis for this assessment.

**Assessment of KPI 1: Absolute Scope 1 and 2 GHG emissions**

Aspect	Shades of Green Comments
Materiality	<p><b>The KPI addresses a material issue, with caveats around Scope 3 emissions</b></p> <ul style="list-style-type: none"> <li>✓ Decarbonizing Imerys’ global operations and energy purchasing in absolute terms is highly relevant to limiting both the company’s climate transition risk exposure and contributions.</li> <li>✓ It is positive that climate emissions reductions are a top priority in Imerys’ updated materiality assessment, which included external stakeholder input. This is well-aligned with Shades of Green and other expert perspectives on this emissions-intensive sector.</li> <li>✓ The update from the previous Imerys sustainability-linked framework moving from intensity to absolute emissions is an improvement in materiality. Imerys’ direct Scope 1 and 2 climate impacts are now better captured by KPI 1.</li> <li>✓ KPI 1 does not cover the Imerys’ Scope 3 emissions, which represent around 66% of Imerys’ total estimated climate impact. While we still consider KPI 1 material, this more limited coverage of total climate emissions (i.e., including Scopes 1, 2, and 3) is a weakness of the current KPI and framework.</li> </ul>
Strategic Significance	<p><b>The KPI is of strategic significance, with caveats around Scope 3 emissions</b></p> <ul style="list-style-type: none"> <li>✓ Reducing absolute Scopes 1 and 2 emissions is well-aligned with Imerys’ business and sustainability strategy to shift its portfolio to lower emissions products through its SustainAgility program and become a green solutions provider.</li> <li>✓ A focus on this KPI will meaningfully influence Imerys’ actions and investment decisions to decarbonize its operations and energy purchasing, such as increasing energy efficiency, switching to biomass, electrifying equipment, selecting low carbon energy, or redesigning processes to reduce emissions. Imerys informs us these measures will go significantly beyond regulatory requirements in the majority of jurisdictions in which it operates.</li> </ul>

- 
- ✓ At the same time, KPI 1 will not necessarily influence Imerys' strategic decision making regarding its value chain emissions (outside of energy procurement) due to the lack of coverage of Scope 3 emissions, which is a weakness of the KPI. It is positive that at company level, Imerys has a validated absolute Scope 3 SBT aligned with a 1.5°C pathway through 2030 and plans to reduce its Scope 3 emissions accordingly, including through assessment of Scope 3 emissions impacts as part of all decarbonization project planning. At the same time, Imerys has not established a complementary KPI covering Scope 3 emissions as part of its sustainability-linked framework.
  - ✓ It is positive that KPI 1 is linked to performance during business reviews and CEO and senior management incentives and is supported by an internal carbon price.
- 

Methodology

**The KPI methodology is robust and transparent, with caveats around a market-based Scope 2 calculation approach that can give credit for renewable energy certificates**

- ✓ Imerys' measurement of Scopes 1 and 2 greenhouse gas emissions in tonnes CO<sub>2</sub>e is clearly defined and based on the GHGP, which is a robust external standard. This strengthens comparability over time and to peers, consistency and completeness, ability to assess alignment with Paris Agreement goals, and possibility for external verification.
  - ✓ It is a strength that KPI 1 covers more than 99% of Imerys' Scope 1 and 2 emissions across all of its operations and geographies and will not include any offsets.
  - ✓ It is a positive update since the previous framework that KPI 1 will measure Scope 1 and 2 emissions in absolute terms. This methodology is less likely to be impacted by unrelated revenue fluctuations compared to the intensity measure under the previous framework and can be easier to benchmark against peers or industry standards. At the same time, we are encouraged that Imerys intends to continue to report on its climate emissions intensity in its annual sustainability reporting as a complementary metric. Emissions intensity can reflect climate performance with less influence from exogenous factors, such as decreases in sales or an economic recession that might lead to a contraction in absolute emissions without changing emissions intensity.
  - ✓ Imerys has selected a market-based rather than location-based Scope 2 emissions calculation approach. Market-based approaches give credit for renewable energy purchasing mechanisms. Imerys informs us that it will prioritize higher quality PPAs and will only use RECs as a last resort. If RECs are used, they do not necessarily ensure additional renewable energy capacity and reduced emissions.<sup>7</sup> RECs are therefore less preferred from a climate perspective compared on-site renewable energy generation or PPAs that help new renewable energy production projects secure access to finance. We encourage Imerys to continue to pursue its global PPA project to ensure the intended climate benefits of achieving SPT 1 and SPT 2.
- 

<sup>7</sup> See, e.g., [Renewable energy certificates threaten the integrity of corporate science-based targets](#).

**Assessment of SPTs 1 and 2: Reduce absolute Scope 1 and 2 GHG emissions by 32.7% by 2028 and 42% by 2030**

Benchmark	Shades of Green Comments
<i>Own performance</i>	<p><b>Ambition relative to past performance is not possible to assess due to data comparability limitations</b></p> <ul style="list-style-type: none"> <li>✓ SPT 1 and SPT 2 require an average annual linear reduction in Scope 1 and 2 emissions of 4.7%. We are not able to assess ambition relative to historical performance due to changes in emissions calculation methodologies and a major acquisition across the years historical data are available that limit comparability.</li> <li>✓ SPT 1 and SPT 2 are less ambitious than the 8.4% average annual reduction in Scope 1 and 2 emissions Imerys achieved between 2018-2021 based on data provided in the framework. However, these data are not necessarily comparable as Imerys informs us it changed its reporting methodology from a location- to market-based approach between 2018 and 2021. This new inclusion of renewable energy purchasing mechanisms towards emissions reductions likely made declines seem steeper than if a market-based methodology had been consistently applied. Furthermore, according to the issuer, 12% declines in KPI 1 over 2021-2022 were partly due to production volumes decreases, but the size of this effect on emissions has not been quantified. In the absence of restated data using a market-based approach across all years and specifying the magnitude of effects from volumes declines, we are not able to make accurate comparisons to the SPTs.</li> <li>✓ SPT 1 and SPT 2 are more ambitious than the 2.2% average annual reduction in Scope 1 and 2 emissions Imerys achieved between 2014 and 2021 based on additional data Imerys shared with us. At the same time, Imerys notes that it made a major acquisition in 2017, making any emissions performance improvements seem less significant than if a consistent scope of emissions coverage including the assets and activities acquired had been applied. Without restated data to address this comparability challenge, we are not able to assess whether the SPTs represent an improvement from this broader period of historical performance.</li> <li>✓ The issuer informs us that restated KPI 1 historical data to address these challenges are not currently available, limiting our ability to compare the company's SPTs to its historical trends.</li> <li>✓ According to Imerys, it believes achieving SPT 1 and SPT 2 will be more challenging going forward given the growth it expects in some product segments such as mobile energy. It has not fully quantified this effect or potential reductions in emissions due to declines in other segments, so we are not able to use this as a basis for our analysis.</li> <li>✓ According to Imerys, more immediately feasible emissions mitigation measures that do not represent a significant departure from previous decarbonization strategies, such as energy efficiency and renewable energy procurement, have not yet been fully exploited. Imerys estimates these lower hanging fruit opportunities together represent a 70% emissions reduction potential. We therefore cannot</li> </ul>

establish that achieving SPT 1 and SPT 2 will be more difficult from an innovation perspective.

*Peers*

**Ambition exceeds specialty mineral peers on the basis of 1.5°C pathway alignment for absolute Scope 1 and 2 emissions through 2030**

- ✓ Imerys' SPT 1 and SPT 2 are aligned with a validated SBT 1.5°C pathway for reducing absolute Scope 1 and 2 emissions, in contrast to peers with less ambitious well-below 2°C SBTs, targets that are less ambitious on the basis of emissions coverage, intensity rather than absolute emissions, or rate of reduction, or no climate targets.
- ✓ We have defined Imerys' peers as other specialty mineral producers and processors operating globally, with some emphasis given to companies the issuer informs us it considers its closest competitors. These include Sibelco, Lhoist, Clariant, Elementis, Mineral Technologies, Morgan Advanced Materials, and Omya.
- ✓ As Imerys has a highly diverse product portfolio, we consider this is a representative but not necessarily comprehensive list. We also note that these peers have somewhat different product portfolios or emphases on mining vs. processing minerals, creating different decarbonization challenges, but consider this group to have sufficient diversity to provide a fair comparison overall.
- ✓ Sibelco, Clariant, and Morgan Advanced Materials all have validated well-below 2°C near-term (2030) SBTs for Scope 1 and 2 emissions, which is less ambitious than Imerys' 1.5°C SPTs aligned with its validated near-term SBT. Sibelco's SBT is on an intensity basis (Scope 1 and 2 emissions per euro revenue), further reducing relative ambition compared to absolute emissions reduction targets set by Imerys, Clariant, and Morgan Advanced Materials.
- ✓ Elementis has formally committed to setting a near-term SBT,<sup>8</sup> and Mineral Technologies has indicated its intention to develop an SBT,<sup>9</sup> but neither has yet established and validated these targets as Imerys has. While it is positive Elementis has also stated an intention to achieve net zero by 2050, we do not consider that as ambitious as Imerys in the absence of complementary near-term targets.<sup>10</sup> Mineral Technologies' current targets to achieve a 25% reduction in absolute Scope 1 emissions and a 40% absolute Scope 2 emissions by 2025<sup>11</sup> are positive, but taken together these goals represent an average annual linear reduction of absolute Scope 1 and 2 emissions of 4.1%, which is less ambitious than SBTi requirements of 4.2% average annual linear reductions<sup>12</sup> and Imerys' SPTs reflecting 4.7% average annual linear reductions. Mineral Technologies' targets are also over a shorter time horizon, only extending to 2025 instead of 2030.<sup>13</sup>
- ✓ Lhoist has committed to reducing carbon emission from fuel combustion by 50% by 2030 compared to a 2018 baseline, and to achieve a 10% reduction in

<sup>8</sup> See [Companies taking action - Science Based Targets](#).

<sup>9</sup> See <https://www.mineralstech.com/docs/default-source/mti-documents/2023/minerals-tech-2022-sustainability-report.pdf>.

<sup>10</sup> See [https://www.elementis.com/sites/default/files/2023-03/Elementis\\_AR22\\_Bookmarked.pdf](https://www.elementis.com/sites/default/files/2023-03/Elementis_AR22_Bookmarked.pdf).

<sup>11</sup> See <https://www.mineralstech.com/docs/default-source/mti-documents/2023/minerals-tech-2022-sustainability-report.pdf>.

<sup>12</sup> See <https://sciencebasedtargets.org/resources/files/foundations-of-SBT-setting.pdf>.

<sup>13</sup> See <https://www.mineralstech.com/docs/default-source/mti-documents/2023/minerals-tech-2022-sustainability-report.pdf>.

combustion carbon emissions per burnt ton in 2023 from a 2018 baseline.<sup>14</sup> These targets are less ambitious than Imerys' SPTs on the basis of emissions coverage, in that Imerys considers more than 99% of its Scope 1 and 2 emissions rather than emissions from fuel combustion only, and that Imerys' absolute targets are more ambitious than Lhoist's intensity targets.

- ✓ Omya does not appear to have any climate targets.<sup>15</sup>

*Science-based scenarios or international targets*

**Ambition is in line with 1.5°C goals for Scope 1 and 2 emissions through 2030, but insufficient with respect to total climate emissions due to (i) exclusion of Scope 3 and (ii) uncertainty in emissions trajectory post-2030**

- ✓ Imerys' targets are based on its validated absolute Scopes 1 and 2 SBT aligned with a 1.5°C pathway through 2030. Full decarbonization to achieve net zero by 2050 will depend on Imerys' mitigation of its Scope 3 emissions and the targets and actions it takes post-2030.
- ✓ SPT 1 and SPT 2 are each aligned with an average annual linear absolute Scope 1 and 2 emissions reduction of 4.7% between 2021-2030. This trajectory is more ambitious than the SBTi 1.5°C absolute contraction approach minimum of 4.2%.<sup>16</sup> We view this as a strength and aligned with the most ambitious Paris Agreement goals for the emissions and time period covered.
- ✓ It is a strength that SPT 1 and SPT 2 follow the same average annual linear reduction of 4.7%, avoiding delaying reductions to closer to 2030.
- ✓ At the same time, the KPI and SPTs only cover Scope 1 and 2 emissions, or around a third of Imerys' total climate emissions. We therefore do not consider SPT 1 and SPT 2— on their own in the context of the framework— as aligned with a 1.5°C pathway for Imerys' total climate impact. Under framework criteria alone, it would be possible for Imerys to achieve SPT 1 and SPT 2 while increasing its overall climate emissions if Scope 3 emissions were not managed, which would not be aligned with net zero scenarios or Paris Agreement goals.
- ✓ While it is positive that Imerys has an absolute Scope 3 emissions reduction target that has also been validated by SBTi as aligned with a 1.5°C pathway, this is not included as a complementary SPT in the framework, and we thus cannot consider it in our SPT analysis. We appreciate the challenges in Scope 3 data collection and calculation and are encouraged by Imerys' efforts to continue to increase the accuracy of its climate footprint measurement in these areas.
- ✓ Imerys has not yet made a net zero by 2050 commitment, making its post-2030 emissions trajectory uncertain for Scope 1, 2, and 3 emissions. According to the issuer, it is currently focused on achieving its 2030 goals but may consider longer-term targets in the coming years.
- ✓ We did not find any specialty mineral sector-specific decarbonization pathways in our research to serve as additional benchmarks.

<sup>14</sup> See <https://www.lhoist.com/en-ND/news-and-stories/news/our-sustainability-report-2022-is-available>.

<sup>15</sup> See <https://www.omya.com/sustainability>.

<sup>16</sup> See <https://sciencebasedtargets.org/resources/files/foundations-of-SBT-setting.pdf>.

*Initiatives and Strategy to Achieve SPT 1 and SPT 2*

Imerys plans to utilize five main levers to achieve SPT 1 and SPT 2, with varying potential contributions to Scope 1 and 2 emissions reductions:

1. **Energy efficiency:** Imerys is pursuing efficiency measures with a focus on top energy consuming sites. This could include efficiency improvements to electrified or fossil-fuel powered equipment. Imerys believes this lever represents a 10% emissions reductions potential.
2. **Fuel switching and biomass:** Imerys plans to switch from fossil fuels to waste-based biomass that meets EU Renewable Energy Directive II (RED II) requirements. In some cases where biomass deployment is not possible, this may also involve switching from coal to conventional natural gas. Imerys expects this lever to represent a 20% emissions reductions potential.
3. **Electrification:** Imerys projects that electrifying plant equipment could represent a 5-10% emissions reductions potential.
4. **Low carbon electricity:** Imerys believes sourcing low carbon electricity could represent a 60% emissions reductions potential. Imerys currently considers any low carbon electricity source (e.g., wind, solar, hydro, bioenergy, or nuclear power) as eligible for procurement under this lever and is prioritizing PPAs but may use RECs as a last resort.
5. **Process innovation:** Imerys estimates that new technology research, development, and implementation could represent a 5-10% of emissions reductions potential. This could include carbon capture and storage (CCS), which Imerys informs us it estimates could account for a 2% potential reduction in emissions by 2030.

To support these measures, Imerys informs us it has further formalized its sustainability governance since the previous framework, including through a dedicated Climate Steering Committee with executive representation leading overall strategy as well as a Climate Change Task Force managing and harmonizing implementation measures. The target has been cascaded across Imerys' business areas and tied to performance during business reviews and CEO and senior management incentives. Other measures include implementing an internal carbon price in capital allocation processes, incorporating targets into senior management incentives, including emissions criteria in innovation processes, and undertaking climate strategy training for employees.

In terms of an emissions trajectory through 2030, Imerys informs us it expects slower reductions initially as projects are identified and initiated, with acceleration over time as investments drive results. Imerys is in the process of quantifying the CAPEX needed to fully implement each lever over time. Divestments of emissions-intensive segments are not being considered as a strategy to achieve the SPTs, and any of significance would result in a recalculation of base year emissions.

It is a strength that Imerys has developed a clear strategy for emissions reductions supported by robust climate governance and integration measures. Pursuing electrification and high-quality renewable electricity procurement are particularly well-aligned with a low carbon future. Transitioning to waste-based biomass with RED II sourcing safeguards where electrification is not possible and identifying areas for process innovation including CCS to manage emissions that are part of chemical reactions in mineral processing (rather than associated with energy use) are positive approaches. Imerys' efforts to further enhance its climate strategy management structures and integrate climate considerations into assessments of leadership performance, investments, innovation, and training are also strong steps to support effective implementation.

The most significant potential pitfalls include fossil fuel lock-in risks and the possibility of lower quality low carbon energy purchasing mechanisms. Fuel switching from higher to lower emissions fossil fuels, such as coal to natural gas, that may be a part of Imerys' strategy where biomass alternatives are not currently feasible, have high fossil fuel lock-in risks over the longer term despite their near-term emissions reductions potential. While energy

efficiency measures are generally positive, because they can be applied to fossil fuel powered equipment, rebound effects as well as lock-in of fossil fuel technologies and associated emissions are also a concern. Electricity purchasing via RECs if used by Imerys as a last resort where PPAs are not available may not lead to new renewable energy capacity construction, potentially limiting climate benefits.

*Summary of key factors beyond the issuers' direct control that may affect the achievement of SPT 1 and SPT 2*

Imerys notes several factors beyond its direct control that may influence its ability to achieve SPT 1 and SPT 2:

- Growth in low carbon technologies that could be associated with additional emissions
- Other changes in the product mix
- Limited availability of biomass or low carbon electricity due to land use competition
- Technical feasibility challenges of new technologies, such as electrification or CCS

We agree with Imerys' assessment, while noting that it does have influence over the extent to which its climate strategy mitigates risks of emissions growth from low carbon technologies or other changes in its product mix. According to Imerys, it is prioritizing decarbonization efforts for segments where it expects more expansion to help ensure emissions are decoupled from growth. Furthermore, efforts to signal demand for biomass and low carbon electricity, such as sector collaboration initiatives or supplier and policy engagement, could reduce those risks, while research and development investments in new technologies could improve feasibility. Imerys informs us it is studying biomass and low carbon electricity availability with a goal of securing longer-term contracts and pursuing pilot projects to gain experience deploying new technologies.

Additional factors beyond Imerys' direct control that could influence its ability to achieve SPT 1 and SPT 2 could include that it will need sufficient financing to invest in implementation measures. Policy decisions in the diverse jurisdictions in which Imerys operates could impact its ability to procure biomass and low carbon electricity.

Concerns noted in the previous SPO about market volatility are resolved because Imerys has updated its KPI from an intensity (Scope 1 and 2 emissions per million euros of revenue) to an absolute measure.













### 3 Terms and methodology

This note provides Shades of Green’s second opinion of the client’s framework dated 2023. This second opinion remains relevant to all sustainability linked bonds and/or loans issued under this framework for the duration of three years from publication of this second opinion, as long as the framework remains unchanged. Any amendments or updates to the framework require a revised second opinion. Shades of Green encourages the client to make this second opinion publicly available. If any part of the second opinion is quoted, the full report must be made available.

This assessment is based on a review of documentation of the client’s policies and processes, as well as information provided to us by the client during meetings, teleconferences and email correspondence. In our review we have relied on the correctness and completeness of the information made available to us by the company.

The structure of Sustainability Linked Bonds (SLBs) and Sustainability Linked Loans (SLLs) linking financial returns with environmental performance can provide security around environmental impacts. However, SLBs and SLLs can vary widely in terms of robustness depending on what KPIs are selected and how they are measured. We provide transparency on 1) the relevance, materiality and reliability of selected KPIs, 2) the rationale and level of ambition of the proposed Sustainability Performance Targets, 3) the relevance of selected benchmarks and baselines, as well as transparency on how well the strategy outlined to achieve them fits with a low carbon and climate resilient future. By considering these factors, we provide context to consider the ambition level of the SLB and SLL. Please note that Shades of Green does not evaluate any financial aspects of transaction, including to what degree the variation in the financial characteristics of an SLB and SLL is commensurate and meaningful.

Incorporated into the sustainability-linked finance assessment is our company climate risk assessment approach. We allocate a shade of green, yellow or red (see figure below) to revenues or portfolio value which reflect alignment of the underlying activities to a low carbon and climate resilient future and taking into account governance issues.

Shading		Examples
	<b>Dark green</b> Is allocated to projects and solutions that corresponds to the long-term vision of a low-carbon and climate resilient future.	 Solar power plants
	<b>Medium green</b> Is allocated to projects and solutions that represent significant steps towards the long-term vision but are not quite there yet.	 Energy efficient buildings
	<b>Light green</b> Is allocated to transition activities that do not lock in emissions. These projects reduce emissions or have other environmental benefits in the near term rather than representing low carbon and climate resilient long-term solutions.	 Hybrid road vehicles
	<b>Yellow</b> Is allocated to projects and solutions that do not explicitly contribute to the transition to a low carbon and climate resilient future. This category also includes activities with too little information to assess.	 Health care services
	<b>Red</b> Is allocated to projects and solutions that have no role to play in a low-carbon and climate resilient future. There are the heaviest emitting assets, with the most potential for lock in of emissions and highest risk of stranded assets.	 New oil exploration



In addition to shading from dark green to red, Shades of Green also includes a governance score to show the robustness of the company's sustainability governance structure. When assessing the governance of the company, Shades of Green looks at five elements: 1) strategy, policies and governance structure; 2) lifecycle considerations including supply chain policies and environmental considerations towards customers; 3) the integration of climate considerations into their business and the handling of resilience issues; 4) the awareness of social risks and the management of these; and 5) reporting. Based on these aspects, an overall grading is given on governance strength falling into one of three classes: Fair, Good or Excellent. Please note this is not a substitute for a full evaluation of the governance of the issuing institution, and does not cover, e.g., corruption.

# Appendix 1: Referenced Documents List

Document Number	Document Name	Description
1	Sustainability-Linked Bond Framework 2023	Imerys' sustainability-linked framework
2	2022 Universal Registration Document	Imerys' annual and sustainability reporting
3	Imerys CDP Climate Change Questionnaire 2023	
4	SBTi Near-Term Target Submission Form and Guidance	Imerys' submission for target validation by SBTi
5	SustainAgility Solutions Assessment	Imerys' sustainable product portfolio approach
6	Imerys Climate Governance	Internal description of oversight, responsibilities, and workstreams

# Appendix 2: About Shades of Green

S&P Global Ratings Shades of Green provides independent, research-based second party opinions (SPOs) of green financing frameworks as well as climate risk and impact reporting reviews of companies. At the heart of all our SPOs is the multi-award-winning Shades of Green methodology, which assigns shadings to investments and activities to reflect the extent to which they contribute to the transition to a low carbon and climate resilient future.

Shades of Green is internationally recognized as a leading provider of independent reviews of green bonds, since the market's inception in 2008. Shades of Green is independent of the entity issuing the bond, its directors, senior management and advisers, and is remunerated in a way that prevents any conflicts of interests arising as a result of the fee structure. Shades of Green operates independently from the financial sector and other stakeholders to preserve the unbiased nature and high quality of second opinions.



ESG Opinion Provider of the Year



Largest External Review Provider in  
Number of Deals for Shades of Green



ESG Assessment Tool of the Year - Ratings



External Assessment Provider of the Year

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