
RARE METALS SUPPLY CHAINS

**CHALLENGES
FOR A SUSTAINABLE
ENERGY TRANSITION**

ENGAGEMENT RESULTS

July 2021





SHAREHOLDERS *for* CHANGE

Created in 2017, Shareholders for Change is a European network for shareholder engagement, composed of institutional investors representing over €30 billion in assets under management.

Its members are highly involved in shareholder engagement at the local level, participating jointly in general meetings, co-signing letters to businesses and meeting with companies to discuss their respective commitments. The network de-

scribes itself primarily as a “facilitator platform”.

Its 12 members are based in seven different countries:

Germany (Bank für Kirche und Caritas eG), Austria (Fair-finance Vorsorgekasse), Spain (Fundacion Finanzas Eticas), France (Meeschaert AM, Ecofi and Sanso IS), Italy (Etica Sgr and Fondazione Finanza Etica), Switzerland (ABS - Alternative Bank Schweiz, Ethos Foundation and Forma Futura), UK (Friends Provident Foundation).

RARE METALS SUPPLY CHAINS

Challenges for a sustainable energy transition

ENGAGEMENT RESULTS

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SfC - Shareholders for Change is a European investor network for shareholder engagement, created in December 2017. It currently has twelve members from seven countries and represents a total of over €30bn AUM (www.shareholdersforchange.eu).

The network's engagement priorities are climate related issues, workers and human rights and tax transparency.

SfC has completed two engagement projects so far, based on its own research, focussed on so-called "orphan issues", that are still marginal in investor engagement strategies: tax avoidance in the European telecommunication sector and the ESG risks linked to the extraction of rare metals.

In May 2019, Meeschaert Asset Management, one of SfC's founding members, published the report "Rare metal supply chains" (<https://bit.ly/3klL7sL>), on behalf of Shareholders for Change, evidencing potential social and environmental controversies in the supply chains of rare earths (such as Neodymium and Praseodymium) and rare metals (such as cadmium, cobalt, chromium, lithium, magnesium, palladium, rhodium, etc.)

These are fundamental components of the energy transition to an economy with low greenhouse gas emissions. They are found in wind turbines, electric car batteries, photovoltaic panels and energy-saving light bulbs.

However, they have at least two main problems: they are extracted and marketed mainly by China, which operates in a quasi-monopoly situation, or from countries at risk for human rights, such as the Democratic Republic of Congo (cobalt). And they are exposed to a number of risks, both for the environment (groundwater pollution, soil erosion, toxic wastewater discharge) and for workers (lack of protection).

The report identified twelve companies potentially exposed to risks related to the extraction and use of rare metals and rare earths. Five in the wind energy sector: Vestas, Siemens-Gamesa, Orsted, Iberdrola and Nordex; four in the automotive sector: PSA, Renault, Daimler and BMW; and three in the chemical sector (Johnson Matthey, Umicore and Solvay).

Each of these companies was engaged by SfC members between November 2019 and June 2021, in particular with questions on:

- the scope of supplier audits' coverage (Tier 1, Tier 2, etc.);
- procedures in case of non-compliance;
- the recovery and recycling of materials;
- the sourcing of cobalt.

The engagement was done in behalf of the whole SfC network and led by individual SfC members.

The current engagement report presents the main results of the engagement process, that was terminated on the 30th of June 2021.

■ Main results of the engagement

The 12 companies were generally cooperative and engaged in a dialogue with SfC, providing "good" or "very good" answers in more than 80% of cases. Only one company, the automotive group PSA (today Stellantis) did not reply to the network's questions, while the Spanish wind giant Iberdrola replied in a very generic way.

The engagement identified some problems that appears to be structural and common to nearly all companies across the three industries:

- Audits are very rarely extended beyond Tier 1 suppliers, which are generally only brokers of materials extracted by other companies;
- Recycling of rare earths and rare metals is at a very early stage and specific recycling targets are generally missing;
- Details on detected cases of non-compliance by suppliers are not disclosed, while information on corrective measures are limited;
- The sourcing of cobalt, especially from Congo (DRC), remains a source of potential controversies for some of the engaged companies.

Beginning from September 2021, SfC's engagement on rare metals will enter its "second phase". While the "first phase" has been primarily based on "disclosure", the "second phase" will focus on specific "commitments" by companies.

So far we have just asked companies to disclose more information on certain aspects of their supply chain management and on recycling. From now on we will ask them to commit to precise actions or targets, with the advice of leading international experts.

One of them is Julie Klinger, assistant professor at the Department of Geography and Spatial Sciences, University of Delaware and author of the book "Rare Earth Frontiers". Prof. Klinger, who will accompany SfC in the "second phase" of the rare metals engagement project, held a webinar on rare metals during the SfC Summer Meeting in June 2021: "Rare earth supply chains. Persistent myths, policy challenges and possible pathways forward" ([link: https://youtu.be/5YmHbwywxSY](https://youtu.be/5YmHbwywxSY)).

OVERVIEW OF SFC ENGAGEMENT ON RARE METALS

WIND ENERGY

Questions

- Scope of coverage of supplier audits.
- Recovery and recycling of rare metals.
- Supply chain security and sustainability.

Sector/Companies	Engagement Leader	Quality of answers	Room for improvement
Vestas	Etica Sgr	Good	Extend audits beyond Tier 1 suppliers Specific targets on rare metals' recycling are missing
Siemens-Gamesa	Ethos	Good	Extend audits beyond Tier 1 suppliers Specific targets on rare metals' recycling are missing
Orsted	Etica Sgr	Very good	Extend audits beyond Tier 1 suppliers Specific targets on rare metals' recycling are missing
Iberdrola	Fundacion Finanzas Eticas	Poor	No reference to a specific policy on rare metals
Nordex	Alternative Bank Schweiz	Good	-

AUTOMOTIVE MANUFACTURERS (ELECTRIC VEHICLES)

Questions

- Impact of EV development on the supply of rare metals.
- Respect for human and environmental rights in cobalt procurement.
- Sanctions to non-compliant suppliers.
- Traceability in rare metal and battery supply chains.
- Scope of supplier audits coverage.
- Recycling of batteries.

Sector/Companies	Engagement Leader	Quality of answers	Room for improvement
PSA	Meeschaert Asset Management	Very poor (no reply)	-
Renault	Ecofi	Good	More details on environmental criteria applied to suppliers and on battery recycling are needed. Information about the scope of supply chain monitoring is missing.
Daimler	Ecofi	Good	The company has not given a clear answer on a possible stop to the import of Congolese cobalt. Supply chain monitoring should be extended beyond Tier 1.
BMW	Bank für Kirche und Caritas	Good	Details on detected cases of non-compliance are not disclosed yet. A "Tier-N" monitoring down to the last level of the supply chain is still missing.

CHEMICAL COMPANIES

Questions

- Scope of rare metals supplier audits' coverage. Procedure in case of non-compliance.
- Disclosure of recycling rates per each metal.
- Geographical mapping of rare metals mines.
- Mapping of cobalt supply chain.

Sector/Companies	Engagement Leader	Quality of answers	Room for improvement
Johnson Matthey	Etica Sgr	Very good	More information on the procedure for supporting non-compliant suppliers would be needed.
Umicore	Forma Futura	Very good	More information on the procedure for supporting non-compliant suppliers would be needed. Disclosure of recycling rates per each metal is still missing.
Solvay	Meeschaert Asset Management	Good	More information could be disclosed about corrective actions or reasons for low score of rare earth metals suppliers. Limited information on recycling and on geographical mapping of rare metals mines.

THE “RARE METALS” ENGAGEMENT WITH EACH OF THE 12 ANALYSED COMPANIES

Wind Energy

• Engaged companies:

Vestas, Siemens-Gamesa, Orsted, Iberdrola, Nordex.

• Economic context

The European Union wants 32% of its energy mix to come from renewable energy by 2030 (compared with 22.7% today). Depending on the scenario, renewable energy and hydropower are expected to account for 65% to 81% of Europe’s energy mix by 2040, including 30% to 35% wind power. Since 2020,

half of offshore wind turbines are using direct-drive technology, which employs rare-earth elements like neodymium and dysprosium. Therefore, actors in the wind turbine value chain have a responsibility to conduct reasonable checks on their suppliers to identify, prevent and reduce any negative impacts. This responsibility is all the greater because there are only a small number of companies in the market, which therefore have a strong potential to influence over the entire supply chain.

1. VESTAS WIND SYSTEMS A/S

• **Location:** Aarhus, Denmark

• **Revenue 2020:** €14.82bn

• **Employees:** 29,230

• Onshore/offshore positioning:

Mainly onshore. Offshore development via “MHI Vestas Offshore Wind” (100% owned since October 2020).

• Level of exposure to rare metals:

Neodymium and dysprosium used in the towers of all models of wind turbines and in the permanent magnet generators of older models.

• **Engagement leader:** Etica Sgr

• **Engagement period:**

November/December 2019

• Questions/areas of engagement:

- Consideration of higher tier suppliers, further upstream in the supply chain.

- Optimisation of recovery and recycling rates.
- Supply chain security and sustainability in risk mapping.
- EROEI (energy returned on energy invested rate) of the company’s turbines.

• How the company answered

The quality of the company’s answers was good.

Monthly performance dialogue meetings with suppliers.

Detailed monitoring in global procurement on approximately 160 suppliers with scorecard monitoring.

Proactive Risk Management is an integral part of Global procurement.

Compared to older permanent-magnet generators, the new EnVentus generator uses less light rare-earth material per MW and has eliminated use of heavy rare earth materials altogether.

The contribution of rare earth elements used in the turbine generator

magnets, and also in the magnets used in the towers make a negligible contribution to total resource depletion, contributing below 0.1% of total life cycle impacts.

The field of recycling composites is not mature and is an emerging area regarding recycling technology available and technology readiness levels.

Vestas is involved in the Wind Europe Dismantling Task Force – to develop industry guidelines for end-of-life.

Targets to limit product waste by 7% towards 2020 compared to baseline from 2017. No specific target on rare metals.

• What can be improved?

It is not clear whether Tier 2, 3, etc. suppliers are covered or not.

The names of suppliers are not disclosed.

Specific targets on rare metals’ recycling are missing.

2. SIEMENS GAMESA RENEWABLE ENERGY SA (SGRE)

• **Location:** Zamudio, Spain

• **Revenue 2020:** €9.91bn

• **Employees:** 25,950

• **Onshore/offshore positioning:**

Onshore and Offshore.

• **Level of exposure to rare metals:**

Neodymium used in NdFeB magnets.

• **Engagement leader:** Ethos Foundation

• **Engagement period:**

May 2020/March 2021

• **Questions/areas of engagement:**

- How are rare metals taken into account in the “Responsible Supply Chain” of

the company’s CSR plan?

- How many suppliers are monitored?
- Optimisation of recovery and recycling rates.
- Target rates for recovery and recycling.
- Supply chain security and sustainability in risk mapping.

• **How the company answered**

The quality of the company’s answers was good.

The company explained that its five suppliers of rare metals have signed a code of conduct and a set of environmental requirements. However, monitoring stops at the first level of the supply chain, the so-called ‘Tier 1’: the company’s direct suppliers, that are only intermediaries.

SGRE commits to extending the requirements to ‘Tier 2’.

In the company’s sustainability report (January 2021), SGRE mentions rare earths for the first time as “high risk from a sustainability point of view”.

The company formally commits to reduce or eliminate the use of heavy rare earths such as dysprosium and terbium.

• **What can be improved?**

The names of suppliers are not disclosed. The company should conduct unannounced audits.

‘Tier 2’ suppliers should be covered too. The company needs more specific targets on rare metals’ recycling.

3. ORSTED A/S

- **Location:** Fredericia, Denmark

- **Revenue 2020:** €6.84bn

- **Employees:** 6,310

- **Onshore/offshore positioning:**

Onshore and Offshore.

- **Level of exposure to rare metals:**

Mainly exposed to the use of neodymium through its turbine suppliers, including Siemens Gamesa.

- **Engagement leader:** Etica Sgr

- **Engagement period:**

June 2020/December 2020

- **Questions/areas of engagement:**

- Scope of coverage of suppliers' audits.
- Monitoring of risks linked to the use of rare metals.
- Is impact management applied to storage battery production?

- Supply chain security and sustainability in risk mapping.

- Is the Company planning to develop a product life cycle assessment method?

- **How the company answered**

The quality of the company's answers was very good.

Risk screenings to identify suppliers for further engagement based on spend, country, and category risks. On-site visits to assess adherence with the company's Code.

Improvements plans and dialogue with suppliers.

Only less than 0.2% of suppliers are based in high risk countries.

In 2019 the company identified some risks in the supply chain, mainly related to poor working conditions. All issues have been addressed satisfactorily by the suppliers.

Initial focus on Tier 1 suppliers. Screening also on selected Tier 2 suppliers.

However, this is relevant and needed only in few occasions.

In January 2020 Orsted started the development of a "Metals and Minerals Programme" to address and minimize the social and environmental risks related to the extraction of key metals (including rare earth metals). The Programme is initially focused on the offshore portfolio but will be extended to all business areas, including energy storage.

Orsted is working with key supplier to (i) map the use of these metals, (i) identify the current social and environmental risks and (iii) developing ways to mitigate the risks. This last step also includes identifying opportunities to recycling or substituting these metals and the potential risks associated with that.

- **What can be improved?**

Specific targets on rare metals' recycling are missing.

The monitoring of the supply chain is still largely limited to Tier 1 suppliers.

4. IBERDROLA SA

- **Location:** Bilbao, Spain
- **Revenue 2020:** €33.81bn
- **Employees:** 38,300

- **Onshore/offshore positioning:**

Mainly onshore. Offshore wind farm projects are under development.

- **Level of exposure to rare metals:**

Exposure to technologies that use neodymium and dysprosium, through future offshore projects, supplied mainly by Vestas and Siemens Gamesa.

- **Engagement leader:**

Fundacion Finanzas Eticas

- **Co-lead:**

Friends Provident Foundation

- **Engagement period:**

January-February 2021

- **Questions/areas of engagement:**

- Monitoring of risks associated to rare metals.
- Recycling of rare metals components.
- How broad is the coverage of supplier audits and the scoring system?

- **How the company answered**

The quality of the company's answers was poor.

Iberdrola is committed to ensuring that 70% of its main partner companies (those with a turnover with the company of more than €1m) comply with environmental, social and governance objectives by 2022. The company provides suppliers that obtain a low score with support to detect

areas for improvement and proposes a customised action plan.

Suppliers that do not manage to adapt to ESG requirements within a reasonable period of time are excluded from future tenders.

With regard to wind blades, between 2014 and 2016, Iberdrola developed the Life BRIO project, which demonstrated the feasibility of a route for the reuse of wind blade materials. The fibrillar material obtained from the mechanical recycling of wind blades can be used, among other things, as a reinforcement fibre in precast concrete.

- **What can be improved?**

No reference to a specific policy on rare metals was made in the answers.

It is not clear whether Tier 2, 3, etc. suppliers are covered or not.

No reference to any specific targets for the recycling of rare metals.

5. NORDEX SE

- **Location:** Hamburg, Germany

- **Revenue 2020:** €4.94bn

- **Employees:** 8,390

- **Onshore/offshore positioning:**

Onshore only.

- **Level of exposure to rare metals:**

The company is developing its own asynchronous turbine technology that does not involve the use of permanent magnets. The development of an offshore strategy could potentially expose it to the use of rare metals.

- **Engagement leader:**

ABS - Alternative Bank Schweiz

- **Engagement period:**

June 2020

- **Questions/areas of engagement:**

- Plans to develop offshore technologies.
- Monitoring of lithium supply risks for lithium-ion storage batteries.
- Scope of supplier audits coverage.

- **How the company answered**

The quality of the company's answers was good.

The use of rare earth materials in Nordex wind turbines is very limited.

Very few rare earth materials are used in motors, batteries and electronic components in the auxiliary power supply system of the wind turbine.

The drive train concept consists of a gear-

box and a double-fed asynchronous generator. This type of generator does not contain any rare earth magnets.

The Nordex Group is and remains a pure onshore manufacturer (and won't thus make use of rare earth metals in the future either).

Nordex technology is not based on any kind of lithium-ion batteries. The electrical pitch technology is equipped with lead batteries.

The audit coverage is focussing on direct suppliers and in some individual cases on sub-suppliers. The individual cases depend on the outsourced process/component at the sub-supplier.

- **What can be improved?**

Considering the very low exposure to rare metals, this question does not apply to Nordex.

Automotive manufacturers

- **Engaged companies:**

PSA, Renault, Daimler, BMW.

- **Economic context**

The electrification of road transport is a key step in limiting global warming and improving air quality. In its “2°C scenario”, the International Energy Agency predicts a very strong growth in road transport electrification by 2060; for example, the number of light electric vehicles is expected to reach 1.25 billion worldwide. Wind turbines use quantities of neodymium and praseodymium that are 40 times higher than those needed for the

batteries of an electric car, per Megawatt (MW) of installed capacity.

Until now, the rare earths market has been led by the wind power sector. However, it has to be considered that, in the coming years, the number of wind turbines will not increase at the same rate as that of electric cars, the market for which is starting now, while the wind energy market is already consolidated. Therefore, in order to understand the rare earth market in the future, we need to focus on the evolution of the electric car market.

Electric cars also use rare metals for their batteries, such as cobalt and lithium.

6. GROUPE PSA (PEUGEOT SA)

- **Location:** Paris, France

- **Revenue 2020:** €74.7bn

- **Employees:** 209,000

In January 2021 the group merged with FCA to create Stellantis.

- **Exposure to rare metals:**

Hybrid or electric version of all new car models from 2019. By 2021: launch of 8 plug-in hybrid models and 7 EVs (electric vehicles). 50 kWh lithium-ion bat-

tery. PSA's electric best seller in 2020 was Peugeot 208 EV with 31,550 units.

- **Engagement leader:**

Meeschaert Asset Management

- **Engagement period:** 2020

- **Questions/areas of engagement:**

- Impact of EV development on the supply of rare metals.
- Traceability in rare metal and battery supply chains.

- Battery technologies envisaged, associated rare metals.

- **How the company answered**

The company never answered to Meeschaert's questions.

- **What can be improved?**

Not applicable.

7. RENAULT SA

- **Location:** Boulogne-Billancourt, France
- **Revenue 2020:** €43.47bn
- **Employees:** 170,160
- **Exposure to rare metals:**

Nearly 118,900 EVs sold in 2020 (6.7% of sales). 25% of market share in Europe. Renault's Zoe was the best-selling electric car in Europe in 2020 (99,610 units).

- **Engagement leader:** Ecofi
- **Engagement period:** 2020
- **Questions/areas of engagement:**

- Respect for human and environmental rights in cobalt procurement.
- Research and development of less cobalt-dependent solutions.
- Recycling of batteries.

- **How the company answered**

The quality of the company's answers was good.

In 2019, approximately 20 audits were carried out on cobalt suppliers. Renault did not find any significant case of non-compliances. Currently the audits are not very effective because the company is obliged to announce the audits to the suppliers some days in advance. The company plans to make agreements with some competitors to perform joint audits. In addition, the cobalt supply chain is particularly complicated to be monitored because it is often composed of small suppliers that close down, change frequently and therefore struggle to meet the set of criteria required by a group like Renault.

The internal environmental policy is also imposed on suppliers. The ques-

tions would be very precise. However, Renault has not provided details of the criteria used nor of water consumption and wastewater production.

Renault did not provide sufficient information on battery recycling.

The company is a member of the Responsible Cobalt Initiative.

- **What can be improved?**

Details on the environmental criteria applied to suppliers and on battery recycling are missing.

No information about water consumption and wastewater production in cobalt mining activities.

No information about the scope of supply chain monitoring.

8. DAIMLER AG

- **Location:** Stuttgart, Germany
- **Revenue 2020:** €158.10bn
- **Employees:** 288,060

- **Exposure to rare metals:**

Mercedes-Benz Cars sold more than 160,000 plug-in hybrids and all-electric vehicles (xEVs) in 2020. xEV share of Mercedes-Benz Cars increased to 7.4% in 2020 (from 2% in 2019). 2025 outlook: 15% to 25% of turnover generated by sales of all-electric models.

- **Engagement leader:** Ecofi

- **Co-lead:**

Bank für Kirche und Caritas, Fondazione Finanza Etica.

- **Engagement period:** 2020

- **Questions/areas of engagement:**

- Auditing of cobalt supply chain beyond Tier-1.

- Sanctions to non-compliant suppliers.
- Monitoring of supply-chain risks for rare metals.
- Dialogue with critical stakeholders.

- **How the company answered**

The quality of the company's answers was good.

According to its policy ("Daimler Supplier Sustainability Standards"), in the contracts that Daimler signs with its direct suppliers (Tier 1), the company asks to control sub-suppliers (Tier 2, etc.), but at the moment it doesn't go further than that. The company explained to have charged an external firm, in 2019, with a three-year audit of its cobalt supply chains for the battery cell suppliers of Mercedes-Benz AG. The program covers both downstream (from battery manufacturers to refineries) and upstream suppliers (from mines to refineries). Moreover, Daimler has committed to evaluate 70% of suppliers of all high-risk raw materials by 2025, while it aims to

define measures for addressing 100% of raw materials linked to high risk of human rights violations by 2028.

Daimler prefers to dialogue with the suppliers and to train them, instead to put in place commercial sanctions.

Daimler's suppliers are more than 15,000. In 2019 Daimler audited more than 1,100 suppliers, but not just on human rights.

The dialogue with critical stakeholders is generally good.

The company is a member of several initiatives in the industry: Responsible Cobalt Initiative, EconSense, Responsible Steel, VDA, Aluminium Stewardship Initiative.

- **What can be improved?**

On some issues, such as a possible stop to the import of Congolese cobalt, associated to a high risk of human rights abuses, the company has not given a clear answer.

Supply chain monitoring should be extended beyond Tier 1.

9. BAYERISCHE MOTOREN WERKE AG (BMW)

- **Location:** Munich, Germany
- **Revenue 2020:** €102.52bn
- **Employees:** 126,020
- **Exposure to rare metals:**

During the twelve months of 2020, BMW Group delivered a total of 192,646 plug-in cars (EVs and hybrid; up 31.8% year-over-year), which accounts for 8.3% of the total volume of 2.32 million.

In Europe, where most of the plug-ins were sold (over 135,000), the plug-in share is at 15%. 2025 outlook: 15% to 25% of turnover generated by electric vehicles, thanks to the launch of 25 electric models.

- **Engagement leader:**

Bank für Kirche und Caritas

- **Co-lead:** Ecofi
- **Engagement period:** 2020

- **Questions/areas of engagement:**

- What sustainability requirements do BMW's supplier location audits include?
- There were 193 cases of non-compliance in 2018. Do any of these cases include rare metals suppliers?
- Is there a specific audit policy on rare metals?
- Sourcing of cobalt from Congo (RDC).
- Scope of supplier audits coverage.

- **How the company answered**

The quality of the company's answers was good.

BMW specified that it uses (and monitors) only "indirect" suppliers of rare metals (Tier 1, i.e. brokers). For the time being, it does not monitor who actually extracts the materials (Tier 2, 3, etc.).

However, the company's "Tier 1" suppliers have to implement processes to forward sustainability requirements to their own supply chain. In case BMW becomes aware of any violations in its whole tier-N

supply chain, it works closely together with its direct suppliers. BMW requires the supplier to implement immediate corrective action to stop the violation. Additionally, the company applies a "multi-step escalation process" which can ultimately lead to the exclusion of the supplier.

None of the 193 cases of non-compliance reported for 2018 included rare metals suppliers, since the company doesn't source these materials directly. For the same reason, a specific audit policy on rare metals is not in place.

Supplies from Congo DRC have ceased due to the high ESG risks. Preference is now given to Australia and Morocco, which are considered less risky.

Despite this, the company continues to be involved in the "Cobalt for Development" project in Congo.

- **What can be improved?**

Details on detected cases of non-compliance are not disclosed yet.

A "Tier-N" monitoring down to the last level of the supply chain is still missing.

Chemical companies

- **Engaged companies:**

Johnson Matthey, Umicore, Solvay.

- **Economic context**

Chemical manufacturers play a key role in the energy transition of other sectors. Chemicals are used to make components that promote energy efficiency and low-carbon energy development.

Cathodes, for example, are vital components of electric vehicle batteries and catalytic converters, which reduce the pollution caused directly by vehicles with combustion engines. Thanks to their innovation capacity and their position in the supply chain, chemical manufacturers are able to improve technologies to shift toward recycling and substitution materials. The sector's supply chain comprises mines, smelters and metal refineries.

10. JOHNSON MATTHEY PLC

- **Location:** London, United Kingdom
- **Revenue 2020:** €18.35bn
- **Employees:** 13,560
- **Exposure to rare metals:**

The company manufactures catalysts and cathodes (LFP/eLNO) for the automotive sector and recycles metals. 1.5% of turnover from EVs' supply chain.

- **Engagement leader:** Etica Sgr
- **Engagement period:** 2020
- **Questions/areas of engagement:**

- Are higher tier suppliers, further upstream in the supply chain, considered in the company's monitoring?
- Is there a procedure for supporting suppliers that do not comply with the company's Code?

- **How the company answered**

The quality of the company's answers was very good.

The company does evaluate suppliers further upstream in the supply chain.

For example, with battery material products, Johnson Matthey (JM) is committed to using only raw materials that have been ethically sourced and ensure it knows the provenance of the critical metals back to mine: cobalt, lithium and nickel. The company has partnered with an independent audit company who specialises in working in the cobalt supply chain. In early 2020 the company joined the Global Battery Alliance and agreed to ten guiding principles for a creation of sustainable battery value chains globally by 2030.

For operations using pgms (platinum group metals), Johnson Matthey uses metal from its own refineries, other industrial suppliers and the market. Metal

from secondary sources (i.e. recycled) is a very important source of input. During 2019/20 the company implemented a responsible platinum and palladium guidance for all material handled through its UK and US refineries, which includes using third party experts to implement a value chain due diligence program on the sources of all input feeds to refineries. JM engages its suppliers through its "Supplier Code of Conduct" to ensure responsible behaviours. JM may conduct periodic assessments, surveys or audits of the supplier's systems, products and processes to ensure that they meet requirements. The supplier may also be asked, on occasion, to participate in JM training on ethics and sustainability.

- **What can be improved?**

More information on the procedure for supporting non-compliant suppliers would be needed.

11. UMICORE SA

- **Location:** Bruxelles, Belgium
- **Revenue 2020:** €20.71bn
- **Employees:** 13,320
- **Exposure to rare metals:**

The company manufactures NMC cathodes and catalysts for the automotive sector; it recycles materials. 36% of turnover generated by EVs' supply chain.

- **Engagement leader:**

Forma Futura

- **Co-lead:**

Etica Sgr

- **Engagement period:** 2020

- **Questions/areas of engagement:**

- Rare metals supplier audits' coverage. Procedure in case of non-compliance.
- Disclosure of recycling rates per each metal.

- Geographical mapping of rare metals mines.
- Mapping of cobalt supply chain.

- **How the company answered**

The quality of the company's answers was very good.

Umicore has a specific policy regarding responsible global supply chain of minerals from conflict-affected and high-risk areas.

In the area of cobalt sourcing, Umicore has implemented a "Sustainable Procurement Framework for Cobalt".

Specific recycling rate per metal are not disclosed. However, the company does indicate the origins of its raw materials input. In 2018 it disclosed that 42% of its input came from primary sources and 58% from secondary (i.e. recycled) material sources, including end of life products.

With respect to critical raw materials, every business unit has its dedicated approach which is based on a risk matrix

consisting of more than 20 different criteria.

Mitigating actions are systematically reported to the management, corresponding to the respective strategic objectives and identified risks. However, these specific risks and mitigation actions are not public as they constitute an essential part of the supply strategy of the company's business units.

The company tracks the origin of all of its cobalt raw materials to the level of the mine through mass balance and a chain of custody documentation.

Umicore certifies to customers that its products do not contain any artisanally mined cobalt units and are free of any child labour.

- **What can be improved?**

More information on the procedure for supporting non-compliant suppliers would be needed.

Disclosure of recycling rates per each metal is still missing.

12. SOLVAY SA

- **Location:** Bruxelles, Belgium
- **Revenue 2020:** €9.63bn
- **Employees:** 23,000
- **Exposure to rare metals:**

Produces fluorine and rare earth formulations for automotive applications. Battery component sales account for 0.5% of turnover but are growing strongly.

- **Engagement leader:**

Meeschaert Asset Management

- **Co-lead:**

Fondazione Finanza Etica

- **Engagement period:**

2020-2021 (letter and escalation to AGM)

- **Questions/areas of engagement:**

- Supply chain alert mechanism.
- Scope of suppliers' audits.
- Recycling measures in place.
- Geographical mapping of rare metals mines.

- **How the company answered**

The quality of the company's answers was good.

Solvay operates three sites that process rare earths: France, Japan and China. It has multi-year contracts, including capacity reservation, for all main raw materials. Its main sources (for rare earths) are China and Australia but it has identified viable alternatives outside China that can be 2nd or 3rd sources of supply. All critical suppliers are under contract and audited regularly. Of its 450 core

suppliers, 70% have 3rd party assessment completed to date.

The company specified that only one out of its six rare earth suppliers achieved an audit score above 45 (the minimum threshold). Corrective actions would be in place for the five, low performing suppliers. On top, a quality audit was performed in 2020 for all rare earth suppliers.

At present, the company recycles and valorises Neodymium and Praseodymium tailings from past activities in France.

- **What can be improved?**

More information could be disclosed about corrective actions or reasons for low score of rare earth metals suppliers. Limited information on recycling and on geographical mapping of rare metals mines.

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