

UMICORE

Limited Company ("Naamloze Vennootschap" / "Société Anonyme")
1000 Brussels, Broekstraat 31 rue du Marais
VAT BE 0401.574.852 – RLE Brussels

STATUTORY ANNUAL REPORT – FISCAL YEAR 2021

To the shareholders,

In accordance with legal and statutory obligations, we hereby report to you on the execution of our appointment for the year ended 31 December 2021 and submit the annual accounts for your approval.

1. RESULT AND POSITION OF THE COMPANY

1.1. PROFIT AND LOSS STATEMENT

1.1.1. SUMMARY

The statutory accounts of Umicore (also the "**Company**") show a net profit after taxes of 309,750 KEUR versus a profit of 86 476KEUR in the comparable period of 2020. This corresponds to an increase of 223,274 KEUR, broken down as follows:

Profit & loss statement	31/12/2021	31/12/2020	Delta
Operating result - recurring	338,006	61,548	276,458
Operating result - non recurring	-56,617	-83,596	26,979
Operating result	281,389	-22,048	303,437
Financial result: dividends	134,256	141,206	-6,950
Financial result: interest	-11,811	-9,326	-2,485
Financial result: FX - other	-1,973	-15,489	13,516
Financial result recurring	120,472	116,391	4,081
Financial result - non recurring	-40,375	-434	-39,941
Financial result	80,097	115,957	-35,860
Profit before taxes	361,486	93,909	267,577
Income taxes	-51,736	-7,433	-44,303
Net profit of the year	309,750	86,476	223,274

1.1.2. OPERATING RESULT

The increase of the recurring operating result year on year is mostly attributable to a higher performance in the Precious Metals Refining activity. For a detailed analysis of the recurring operating results we refer to the comments in section 1.1.3 Economic context by activity.

The net non-recurring operating results amounting to -56,617 KEUR are mainly composed of additional environmental provisions linked to the green zone project in Hoboken and historical soil pollution in Olen and Hoboken.

1.1.3. ECONOMIC CONTEXT BY ACTIVITY

A. RECYCLING

Revenues and earnings for **Precious Metals Refining** increased significantly compared to the previous year reflecting an exceptional precious metals price environment and in particular for PGMs in the first half of the year, as well as an excellent supply environment and robust operations with high processed volumes. The business unit took full benefit from the extraordinary market environment by actively leveraging its unique recycling technology to maximize intake of highly complex PGM materials, which resulted in an absolute record year in terms of revenues and earnings.

Supply of industrial by-products and end-of-life materials remained strong and Umicore managed to maintain total processed volumes in line with the high levels of 2020, despite the challenges induced by COVID-19-induced quarantine rules. The Hoboken plant benefited from previously implemented innovations and debottlenecking investments in its PGM refinery which allowed to maximize input of highly complex PGM materials, such as spent automotive catalysts and industrial catalysts. The regular maintenance shutdown in the second half of the year was completed as scheduled and operations restarted smoothly.

Update on environmental investments

Umicore continues to invest and takes measures to further reduce the emissions of the Hoboken plant and the impact of its operations on the environment. Over the past decades, this commitment has considerably improved environmental performance and as a result, the levels of lead in the blood of the children living close to the plant decreased steadily. There had been an unexpected rise of lead in blood levels in July 2020, due to exceptional drought and unusually strong winds in combination with children spending more time at home due to the COVID-19 lockdown. Umicore has since taken various additional measures to prevent dust from spreading into the environment and as a result of this, the lead in blood values resumed their decline of previous years. The most recent monitoring reading of November 2021 came again very close to the lowest average level to date of 2019.

Additionally, in consultation with the authorities, Umicore has made a voluntary offer to the residents of an area closest to the plant to buy their houses in view of transforming this area into a 5 hectares closed green zone, increasing the distance between the site and the residential area. So far, as part of this offer close to 200 houses have been purchased. This green zone will be complemented by an adjacent green zone of 1 hectare on the site's premises.

Umicore is convinced, that altogether these measures will allow for a long-term sustainable co-existence of the site and its neighbors.

B. ENERGY & SURFACE TECHNOLOGIES

Revenues in **Rechargeable Battery Materials** were up year on year reflecting primarily higher sales volumes of EV NMC cathode materials. This increase was driven by strong demand from the European market, particularly in the first half of the year. Shipments of NMC cathode materials used in energy storage benefited from a pick-up in demand in Korea, while sales volumes of high energy LCO cathode materials used in portable electronics were below the level of previous year.

Despite the adverse impact of the semiconductor supply shortage on the automotive industry, global sales of EVs in 2021 more than doubled versus 2020, while demand for EV NMC materials increased 74% year on year. Growth of Umicore's sales volumes did, however, not match the global growth in NMC battery materials. After a strong first half, growth of Umicore's sales volumes slowed down in the second half, affected by production schedule adjustments of qualified platforms and an unfavorable customer and platform mix in China.

Over the course of 2021, Umicore successfully entered into advanced customer qualifications for new high-nickel EV platforms in Europe and China with different battery manufacturers and car OEMs. It is currently expected that upon successful qualifications, the first sizable portion of these platforms will start commercial production in the course of the second half of 2023.

EV sales in Europe increased substantially compared to the previous year, supported by stringent CO2 targets and subsidy schemes in most European countries. Umicore's sales of NMC cathode material grew in line with the market demand for battery materials, which was up by 48%, reflecting its strong position in the region. Umicore is currently serving the European EV market out of its Korean plant awaiting the start of commercial production at its greenfield plant in Nysa, Poland.

Umicore and Volkswagen AG announced in December their intention to create a joint venture for the production of precursor and cathode materials in Europe to supply Volkswagen AG's European battery cell production. This partnership, which will be the first of its kind in Europe, is anticipated to start with an initial annual production of 20 GWh in 2025 for supply to Volkswagen AG's plant in Salzgitter, Germany, and has the ambition to grow to an annual production capacity of up to 160 GWh by the end of the decade. It will provide Umicore with secured access to an important part of the European demand for EV cathode materials and provide Volkswagen AG access to Umicore's advanced precursor and cathode materials, proven production capabilities and upstream expertise. The partnership is expected to unlock significant economies of scale and will allow to share investment requirements between its partners while protecting critical IP and know-how for Umicore. In the context of the joint venture, Umicore and Volkswagen AG will furthermore collaborate on the sustainable and responsible sourcing of raw materials, which is a strong area of expertise of Umicore. Both parties aim to include at a later stage, battery recycling and elements of refining into the scope of the JV. The planned JV is subject to final agreements and customary conditions, including regulatory approvals.

Revenues for **Cobalt & Specialty Materials** were well up compared to the previous year, reflecting a sharp recovery of customer demand in key end markets, after the particularly severe impact of COVID-19 on its 2020 activity levels. Earnings further benefited from the context of increasing cobalt and nickel prices.

Revenues from the cobalt and nickel chemicals and related distribution activities increased substantially driven by significantly higher volumes at favorable conditions. Order levels for cobalt and nickel chemicals were well up in the first half of 2021, reflecting a sharp post-COVID-19 recovery in demand and related customer restocking behavior. Demand remained at an exceptionally high level in the second half of the year, with increasing cobalt and nickel prices triggering additional inventory build-up.

Revenues from the tool materials activity were also well up driven by a recovery in demand from the construction sector resulting in high order levels for alloyed powders. Revenues from carboxylates increased compared to an already robust 2020, reflecting solid demand from the coating and paint industries as well as higher order levels for naphthenic acid.

Revenues for **Electro-Optic Materials** were up year on year. The business unit saw a clear recovery in demand for high purity chemicals used in optical fibers with the pick-up of 5G projects worldwide. Volume growth in germanium substrates also accelerated, mainly in the second half of the year, driven by strong demand from the space industry for both traditional geo-satellites and low earth orbit constellations. Through new customers wins, Umicore continued to expand its germanium recycling solutions. Moreover within infrared solutions, new business wins in Europe and North America in the security and surveillance segment compensated for the normalization of demand in 2021 for infrared cameras, which recorded a COVID-19 related spike in the previous year.

C. DISCONTINUED OPERATIONS

There are no discontinued operations to report.

D. CORPORATE

In 2021, corporate costs increased, partly offset by a higher contribution from associates.

The increase in corporate costs results amongst others from higher R&D and innovation initiatives linked to Umicore's mid- to long-term technology roadmap and additional digitalization initiatives with related information system costs. Corporate costs are expected to continue to increase above inflation in 2022 as Umicore is committed to its longer-term innovation and digitalization and is preparing its systems and organization to accommodate for future expansion.

1.1.4. FINANCIAL RESULT

The recurring financial result increased by 4,081 KEUR from 116,391 KEUR to 120,472 KEUR, mainly explained by the results on foreign currency transactions (+9,496 KEUR) and the other financial charges and revenues (+4,019 KEUR) partly counterbalanced by a lower dividend income (-6,949 KEUR) and by higher net interest charges (-2,485 KEUR).

The dividend income amounted to 134,256 KEUR at the end of 2021 compared to 141,206 KEUR previous year. The company received intercompany dividends in 2021 from Umicore International (130,000 KEUR), Umicore Speciality Materials Brugge (3,174 KEUR), Umicore France (1,000 KEUR) and UMS Taiwan (82 KEUR).

The negative net interest charges amounted to 11,811 KEUR per December 31st 2021. Last year, the net interest charges amounted to 9,326 KEUR. These charges are composed of gross interest revenues amounting to 16,833 KEUR and gross interest charges on financial debts amounting to 28,644 KEUR. The gross interest charges on financial debts decrease with 1,142 KEUR from 29,786 KEUR in the same period in 2020 to 28,644 KEUR per December 31st 2021.

This decrease can be explained by slightly lower financial debts and the effect of lower interest rates on the funding activities. The interest revenues from intercompany loans to the group entities amounted to 16,833 KEUR or a decrease with 3,627 KEUR compared to last year

The results on foreign currency transactions amount to -2,865 KEUR in 2021 against -12,361 KEUR or an increase of 9,496 KEUR year on year.

The other financial charges and revenues increased from -3,128 KEUR last year to 891 KEUR in 2021. This increase is mainly explained by lower bank charges compared with previous year.

The net non-recurring financial result decreased by 39,941 KEUR compared to December 2020, mainly explained by a fair value correction on the own shares in portfolio.

1.1.5. INCOME TAXES

The corporate income tax charge of 51,736 KEUR as at December 31st 2021 consists of corporate income taxes for the year amounting to 46,489 KEUR, adjustment on corporate Income Taxes on previous years amounting to 8,401 KEUR and foreign and domestic withholding taxes amounting to 495 KEUR partly counterbalanced by tax credits of 3,649 KEUR which are linked to the research & development activities.

1.1.6. APPROPRIATION OF THE RESULT

The total result available for further appropriation at December 2021 stands at 661,913,031 EUR. This takes into account a net profit as at December 31st 2021 of 309,749,695 EUR, the profit carried forward of 2020 for an amount of 352,163,338 EUR, the interim dividend of 60,281,126 EUR and the withdrawal to the unavailable reserves related to the movements in the Own Shares for a total amount of 22,985,236 EUR.

1.2. BALANCE SHEET

Balance sheet (KEUR)	31/12/2021	31/12/2020	Delta
TOTAL FIXED ASSETS	3,296,290	3,172,625	123,665
2.1.1. FORMATION EXPENSES	10,288	14,685	-4,397
2.1.2 INTANGIBLE ASSETS	99,067	99,032	35
2.1.3 TANGIBLE ASSETS	460,546	452,430	8,116
2.1.4 FINANCIAL ASSETS	2,726,389	2,606,478	119,911
TOTAL CURRENT ASSETS	2,169,189	2,060,640	108,549
2.2.1 AMOUNTS RECEIVABLE AFTER MORE THAN ONE YEAR	584,998	476,214	108,784
2.2.2 STOCKS AND CONTRACTS IN PROGRESS	503,271	617,346	-114,075
2.2.3 AMOUNTS RECEIVABLE WITHIN ONE YEAR	861,136	620,119	241,017
2.2.4 TREASURY INVESTMENTS AND BANKS	186,495	294,960	-108,465
2.2.6 DEFERRED CHARGES AND ACCRUED INCOME	33,289	52,001	-18,712
Total assets	5,465,479	5,233,265	232,214
2.3 OWN FUNDS	2,428,079	2,176,359	251,720
2.4 PROVISIONS AND DEFERRED TAXATION	198,047	206,053	-8,006
2.5.1 FINANCIAL DEBT (ST/LT)	1,858,522	1,877,729	-19,207
2.5.2 AMOUNTS PAYABLE WITHIN ONE YEAR	889,459	895,116	-5,657
2.5.3 ACCRUED CHARGES AND DEFERRED INCOME	91,372	78,008	13,364
2.5 CREDITORS	2,839,353	2,850,853	-11,500
Total Liabilities	5,465,479	5,233,265	232,214

1.2.1 FIXED ASSETS

1.2.1.1 Formation expenses

The formation expenses decreased by 4,397 KEUR. This decrease is explained by the amortization on the expenses linked to the 2018 capital increase and the 2020 issuance of the convertible bond.

1.2.1.2. Investments in intangible fixed assets

The net intangible fixed assets increased slightly from 99,032 KEUR at the end of December 2020 to 99,067 KEUR at December 31st 2021.

New investments relate mainly to the capitalization of development projects (10,802 KEUR), capitalization of research costs (48,038 KEUR), capitalization of IS costs (7,394 KEUR), drawing

on energy certificates (7,892 KEUR) and changes on patents (841 KEUR). Depreciations on intangible assets amounted to 73,168 KEUR.

The total amount of 48,038 KEUR of research costs incurred by the entity in 2021 have been capitalized on the balance sheet and subsequently immediately amortized in full in the income statement in accordance with the Accounting Norm Commission advise (ref CBN 2016/6). Therefore as at December 31st 2021, the net book value of these capitalized research costs equals 0.

1.2.1.3. Investments in tangible fixed assets

The net tangible fixed assets balance increased from 452,430 KEUR at year-end 2020 to 460,546 KEUR on December 31st 2021. This represents an increase of 8,116 KEUR, net of investments, depreciations and impairments.

New investments in tangible assets as at December 31st 2021 amounted to a total of 78,451 KEUR. The majority of the investments were made on the Hoboken (63,981 KEUR) and the Olen (14,197 KEUR) sites. In the same period, depreciations and impairments on tangible assets amounted to 69,862 KEUR.

The investments in the Hoboken facility are mainly related to a further upgrade of the safety of the installations and an in- depth investment program in order to reduce the environmental impact, as regarding metal emissions. The PMR business unit also further invested in the modernization and replacement of the production equipment.

In the CSM plant in Olen, the decision was taken to gradually shut-down the cobalt activities, leading to a material write-off of the installations in 2020. Instead, projects for Nickel refining and production have been pursued.

RBM invested in Olen in a '*Process Competence Center*', where research activities take place towards innovative processes for the synthesis of materials for rechargeable batteries. The first phase of the centre was delivered per end of 2019; the investments in 2021 relate to the finalization of this project.

In Olen's EOM plant, the renovation of the metallurgy production facility and administrative offices was initiated at the end of 2018 and is finalized in 2021.

1.2.1.4. Financial fixed assets

The financial fixed assets increased from 2,606,478 KEUR at year end 2020 to 2,726,389 KEUR on December 31st 2021 or an increase of 119,911 KEUR. This is mainly explained by the capital increases in Umicore Holding Germany for 110,000 KEUR and an additional contribution beyond capital for Umicore Holding Belgium (10,000 KEUR).

1.2.2. CURRENT ASSETS

1.2.2.1 Amounts receivable after more than one year

The increase of 108,783 KEUR reported at December 31st 2021 is explained by new long-term loans granted to other entities within the Umicore group.

1.2.2.2 Inventories

Overall inventory levels decreased during 2021 by some 114,075 KEUR to reach 503,271 KEUR on December 31st 2021 and are the result of strict stock management at the level of raw materials, goods in production and finished goods which has been partially offset by the impact of increased metal prices.

1.2.2.3. Amounts receivable within one year

The amounts receivable within one year increased by 241,017 KEUR compared to end of last year. This is due to higher trade receivables (278,114 KEUR) explained by an increase of the volume of activity of the entity, partly compensated by a decrease of the other amounts receivable by 37,097 KEUR. This decrease is explained by a decrease of the short term funding towards other group entities

1.2.2.4 Treasury investments and banks

Treasury investments are composed by bank deposits and own shares and decreased in total by 108,465 KEUR over the period. This decrease is explained by a decrease of the bank deposits with 81,484 KEUR per December 31st 2021 a decrease in the value of the own shares of 22,985 KEUR and a decrease of the cash at external bank accounts with 4,006 KEUR.

A. OWN SHARES

The value of the Own Shares decreased from 208,921 KEUR on 31 December 2020 to 185,936 KEUR on December 31st 2021. The variance of -22,985 KEUR is detailed as follows:

Own Shares	Number	KEUR
Balance per 01/01/2021	5,733,685	208,921
Acquisition	1,270,000	60,611
Exercises of options and use of free shares	-1,802,690	-43,219
Correction market value own shares		-40,377
Balance per 31/12/2021	5,200,995	185,936

On December 31st 2021, the balance of own shares represented 2,11% of the total Umicore shares outstanding.

B. OTHER INVESTMENTS AND DEPOSITS

The Other Investments and deposits are composed of short term investments placed at the inhouse bank of Umicore Financial Services and at external bank accounts, at year end these are classified as a liability towards the In House Bank facility within the group.

1.2.2.5 Deferred charges and accrued income

The decrease of accrued income and deferred charges with -18,712 KEUR to 33,289 KEUR at December 31st 2021 is mainly explained by lower Mark-to-Market impacts on currency and metal positions (-4,333 KEUR), higher other deferred charges & accrued Income (+2,798 KEUR) and lower accrued interests resulting from the funding activities (-17,177 KEUR) .

1.2.3 OWN FUNDS

1.2.3.1. Movements of the capital and share premium

The Share Capital remained stable over the period.

The 22,985 KEUR decrease of the Reserves not available for distribution is entirely linked to the evolution in the value of Own Shares – see paragraph 1.2.2.4.

1.2.4 PROVISIONS FOR LIABILITIES AND CHARGES

The provisions for liabilities and charges decreased by 8,006 KEUR. This net decrease is mainly explained by higher environmental and legal provisions (+11,190 KEUR), a decrease in provisions for pension liabilities (-18,121 KEUR) and a decrease in repair & maintenance provisions (-1,075 KEUR).

1.2.5 CREDITORS

1.2.5.1 Financial debt (after more than one year and within one year)

Total financial debt decreased by 19,207 KEUR compared to December 31st 2020 and is mainly explained by the reimbursement of short term bank loans for an amount of 19,067 KEUR.

1.2.5.2 Amounts payable within one year (other than financial debt)

The decrease of amounts payable within one year (-5,657 KEUR) is mainly linked to the increase of the trade payables (+97,159 KEUR) explained by an increase of the volume of activity of the entity, the increase of Payroll, Tax & other provision with 20,069KEUR more than offset by a decrease of the other amounts payable with 122,885 KEUR which can be explained by the dividends paid out.

1.2.5.3 Accrued charges and deferred income

The increase of accrued charges and deferred income with +13,364 KEUR to 91,372 KEUR at December 31st 2021, is mainly explained by higher deferred income mostly related to the PMR business activities (2,945 KEUR) and by higher accrued charges as a result of higher Mark-to-Market impacts on currency and metal positions (+10,419 KEUR) .

1.3. PERSONNEL (social balance)

The approach and policy on social management are determined at group level. For a more detailed analysis of the social engagement, we refer to the Umicore website <http://annualreport.umicore.com/management-review/group-review/management-approach/social/Approach/> and the annual report on the consolidated accounts.

Unified Remuneration Policy

Umicore reopened, after the period of limited meeting possibilities due to Covid-19, the consultation with the workers' organisations with the aim of agreeing on a Unified Remuneration Policy for all blue and white collar colleagues. These discussions have been successfully concluded and this new, ambitious policy will start on January 1st, 2023, including the implementation of a unified job classification. This Unified Remuneration Policy will shape pay and working conditions in a uniform, transparent, equitable, sustainable and motivating way. It will also create opportunity for employees to better respond to their individual needs. Finally, this innovation will help us to retain and attract employees in an extremely challenging Belgian labor market.

Workforce

The total number of employees (full time equivalents or "FTE") on Umicore's payroll in Belgium at year-end rose from 3,025 in 2020 towards 3,037 in 2021. Umicore welcomed 221 new employees in Belgium.

People development

Training and development are considered a key investment in competence building. Umicore expects people to steer their career, including taking the necessary initiatives to continuously develop their own competencies. There was a slight increase in 2021 of the total number of formal and informal training hours (111.513 in 2021 compared to 109.603 hours in 2020). This corresponds to an average of 4,88 days per employee.

Social Objectives

As it is Umicore's mission to continue to be a sustainability leader, we introduced our 'Let's go for zero' or 'ESG-strategy' in June 2021. This strategy includes a set of social objectives, brought together under the heading 'Zero Inequality'. These social pillars of the new ESG-strategy include '[Diversity & Inclusion](#)', 'Learning & Growth', 'Agile way of working' and '[Wellbeing](#)'.

In 2021, we took a start to introduce multiple programs to support these ambitions and to become an even more diverse and inclusive workplace. Engage at Work is an extension of our Umicore values for all our colleagues. We want our colleagues to be proud to be working in an inclusive and agile organization, to learn and to share, and to take care of each other. Our Leadership Compass will encourage everyone to achieve success by sharing different perspectives, engaging all colleagues and going beyond borders, as we can all lead from where we stand.

Preferred employer

Umicore strives to be a preferred employer for both its current and future employees. In 2021 Umicore was recognized as top employer for the 17th consecutive time by the Top Employer Institute. We are recognized more particularly for outstanding achievements at the level of:

- Leadership
- Organization & change
- Employer branding and talent acquisition
- Career development
- Values and sustainability

Also this recognition helps us enormously to continue attracting talents in a Belgian labor market that becomes tighter by the day.

COVID-19

Umicore continued to closely follow-up on the pandemic by a dedicated CEO-led taskforce together with site and regional crisis teams. Priority hereby was the health of all our employees to limit if not avoid the transmission of the virus at the workplace.

Basic measures such as social distance, application of the mask-policy, working from home, workplace hygiene, travel restrictions etc. remained the cornerstone of Umicore's COVID-19 approach.

We are proud to report that partly thanks to the enforcement of strict health rules and the respect of these by our employees, production in our Belgian plants has been able to continue without having to resort to temporary unemployment.

Occupational health and safety

In 2021, Umicore SA 48 lost time accident compared to 28 in 2020. In total 1,120 days were lost. This result is far from the set goal of an accident-free workplace. As part of its Let's Go for Zero strategy, additional measures are being taken at both Group and site level to reach the already long awaited breakthrough in our safety performance.

With the leaving of the Group Safety Director, Umicore is searching again to fill that position.

Process safety

The group-wide process safety actions focused on conducting risk analyses with the aim of executing all business processes in the Umicore-defined safe zone of the risk matrix. At the end of 2021, more than 81% of the business processes had been subject to a risk analysis according to the Umicore standard. Moreover, a timeline was set for the remaining risk analyses and the implementation of the adequate measures prioritizing the higher-risk processes. The HAZOP training program continued to be enrolled in 2021, mainly online. The Group continued to conduct so-called 'deep dive' audits to evaluate the quality of the process safety standards implementation.

2. SUBSEQUENT EVENTS AND CONTINGENT LIABILITIES

Umicore is closely monitoring the developing crisis in Ukraine and assessing any resulting implications to its business. It is currently impossible to fully assess the direct and indirect impact of this crisis on Umicore in view of the fast evolving context and the resulting uncertainties.

Umicore's sales in 2021 into Russia or Ukraine were negligible on a Group level and Umicore has no meaningful operational presence in either countries. Russia however is a relevant supplier country to Umicore, to certain of its customers and to certain supply chains it serves. In particular, Russia is an important global producer of certain Platinum Group Metals (mostly Palladium and to a lesser extent Rhodium) and of Nickel. Umicore in addition to its recycling operations built a diversified supply base for these metals. Any prolonged absence of supply of these metals as a result of the crisis would increase global supply tightness and potentially disrupt supply chains in some of the markets Umicore serves (and in particular in the automotive industry). Such eventuality is likely to trigger severe metal price and trading volatility, all of which would impact the Group's profitability and cash flows.

It is currently impossible to reliably assess the direct and indirect impact of the crisis on demand for Umicore's products and services. Finally, the crisis is resulting in a sharp increase in global energy prices (driven by underlying security of supply concerns), inflating the Group's operational costs and potentially structurally impacting global economic growth if persistent.

Umicore strongly condemns all acts of war and violence and the company and its employees are engaging into humanitarian support initiatives to help to alleviate the human suffering.

3. DEVELOPMENT OF THE COMPANY.

A more elaborate description of the Company's global development and the key underlying trends, opportunities and risks can be found in the annual report on the consolidated annual accounts.

4. RESEARCH AND DEVELOPMENT

For a more detailed analysis of the research and development activities, we refer to the annual report on the consolidated annual accounts, more specifically for the projects in relation to the NBI, recycling and E&ST activities (eg clean mobility, recycling, battery materials, battery recycling,...).

5. CORPORATE GOVERNANCE STATEMENT

5.1. CORPORATE GOVERNANCE FRAMEWORK

During the financial year 2021, Umicore (also the "Company") was subject to the Belgian Code on Corporate Governance 2020 (the "**CG Code 2020**").

The English, Dutch and French versions of the CG Code 2020 can be found on the website of the Belgian Corporate Governance Committee (www.corporategovernancecommittee.be).

The governance structure of the Company and the policies and procedures of the Umicore group are described in detail the corporate governance charter of Umicore (the "**CG Charter**"), which was last amended on 9 December 2020. The CG Charter is available on the Umicore website (<https://www.umicore.com/files/secure-documents/d64b60b2-a41a-40c9-b4f1-3a5ed135f76c.pdf>) or may be obtained on request from Umicore's Group Communications Department.

Umicore has articulated its mission, values and basic organizational philosophy in a document called "*The Umicore Way*". This document spells out how Umicore views its relationship with its customers, shareholders, employees and society. It is supplemented by detailed company codes and policies, the most significant of which is the Code of Conduct.

In terms of organizational philosophy, Umicore believes in decentralization and in entrusting a large degree of autonomy to each of its business units. The business units in turn are accountable for their contribution to the group's value creation and for their adherence to group strategies, policies, standards and sustainable development approach.

In this context, Umicore is convinced that a sound corporate governance structure constitutes a necessary condition to ensure its long-term success. This implies an effective decision-making process based on a clear allocation of responsibilities. Such approach must ensure an optimal balance between a culture of entrepreneurship at the level of the business units and effective steering and oversight processes. The CG Charter deals in more detail with the responsibilities of the shareholders, the supervisory board, the CEO, the management board and the specific role of the audit committee and of the nomination & remuneration committee. The present

statements provide information on governance issues which relate primarily to the financial year 2021.

5.2. CORPORATE STRUCTURE

The management board ("*directieraad*" / "*conseil de direction*") is entrusted with all matters not specifically reserved to the supervisory board ("*raad van toezicht*" / "*conseil de surveillance*") or the shareholders' meeting by the Belgian Code of companies and associations (the "**BCCA**") or Umicore's articles of association.

The supervisory board is responsible for the general policy and the strategy of Umicore, as well as for all actions that the BCCA reserves specifically for the board of directors in a one-tier system. It appoints and dismisses the CEO and the other members of the management board and it also supervises the management board. The supervisory board is assisted in its role by an audit committee and a nomination & remuneration committee.

The day-to-day management of Umicore has been delegated to the CEO, who also chairs the management board.

The management board, under the leadership of the CEO, is responsible for proposing the overall strategy of Umicore to the supervisory board and for Umicore's operational management. It also approves the strategies of the individual business units and monitors their implementation. The management board is furthermore responsible for screening the various risks and opportunities that Umicore may encounter in the short, medium or longer term (see Risk Management section) and for ensuring that adequate systems are in place to address these. The management board is responsible for defining and applying Umicore's approach to sustainable development.

Umicore is organized in business groups which in turn comprise business units that share common characteristics in terms of products, technologies and end-user markets. Some business units are further subdivided into market-focused business lines. In order to provide a group-wide support structure, Umicore has regional management platforms in China, North America, Japan and South America. Its corporate headquarters are based in Belgium (Brussels). This centre provides a number of corporate and support functions in the areas of legal, finance, human resources, tax, internal audit, public and investor relations.

5.3. SHAREHOLDERS

5.3.1. ISSUED SHARES – CAPITAL STRUCTURE

On 31 December 2021 there were 246,400,000 Umicore shares in issue.

The following shareholders had declared a participation of 3% or more on 31 December 2021 (the below mentioned participations are those as mentioned in the transparency declarations of the resp. shareholders):

Gérald Frère, Ségolène Gallienne, Stichting Administratiekantoor Frère-Bourgeois, The Desmarais Family Residuary Trust, Groupe Bruxelles Lambert SA/NV, Arthur Capital S.à r.l.:	39,363,737 shares (15.98%)
Baillie Gifford & Co and Baillie Gifford Overseas Ltd.:	24,660,116 shares (10.01%)
BlackRock Inc.:	12,239,906 shares (4.97%)

APG Asset Management:	6,728,778 shares (3.00%)
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Also on 31 December 2021, Umicore owned 5,200,995 of its own shares representing 2.11% of its capital. Information concerning the shareholders' authorization for Umicore to purchase and/or sell its own shares and the status of such buy-backs and divestments can be consulted in the CG Charter and on Umicore's website.

During the year, 1,692,190 own shares were used in the context of the exercise of employee stock options and 110,500 shares were used for share grants, of which 10,000 to the members of the supervisory board, 52,000 to the management board members and 48,500 to senior management members.

5.3.2. DIVIDEND POLICY AND PAYMENT

In 2021, Umicore paid a gross dividend of 0.75 EUR per share relating to the financial year 2020. This was an increase by 0.375 EUR compared to the gross dividend paid in 2020 in respect of the financial year 2019.

In July 2021, the supervisory board decided to pay a gross interim dividend of 0.25 EUR per share, which was paid on 24 August 2021.

5.3.3. SHAREHOLDERS' MEETINGS IN 2021

The (annual and special) shareholders' meetings were held digitally, with the possibility of postal and proxy voting, on 29 April 2021, due to the continuing Covid-19 pandemic.

On the occasion of the annual shareholders' meeting, the shareholders approved the resolutions regarding the annual accounts, the appropriation of the results and the discharges to the directors and to the statutory auditor regarding their respective 2020 mandates. The annual shareholders' meeting also approved the grant of an identical profit premium in favour of the Umicore employees in Belgium. At the same meeting, the shareholders appointed Mrs Birgit Behrendt as new independent member of the supervisory board for a period of 3 years. Furthermore, the mandates of Mr Thomas Leysen as member of the supervisory board and of Messrs Koenraad Debackere, Mark Garrett and Eric Meurice as independent members of the supervisory board, were renewed, also for 3 years. The annual shareholders' meeting also approved the remuneration report as well as the remuneration of the supervisory board for 2021. Details of the fees paid to the members of the supervisory board in 2021 are disclosed in the remuneration report. Finally, the annual shareholders' meeting appointed EY Bedrijfsrevisoren BV / EY Réviseurs d'Entreprises SRL, represented by Marnix Van Dooren & C° BV/SRL, represented by Mr Marnix Van Dooren, and Eef Naessens BV/SRL, represented by Mrs Eef Naessens, as new statutory auditor for 3 years.

The special shareholders' meeting approved various change of control clauses in accordance with article 7:151 of the BCCA.

5.4. SUPERVISORY BOARD

5.4.1. COMPOSITION

The supervisory board, whose members are appointed by the shareholders' meeting resolving by a simple majority of votes without any attendance requirement, is composed of at least 6 members. The members' term of office may not exceed 4 years. In practice, supervisory board

members are elected for a (renewable) period of 3 years. A member of the supervisory board cannot at the same time be member of the management board.

Members of the supervisory board can be dismissed at any time following a resolution of a shareholders' meeting, deciding by a simple majority of the votes cast. There are no attendance requirements for the dismissal of supervisory board members. The BCCA provides for the possibility for the supervisory board to appoint members of the supervisory board in the event of a vacancy. The next general meeting must decide on the definitive appointment of the above member of the supervisory board. The new member completes the term of office of his or her predecessor.

On 31 December 2021, the supervisory board was composed of 9 members. On the same date, 6 supervisory board members were independent in accordance with the criteria laid down in article 3.5 of the CG Code 2020.

In terms of gender and cultural diversity, the supervisory board counted 3 women and 6 different nationalities among its 9 members on 31 December 2021. Diversity also arises from the supervisory board members' educational backgrounds which include engineering, law, economics, finance and applied languages. The supervisory board's cumulative industry experience is broad, covering automotive, electronics, chemicals, metals, energy, finance and scientific/educational sectors. It also includes people experienced in the public and private sector and members with experience in the different regions in which Umicore is active. Collectively, the supervisory board possesses strong experience of managing industrial operations and counts 7 active or former CEOs in its ranks. The supervisory board also has collective experience in disciplines that are specifically relevant to Umicore's non-financial goals such as health and safety, talent attraction and retention and supply chain sustainability.

The composition of the supervisory board underwent the following changes in 2021:

- Mrs Birgit Behrendt was appointed independent member of the supervisory board for a period of three years at the annual shareholders' meeting held on 29 April 2021,
- Mrs Liat Ben-Zur resigned as independent member of the supervisory board with effective date 29 April 2021.

Furthermore, the mandates of Mr Thomas Leysen as member of the supervisory board, and those of Messrs Koenraad Debackere, Mark Garrett and Eric Meurice as independent supervisory board members were renewed for three years on 29 April 2021.

5.4.2. MEETINGS AND TOPICS

The supervisory board held ten regular meetings in 2021. Eight of these meetings were held by means of a videoconference due to the covid-19 pandemic. On one occasion, the supervisory board also took decisions by unanimous written consent.

The matters reviewed by the supervisory board in 2021 included the following:

- financial performance of the Umicore group,
- approval of the annual and half-year financial statements,
- adoption of the statutory and consolidated annual accounts and approval of the statutory and consolidated annual reports (including the remuneration report),
- approval of the agenda of an ordinary and a special shareholders' meeting and calling of these meetings,
- environmental, social and sustainability governance (ESG) related topics, including but not limited to climate action, risk and resilience, diversity, transparency and disclosures and more,
- safety,

- investment and divestment projects,
- audit committee reports,
- funding,
- strategic opportunities and operational challenges,
- business and technology reviews and market updates,
- mergers & acquisitions projects and updates,
- annual performance review of the CEO and the other members of the management board,
- succession planning at the level of the supervisory board and the management board;
- interim dividend distribution.

The supervisory board also visited the sites in Hoboken and Olen (Belgium).

5.4.3. PERFORMANCE REVIEW OF THE BOARD AND ITS COMMITTEES

The supervisory board undertakes at least every three years an evaluation of its own performance and its interaction with the CEO and the management board, as well as its size, composition, functioning and that of the board committees.

The last performance review took place in 2020 and included a preliminary feedback round and an in-depth discussion during a supervisory board meeting held in July 2020.

5.4.4. AUDIT COMMITTEE

The audit committee's composition and the qualifications of its members are fully in line with the requirements of article 7:99 of the BCCA and of the CG Code 2020.

The audit committee is composed of three members of the supervisory board, two of them being independent. It is chaired by Mrs Ines Kolmsee.

The composition of the audit committee remained unchanged in 2021.

All the members of the audit committee have extensive experience in accounting and audit matters as demonstrated by their curriculum.

The committee met five times in 2021, including four videoconference calls. Apart from the review of the 2020 full year and the 2021 half year accounts, the audit committee reviewed reports and discussed matters related to internal audit, financial reporting, internal controls, group auditor succession and other audit-related matters. The 2022 internal audit plan was validated. The committee met with the group's auditor and reviewed and approved provided non-audit services. Members of the audit committee also discussed ad hoc matters with senior management.

5.4.5. NOMINATION AND REMUNERATION COMMITTEE

The composition of the nomination and remuneration committee's composition is fully in line with the requirements of article 7:100 of the BCCA and of the CG Code 2020.

On 31 December 2021, the nomination & remuneration committee was composed of five members, all members of the supervisory board, three of them being independent. The committee is chaired by the chairman of the supervisory board.

The composition of the nomination & remuneration committee remained unchanged in 2021.

Nine nomination & remuneration committee meetings were held in 2021, including eight videoconference calls. During the same period the committee discussed the remuneration policy for the supervisory board members, the supervisory board committee members and management board members, and the rules of the stock grant and option plans offered in 2021. The committee also discussed the succession planning at the level of the supervisory board and the management board.

5.5. MANAGEMENT BOARD

5.5.1. COMPOSITION

The management board is composed of at least four members. It is chaired by the CEO. All members of the management board, including the CEO, are appointed by the supervisory board upon recommendation of the nomination & remuneration committee.

The composition of the management board underwent the following changes in 2021:

- Mr Bart Sap was appointed EVP Catalysis and member of the management board with effective date 1 March 2021,
- Mr Stephan Csoma, former EVP Recycling, resigned as member of the management board effective 1 April 2021,
- Mrs An Steegen, former Chief Technology Officer, resigned as member of the management board effective 1 October 2021,
- Mr Mathias Miedreich was appointed CEO and chairman of the management board effective 1 October 2021,
- Mr Marc Grynberg, former CEO, resigned as CEO and member of the management board effective 1 November 2021,
- Mr Frank Daufenbach was appointed Chief Strategy Officer with effective date 6 December 2021.

Also in 2021, a number of responsibility reallocations took place within the management board, with Mr Denis Goffaux (formerly EVP Energy & Surface Technologies) being appointed EVP Recycling effective 1 April 2021 and Mr Ralph Kiessling (formerly EVP Catalysis) being appointed EVP Energy & Surface Technologies effective 1 March 2021.

On 31 December 2021 the management board was composed of 7 members, including the CEO.

5.5.2. PERFORMANCE REVIEW

The management board regularly reviews and assesses its own performance. The valuation is also discussed at the nomination and remuneration committee and presented to the supervisory board.

The last performance reviews of the CEO and the other members of the management board took place on 10 February 2021.

5.6. RELEVANT INFORMATION IN THE EVENT OF A TAKEOVER BID

5.6.1. RESTRICTIONS ON TRANSFERRING SECURITIES

Umicore's articles of association do not impose any restriction on the transfer of shares or other securities.

The Company is furthermore not aware of any restrictions imposed by law except in the context of the market abuse legislation and of the lock-up requirements imposed on some share grants by the BCCA.

The options on Umicore shares as granted to the CEO, to the members of the management board and to designated Umicore employees in execution of various Umicore incentive programs may not be transferred inter vivos.

5.6.2. HOLDERS OF SECURITIES WITH SPECIAL CONTROL RIGHTS

There are no such holders.

5.6.3. VOTING RIGHT RESTRICTIONS

Umicore's articles of association do not contain any restriction on the exercise of voting rights by shareholders, providing the shareholders concerned are admitted to the shareholders' meeting and their rights are not suspended. The admission rules to shareholders' meetings are articulated in article 20 of the articles of association. Pursuant to article 7 of the articles of association, if a share is the subject of concurrent rights, the rights attached to these shares are suspended until one person is designated as owner vis-à-vis the Company.

To the supervisory board's best knowledge, none of the voting rights attached to the shares issued by the Company were suspended by law on 31 December 2021, save for the 5,200,995 shares held by the Company itself on that date (article 7:217 §1 of the BCCA).

5.6.4. EMPLOYEE STOCK PLANS WHERE THE CONTROL RIGHTS ARE NOT EXERCISED DIRECTLY BY THE EMPLOYEES

The Company has not issued such employee stock plans.

5.6.5. SHAREHOLDERS' AGREEMENTS

To the supervisory board's best knowledge there are no shareholders' agreements which may result in restrictions on the transfer of securities and/or the exercise of voting rights.

5.6.6. AMENDMENTS TO THE ARTICLES OF ASSOCIATION

Save for capital increases decided by the supervisory board within the limits of the authorized capital, only an extraordinary shareholders' meeting is authorized to amend Umicore's articles of association. A shareholders' meeting may only deliberate on amendments to the articles of association – including capital increases or reductions, mergers, de-mergers and a winding-up – if at least 50% of the subscribed capital is represented. If the above attendance quorum is not reached, a new extraordinary shareholders' meeting must be convened, which will deliberate regardless of the portion of the capital represented. As a general rule, amendments

to the articles of association are only adopted if approved by 75% of the votes cast. The BCCA provides for more stringent majority requirements in specific instances, such as the modification of the corporate object or the company form.

The Company's articles of association were not amended in 2021.

5.6.7. AUTHORIZED CAPITAL – BUY-BACK OF SHARES

The Company's capital may be increased following a decision of the supervisory board within the limits of the so-called "*authorized capital*". The authorization must be granted by an extraordinary shareholders' meeting; it is limited in time and amount and is subject to specific justification and purpose requirements.

The extraordinary shareholders' meeting held on 26 April 2018 (resolutions published on 29 May 2018) renewed the authorization granted to the supervisory board¹ to increase the Company's share capital. The supervisory board is authorized to increase the capital in one or more times by a maximum amount of 55,000,000 EUR. The authorization will lapse on 28 May 2023 but it can be renewed.

Up until 31 December 2021, the supervisory board has once made use of its powers under the above authorized capital, i.e. when it resolved on 15 June 2020 to issue senior unsecured convertible bonds due 2025 for an aggregate principal amount of 500,000,000 EUR. These convertible bonds carry a zero-coupon and their initial conversion price amounts to 55.32 EUR per share. In connection with the issuance of these convertible bonds, the supervisory board resolved to disapply the preference subscription right of existing shareholders in accordance with articles 7:191 juncto 7:198 of the BCCA. The terms of the convertible bonds provide that the bonds can be converted in to new shares and/or existing shares; in case of new shares, they will be issued in the framework of the authorized capital. The above terms also provide for specific cases of early redemption at the option of the Company and/or the bondholders.

The exact amount to be allocated on the above authorized capital limit of 55,000,000 EUR will be determined, as the case may be, upon (full or partial) conversion of the convertible bonds into new shares.

Following a resolution of the extraordinary shareholders' meeting held on 26 April 2018, the Company is authorized to acquire own shares on a regulated market within a limit of 10% of the subscribed capital, at a price per share comprised between 4 EUR and 100 EUR and until 31 May 2022 (included). The same authorization was also granted to the Company's direct subsidiaries. The Company acquired 1,270,000 own shares in 2021 in implementation of the above authorization.

5.6.8. AGREEMENTS BETWEEN THE COMPANY AND ITS DIRECTORS OR EMPLOYEES PROVIDING FOR COMPENSATION IF THEY RESIGN, OR ARE MADE REDUNDANT WITHOUT VALID REASON, OR IF THEIR EMPLOYMENT CEASES BECAUSE OF A TAKE-OVER-BID

For a closed group of employees an individual agreement has been put in place, applicable in the event of a dismissal within 12 months after a change of control over the Company. As far as the members of the management board are concerned, reference is made to the remuneration policy.

¹ The authorization was originally granted to the former board of directors, but this authorization was automatically vested in the supervisory board following the adoption of the two-tier board structure by the extraordinary shareholders' meeting held on 30 April 2020.

5.7. CONFLICTS OF INTERESTS (art. 7:115 through 7:117 BCCA)

During 2021, no conflicts of interests or decisions/transactions as defined under articles 7:115 through 7:117 BCA were discerned at the level of the supervisory board or the management board.

5.8. STATUTORY AUDITOR

Pursuant to the European Regulation 537/2014 of 16 April 2014 on specific requirements regarding statutory audit, as supplemented by the opinion of the Belgian public oversight body, PwC Bedrijfsrevisoren BV / PwC Reviseurs d'Entreprises SRL was no longer allowed to continue its statutory auditor mandate for Umicore beyond the audit of the fiscal year ending 31 December 2020, and it submitted its resignation for serious personal reasons with effective date 29 April 2021. As a consequence, the statutory audit mandate of PwC Bedrijfsrevisoren BV / PwC Reviseurs d'Entreprises SRL was terminated prematurely.

In light of the above, the annual shareholders' meeting held on 29 April 2021 appointed EY Bedrijfsrevisoren BV / EY Réviseurs d'Entreprises SRL, as new statutory auditor for a renewable period of 3 years. The statutory auditor is represented by Marnix Van Dooren & C^o BV/SRL, itself represented by Mr Marnix Van Dooren, and Eef Naessens BV/SRL, itself represented by Mrs Eef Naessens for the exercise of this mandate.

The Umicore policy detailing the independence criteria for the statutory auditor may be requested from Umicore.

5.9. CODE OF CONDUCT

Umicore operates a Code of Conduct for all its employees, representatives and supervisory or management board members. This Code of Conduct is fundamental to the task of creating and maintaining a relation of trust and professionalism with its main stakeholders namely its employees, commercial partners, shareholders, government authorities and the public.

The main purpose of Umicore's Code of Conduct is to ensure that all persons acting on behalf of Umicore carry out their activities in an ethical way and in accordance with the laws and regulations and with the standards Umicore sets through its present and future policies, guidelines and rules. The Code of Conduct contains a specific section on complaints and expressions of concern by employees and "whistle-blower" protection.

The Code of Conduct is published in Appendix 6 to the CG Charter.

5.10. MARKET MANIPULATION AND INSIDER TRADING

Umicore's policy related to market abuse including insider trading is spelled out in the Umicore Dealing Code, which can be found under Appendix 7 to the CG Charter.

5.11. COMPLIANCE WITH THE CG CODE 2020

During the financial year 2021, the Company has complied with all the provisions of the CG Code 2020, except those provisions which are deviated from, for the reasons explained hereunder in this corporate governance statement.

The sole provision of the CG Code deviated from in 2021, relates to the grant of stock options to the former CEO. As explained in the remuneration policy, which was approved by the shareholders' meeting held on 30 April 2020, the stock options granted to the former CEO vest immediately upon grant, as contractually agreed. This deviates from provision 7.11 of the CG Code 2020. However, even if they vest immediately, the options can only be exercised after three years, which is in line with the above provision 7.11.

5.12. REMUNERATION POLICY AND REMUNERATION REPORT

5.12.1. REMUNERATION POLICY

The remuneration policy (the "**Policy**"), which outlines the remuneration principles for the members of Umicore's supervisory board and management board and is effective since 1 January 2020, was approved at Umicore's annual shareholders' meeting on 30 April 2020 with 82.07% of the votes cast (disregarding the abstention votes, as provided under Belgian company law). It is available on Umicore's website:

<https://www.umicore.com/en/investors/governance/documents/remuneration-policy/>.

On 26 November 2021 the nomination and remuneration committee presented a revised remuneration policy (the "**Proposed Policy**"), which was approved by the supervisory board on 9 December 2021. The Proposed Policy will be submitted to the annual shareholders' meeting on 28 April 2022. If approved, it will apply as of 1 January 2022.

The Proposed Policy provides objectives and remuneration with an increased focus on sustainable, profitable growth, combining financial and sustainability performance in full alignment with the "*Let's go for zero*" strategy. The review also responds to feedback received from shareholders and institutional investors and contributes to Umicore's efforts to increase disclosure.

For details on the main changes, see 'Remuneration policy as of 2022' at the end of the remuneration report.

5.12.2. REMUNERATION REPORT

5.12.2.1. Remuneration for the members of the supervisory board

The remuneration of the members of the supervisory board is in accordance with the Policy and unchanged versus the previous year.

Supervisory board

- **Chairperson:** annual fixed fee: 60,000 EUR + 5,000 EUR per meeting attended + 2,000 Umicore shares + company car
- **Member:** annual fixed fee: 27,000 EUR + 2,500 EUR per meeting attended + 1,000 EUR per meeting attended in person (for foreign-based members) + 1,000 Umicore shares

Audit committee

- **Chairperson:** annual fixed fee: 10,000 EUR + 5,000 EUR per meeting attended
- **Member:** annual fixed fee: 5,000 EUR + 3,000 EUR per meeting attended + 1,000 EUR per meeting attended in person (for foreign-based members)

Nomination and remuneration committee

- **Chairperson:** 5,000 EUR per meeting attended
- **Member:** 3,000 EUR per meeting attended + 1,000 EUR per meeting attended in person (for foreign-based members)

2021 Remuneration overview members of the supervisory board

All components of the remuneration of the members of the supervisory board for the reported year are detailed in the table below.

in (€)

Name Mandate	Start date	End date	Fixed Fee	Shares (1)	Attendance Fee	Number of meetings attended Online/In person	Other (Car)	Total
Leysen T.								257.047
Chairman of the supervisory board	19/11/2008		60.000	99.440	50.000	8 / 2	2.607	
Chairman of the nomination & remuneration committee	19/11/2008				45.000	8 / 1		
Armero M.								131.720
Member of the supervisory board	30/04/2020		27.000	49.720	27.000	8 / 2		
Member of the nomination & remuneration committee	9/12/2020				28.000	8 / 1		
Behrendt B.								68.708
Member of the supervisory board	29/04/2021		18.197	33.511	17.000	4 / 2		
Ben-Zur L.								32.512
Member of the supervisory board	25/04/2017	29/04/2021	8.803	16.209	7.500	3 / 0		
Chombar F.								128.720
Member of the supervisory board	26/04/2016		27.000	49.720	25.000	8 / 2		
Member of the nomination & remuneration committee	26/04/2018				27.000	8 / 1		
Debackere K.								148.720
Member of the supervisory board	26/04/2018		27.000	49.720	25.000	8 / 2		
Member of the audit Committee	26/04/2018		5.000		15.000	4 / 1		
Member of the nomination & remuneration committee	9/12/2020				27.000	8 / 1		
Garrett M.								129.720
Member of the supervisory board	28/04/2015		27.000	49.720	26.000	9 / 1		
Member of the nomination & remuneration committee	25/04/2017				27.000	9 / 0		
Kolmsee I.								139.720
Member of the supervisory board	26/04/2011		27.000	49.720	27.000	8 / 2		
Chairman of the audit Committee	28/04/2015		10.000		26.000	4 / 1		
Meurice E.								103.720
Member of the supervisory board	28/05/2015		27.000	49.720	27.000	8 / 2		
Raets L.								121.720
Member of the supervisory board	25/04/2019		27.000	49.720	25.000	8 / 2		
Member of the audit Committee	25/04/2019		5.000		15.000	4 / 1		

(1) The share grant relates to the services rendered in the reported year. The shares were granted on 14 May 2021 and were valued at the fair market value of the share at 49.72 EUR, equivalent to the lowest of the closing share price on the day before the delivery date and the average closing price of the last 30 calendar days before delivery date.

5.12.2.2. Remuneration for the CEO and the other members of the management board

The remuneration of Mr Marc Grynberg and the other members of the management board was reviewed by the supervisory board on 10 February 2021, on the basis of recommendations from the nomination and remuneration committee following a comparison survey with BEL20 and European peer companies.

The remuneration for Mr Grynberg and other members of the management board included in 2021 the following components: fixed remuneration, variable compensation, share-based compensation, pension plans and other benefits.

Remuneration former CEO (Mr Marc Grynberg)

On proposal of the nomination and remuneration committee, the supervisory board of 10 February 2021 decided to maintain the annual fixed remuneration of Mr Grynberg at 720,000 EUR and the annual variable cash remuneration potential at 700,000 EUR.

80,000 stock options were granted for 2021 as part of the annual Umicore Incentive Stock Option Plan. In addition, the supervisory board of 15 February 2022 decided to grant 8,334 Umicore shares for services rendered in the reported year. These shares are subject to a 3 year lock-up and are not subject to forfeiture conditions.

Umicore and Mr Grynberg decided in mutual agreement to terminate the CEO contract with effect on 1 November 2021. In view of Mr Grynberg's long service within Umicore and within the mandate of CEO, the supervisory board decided, on proposal of the nomination and remuneration committee, to pay to Mr Grynberg an amount of 1,800,000 EUR gross.

All components of the remuneration earned by Mr Grynberg for the reported year are detailed in the table below.

Remuneration CEO (Mr Mathias Miedreich)

On proposal of the nomination and remuneration committee, the supervisory board of 25 May 2021 decided to appoint Mr Mathias Miedreich as CEO. Mr Miedreich started the CEO mandate as of 1 October 2021.

The annual fixed remuneration of Mr Miedreich has been set at 1,000,000 EUR. The undeferred and deferred variable compensation plans for the year of performance 2021 were not applicable to Mr Miedreich. Mr Miedreich will participate in the short- and long-term variable compensation programs as of the year of reference 2022. The total variable remuneration target has been set at 1,200,000 EUR.

A sign-on fee of 1,000,000 EUR was paid in 2021 to cover the loss of unvested variable remuneration and equity awards Mr Miedreich faced when changing companies.

Mr Miedreich has been enrolled in the defined contribution plan, as in place for the other members of the management board joining as of 1 July 2018. He is in addition entitled to death-in-service and disability benefits and the usual benefits such as a company car, medical insurance and representation allowance. The company also pays for the tuition fees (secondary school) in Belgium.

The supervisory board of 15 February 2022 decided to grant 500 Umicore shares for services rendered in the reported year. These shares are subject to a 3 year lock-up and are not subject to forfeiture conditions.

All components of the remuneration earned by Mr Miedreich for the reported year are detailed in the table below.

Remuneration other members of the management board

On proposal of the nomination and remuneration committee, the supervisory board of 10 February 2021 decided to maintain the fixed remuneration of each other member of the management board at 440,000 EUR. The annual variable cash remuneration potential increased from 380,000 EUR to 400,000 EUR. 30,000 stock options per person were offered in 2021 (prorated for Messrs Bart Sap and Stephan Csoma) as part of the annual Umicore Incentive Stock

Option Plan. Mr Denis Goffaux received 10,000 additional stock options following his foreign assignment in South Korea.

On proposal of the nomination and remuneration committee, the supervisory board of 20 September 2021 decided to appoint Mr Frank Daufenbach as member of the management board, starting as of 6 December 2021. The annual fixed remuneration of Mr Daufenbach has been set at 440,000 EUR. The undeferred and deferred variable compensation plans for the year of performance 2021 were not applicable to Mr Daufenbach. Mr Daufenbach will participate in the short- and long-term variable compensation programs as of the year of reference 2022.

The supervisory board of 15 February 2022 decided to grant 7,000 Umicore shares per person for services rendered in the reported year (pro-rated for Messrs Stephan Csoma and Bart Sap, and Mrs. Steegen). Mr Daufenbach received 143 Umicore shares. These shares are subject to a 3 year lock-up and are not subject to forfeiture conditions.

All components of the remuneration earned by the other members of the management board for the reported year are detailed in the table below.

Remuneration members of the management board – Overview 2021

in (€)

Name Position	Mandate Start date End date	Fixed Compensation (1)	Undeferred Variable 50% (2)	Deferred Variable 50% (3)	Shares (4)	Stock Options (5)	Pension Plans (6)	Other (7)	Total	Ratio fixed (8)	Ratio variable (9)
Grynberg M. CEO	19/11/2008 31/10/2021	600.000	300.000	448.000	276.855	684.800	186.118	1.853.020	4.348.792	83%	17%
Miedreich M. CEO	1/10/2021	250.000	0	0	16.610	0	52.200	1.019.502	1.338.312	100%	0%
Csoma S. EVP	01/11/2012 31/03/2021	110.000	45.000	243.200	58.135	0	35.979	12.733	505.047	43%	57%
Daufenbach D. EVP	6/12/2021	31.884	0	0	4.750	0	6.657	452	43.744	100%	0%
Goffaux D. EVP	01/07/2010	440.000	140.000	243.200	236.787	342.400	130.780	74.385	1.607.551	76%	24%
Kiessling R. EVP	01/02/2019	440.000	190.000	222.933	234.412	256.800	91.872	73.594	1.509.611	73%	27%
Nolens G. EVP	01/07/2015	440.000	170.000	243.200	232.540	256.800	139.396	17.684	1.499.620	72%	28%
Platteeuw F. CFO	01/11/2012	440.000	190.000	243.200	232.540	256.800	140.284	24.279	1.527.103	72%	28%
Sap B. EVP	01/03/2021	366.667	158.333	0	193.805	214.000	76.560	5.806	1.015.171	84%	16%
Steegen A. EVP	01/10/2018 30/09/2021	330.000	112.500	243.200	174.405	256.800	68.904	17.622	1.203.431	70%	30%
Reymondet P. EVP	01/08/2003 31/01/2019	-	-	20.267	-	-	-	-	20.267	0%	100%

(1) The fixed compensation includes the fixed remunerations from Umicore entities.

(2) The undeferred variable has been determined in accordance with the Policy and relates to the reported year 2021. The pay-out was done in 2022 in cash.

(3) The deferred variable relates to the reference year 2019 and takes into account, over the years 2019-2020-2021, an average ROCE of 15.6%, resulting in a pay-out of 81% of the 2019 deferred target, and a compounded average EBIT growth% of 23.7%, resulting in a pay-out of 47% of the 2019 deferred target. The pay-out was done in 2022 in cash, except for Messrs Grynberg, Goffaux and Sap and Mrs. Nolens (for 50%), who received the variable in the form of shares.

(4) The share grant relates to the services rendered in the reported year 2021 in the mandate of member of the management board. The shares were granted on 16 February 2022 and were valued at the fair market value of the share at 33.22 EUR, equivalent to the lowest of the closing share price on the day before the delivery date and the average closing price of the last 30 calendar days before delivery date. For German and Korean tax purposes,

- the shares were valued at respectively 33.54 EUR (lowest market quotation of the shares on the delivery date), 35.50 EUR (the closing share price on the delivery date).
- (5) The stock option grant relates to the services rendered in the reported year 2021 in the mandate of member of the management board. The stock options were granted on 11 February 2021 and were valued at a notional value of 8.56 EUR per option according to the Black & Scholes formula. Mr Csoma did not accept the 2021 stock options offer.
- See table below for all stock option transactions in the course of the reported year.
- (6) Includes DC and DB contributions (service cost).
- (7) Includes the representation allowance, benefit in kind company car, insurance benefits and additional benefits for Mr Goffaux following his foreign assignment in South Korea (housing, mobility premium, medical insurance), and for Mr Kiessling for his frequent and extensive presence in Asia (mobility premium). It also includes the long service recognition premium for Mr Grynberg and the payment of the sign-on fee and tuition fees for Mr Miedreich.
- (8) $(1)+(4)+(5)+(6)+(7)$ /Total remuneration
- (9) $(2)+(3)$ /Total remuneration

5.12.2.3. Comparative information on the change of remuneration – pay ratio

Below table provides an overview on the annual change of remuneration for the CEO, the other members of the management board (in aggregate), the mandates within the supervisory board and the committees, the average employee remuneration on a full-time equivalent basis and the performance of the Company. Incomplete years of remuneration due to a start or end of the mandate in the course of the reference year, have been adjusted to an annual base. The number of shares in the table represents for all years the number of shares taken into account the share split of 16 October 2017.

The average employee remuneration relates to Umicore (Belgium), in accordance with applicable legal provisions.

Annual Change		2017 vs 2016	2018 vs 2017	2019 vs 2018	2020 vs 2019	2021 vs 2020	Comments
Remuneration management board	Type of remuneration						
CEO	Fixed	3,0%	2,9%	0,0%	2,9%	0,0%	
	Variable	27,0%	-24,8%	-5,6%	37,9%	57,7%	
	Number of shares	0,0%	0,0%	-3,8%	0,0%	0,0%	
	Number of options	0,0%	0,0%	-6,7%	0,0%	-31,4%	
	Pension + other	4,8%	1,1%	8,2%	13,0%	6,7%	(1)
Members of the management board (excl. CEO)	Fixed	2,5%	3,3%	0,4%	4,5%	0,0%	
	Variable	31,1%	-28,0%	18,3%	10,6%	58,2%	
	Number of shares	0,0%	0,0%	-5,4%	0,0%	-0,9%	
	Number of options	0,0%	0,0%	-14,3%	5,6%	0,0%	
	Pension + other	-7,4%	-2,3%	1,9%	13,8%	-6,1%	
Remuneration supervisory board	Type of remuneration						
Chairman supervisory board	Fixed	0,0%	50,0%	0,0%	0,0%	0,0%	
	Attendance fee/meeting	0,0%	0,0%	0,0%	0,0%	0,0%	
	Number of shares	0,0%	0,0%	0,0%	0,0%	0,0%	
Chairman audit committee	Fixed	0,0%	0,0%	0,0%	0,0%	0,0%	
	Attendance fee/meeting	0,0%	0,0%	0,0%	0,0%	0,0%	
	Number of shares	-	-	-	-	-	
Chairman nomination & remuneration committee	Fixed	-	-	-	-	-	
	Attendance fee/meeting	0,0%	0,0%	0,0%	0,0%	0,0%	
	Number of shares	-	-	-	-	-	
Member supervisory board	Fixed	35,0%	0,0%	0,0%	0,0%	0,0%	
	Attendance fee/meeting	0,0%	0,0%	0,0%	0,0%	0,0%	
	Number of shares	0,0%	0,0%	0,0%	0,0%	0,0%	
Member audit committee	Fixed	0,0%	0,0%	0,0%	0,0%	0,0%	
	Attendance fee/meeting	0,0%	0,0%	0,0%	0,0%	0,0%	
	Number of shares	-	-	-	-	-	
Member nomination & remuneration committee	Fixed	-	-	-	-	-	
	Attendance fee/meeting	0,0%	0,0%	0,0%	0,0%	0,0%	
	Number of shares	-	-	-	-	-	
Average employee remuneration on a full time equivalent basis							
% change versus previous year		5,1%	3,6%	3,7%	2,7%	7,5%	
Company's performance							
		2017	2018	2019	2020	2021	
ROCE		15,1%	15,4%	12,6%	12,1%	22,2%	
EBIT M€		410	514	509	536	971	
% ROCE change versus previous year		3,4%	2,0%	-18,2%	-4,0%	83,5%	
% EBIT change versus previous year		16,8%	25,4%	-1,0%	5,4%	81,1%	

(1) The long service recognition premium not included for this comparison.

The pay ratio 2021 between the highest and lowest pay level at Umicore (Belgium) was equal to 57. The ratio takes into account the total remuneration on a full-time equivalent basis, including fixed, variable and share-based remuneration, other incentive premiums, plans and benefits. Exceptional payments are excluded from the calculation.

5.12.2.4. Share and share option ownership and transactions 2021

Management board share option transactions 2021

The below table provides an overview of the number of stock options granted for the services rendered in 2021 in the mandate of member of the management board, the number of stock options exercised and expired in the course of the reported year, as well as the main provisions of the outstanding stock option plans.

Transactions in the reported year 2021					
Name Position	Options Granted		Options Exercised		Options Expired
Grynberg M. CEO (1)	ISOP 2021	80.000	ISOP 2015	75.000	0
			ISOP 2016	150.000	
			ISOP 2017	150.000	
Miedreich M. CEO (2)	ISOP 2021	0	-	-	-
Csoma S. EVP (3)	ISOP 2021	0	ISOP 2017	35.000	0
Daufenbach F. EVP (4)	ISOP 2021	0	-	-	-
Goffaux D. EVP	ISOP 2021	40.000	ISOP 2016	35.000	0
			ISOP 2017	35.000	
			ISOP 2018	35.000	
Kiessling R. EVP	ISOP 2021	30.000	ISOP 2017	12.000	0
Nolens G. EVP	ISOP 2021	30.000	ISOP 2014	12.000	0
			ISOP 2015	12.000	
			ISOP 2016	35.000	
			ISOP 2017	35.000	
Platteeuw F. CFO	ISOP 2021	30.000			0
Sap B. EVP (5)	ISOP 2021	27.000	ISOP 2018	9.000	0
Steegeen A. EVP (6)	ISOP 2021	30.000			0
Main provisions of the outstanding stock option plans					
ISOP Plan	Grant Date	Exercise Price *	Exercise window Start End		
2021	11/02/2021	47,080	11/02/2024 - 10/02/2028		
2020	10/02/2020	42,050	10/02/2023 - 09/02/2027		
2019	11/02/2019	34,080	01/03/2022 - 10/02/2026		
2018	09/02/2018	40,900	01/03/2021 - 08/02/2025		
2017	13/02/2017	25,500	01/03/2020 - 12/02/2024		
2016	05/02/2016	16,632	01/03/2019 - 04/02/2023		
2015	09/02/2015	17,289	01/03/2018 - 08/02/2022		

(1) till 31/10/2021
(2) as of 01/10/2021
(3) till 31/03/2021
(4) as of 06/12/2021
(5) as of 01/03/2021
(6) till 30/09/2021

Details of all options exercised and other share-related transactions can be found on the FSMA website.

Management board share grant 2021

The below table provides an overview of the number of shares granted in 2021 for the services rendered in 2020 in the mandate of member of the management board. The shares were granted on 11 February 2021 and were valued at the fair market value of the share at 47.08 EUR, equivalent to the lowest of the closing share price on the day before the delivery date and the average closing price of the last 30 calendar days before delivery date. For German

and Korean tax purposes, the shares were valued at respectively 47.09 EUR, 48.00 EUR. The shares are subject to a 3 year lock-up until 10 February 2024 included, and are not subject to forfeiture conditions.

Name Position	Number of shares received in 2021	Comment
Grynberg M. CEO (1)	10.000	
Csoma S. EVP (2)	7.000	
Goffaux D. EVP	7.000	
Kiessling R. EVP	7.000	
Nolens G. EVP	7.000	
Platteeuw F. CFO	7.000	
Steegen A. EVP (3)	7.000	

(1) till 31/10/2021

(2) till 31/03/2021

(3) till 30/09/2021

As per the Policy, the CEO is required to build up, within 3 years from the date of appointment, and to retain minimum 30,000 Umicore shares throughout his tenure. This requirement is also applicable to the other members of the management board, in respect of a minimum of 15,000 shares.

On 31 December 2021 the members of the management board reached this minimum shareholder requirement, with exception of Messrs Miedreich, Daufenbach, Kiessling and Sap, being still in the 3 years' time frame to build up the required minimum.

The members of the management board collectively held a total number of 212,747 shares on 31 December 2021.

Supervisory board share grant 2021

The below table provides an overview of the number of shares granted in 2021 to the members of the supervisory board for the services rendered in 2021. The shares were granted on 14 May 2021 and were valued at the fair market value of the share at 49.72 EUR, equivalent to the lowest of the closing share price on the day before the delivery date and the average closing price of the last 30 calendar days before delivery date. The shares have to be held until at least one year after the member leaves the supervisory board and until at least three years after the delivery date.

Name Mandate in the supervisory board	Shares held by serving members on 31 Dec 2021	Number of shares received in 2021	Comment
Leysen T. Chairman	814.000	2.000	
Armero M. Member	1.669	1.000	
Behrendt B. Member	674	674	Pro rata the services in 2021 as of 29/04/2021
Ben-Zur L. Member until 29/04/2021		326	Pro rata the services in 2021 until 29/04/2021
Chombar F. Member	5.684	1.000	
Debackere K. Member	3.684	1.000	
Garrett M. Member	15.386	1.000	
Kolmsee I. Member	9.610	1.000	
Meurice E. Member	6.666	1.000	
Raets L. Member	2.000	1.000	

The members of the supervisory board collectively held a total number of 859,373 shares on 31 December 2021.

5.12.2.5. Approval of the 2020 remuneration report

The 2020 remuneration report was approved by the shareholders' meeting with a majority of 81.49% of the votes cast (disregarding the abstention votes, as provided under Belgian company law).

5.12.2.6. Remuneration policy as of 2022

The Policy has been revised as part of the review of the overall company strategy. The purpose of the changes, as reflected in the Proposed Policy, is to ensure Umicore's remuneration structure and policy are both in line with current international remuneration trends and that they reward fairly and responsibly with a clear link to sustainable performance and the delivery of long-term value.

The Proposed Policy also responds to feedback received from shareholders and institutional investors and contributes to Umicore's efforts to increase disclosure, in particular around our performance goals in relation to variable pay.

For the establishment of the Proposed Policy, the nomination and remuneration committee has taken market benchmarks into consideration with the aim to offer a well-balanced

remuneration, tailored specifically to its market segments and scale, ensuring that Umicore can attract, motivate and retain the right talent for the management and supervisory board.

The proposed changes relate to the remuneration of the members of the management board:

- Revised short- and long-term variable remuneration plans, adding next to revised financial goals also sustainability objectives in alignment with Umicore’s “Let’s go for zero” strategy.
- Replacement of the current deferred cash compensation plan with a Performance Share Unit Plan (PSU plan) for the long-term variable remuneration.
- Reduced number of unconditional share awards, redistributed over increased variable remuneration and fixed annual fee. A pay mix with a higher portion of variable remuneration reinforces the link between reward and sustainable performance.
- Increased timescale of shareholding build-up from 3 to 5 years.
- Possibility to grant a sign-on fee for external recruitment to cover the loss of unvested variable remuneration and equity awards faced by the individual when changing companies.

The Proposed Policy will be submitted to Umicore’s annual shareholders’ meeting on 28 April 2022, and if approved, will apply as of 1 January 2022, further strengthening alignment to Umicore’s strategic objectives and driving strong sustainable performance.

Alignment to strategic objectives

The short- and long-term variable programs have been redesigned to further strengthen high performance to achieve Umicore’s strategic objectives, delivering sustained superior shareholder value and contributing to a cleaner and healthier world. Including stretched and achievable targets in the variable remuneration demonstrates Umicore’s commitment to achieve meaningful progress against the “Let’s go for zero” goals and to enhance sustainable long-term value creation.

Short-term incentive The annual variable compensation plan Year of reference 2022

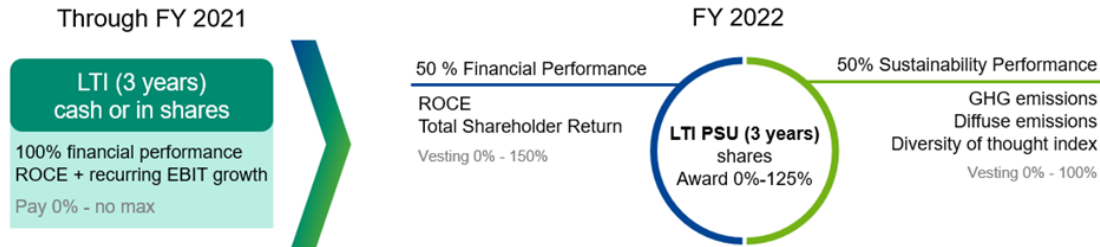


The proposed short-term variable compensation plan shifts from fully individual and discretionary to a balanced and specified remuneration:

- Group financial performance objectives are split evenly between the quality of the financial results (ROCE) and company growth (Actual adjusted EBITDA versus targeted adjusted EBITDA at like-for-like precious metal prices).
- Group sustainability performance objectives are split between diversity (zero inequality), health and safety (zero harm), in line with Umicore’s “Let’s go for zero” strategy.
- Individual performance objectives are based on financial performance, progress against business and sustainability strategic objectives (tied to economic performance, value chain and ESG goals) and adherence to the Umicore values.

See below table for more details on the 2022 performance objectives.

Long-term incentive Performance Share Unit plan (PSU) Year of reference 2022



The proposed PSU plan replaces the cash deferred variable program, and moves from 100% ROCE and EBIT to balanced financial and ESG targets:

- Group financial performance objectives are split evenly between average ROCE and Total Shareholder Return versus a peer group. The peer group is composed of Air Liquide, Albemarle, Aurubis, BASF, Boliden, Clariant, Croda, Johnson Matthey, LG Energy Solution, Linde, Samsung SDI, Solvay. The supervisory board will review the peer group from time to time to ensure it is as relevant as possible.
- Group sustainability performance objectives are in line with Umicore's "Let's go for zero" strategy and relate to climate, health & safety and diversity. A Diversity of Thought Index has been designed at the level of senior management and focuses on how Umicore is moving the needle in terms of demographic and cognitive diversity through 3 pillars, gender diversity, international diversity and diversity of experience.

See below table for more details on the 2022 performance objectives

Key features of the PSU plan:

- The performance period is three years.
- The PSUs are granted conditionally and vest after three years from the date of grant, depending on the achievement of the pre-set performance goals.
- A service condition applies for the members of the management board joining as of 1 April 2021.

	Weight	2022 Target Award %	Threshold Award %	Maximum Award %
Annual Variable compensation plan (1y performance)				
ROCE	15%	12.5% 100% award	7.5% 0% award	17.5% 150% award
Adjusted EBITDA	15%	Defined by the supervisory board*	95% 50% award (Below 90%, 0% award)	105% 150% award
Process Safety Event Frequency Rate	5%	Reduction of 10% by 2022 versus 2021 + the absence of process safety events with material environmental or health impact	90% 0% award	100% 100% award
Total Recordable Injury Rate (TRIR)	10%	Reduction of 5% by 2022 versus 2021	90% 0% award	100% 100% award
Recruitment of women managers	5%	35% recruited	30% recruited 0% award	35% recruited 100% award
Individual performance	50%	Defined yearly	0% award	120% award
Performance Share Unit Plan (3y performance)				
ROCE	25%	12.5% 100% award	7.5% 0% award	17.5% 150% award
Total Shareholder Return (TSR)	25%	Ranked in top 50% of 12 peers	Sixth place 25% award (Ranked outside the Top 50%, 0% award)	First place 150% award
GHG emissions	25%	Scope 1+2: Reduction of 6.2% by 2024 versus 2019 Scope 3: Submit scope 3 target to SBTi by the end of June 2022 for validation	90% 0% award Not reached 0% award	100% 100% award Reached 100% award
Diffuse emissions	12,50%	Reduction of 14.7% lead/38.8 % arsenic by 2024 versus 2021	90% 0% award	100% 100% award
Diversity of thought index	12,50%	Increase of 12% by 2024 versus 2021	90% 0% award	100% 100% award

*Umicore does not disclose the adjusted EBITDA target which is commercially sensitive information.

Driving strong sustainable performance

The number of unconditional share awards will reduce as of the year of performance 2022 and will be redistributed over increased variable remuneration and fixed annual fee. The remuneration composition for the CEO shifts from 80% fixed and 20% variable (former CEO pay mix) to 60% fixed and 40% variable, and for the members of the management board from 70% fixed and 30% variable to 60% fixed and 40% variable. The total variable remuneration consists of 35% sustainability objectives, 40% financial objectives and 25% individual. This revised pay mix with a higher portion of variable remuneration reinforces the link between reward and strong sustainable performance.

5.13. RISK MANAGEMENT AND INTERNAL CONTROL

Each business unit operates in an environment that carries specific growth expectations and differing degrees of market and technological uncertainty that could impact strategic objectives. As such, the primary source of risk and opportunity identification lies within the business units and each business unit is responsible for the mitigation of its own risks. Mitigating actions are systematically reported corresponding to the respective strategic objectives and identified risks.

Under the auspices of the management board, specific corporate departments are also tasked with managing and mitigating certain risks and with ensuring that adequate systems are in place to address them. These risks cover Group-wide elements that extend beyond the purview of individual business units, (e.g., financial, strategic, social, reputational, climate and environmental-related risks and opportunities) in the short, medium or longer term. The audit committee of the Supervisory Board reviews all financial and non-financial risks of the Company.

5.13.1. OUR INTERNAL CONTROL SYSTEM

Internal control mechanisms exist throughout Umicore to provide management with reasonable assurance of our ability to achieve our objectives. They cover:

- effectiveness and efficiency of operations,
- reliability of financial processes and reporting,
- compliance with laws and regulations,
- mitigation of errors and fraud risks.

Umicore adopted the COSO framework for its enterprise risk management and has adapted its various constituents within its organization and processes. The Umicore Way and the Code of Conduct are the cornerstones of the internal control environment; together with the concept of management by objectives and through the setting of clear roles and responsibilities, they establish the operating framework for the Company.

Specific internal control mechanisms have been developed by business units at their level of operations, while shared operational functions and corporate services provide guidance and set controls for cross-organizational activities. These give rise to specific policies, procedures and charters covering areas such as corporate security, environment, health and safety, human resources, information systems, legal, trade compliance, research and development and supply chain management.

Umicore operates a system of Minimum Internal Control Requirements (“**MICR**”) specifically to address the mitigation of financial risks and to enhance the reliability of financial reporting.

Umicore’s MICR framework requires all group entities to comply with a uniform set of internal controls in 12 processes.

Within the internal control framework, specific attention is paid to the segregation of duties and the definition of clear roles and responsibilities. MICR compliance is monitored by means of self-assessments to be signed off by senior management. The outcome is reported to the management board and the audit committee.

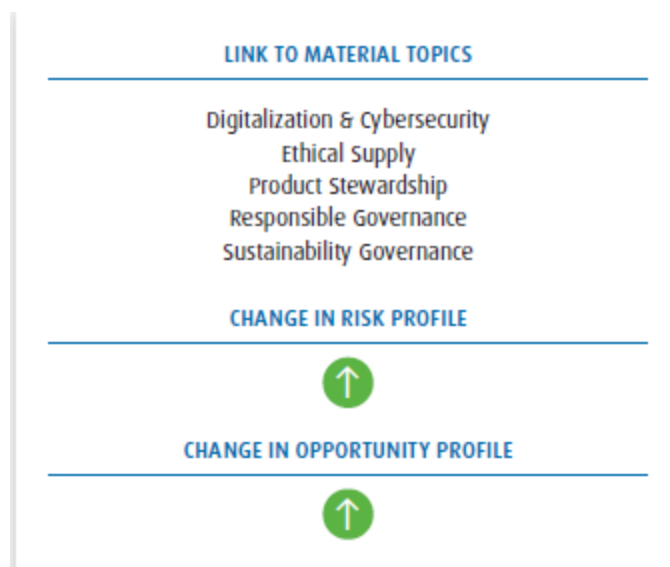
Out of the 12 control cycles, 3 cycles (Financial Closing and Reporting, Order to Cash and Treasury Management) were assessed in the course of 2021 by the 99 control entities currently in scope. Risk assessments and actions taken by local management to mitigate potential internal control weaknesses identified through prior assessments are monitored continuously. The Internal Audit department reviews the compliance assessments during its missions.

The aim of our risk management system is to enable the company to identify risks in a proactive and dynamic way and manage or mitigate risks to an acceptable level wherever possible.

5.13.2. OPPORTUNITIES AND RISKS OVERVIEW

We take a balanced approach to managing risk and seize opportunities to deliver on our strategic goals.

5.13.2.1. Regulatory and legal context



RISK DESCRIPTION

The globally changing regulatory environment brings both threats and opportunities for Umicore. This applies not only in the countries and regions where Umicore operates, but also in those where its products are sold and used.

Umicore’s business operations are subject to a variety of increasingly stringent EHS (environment, health & safety) related laws, regulations and standards. In the **short term**, these present operational challenges for our businesses, resulting in continuous improvements and investments (hence in higher costs) and potentially in an uneven competitive environment. One of the areas in which this short-term impact is visible, is the renewal or “*ex officio*” amendment of operational (environmental) permits for Umicore’s production sites. In the course of 2021, the Flemish government imposed new and more stringent environmental

requirements for Umicore's recycling plant in Hoboken. These new and challenging requirements include, amongst others, annually declining limits for levels of lead in the blood of young children under the age of 12 living in the vicinity of the Hoboken plant. Despite Umicore's continuing efforts to reduce the harmful effects of emissions, it cannot be excluded that certain of these new targets in the Hoboken permit will not be met. As Umicore's recycling activities are concentrated on this one unique site in Hoboken, not reaching an environmental target might have a significant impact on Umicore's earnings and cash flows.

Similarly, environmental legislation can impact the way end-of-life batteries must be handled, transported and stored, which in turn can drive business decisions.

However, in the **mid- to longer term**, Umicore can benefit from these trends, especially those regarding the reduction of vehicle emissions, electrification and the circular economy. This evolving EHS regulatory framework will ultimately also be beneficial to the environment and society as new and better technologies will have to be developed and implemented, for the emissions of both production facilities and vehicles as well as to cope with resource scarcity. Changes in product content regulation in general and more specifically REACH regulation can in turn drive business options and/or technology choices.

Data protection and intellectual property rights have a significant impact on technology-driven businesses including Umicore. Failure to adequately manage data, knowledge and intellectual property rights may, in the short- and **medium-term**, have a negative impact on Umicore's businesses and freedom to operate. Despite robust mitigation measures in place, it cannot be excluded that Umicore becomes the victim of a data breach and will be fined or have to compensate victims as a result of such a breach. Umicore could be forced to take legal action against perpetrators to safeguard its intellectual property rights. Likewise, Umicore is also exposed to the risk of having to defend itself against alleged breaches of third-party IP rights, despite efforts to manage its IP portfolio actively.

Geopolitical conditions, trade legislations and restrictions continue to be a factor in Umicore's trans-border activities in short, medium and **long term**.

The growing trend towards electrification and more stringent emission control should be seen as an opportunity to Umicore's business as described in the Market chapter. However, governments might decide to postpone the implementation of such new legislation. In the short term, such delays could have a negative impact on certain parts of Umicore's business. In the medium-term, this will rather be **an opportunity** for further and increased market development, positively impacting sales and revenues.

Potential product or contractual liabilities remain risk factors to be monitored at all times.

National and international tax regulation is increasing and becoming more complex which increases the group's tax compliance related risks (particularly in the field of transfer pricing and indirect taxes such as VAT). The uncertainty associated with announced or potential tax reforms is equally increasing (both on a national level such as for example in Brazil or on an international level such as for example the OECD initiatives). These risks might impact the Group's earnings despite Umicore continuing to manage them proactively (e.g. through the recognition of uncertain tax position provisions).

RISK PROFILE

The increased complexity of the global regulatory environment is a clear sign that there is an upward shift in this risk profile, while at the same time, new opportunities will equally rise out of this more stringent legislation.

Risks and opportunities related to trade and tariffs (including export regulations regarding both goods and technologies) require close monitoring and follow-up.

The risk profile for matters related to intellectual property rights and data protection is increasing as a result of the stricter regulations and the IP landscape which has become more litigious than previously.

Despite our active management of patents and IP rights, Umicore cannot exclude that any of our patents will be violated (and we may not always be able to successfully take action to stop or obtain compensation for any such violations) nor that there will not be any litigation against the company for an alleged infringement of a third-party IP right.

RISK MITIGATION

Umicore provides continuous training on regulatory requirements to ensure compliance with applicable legislation.

Umicore is continuously and systematically monitoring the regulatory landscape on health, safety, environment and climate change, and adapting its frameworks and reporting accordingly.

To ensure ongoing compliance with EHS legislation on our industrial sites, Umicore has a well-established EHS compliance audit program and constantly monitors changes in legal requirements where it operates. For more information, see the Environment chapter.

Several initiatives have been taken and continue to be taken to reduce the possible impact of harmful emissions from Umicore's production, such as the creation of a "green zone" on and next to the Hoboken production facility as described in the Environment chapter.

Umicore closely monitors all changes in interpretation as well as guidance documents that might affect its REACH implementation strategy. In 2021 we submitted 16 additional substances for registration under REACH due to new business developments. As part of regular maintenance, we updated 96 REACH dossiers. Umicore has submitted 12 registrations in Korea in 2021 for priority chemical substances.

To mitigate the potential impact of (product) liability claims, Umicore has implemented mechanisms such as contract management and risk transfer using insurance policies, in addition to rigorous quality controls.

Umicore's dedicated Intellectual Property Team sees to it that our products have the freedom to operate and is entrusted with the management of Umicore's IP activities worldwide.

More and more governments have implemented new or enhanced legislation on data protection, such as GDPR in Europe, LGPD in Brazil, POPI in South Africa or PIPL in China. Umicore has implemented the necessary governance structures in compliance with these legislations and is closely monitoring any changes or new regulations on this topic.

To safeguard its data and innovative ideas, Umicore is providing training to its employees worldwide on how they can contribute to and ensure the protection of trade secrets. To that end, the “*I Stay Alert*” campaign was launched in 2021, consisting of several training modules and tools as described in the Information Security and Data Protection chapter.

The Umicore Trade Compliance Team closely follows and responds to global trade conditions.

Umicore continues to play an active role in informing legislators of various emission control technologies for both diesel and gasoline powered vehicles, to help legislators make informed decisions about future emission and testing norms. To manage policy risks, Umicore participates in public consultations and is a member of multiple industry associations, including sourcing, climate and business related. As described in Engaging For Impact chapter in the consolidated annual report, Umicore is supportive of challenging targets in areas such as battery regulation, as they represent opportunities for us.

Umicore is further enforcing its international tax team and increased its use of third-party advisory services to monitor and manage tax related risks.

5.13.2.2. Sustainable and ethical supply



RISK DESCRIPTION

In the short term, potential disruption in supply chains due to factors including COVID-19 restrictions, changes in trade regulation or geopolitical events and subsequent delays at borders and ports, container transportation shortage and high energy prices remains a real risk. A further source of stress in the supply relates to stricter application of regulations on transboundary movements of waste and/or bans by carriers, ports or countries to accept waste or dangerous goods. Regarding the supply of metals, securing adequate volumes of raw materials is essential in the ongoing viability of our product and service offering and in achieving our growth objectives. Responsible sourcing is a key priority and competitive edge for Umicore: when sourcing materials or through indirect procurement, we check suppliers and conduct due diligence based on a risk assessment to ensure that no harm is inflicted on people (e.g. human rights violations), the environment or society. More details about what we expect from our suppliers can be found in the Society chapter. Insufficient availability of raw materials such as palladium, rhodium or battery nickel units, combined with a lack of alternatives, can impact metal prices as described in the Metal price chapter.

In the **medium term**, price volatility and limited availability of supply remain a concern, in particular for battery materials for which demand is expected to soar or for certain platinum group metals which use is currently closely linked to internal combustion engine technology. The uncertain grade mix for battery materials may lead to inadequate supplies. Other materials such as germanium face long-term supply challenges due to changing market conditions, where there is a trend for suppliers to move downstream. With regard to sustainability and the impact of Umicore's activities on society, it is crucial we further deploy the Umicore Let's go for Zero strategy, with a supply chain that is fully certified against environment, social and governance criteria and decarbonization targets for scopes 1, 2 and 3.

In the **long term**, regarding supply, Umicore requires certain metals or metal-containing raw materials to manufacture its products and feed its recycling activities. Some of these raw materials are comparatively scarce and require very specific sourcing strategies. Obtaining adequate supplies of these materials is important for the ongoing success and growth of our business.

RISK PROFILE

Regarding battery materials in particular, demand is expected to increase massively in the coming years and decades, as is competition for the sourcing of the required materials. Regarding certain precious metals and platinum group metals in particular, physical supply is currently tight and short term sensitive to any supply or demand disruption while on a longer term sensitive to the pace of electrification and alternative drive train technologies such as fuel cells.

The impact of COVID-19 and measures taken to contain contagion are expected to continue having an impact on the availability of raw materials and in general on the supply chain, but that risk is expected to decrease and stabilize through 2023. Conversely, geopolitical risks are increasing.

Existing and upcoming laws at national and EU level on due diligence and sustainable product policy have increased awareness about the topics of responsible sourcing and sustainable value chains, in particular for designated conflict minerals (tin, tantalum, tungsten and gold) and more recently also for battery materials (cobalt, nickel, lithium). Requirements for robust due diligence management systems, compliance and reporting will only increase in the coming years for the entire supply chain, both for the impact on human rights, as well as for environmental, social and governance (ESG) criteria. Increased standards are also an **opportunity** for Umicore because of our long-standing experience in due diligence and responsible sourcing and because they will create a more level playing field for the industry.

RISK MITIGATION

Umicore has implemented policies and measures covering human rights, the right for workers to organize, collective bargaining, equal opportunities and non-discrimination, banning of child labor, banning of forced labor, consistent with International Labour Organisation (ILO) standards, as supported through a Global Framework Agreement on Sustainable Development with IndustriALL Global Union.

Umicore's policies and charters such as the Code of Conduct, Human Rights Policy and the Umicore Global Sustainable Sourcing Policy (UGSSP) illustrate our long-standing and growing experience in ensuring we only buy from suppliers who can guarantee sustainable and ethical sourcing.

In addition to these general policies, Umicore also has specific risk-based policies in force, designed to safeguard the environment and to protect Human Rights in our supply chain: “*Responsible global supply chain of minerals from conflict-affected and high-risk areas*” and “*Sustainable Procurement Framework for Cobalt*”, which are aligned with the OECD ‘Due Diligence Guidance for Responsible Supply Chains from Conflict-Affected and High-Risk Areas’ for which Umicore receives annual third-party validation.

Both policies include a robust due diligence system, which includes background screening of suppliers, a risk assessment based on country, material and supplier risk and risk mitigation actions, in combination with onsite visits and third-party audits for critical suppliers. Under the due diligence system of the Cobalt Framework, the identification of ‘red flags’ or ‘orange flags’ triggers engagement with the supplier on the related issue and an internal decision-making process involving senior management in appropriate follow-up. Umicore remains the first cathode material producer to offer certified materials from a clean and ethical origin to its customers.

Both policies are currently in the final stages of an extensive review, which will include a broadened scope for environmental, social and governance (ESG) criteria and a strengthened risk assessment and risk mitigation approach.

In addition to our continued engagement in sustainable cobalt sourcing, in 2021 Umicore also implemented due diligence in the supply of the other raw materials for batteries, e.g., nickel and lithium. The approach is directly inspired by Umicore’s experience with cobalt and follows the basic steps of the Sustainable Procurement Framework for Cobalt.

Furthermore, Umicore continues to ensure that its production operations are certified as conflict-free and receives site and metal-specific responsible sourcing certifications from the LBMA, RJC and RMI. For more information, see the Society chapter.

Regarding managing risks of critical materials and supply disruption, mitigation actions can vary depending on the materials and the position of the business unit in the market. Beyond responsible sourcing, we ensure that materials can be supplied from several reliable suppliers, we closely monitor developments in other regions and investigate other projects to diversify sourcing and we seek out secondary raw material sources and negotiate long-term contracts.

5.13.2.3. Metal price



RISK DESCRIPTION

Umicore's main risk in the **short term** is related to the volatility of metal prices. Earnings are exposed to risks relating to the prices of the metals which are processed or recycled. These risks relate mainly to the impact that metal prices have on the surplus metals recovered from materials supplied for recycling, and concern platinum, palladium, rhodium, gold, silver and a wide range of base and specialty metals.

Umicore also faces transactional price risks on metals. The majority of its metal-based transactions use global metal market references. If the underlying metal price were constant, the price Umicore pays for the metal contained in the raw materials purchased would be transferred to the customer as part of the price charged for the product. However, because of the lapse of time between the conversion of purchased raw materials into products and the sale of products, the volatility in the reference metal price creates differences between the price paid for the contained metal and the price received. Accordingly, there is a transactional exposure to any fluctuation in price between the time raw materials are purchased (when the metal is "*priced in*") and the time the products are sold (when the metal is "*priced out*"). For more information on the structural risk and on the transactional and inventory risk related to the metal prices, see the financial statements in the consolidated annual report.

Materials produced by Umicore contain precious or scarce metals which are partly sourced from in-house recycling operations and, for the balance, procured from primary metal producers. Umicore's ability to procure the required quantity of such metals is key in determining our ability to produce the materials which have been ordered by our customers. The current geopolitical tensions between Russia and Ukraine could have an influence on Umicore's supply of certain metals such as palladium in view of Russia's position as major global producer. Potential sanctions or other trade disruptions could in particular lead to delay or cessation of palladium delivery which could impact global car production and Umicore's Catalysis production levels and earnings. Such events would also fuel metal price volatility.

The availability of metals such as nickel, lithium and cobalt - as described in the Ethical and Sustainable Supply chapter above - is the main **long-term** risk.

Due to the liquidity of the metal markets for cobalt, rhodium and palladium, Umicore's impact on the metal price is limited.

RISK PROFILE

Prices for precious metals strengthened further in 2021, reaching historically high levels for precious metals and PGMs. The price of rhodium in particular increased significantly in the first half of the year, in a context of tight supply and high demand from the automotive industry. It then decreased back to 2020 levels following the semiconductor supply shortage, which impacted the automotive and many other industries.

The price of cobalt, nickel and lithium increased over the course of the year 2021. This increase is mainly driven by the growing demand for EV batteries.

As described in the Sustainable and Ethical Supply Risk chapter, metal scarcity is increasing because of supply and demand tightness and other factors such as geopolitical tensions or trade regulations.

RISK MITIGATION

For some metals quoted on futures markets, Umicore hedges a proportion of its forward metal exposure to cover part of the future price risks.

Over the course of 2021, Umicore entered additional forward contracts securing a substantial portion of its structural price exposure for certain precious metals in 2022, 2023 and 2024, thereby increasing earnings predictability. For 2022, based on the respective currently expected exposures, the following lock-ins have been secured: close to two thirds for palladium, more than half for gold, somewhat less than half for silver and close to one third for platinum and rhodium. For 2023, the expected lock-in ratios are: close to a third for gold, silver and palladium and a minor portion for platinum and rhodium. For 2024, only a minor portion has been locked in for the expected gold, silver and palladium exposures. For rhodium in particular, Umicore managed to enter forward contracts locking in a minority of expected exposures, despite the absence of a liquid futures market.

The group’s policy is to hedge the transactional risk to the maximum possible extent, primarily through forward contracts. For a selection of metals, either no derivatives markets exist, or the existing market does not offer the required liquidity to enter forward contracts. This is increasingly the case for metals gaining importance, such as cobalt and lithium. To mitigate the price risk on its transactions in these metals, Umicore maximizes the use of back-to-back hedging, matching the price reference of Purchases and sales.

Umicore is continuously increasing production of precious and scarce metals from its recycling capabilities, thereby securing a significant proportion of its metals needs. In addition, the group maintains close commercial relationships with leading primary metals producers from which it procures metals through annual or evergreen contracts.

5.13.2.4 Market



RISK DESCRIPTION

The main industries served by Umicore are automotive (clean mobility materials, recycling), consumer electronics (rechargeable battery materials, recycling, coating and electroplating solutions) and non-ferrous metal mining and refining industries (recycling activities). Umicore is sensitive to any major growth or global reduction in activity levels or market disruptions in

these industries. The changes in the automotive industry create the main risks for Umicore today.

In the **short term**, Umicore has a limited visibility on automotive demand due to the ongoing semiconductor shortage. The unclear pace of electrification also poses uncertainty in terms of demand of our products. Electrification will reduce the demand for automotive catalysts and boost the demand for rechargeable battery materials. Increased demand for rechargeable battery materials requires more production lines and sites, entailing challenges in hiring and training people, acquiring the right qualifications against the right timelines and available CapEx. This lack of visibility of demand for rechargeable battery materials is a risk in both the short and **medium term**. Geopolitical conditions can create market uncertainty in the short and medium terms.

The pace of electrification also has an influence on Umicore's catalysis and recycling activities. Since catalysts are produced with platinum group metals (PGMs), a reduced demand for catalysts has an impact on PGM prices and availability both for Umicore and society. To ensure efficient production of rechargeable battery materials, it is imperative that we have a consistent supply of metals as described in the Ethical and Sustainable Supply chapter.

In the **long term**, the transition to electrification has a positive impact on the production of rechargeable battery materials and a negative impact on the production of automotive catalysts. This changes the competitive environment. Through its current customer portfolio, Umicore is exposed to mid-nickel platforms which are being replaced, much faster than initially anticipated, by highnickel platforms. Accordingly, customers are scaling back demand projections for mid-nickel cathode material applications; also in the first half of 2021, Umicore's NMC (Nickel Manganese Cobalt) volumes reflected an unfavorable customer and platform mix in China.

Umicore's customers – the car manufacturers – concentrate the number of platforms for automotive catalysts. The market for rechargeable battery materials is becoming more crowded as new players enter. At the same time, more and more OEMs (original equipment manufacturers) are starting to produce rechargeable battery materials – in addition to Umicore's customer, they become Umicore's competitor.

This has an impact on Umicore, but with its positioning, Umicore is also influencing the changing market structure for rechargeable battery materials for the automotive industry. Umicore is uniquely positioned to give the market a closed-loop solution for cathode materials, as we are both producing cathode materials and recycling batteries. Furthermore, Umicore's recycling services are positively impacting society by enabling a shift towards an industrial future with low impact.

RISK PROFILE

As confirmed in the qualitative scenario analysis of our climate related risks and opportunities, the electrification of mobility is increasing Umicore's risk profile for the catalysis business and at the same time is increasing Umicore's **opportunity** profile for the rechargeable battery materials business.

RISK MITIGATION

Notwithstanding the limited visibility on automotive demand caused by the global semiconductor shortage, Catalysis is expected to continue to benefit from its strong market position in gasoline catalyst applications in Europe and China, which will remain, even in fast

electrification scenarios. Umicore works continuously to maintain its excellent cost position with a globally optimized production footprint and a low break-even point, which resulted in market share gains in 2021. We have the right product and technology portfolio with strong demand from our customers, also for the next waves of emission legislation such as EURO 7. These strengths will feed the value creation potential over the next decade of Umicore’s Automotive Catalysts activities in a context of declining internal combustion engine volumes.

In Energy & Surface Technologies (E&ST), Umicore is actively diversifying its customer and platform exposure and is currently in advanced qualifications with its high-nickel cathode material technology with various cell and car customers. Upon successful qualification, production for those applications is expected to ramp up to significant volumes during the second half of 2023. Increased intimacy with car OEMs and qualifications for the right platforms are ever more important, which is why we are solidifying our relationships with customers to improve our supplier status. The planned JV with Volkswagen will secure access to a significant part of the European EV market. Umicore’s agility in our operations and supply chain equip us to adapt quickly to changes in demand.

The market risk is intimately associated with the metal price risk. As described in the section Metal Price above, we hedge a proportion of our forward metal exposure to cover part of the future price risks.

The complementarity of our activities has proven to be a true competitive edge. In E&ST and Catalysis we serve the automotive market by enabling electrification on a mass scale and by offering cutting-edge technologies for clean combustion engines. Through our Recycling activities, we close our own and our customers’ materials loop and offer a unique sustainable and circular approach that will be ever more important in a world of raw materials scarcity.

Umicore will further strengthen its market position with our ambition and plan to capture growth from the next wave of sustainability-driven markets, such as fuel-cell catalysts and battery recycling.

5.13.2.5. Technology and substitution



RISK DESCRIPTION

Umicore is a materials technology group with a strong focus on the development of innovative materials and processes. The choice and development of these technologies for existing and new markets represents the single biggest **opportunity** and risk for Umicore.

In the **short term**, the main technology risk is linked to whether and when the European Union will adopt the new EURO 7 emissions standard for gasoline and diesel light duty and heavy-duty vehicles, as this would have important consequences for Umicore's technologies.

The substitution of internal combustion engines by electrical vehicles and fuel cell cars presents an **opportunity** for Umicore in the short and medium term. Apart from the opportunity for Umicore's battery materials, Umicore can leverage its catalysis expertise in hydrogen applications. Umicore's risk/opportunity depends on how well the development of our technologies will correspond to such new demands.

Achieving the best cost-performance balance for materials is a priority for Umicore and its customers. There is always a risk that customers will seek alternative materials for their products, should those of Umicore not provide this optimum balance. The risk is especially present in businesses producing materials containing expensive metals (especially those with historically volatile pricing characteristics).

In achieving an optimal cost-benefit balance, the cost efficiency of our production processes plays a key role. Hence, there is a risk that we could fall behind the competition in our operational excellence and digitalization.

It is crucial for Umicore to consistently develop winning technologies, such as in battery recycling and for cathode materials. For example, lithium iron phosphate (LFP) battery chemistry is a mainstream technology in China. This chemistry is not produced by Umicore and the risk is that LFP would become widely adopted elsewhere. A switch to solid state batteries – as a substitution for lithium-ion batteries - is an **opportunity** in the **long term** as this battery technology calls for more sophisticated materials solutions that may require Umicore's expertise.

Umicore's activities have a lasting positive impact on society. Umicore upskills its workforce by offering learning and development opportunities in areas such as digitalization and technology as described in the Innovation chapter. We are continuously improving our technologies to minimize the environmental impact from our activities. Umicore's R&D in automotive catalysts, batteries and fuel cells contribute to clean mobility and our recycling developments make industry more sustainable.

RISK PROFILE

Given the pace of the market evolution, Umicore's opportunity profile is increasing, but at the same time, the risk profile is also increasing.

RISK MITIGATION

Timely introduction of key technologies is essential. As described in the Market risk chapter, Umicore closely monitors the market and makes sure a close relationship with its customers is maintained to focus on the right technology trends at the right time. We prioritize key development projects and allocate the necessary resources. We are continuously working on the efficiency and digitalization of our R&D.

As described in the Regulatory and Legal Context risk chapter, the environmental permit for the smelter on our Hoboken site is a risk for our license to operate. To mitigate this risk, Umicore has leveraged robotic process automation (RPA) to automate the 'wind barometer' process which steers which activities on the site can be conducted according to the weather forecast. We are also evaluating whether we can engineer the slags on our Hoboken site towards a cement replacement product.

To support our **opportunity** in hydrogen technology, Umicore has set up a dedicated 'Fuel Cells' business unit and in our New Business Incubator there is a portfolio of projects around hydrogen.

To remain a pioneer in battery recycling we continuously develop and improve our battery recycling technologies taking into account technical, economic and environmental aspects and building on a decade of experience. The newest generation will be introduced in 2022.

For cathode materials, we investigate a range of chemistries and prepare them to be ready for the market. We design products both for performance and for cost-driven segments. In line with the trend to lower cobalt and nickel contents in the cost-driven segment and to mitigate the risk posed by LFP, we are developing our high lithium manganese (HLM) solution.

Umicore patents disruptive technologies. In 2021, Umicore registered 69 new patent families. For more information, see Innovation chapter.

5.13.2.6. Information security & data protection

[LINK TO MATERIAL TOPICS](#)

[Digitalization & cybersecurity](#)

[CHANGE IN RISK PROFILE](#)



[CHANGE IN OPPORTUNITY PROFILE](#)



RISK DESCRIPTION

Umicore's production plants and services are highly dependent on the availability of IT services. Cybersecurity includes our hardware, software and information protection. Due to cyber incidents, Umicore's servers or network could be blocked and data breaches could jeopardize the confidentiality of our data. Unavailability of services, disruption of the supply chains or interruption of our production facilities due to cyber-attacks could have a major impact on our customers and our financial results. Any compromise on the confidentiality of intellectual property would negatively impact our competitive advantage. Unauthorized modification of financial data would jeopardize accurate reporting to shareholders. Whether in the short, medium or long term, any cyber incident or data breach would have an immediate impact.

Beyond Umicore's own operations, we would be impacted if any of our main suppliers experiences a cyber incident. Cyber incidents can be local or global and if Umicore is attacked,

this could have consequences for our customers and as an example the automotive industry could be impacted.

RISK PROFILE

Cyber-attacks may be very focused and advanced. The expanding threat landscape and expanding digital footprint is leading to an increase in cyber-attacks. The risk profile is increasing because there are more cyber-attacks and they are becoming more sophisticated as the attacks happen in multiple layers.

In addition, due to the increased use of a digital work environment (on site and at home), the role of IT services in delivering seamless access to all corporate resources as well as ensuring information security is more important than ever.

In 2021, there was no change in opportunity profile.

RISK MITIGATION

Umicore protects its data for confidentiality, availability and integrity.

Umicore has put in place in-service training sessions for our employees about phishing and all employees are part of a mobile device management platform to protect Umicore's applications and data. In 2021, Umicore launched the '*I stay alert campaign*' on eight topics, including general topics such as confidential information and clean desk for all employees as well as topics such as trade secrets, social engineering and HR security for a specific target group of employees. The materials for these awareness campaigns will remain available and a training package is being developed.

Umicore regularly continues to assess and improve its information security, and the state of cyber resilience of its IT landscape, against evolving threats. A security operation center analyzes the logs of the systems and warns us of any suspicious movement. We have ourselves tested by ethical hackers and scan all our hardware and software to exclude technical vulnerability.

A security roadmap is being implemented which includes projects in preparation for an ISO27001/2 certification. We have passed the internal audit and the external audit has been conducted. When Umicore passes that audit, certification would be granted in the first half of 2022.

Third party expert security assessments are conducted, and both the corporate cyber security team and the corporate security department are being expanded. Umicore consistently increases its investments in security-related IT systems and applications such as backup processes, virus and access protection, authentication and encryption tools. Security-related IT controls are being extended and are tested as part of Umicore's external audit process.

5.13.2.7. Talent attraction and retention



RISK DESCRIPTION

The attraction and retention of skilled people are important factors in enabling Umicore to fulfil its strategic ambitions and to build further expertise, knowledge and capabilities in the business. This represents Umicore’s most important risk, because being unable to do so would compromise our ability to deliver on our goals on the short, medium and long term.

Umicore’s main **short term** risk remains linked to keeping our employees healthy during the coronavirus pandemic. On-site COVID-19 infections were kept to a minimum and no production site was closed in 2021. We will also have to recruit new employees due to a big wave of retirements at some production sites in the coming years.

In the **medium term**, Umicore is faced with the challenge of ensuring a safe working environment in an industrial operation combined with a deep need to foster and operationalize a new safety culture. Employee safety impacts the employees, their families and our operations. Employee wellbeing is key to both employee retention and recruitment.

Talent management poses a **medium to long term** risk. In a world of growing digitalization, there is a need to change the mindset. New competencies need to be acquired as quickly and efficiently as possible and if we cannot offer these, it may be more difficult to engage and retain our employees. Umicore aspires to have an agile workforce, so we can adapt and quickly respond to change – key elements of maintaining a competitive advantage.

Umicore’s efforts to strengthen diversity and inclusion are an **opportunity** both for the group and to increase our impact on society. Umicore goes beyond gender diversity and creates awareness with our focus on diversity of thought. As a growing company, we are looking to recruit more employees and thus create more employment around our production sites.

RISK PROFILE

The risk profile of talent attraction and retention remains unchanged. The war for talent is still very real. At the same time, the short-term risk linked to the coronavirus pandemic has

decreased, because there is a slowdown in people leaving the organization looking for stability due to the pandemic.

As Umicore is growing, our opportunity profile is increasing. Recruiting more people generates more opportunities to boost diversity in the company's workforce.

RISK MITIGATION

Employer branding campaigns, pro-active sourcing and reinforced recruitment teams are some of the initiatives we take to mitigate our main risk of talent attraction and retention. We have reinforced talent management structures, both globally and regionally, to provide sufficient internal mobility opportunities for managers and retention actions for operators. Employee wellbeing is a strategic priority.

In response to the COVID-19 pandemic, all prevention measures were taken. Employees kept distance, CO2 monitoring devices were installed in workplaces (meeting rooms, offices, control rooms etc.), ventilation systems were checked and where needed improved, working from home was possible and masks were recommended, including when this was not mandatory. The situation is monitored globally by a CEO-led dedicated task force – with a focus on protecting employees' health.

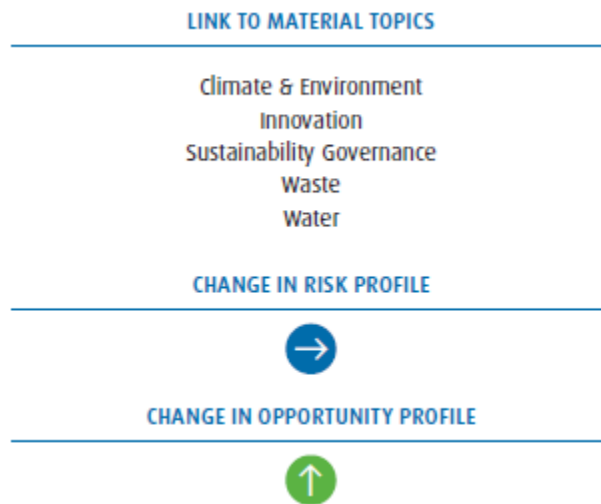
Following the Umicore's Group EHS Guidance Note, units and sites identify occupationally linked health and safety hazards and risks. Workplace injuries and occupationally related health symptoms are thoroughly investigated, reported and discussed at the site's safety committee. This information contributes to the set-up, maintenance and, where needed, improvement of a health and safety management system with the aim of preventing all workplace-related injuries and health symptoms.

A process safety management system is deployed on all sites following strict process risk analysis and risk reduction methods. Regular internal health and safety audits evaluate the quality of the implementation.

We are improving the safety culture in our production site in Hoboken, to mitigate our safety risk. Active leadership programs are in place to stimulate engagement on all levels and measures endorsed by the shop floor are implemented. Safety programs focus on behavioral aspects, improvement of equipment and processes, administrative measures and include in-service training.

In the chapter Employees, many initiatives and programs illustrate how Umicore is mitigating the risks linked to talent management and how we are developing our diversity of thought.

5.13.2.8. Climate and environment



RISK DESCRIPTION

In the **short term**, many of the climate and environmental risks are either regulatory (hyperlink Regulatory and Legal context) or linked to the impact of our operations on the environment. Increasingly stringent regulations on energy use and emissions can induce higher operational costs and our license to operate is predicated on managing the impact of our operations in the communities where we operate. Any incident in a plant can affect emissions in air or water and increase noise, impacting the immediate residential surroundings – which is in fact a risk on any time horizon. There is also an environmental risk linked to the shipment of materials. Many of the materials Umicore processes, such as scrap and residues, are classified as dangerous goods and maritime and air transport are increasingly reluctant to ship this hazardous material. The scarcity of transport could impact Umicore’s operational efficiency and there is also an impact on society, as a leakage of hazardous materials during transport could have negative consequences for the environment and for people’s health.

In the **medium term**, Umicore experiences the market risk of increasing requirements for carbon footprint of products and processes. Increasing requirements for environmental impacts such as biodiversity and land use could pose a risk and the rising cost of water is a risk in the medium and long term, as well as access to renewable energy, which is both a risk and an **opportunity**.

The consequences of climate change are the main **long-term** risk for Umicore.

Umicore has conducted climate-related risk analyses with the support of external providers ERM and PwC. Scenarios were chosen for relevance to Umicore and to represent the entire spectrum of possible future worlds, from Paris-aligned, through business as usual, to strongly increased physical risks. Short term is defined as until 2025, medium term until 2030 and long term after 2030.

In 2021, Umicore conducted a climate-related transition risks scenario analysis of [SA1] a 1.8°C scenario (RCP2.6, Paris-aligned) and a 3.0°C scenario (RCP4.5), based on the IEA ETP and WEO 2020 reports, for our own operations with a timeframe of 10 and 30 years. Umicore’s climate-related transition risks and opportunities could be market, reputation, policy & legal and technology related.

Based on our qualitative scenario analysis, in a 1.8°C scenario, Umicore has a transition risk in the automotive catalysts business as demand for catalysts might be impacted given the foreseen declining demand for cars with internal combustion engines. Most other Umicore product lines, e.g. rechargeable battery materials, fuel cells and recycling services, show transition opportunities in both the 1.8°C and 3.0°C scenarios, the degree of which is linked to the pace of the shift towards electric mobility. The impact of these scenarios is described in the Market risk chapter.

For the climate-related physical risk analysis, we chose the 3.0°C scenario (RCP4.5) and the worst-case climate change scenario (RCP8.5) until 2050 in which we identified both chronic and acute physical risks.

For both climate-related physical risk scenarios, climate change causes extreme natural events, chronic deviations in temperatures and precipitation patterns, and rising sea levels. This could impact our sites or supply chain: for example, Flanders, which is an area where Umicore has several production sites, has been declared an area in risk of drought. Umicore's main physical risks are related to flooding and water availability.

RISK PROFILE

The climate and environmental risks from a regulatory or operational point of view remained the same.

The opportunity profile has increased, because lower carbon footprint products in the clean air, e-mobility and recycling sectors are in high demand from customers. The ongoing transition to a lower carbon economy continues to present Umicore with opportunities to expand and develop processes in ways that can mitigate or address climate change and environmental risks.

RISK MITIGATION

Umicore plays a key role in the transition to a low-carbon future as our materials tackle global trends for clean air and e-mobility, and our closed loop business model tackles resource stewardship.

Our facility in Hoboken is the world's largest and most complex precious metals recycling operation, processing over 200 types of raw material and recovering over 20 different metals. We ensure that a high volume of the metals we process come from secondary sources – production scraps, residues and end-of-life materials. We can also recycle customers' residues and production scrap to help them maximize their material efficiency and then transform the recovered materials into new products. In total we recover 28 metals from our closed loop activities and we continue to adapt our processes to recycle new and more complex end-of-life products. As described in the Regulatory and Legal Context and in Environment chapters, we are mitigating the risk concerning the environmental permit in Hoboken. Umicore's recycling activity is the best mitigation to climate change, because recycling metals emits less greenhouse gases than mining metals.

To mitigate the impact of our operations, Umicore keeps to the most stringent environmental standards for air and water and works every year to improve our energy efficiency and environmental footprint despite our growth and increased production. Umicore also manages

its historical environmental legacy, ensuring adequate financial provisions are in place, which are reviewed twice a year. For more information, see the Environment chapter.

To address the market risk of increasing requirements for the carbon footprint of products and processes, Umicore performs life cycle assessments on selected products and services on a rolling and ongoing basis to sharpen insight on environmental performance, through the right choice of the chemistry, energy mix, and raw materials, including recycled materials. Umicore maps its sites in water stress areas and keeps track of water types and consumption to mitigate our risk with respect to water availability and rising costs of water. Our Procurement & Transportation department is purchasing renewable energy worldwide. These opportunities are increasing in all regions where Umicore operates.

Umicore supports the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and while full alignment with all recommendations will take more than one reporting cycle, we intensified our analysis in the past year. In 2019, we started with an analysis of physical risks and in 2021, we conducted a qualitative transition risk scenario analysis. The results of the TCFD recommended qualitative scenario analysis were discussed with the management board in 2021. Next steps in our TCFD implementation roadmap include quantifying financial impacts from climate risks and integration into our risk management system.

Umicore's businesses, strategy and financial planning reflect many climate-related risks and opportunities. Our global footprint and diverse site locations reduce our exposure to physical risks. New sites have been chosen considering proximity to customers, access to skilled workforce, excellent logistics, infrastructure and green energy. The focus of our products and services, our investments in R&D and operational excellence, our policies for collaboration with our suppliers and the objectives in our 'Let's go for zero' strategy are a few examples of these strategic choices. They are increasingly embedded in our ongoing financial planning and decision making through their integration in the BU budgeting process and the development of the ESG dashboard. In 2021, we conducted an upskilling for members of the management board focusing on TCFD reporting and climate scenario analysis. Further analysis is planned and will be repeated or refined on a recurring basis to identify risks based on current scientific findings.

6. BRANCHES

The Company has no branches.

7. CONTINUITY

The Company has no losses carried forward. Article 3:6 §1 6° of the BCCA is not applicable.

8. IMPORTANT EVENTS

We refer to §2. "*Subsequent events*" and §3. "*Development of the Company*".

9. NON-FINANCIAL INFORMATION

The non-financial information, as defined under 3:6 §4 of the BCCA, has been duly taken into account and can be found in the annual report on the consolidated accounts.

10. DISCHARGE

In accordance with legal and statutory requirements, we hereby request to discharge the supervisory board members and the statutory auditor for the exercise of their mandate for the accounting year 2021.

The supervisory board
Brussels, 24 March 2022.

DocuSigned by:
Mathias Miedreich
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Mathias Miedreich
Chief Executive Officer

DocuSigned by:
Thomas Leysen
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Thomas Leysen
Chairman