

# Rising to the challenges

Integrated Annual Report 2020

# Governance statements

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## G1 CORPORATE GOVERNANCE FRAMEWORK

During the financial year 2020, Umicore (also the “Company”) was subject to the Belgian Code on Corporate Governance 2020 (the “CG Code 2020”), which entered into force on 1 January 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](https://www.corporategovernancecommittee.be) ).

Following the entry into force of the CG Code 2020, the Company’s supervisory board adopted a new corporate governance charter (the “CG Charter”) on 30 July 2020. The CG Charter was further amended by the supervisory board on 9 December 2020. It describes in detail the governance structure of the Company and the policies and procedures of the Umicore group. The CG Charter is available on the Umicore website ( <https://www.umicore.com/storage/group/2020-07-30-cg-charter-en.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 (see G9).

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 2020.

## G2 CORPORATE STRUCTURE

The Company’s corporate structure underwent an important change during 2020 following the resolutions of the extraordinary shareholders’ meeting held on 30 April 2020, which resulted in a full alignment of the

Company’s articles of association to the new Belgian Code of companies and associations (the “BCCA”) and to the adoption of a genuine two-tier board structure.

Prior to the above extraordinary shareholders’ meeting of 30 April 2020, the board of directors (“*raad van bestuur*” / “*conseil d’administration*”) was the ultimate decision-making corporate body of Umicore, subject only to matters explicitly reserved to the shareholders’ meeting by the old Code of companies or the articles of association.

Following the adoption of a two-tier board structure, as provided the BCCA, by the extraordinary shareholders’ meeting held on 30 April 2020, the management board (“*directieraad*” / “*conseil de direction*”) has now become competent for all matters not specifically reserved to the supervisory board (“*raad van toezicht*” / “*conseil de surveillance*”) or the shareholders’ meeting by 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 (p. 76) 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.



## G3 SHAREHOLDERS

### 3.1 ISSUED SHARES – CAPITAL STRUCTURE

On 31 December 2020 there were 246,400,000 Umicore shares in issue.

The identity of shareholders having declared a participation of 3% or more as of 31 December 2020 can be found in the chapter “*parent company separate summarized financial statements*” ([Financial statements](#))

Also on 31 December 2020, Umicore owned 5,733,685 of its own shares representing 2.33% of its capital. Information concerning the shareholders’ authorization for Umicore to buy back its own shares and the status of such buy-backs can be consulted in the CG Charter and on Umicore’s website.

During the year, 1,024,435 own shares were used in the context of the exercise of employee stock options and 66,430 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 4,430 following a partial conversion into shares of the bonus of a member of the management board.

### 3.2 DIVIDEND POLICY AND PAYMENT

Umicore’s policy is to pay a stable or gradually increasing dividend, save for exceptional circumstances.

In 2020, Umicore paid a gross dividend of € 0.375 per share relating to the financial year 2019. This was a decrease by € 0.375 compared to the gross dividend paid in 2019 in respect of the financial year 2018.

In July 2020 the supervisory board, in line with the Umicore dividend policy, decided to pay a gross interim dividend of € 0.25 per share, which was paid on 25 August 2020.

### 3.3 SHAREHOLDERS’ MEETINGS 2020

The (annual, special and extraordinary) shareholders’ meetings were held on 30 April 2020 and were subject to amended, restricted participation modalities, in line with the Belgian Royal Decree nr. 4 of 9 April 2020 containing various provisions on co-ownership as well as on company and associations law in the framework of the fight against the Covid-19 pandemic. As a result, the shareholders were not allowed to physically participate to these meetings but only by means of postal or proxy voting. The shareholders’ meeting could be viewed via a live (or differed) webcast.

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 2019 mandates. At the same meeting, the shareholders

appointed Mr Mario Armero as new director<sup>1</sup> for a period of 3 years. Furthermore, the mandates of Mrs Ines Kolmsee and Mrs Liat Ben-Zur as independent directors<sup>2</sup> was renewed for 3 years. The annual shareholders’ meeting also approved the remuneration of the board of directors<sup>3</sup> for 2020. Details of the fees paid to the members of the board of directors<sup>4</sup> in 2020 are disclosed in the remuneration report.

The special shareholders’ meeting approved a change of control clause in accordance with the article 556 of the old Belgian Companies Code.

Finally, the extraordinary shareholders’ meeting approved various amendments to the articles of association in view of fully aligning it with the provisions of the BCCA and introducing a genuine two-tier board structure. As a result, all members of the former board of directors, save the CEO, became members of the supervisory board. The members of the former executive committee, including the CEO, became members of the management board following resolutions adopted by the supervisory board on the same date.

## G4 SUPERVISORY BOARD

### 4.1 INTRODUCTION

As above mentioned, the extraordinary shareholders’ meeting held on 30 April 2020 has adopted a two-tier board structure, as provided under the BCCA. As a result, the Company’s board of directors was replaced by a supervisory board as of the same date. All members of the former board of directors, save the CEO, were appointed members of the supervisory board, also as of the same date.

Any reference in this chapter to the supervisory board should be read as a reference to the former board of directors, insofar it relates to events having taken place before the above extraordinary shareholders’ meeting of 30 April 2020.

### 4.2 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

<sup>1</sup> Member of the supervisory board after the extraordinary shareholders’ meeting held on 30 April 2020.

<sup>2</sup> Independent members of the supervisory board after the extraordinary shareholders’ meeting held on 30 April 2020.

<sup>3</sup> Supervisory board after the extraordinary shareholders’ meeting of 30 April 2020.

<sup>4</sup> Members of the supervisory board after the extraordinary shareholders’ meeting of 30 April 2020.

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 2020, 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 2020. 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 8 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 Horizon 2020 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 2020:

- Mr Mario Armero was appointed director (and, hence, supervisory board member) for a period of three years at the annual shareholders' meeting held on 30 April 2020;
- Mr Gérard Lamarche resigned as director with effective date 30 April 2020;
- Following the incompatibility between the mandates of management board member and supervisory board member, Mr Marc Grynberg, who was a member of the old board of directors until the adoption of the new two-tier board structure by the extraordinary shareholders' meeting, was not appointed supervisory board member by the same extraordinary shareholders' meeting.

Furthermore, the mandates of Mrs Ines Kolmsee and Mrs Liat Ben-Zur as independent directors (and hence, independent supervisory board members) were renewed for three years on 30 April 2020.

Finally, Mr Koenraad Debackere was appointed vice-chairperson of the supervisory board on 30 July 2020.

#### 4.3 MEETINGS AND TOPICS

The supervisory board held eleven regular meetings in 2020. Ten of these meetings were held by means of a videoconference due to the covid-19 pandemic. On two occasions, the supervisory board also took decisions by unanimous written consent.

The matters reviewed by the supervisory board in 2020 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 and the remuneration policy);
- approval of the agenda of an ordinary, a special and an extraordinary shareholders' meeting and calling of these meetings;
- Covid-19 updates;
- investment and divestment projects;
- issuance of convertible bonds (and approval of ancillary documents and reports in that context);
- audit committee reports;
- strategic opportunities and operational challenges;
- business and technology reviews, and market updates;
- corporate governance (including the adoption of the new CG Charter);
- metal price sensitivity and net working capital evolution;
- mergers & acquisitions projects and updates;
- annual performance review of the CEO and the other members of the management board;
- performance review of the supervisory board and its committees;
- succession planning at the level of the supervisory board and the management board;
- interim dividend distribution.

#### 4.4 PERFORMANCE REVIEW OF THE SUPERVISORY 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.

#### 4.5 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 2020.

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

The committee met four times in 2020, including three videoconference calls. Apart from the review of the 2019 full year and the 2020 half year accounts, the audit committee reviewed reports and discussed matters related to internal audit, financial reporting, internal controls, cyber security, group auditor succession and other audit-related matters. The 2021 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.

#### 4.6 NOMINATION & 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 2020, 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 underwent the following changes in 2020:

- Mr Mario Armero was appointed member of the committee with effective date 9 December 2020;
- Mr Koenraad Debackere was also appointed member of the committee with effective dated 9 December 2020.

Five nomination & remuneration committee meetings were held in 2020, including three 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 2020. The committee also discussed the succession planning at the level of the supervisory board and the management board.

## G5 MANAGEMENT BOARD

### 5.1 INTRODUCTION

Following the adoption of a two-tier board structure, as foreseen in the BCCA, by the extraordinary shareholders' meeting held on 30 April 2020, the Company's executive committee was replaced by a management board as of the same date. All seven members of the former executive committee, including the CEO, were appointed members of the management board as of the same date.

Any references to the management board in this chapter should be read as references to the former executive committee, insofar they relate to events having taken place before the above extraordinary shareholders' meeting of 30 April 2020.

### 5.2 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 remained unchanged in 2020.

On 31 December 2020 the management board was composed of 7 members, including the CEO.

### 5.3 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 6 February 2020.

## G6 RELEVANT INFORMATION IN THE EVENT OF A TAKEOVER BID

### 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.

### 6.2 HOLDERS OF SECURITIES WITH SPECIAL CONTROL RIGHTS

There are no such holders.

### 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 2020, save for the 5,733,685 shares held by the Company itself on that date (article 7:217 §1 of the BCCA).

#### 6.4 EMPLOYEE STOCK PLANS WHERE THE CONTROL RIGHTS ARE NOT EXERCISED DIRECTLY BY THE EMPLOYEES

Umicore has not issued any such employee stock plans.

#### 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.

#### 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 amended once in 2020, following the resolutions of the extraordinary shareholders' meeting held on 30 April 2020 in order to bring them in line with the provisions of the BCCA (including the adoption of a two-tier board structure).

#### 6.7 AUTHORISED 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 board<sup>5</sup> 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. The authorization will lapse on 28 May 2023 but it can be renewed.

Up until 31 December 2020, 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. These convertible bonds carry a zero-coupon and their initial conversion price amounts to € 55.32 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 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 and € 100 and until 31 May 2022 (included). The same authorization was also granted to the Company's direct subsidiaries. The Company acquired 1,200,000 own shares in 2020 in implementation of the above authorization.

#### 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

All the senior vice-presidents of the Umicore group are entitled to a compensation equivalent to 36 months base salary 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 report ([Remuneration Report](#)).

#### G7 CONFLICTS OF INTERESTS (ART. 7:115 THROUGH 7:117 BCCA AND ART. 523 – 524TER OLD COMPANIES CODE)

On 6 February 2020, prior to the board of directors discussing or taking any decision, Marc Grynberg, who at that time was still a member of the board of directors, declared that he had a direct conflicting interest of a proprietary nature in the implementation of the decisions taken by the board relating to his performance assessment and to his remuneration (including the grant of shares and options). In

<sup>5</sup> 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.

accordance with the then applicable article 523 of the old Belgian Companies Code, Marc Grynberg did not take part in the board's discussions concerning this decision and he did not take part in the voting.

The above decisions had/will have the following financial consequences:

#### A FIXED AND VARIABLE REMUNERATION

The CEO received a fixed gross remuneration of € 720,000 in 2020. Also in 2020, he received a gross variable cash remuneration totalling € 87,500 as non-deferred part of his variable cash remuneration for the reference year 2019.

Furthermore he received in 2020 a gross amount of € 256,500 as deferred part of his variable remuneration for the reference year 2017 based on (1) the 3-year average Umicore group profitability criterion, i.e. the average return on capital employed (ROCE) for the reference years 2017, 2018 and 2019 (i.e. 14.4% giving rise to a percentage pay-out of 69%) and (2) the 3-year average EBIT growth for the same reference years 2017, 2018 and 2019 multiplied by 2 (i.e. 13.2% giving rise to a percentage pay-out of 26%).

The ROCE range is set between a minimum of 7.5% (= pay-out of 0%) and a maximum of 17.5% (= pay-out of 100% of the target). When the achieved ROCE percentage falls between the minimum and the maximum, the pay-out will be pro-rated. The impact of the EBIT growth is calculated by multiplying the average percentage of the EBIT growth for the reference years by 2. The Group EBIT growth incentive only applies for a minimum compounded average adjusted EBIT growth of 10%.

#### B GRANT OF SHARES AND STOCK OPTIONS

The financial consequences for Umicore consist of: either 1) as long as Umicore decides to keep the shares it holds today: the financing and opportunity cost of maintaining such shares in its portfolio until the delivery date of the shares granted or the option's exercise date, or 2) if and to the extent that Umicore sells such shares at a later date: the difference on the date of exercise of the options between the exercise price and the market value of the shares that Umicore would have to buy on that date.

During 2020, no specific transactions or contractual commitments occurred between a member of the supervisory board or of the management board<sup>6</sup> on the one hand, and Umicore or one of its affiliated companies on the other hand.

<sup>1</sup> Or a member of the board of directors or the executive committee until the extraordinary shareholders' meeting of 30 April 2020.

## G8 STATUTORY AUDITOR

At the annual shareholders' meeting held on 30 April 2020, the statutory auditor's mandate of PricewaterhouseCoopers Bedrijfsrevisoren/Réviseurs d'Entreprises BV/SRL was renewed for a period of 3 years. The statutory auditor is represented by Mr Kurt Cappoen for the exercise of this mandate.

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

## G9 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.

## G10 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.

## G11 COMPLIANCE WITH THE CG CODE 2020

During the financial year 2020, Umicore's corporate governance systems and procedures were in line with the CG Code 2020, with one exception related to the grant of stock options to the 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 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.



## G12 REMUNERATION POLICY

On 6 February 2020 the nomination and remuneration committee presented the remuneration policy (the “Policy”) to the board of directors for discussion and approval. This Policy outlines the remuneration principles for the members of Umicore’s supervisory board and management board<sup>1</sup> and is effective as of 1 January 2020. The Policy 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). The Policy is available on Umicore’s website:

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

## G13 REMUNERATION REPORT<sup>2</sup>

### 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, with exception of one small change in relation to the additional attendance fee for members of the supervisory board residing outside Belgium. This additional attendance fee also applies as of 2020 for the committee meetings, attended in person and not combined with a supervisory board meeting.

#### Supervisory board

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

#### Audit committee

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

#### Nomination and remuneration committee

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

### 2020 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.

<sup>1</sup> Respectively board of directors and executive committee for the period between 1 January 2020 and 30 April 2020.

<sup>2</sup> Any references in this remuneration report to the supervisory board or the management board of Umicore should be read as references to respectively the board of directors and the executive committee of Umicore when relating to events or circumstances having occurred prior to the extraordinary shareholders’ meeting of 30 April 2020, as referred to in the above corporate governance review.

## 13.1 REMUNERATION OVERVIEW MEMBERS OF THE SUPERVISORY BOARD

in (€)

Name Mandate	Start date	End date	Fixed Fee	Shares/Attendance Fee	Number of meetings attended Online/In person	Other (Car)	Total
<b>LEYSEN T.</b>							<b>217,385</b>
Chairman of the supervisory board	19-11-2008		60,000	74,660	55,000	10 / 1	2,725
Chairman of the nomination & remuneration committee	19-11-2008				25,000	4 / 1	
<b>ARMERO M.</b>							<b>63,548</b>
Member of the supervisory board	30-4-2020		18,074	24,974	17,500	7 / 0	
Member of the nomination & remuneration committee	9-12-2020				3,000	1 / 0	
<b>BEN-ZUR L.</b>							<b>76,830</b>
Member of the supervisory board	25-4-2017		27,000	37,330	12,500	5 / 0	
<b>CHOMBAR F.</b>							<b>99,330</b>
Member of the supervisory board	26-4-2016		27,000	37,330	20,000	7 / 1	
Member of the nomination & remuneration committee	26-4-2018				15,000	4 / 1	
<b>DEBACKERE K.</b>							<b>109,330</b>
Member of the supervisory board	26-4-2018		27,000	37,330	25,000	9 / 1	
Member of the audit Committee	26-4-2018		5,000		12,000	3 / 1	
Member of the nomination & remuneration committee	9-12-2020				3,000	1 / 0	

in (€)

<b>GARRETT M.</b>							<b>106,330</b>
Member of the supervisory board	28-4-2015		27,000	37,330	26,000	9 / 1	
Member of the nomination & remuneration committee	25-4-2017				16,000	4 / 1	
<b>KOLMSEE I.</b>							<b>120,330</b>
Member of the supervisory board	26-4-2011		27,000	37,330	26,000	9 / 1	
Chairman of the audit Committee	28-4-2015		10,000		20,000	3 / 1	
<b>LAMARCHE G.</b>							<b>32,282</b>
Member of the supervisory board	25-4-2017 30-4-2020		8,926	12,356	11,000	3 / 1	
<b>MEURICE E.</b>							<b>87,830</b>
Member of the supervisory board	28-5-2015		27,000	37,330	23,500	8 / 1	
<b>RAETS L.</b>							<b>108,830</b>
Member of the supervisory board	25-4-2019		27,000	37,330	27,500	10 / 1	
Member of the audit Committee	25-4-2019		5,000		12,000	3 / 1	

1 The share grant relates to the services rendered in the reported year. The shares were granted on 15 May 2020 and were valued at the fair market value of the share at € 37.33, equivalent to the closing share price on 14 May 2020 (share value is set at 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).

## REMUNERATION FOR THE CEO AND THE OTHER MEMBERS OF THE MANAGEMENT BOARD

The remuneration of the CEO and the other members of the management board was reviewed by the supervisory board on 6 February 2020, on the basis of recommendations from the nomination and remuneration committee following a comparison survey with BEL20 and European peer companies.

The remuneration for the CEO and other members of the management board included in 2020 the following components: fixed remuneration, variable compensation, share-based compensation, pension plans and other benefits.

## Remuneration CEO

On proposal of the nomination and remuneration committee, the supervisory board of 6 February 2020 decided to set the fixed remuneration of the CEO at € 720,000 as of 1 January 2020 and to maintain the annual variable cash remuneration potential of € 700,000 for the reported year. 140,000 stock options were granted for 2020 as part of the annual Umicore Incentive Stock Option Plan.

In addition, the board of 10 February 2021 decided to grant 10,000 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 the CEO 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 6 February 2020 decided to set the fixed remuneration of each other member of the management board at € 440,000 as of 1 January 2020 and to maintain the annual variable cash remuneration potential of € 380,000 for the reported year. 30,000 stock options per person were granted for 2020 as part of the annual Umicore Incentive Stock Option Plan. Mr. Goffaux received 10,000 additional stock options following his foreign assignment in South Korea.

In addition, the supervisory board of 10 February 2021 decided to grant 7,000 Umicore shares per person for services rendered in the reported year. These shares are subject to a 3 year lock-up and are not subject to forfeiture condition All components of the remuneration earned by the other members of the management board for the reported year are detailed in the table below.

## 13.2 REMUNERATION OVERVIEW MEMBERS OF THE MANAGEMENT BOARD

in (€)

Name Position	Mandate Start date End date	Fixed Compensation (1) <sup>1</sup>	Undeferred Variable 50% (2) <sup>2</sup>	Deferred Variable 50% (3) <sup>3</sup>	Shares (4) <sup>4</sup>	Stock Options (5) <sup>5</sup>	Pension Plans (6) <sup>6</sup>	Other (7) <sup>7</sup>	Total	Ratio fixed (8) <sup>8</sup>	Ratio variable (9) <sup>9</sup>
Grynberg M. CEO	19/11/2008	720,000	315,000	159,300	470,800	904,400	214,677	54,332	2,838,509	83%	17%
Csoma S. EVP	01/11/2012	440,000	190,000	88,500	329,560	193,800	128,089	40,447	1,410,396	80%	20%
Goffaux D. EVP	01/07/2010	440,000	95,000	88,500	334,273	258,400	128,196	162,352	1,506,721	88%	12%
Kiessling R. EVP	01/02/2019	440,000	190,000	0	329,627	193,800	91,872	23,306	1,268,605	85%	15%
Nolens G. EVP	01/07/2015	440,000	190,000	88,500	329,560	193,800	131,857	16,517	1,390,234	80%	20%
Platteeuw F. CFO	01/11/2012	440,000	190,000	88,500	329,560	193,800	132,421	23,823	1,398,104	80%	20%
Steegeen A. EVP	01/10/2018	440,000	190,000	22,125	329,560	193,800	91,872	21,922	1,289,279	84%	16%
Reymondet P. EVP	01/08/2003 31/01/2019	-	-	88,500	-	-	-	-	88,500	0%	100%
Van Sande M. EVP	01/09/1998 31/03/2018	-	-	22,125	-	-	-	-	22,125	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 2020. The pay-out was done in 2021 in cash.

3 The deferred variable relates to the reference year 2018 and takes into account, over the years 2018-2019-2020, an average ROCE of 13.4%, resulting in a pay-out of 59% of the 2018 deferred target, and a compounded average EBIT growth% of 9.4%, which is lower than the 10% threshold and therefore not resulting in an additional variable payment. The pay-out was done in 2021 in cash.

4 The share grant relates to the services rendered in the reported year 2020. The shares were granted on 11 February 2021 and were valued at the fair market value of the share at € 47.08, 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 (lowest market quotation of the shares on the delivery date), € 48.00 (the closing share price on the delivery date).

5 The stock option grant relates to the services rendered in the reported year 2020. The stock options were granted on 10 February 2020 and were valued at a notional value of € 6.46 per option according to the Black & Scholes formula.

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 D. following his foreign assignment in South Korea (housing, mobility premium, medical insurance).

8 (1)+(4)+(5)+(6)+(7)/Total remuneration

9 (2)+(3)/Total remuneration

### COMPARITIVE 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.

### 13.3 COMPARATIVE TABLE ON THE CHANGE OF REMUNERATION AND COMPANY PERFORMANCE OVER THE LAST FIVE REPORTED FINANCIAL YEARS

Annual Change		2016 vs 2015	2017 vs 2016	2018 vs 2017	2019 vs 2018	2020 vs 2019	Comments
Remuneration management board	Type of remuneration						
CEO	Fixed	0.0%	3.0%	2.9%	0.0%	2.9%	
	Variable	2.8%	27.0%	-24.8%	-5.6%	37.9%	
	Number of shares	0.0%	0.0%	0.0%	-3.8%	0.0%	
	Number of options	0.0%	0.0%	0.0%	-6.7%	0.0%	
	Pension + other	-42.8%	4.8%	1.1%	8.2%	13.0%	
Members of the management board (excl. CEO)	Fixed	0.1%	2.5%	3.3%	0.4%	4.5%	
	Variable	7.0%	31.1%	-28.0%	18.3%	10.6%	
	Number of shares	0.0%	0.0%	0.0%	-5.4%	0.0%	
	Number of options	0.0%	0.0%	0.0%	-14.3%	5.6%	(1) <sup>1</sup>
	Pension + other	-2.1%	-7.4%	-2.3%	1.9%	13.8%	(2) <sup>2</sup>
REMUNERATION SUPERVISORY BOARD							
	Type of remuneration						
Chairman supervisory board	Fixed	0.0%	0.0%	50.0%	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	-	-	-	-	-	

Annual Change		2016 vs 2015	2017 vs 2016	2018 vs 2017	2019 vs 2018	2020 vs 2019	Comments
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	0.0%	35.0%	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		2.5%	5.1%	3.6%	3.7%	2.7%
COMPANY'S PERFORMANCE	2015	2016	2017	2018	2019	2020
ROCE	13.7%	14.6%	15.1%	15.4%	12.6%	12.1%
EBIT M€	330	351	410	514	509	536
% ROCE change versus previous year		6.6%	3.4%	2.0%	-18.2%	-4.0%
% EBIT change versus previous year		6.4%	16.8%	25.4%	-1.0%	5.4%

1 The increase versus 2019 relates to the additional stock options granted to Mr. Goffaux D. following his foreign assignment in South Korea.

2 The increase versus 2019 relates to the foreign assignment benefits provided to Mr. Goffaux D. for the entire reported year (mobility premium, housing, medical insurance).

The pay ratio 2020 between the highest and lowest pay level at Umicore (Belgium) was equal to 62.

### SHARE AND SHARE OPTION PLANS AND TRANSACTIONS 2020

#### Management board share option transactions 2020

The below table provides an overview on the number of stock options granted, exercised and expired in the course of the reported year, as well as the main provisions of the outstanding stock option plans.



### 13.4 MANAGEMENT BOARD SHARE OPTION TRANSACTIONS

Transactions in the reported year 2020						
Name Position		Options Granted		Options Exercised		Options Expired
Grynberg M.	ISOP 2020	140,000		ISOP 2014	150,000	0
CEO				ISOP 2015	75,000	
Csoma S.	ISOP 2020	30,000				0
EVP						
Goffaux D.	ISOP 2020	40,000		ISOP 2015	7,500	0
EVP						
Kiessling R.	ISOP 2020	30,000		ISOP 2015	9,000	0
EVP				ISOP 2016	9,000	
Nolens G.	ISOP 2020	30,000				0
EVP						
Platteeuw F.	ISOP 2020	30,000		ISOP 2015	15,000	0
CFO				ISOP 2016	5,000	
Steegen A.	ISOP 2020	30,000				0
EVP						
MAIN PROVISIONS OF THE OUTSTANDING STOCK OPTION PLANS						
ISOP PLAN	Grant Date	Exercise Price *1	Exercise window Start End			
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			
2014	10/02/2014	16.143	01/03/2017 - 09/02/2021			

\*1 The exercise prices take into account the share split of 16 October 2017

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

#### Management board share grant 2020

The below table provides an overview of the number of shares granted in 2020 to the CEO and the other members of the management board for the services rendered in 2019. The shares were granted on 10 February 2020 and were valued at the fair market value of the share at € 42.05, equivalent to the closing share price on 7 February 2020 (share value is set at 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 € 41.41,

€ 43.75. The shares are subject to a 3 year lock-up until 9 February 2023 included, and are not subject to forfeiture conditions.

Mr. Goffaux D. decided to receive part of his variable cash compensation in Umicore shares, resulting in 4,430 additional shares, granted on 2 March 2020 and valued at the fair market value of the share at € 37.77, equivalent to the closing share price on 28 February 2020 (share value is set at 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 Korean tax purposes the shares were valued at € 38.26. These shares are subject to a 2 year lock-up until 1 March 2022 included.

### 13.5 MANAGEMENT BOARD SHARE GRANT

Name Position	Number of shares received in 2020	Comment
Grynberg M.	10,000	
CEO		
Csoma S.	7,000	
EVP		
Goffaux D.	11,430	
EVP		
Kiessling R.	6,417	Pro rata the services in 2019
EVP		as of 01/02/2019
Nolens G.	7,000	
EVP		
Platteeuw F.	7,000	
CFO		
Reymondet P.	583	Pro rata the services in 2019
EVP		until 31/01/2019
Steegen A.	7,000	
EVP		

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 2020 the CEO and the other members of the management board reached this minimum shareholder requirement, with exception of Mr. Kiessling R. and Mrs. Steegen A. being both still in the 3 years' time frame to build up the required minimum.

The members of the management board collectively hold a total number of 1,144,097 shares on 31 December 2020.

#### Supervisory board share grant 2020

The below table provides an overview of the number of shares granted in 2020 to the members of the supervisory board for the services rendered in 2020. The shares were granted on 15 May 2020 and were valued at the fair market value of the share at € 37.77, equivalent to the closing share price on 14 May 2020 (share value is set at 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.

### 13.6 SUPERVISORY BOARD SHARE GRANT

Name Mandate in the supervisory board	Number of shares received in 2020	Comment
Leysen T. Chairman	2,000	
Armero M. Member	669	Pro rata the services in 2020 as of 30/04/2020
Ben-Zur L. Member	1,000	
Chombar F. Member	1,000	
Debackere K. Member	1,000	
Garrett M. Member	1,000	
Kolmsee I. Member	1,000	
Lamarche G. Member	331	Pro rata the services in 2020 until 30/04/2020
Meurice E. Member	1,000	
Raets L. Member	1,000	

The members of the supervisory board collectively hold a total number of 960,387 shares on 31 December 2020.

#### APPROVAL OF THE 2019 REMUNERATION REPORT

The 2019 remuneration report was approved by the shareholders' meeting with a majority of 82.46% of the votes cast (disregarding the abstention votes, as provided under Belgian company law).

#### CHANGES TO REMUNERATION SINCE THE END OF 2020

##### Remuneration for the members of the supervisory board

Based on the review of the overall compensation of the members of the supervisory board and of each element of the compensation, the nomination and remuneration committee concluded on 5 February 2021 that the compensation is appropriate.

##### Remuneration for the CEO

On 5 February 2021, the nomination and remuneration committee reviewed the remuneration of the CEO based on a comparison survey with European peer companies and BEL20 index companies.

On proposal of the nomination and remuneration committee, the supervisory board of 10 February 2021 decided to maintain the annual fixed and the annual variable cash remuneration potential at the same level. 80,000 stock options were granted for 2021 as part of the annual Umicore Incentive Stock Option Plan. These changes are in accordance with the Policy.

##### Remuneration for the other members of the management board

On 5 February 2021, the nomination and remuneration committee reviewed the remuneration of the other members of the management board based on a comparison survey with European peer companies and BEL20 index companies.

On proposal of the nomination and remuneration committee, the supervisory board of 10 February 2021 decided to maintain the annual fixed remuneration at € 440,000 but to increase the annual variable cash remuneration potential from € 380,000 to € 400,000 as of the year of performance 2021. The number of stock options granted for 2021 as part of the annual Umicore Incentive Stock Option Plan, were maintained at the same level. These changes are in accordance with the Policy.

# Economic statements

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# 1 GROUP

## KEY FIGURES

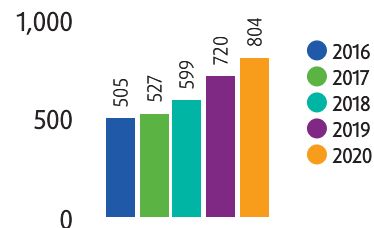
		2016	2017	2018	2019	2020
Total turnover		11,086	12,277	13,717	17,485	20,710
Total revenues (excluding metal)		2,667	2,916	3,271	3,361	3,239
Adjusted EBITDA	F9	527	599	720	753	804
Adjusted EBIT	F9	351	410	514	509	536
of which associates	F9	18	30	5	11	8
EBIT adjustments	F9	(110)	(46)	(14)	(30)	(237)
Total EBIT	F9	232	343	500	479	299
Adjusted EBIT margin		12.5	13.1	15.5	14.8	16.3
Return on Capital Employed (ROCE) (in %)	F31	14.6	15.1	15.4	12.6	12.1
Effective adjusted tax rate (in %)	F13	25	25.7	24.4	24.7	24.2
Adjusted net profit, Group share	F9	233	267	326	312	322
Net profit, Group share	F9	131	212	317	288	131
R&D expenditure	F9	156	175	196	211	223
Capital expenditure	F34	287	365	478	553	403
Net Cash flow before financing	F34	141.9	(381)	(604)	(271)	99
Total assets, end of period		4,146	5,116	6,053	7,023	8,341
Group shareholders' equity, end of period	F24	1,790	1,803	2,609	2,593	2,557
Consolidated net financial debt, end of period		296	840	861	1,443	1,414
Gearing ratio, end of period		13.8	31.1	24.4	35.2	35.0
Net debt / LTM adjusted EBITDA		0.56x	1.40x	1.19x	1.92x	1.76x
Capital employed, end of period		2397	3,003	3,802	4,442	4,457
Capital employed, average		2399	2710	3,344	4,048	4,451

## DATA PER SHARE

	Note	2016	2017	2018	2019	2020
Basic adjusted EPS	F39	1.07	1.22	1.36	1.30	1.34
EPS – basic	F39	0.60	0.97	1.33	1.20	0.54
EPS – diluted	F39	0.60	0.96	1.31	1.19	0.54
Gross annual dividend for the year		0.65	0.70	0.75	0.375	0,75
Net cash flow before financing, basic	F34	0.65	(1.74)	(2.53)	(1.13)	0,41
Total assets, end of period		18.96	23.31	25.11	29.17	34.66
Group shareholders' equity, end of period		8.18	8.21	10.83	10.77	10.63
Shareprice						
High		29.36	39.88	53.14	43.85	47.49
Low		16.19	24.28	34.17	25.11	29.76
Average		23.89	31.45	45.01	34.24	39.02
Close		27.08	39.46	34.86	43.36	39.29

## ADJUSTED EBITDA

Millions of Euros



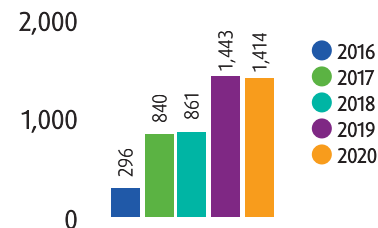
## REVENUES (EXCLUDING METAL)

Millions of Euros



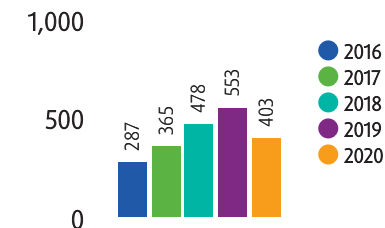
## NET DEBT / LTM ADJUSTED EBITDA

Millions of Euros



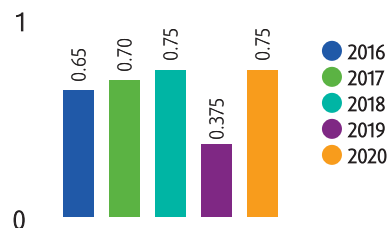
## CAPITAL EXPENDITURE

Millions of Euros



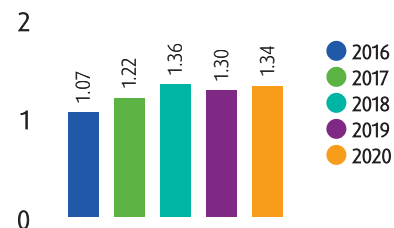
## GROSS DIVIDEND

Euros



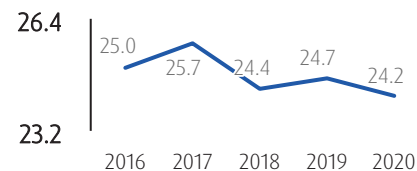
## BASIC ADJUSTED EPS

Euros



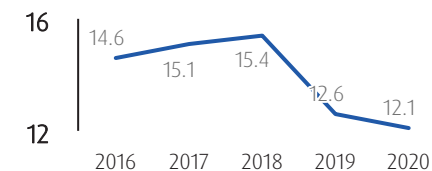
## EFFECTIVE ADJUSTED TAX RATE

%



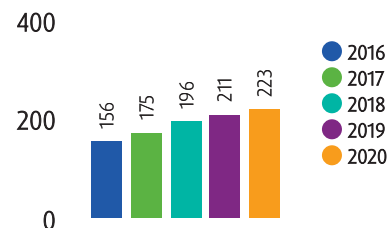
## RETURN ON CAPITAL EMPLOYED (ROCE)

%



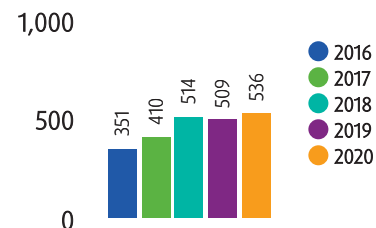
## R&D EXPENDITURE

Millions of Euros



## ADJUSTED EBIT

Millions of Euros



## SHARE PRICE

Euros



## GEARING RATIO

%





## 2 CATALYSIS

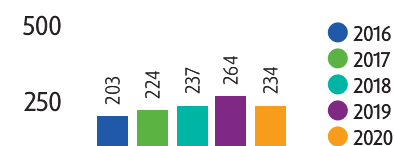
### KEY FIGURES

Millions of Euros unless stated otherwise

	2016	2017	2018	2019	2020
Total turnover	2,779	3,091	3,311	4,539	5,917
Total revenues (excluding metal)	1,163	1,253	1,360	1,460	1,364
Adjusted EBITDA	203	224	237	264	234
Adjusted EBIT	152	165	168	185	154
of which associates	9.2	0.4	0	0	0
Total EBIT	126	161	162	185	96
Adjusted EBIT margin	12.3	13.2	12.4	12.7	11.3
R&D expenditure	102	120	135	147	139
Capital expenditure	46	45	79	104	64
Capital employed, end of period	911	1,150	1,265	1,537	1,727
Capital employed, average	918	1,014	1,200	1,358	1,596
Return on Capital Employed (ROCE) (in %)	16.6	16.3	14	13.6	9.6
Workforce, end of period (fully consolidated)	2,464	2,952	3,070	3,190	3,073
Workforce, end of period (associates)	177	-	-	-	-

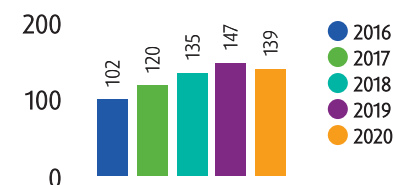
### ADJUSTED EBITDA

Millions of Euros



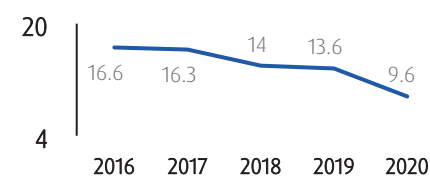
### R&D EXPENDITURE

Millions of Euros



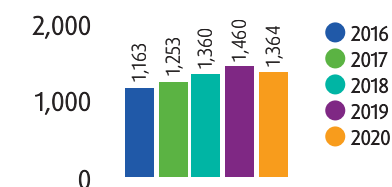
### RETURN ON CAPITAL EMPLOYED (ROCE)

%



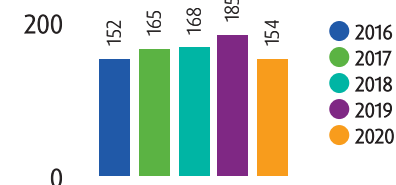
### REVENUES (EXCLUDING METAL)

Millions of Euros



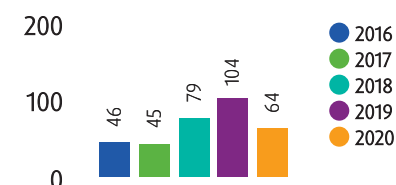
### ADJUSTED EBIT

Millions of Euros



### CAPITAL EXPENDITURE

Millions of Euros



# 3 ENERGY AND SURFACE TECHNOLOGIES

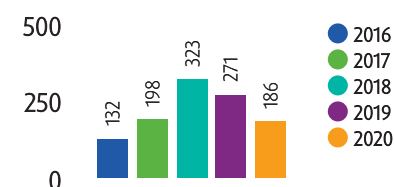
## KEY FIGURES

Millions of Euros unless stated otherwise

	2016	2017	2018	2019	2020
Total turnover	1,469	2,392	3,650	2,938	2,811
Total revenues (excluding metal)	610	894	1,289	1,225	1,045
Adjusted EBITDA	132	198	323	271	186
Adjusted EBIT	82	141	257	183	75
of which associates	1.0	10.5	0.9	5	5
Total EBIT	74	110	251	154	(36.2)
Adjusted EBIT margin	13.2	14.6	19.8	14.5	6.7
R&D expenditure	20	30	39	46	58
Capital expenditure	144	225	316	348	252
Capital employed, end of period	752	1,206	1,769	2,324	2,133
Capital employed, average	695	978	1,469	2,014	2,209
Return on Capital Employed (ROCE) (in %)	11.7	14.4	17.5	9.1	3.4
Workforce, end of period (fully consolidated)	2,357	2,716	3,447	3,997	3,761
Workforce, end of period (associates)	847	917	782	751	727

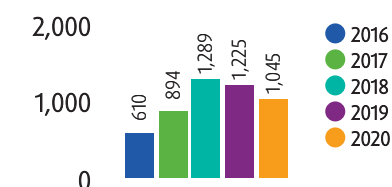
## ADJUSTED EBITDA

Millions of Euros



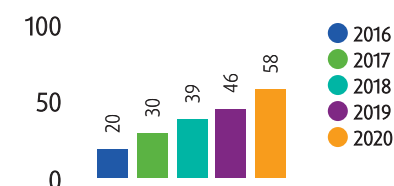
## REVENUES (EXCLUDING METAL)

Millions of Euros



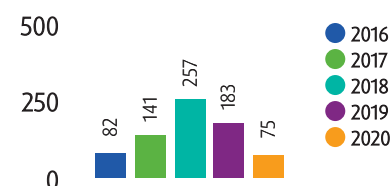
## R&D EXPENDITURE

Millions of Euros



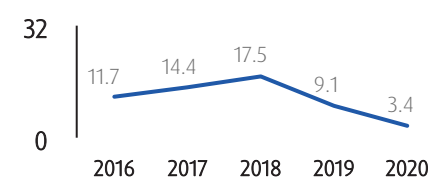
## ADJUSTED EBIT

Millions of Euros



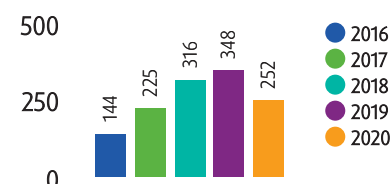
## RETURN ON CAPITAL EMPLOYED (ROCE)

%



## CAPITAL EXPENDITURE

Millions of Euros



# 4 RECYCLING

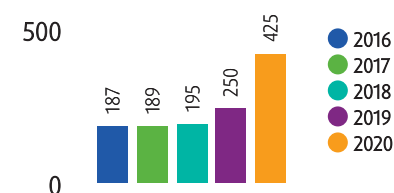
## KEY FIGURES

Millions of Euros unless stated otherwise

	2016	2017	2018	2019	2020
Total turnover	6,886	7,327	7,625	11,320	13,904
Total revenues (excluding metal)	641	650	626	681	836
Adjusted EBITDA	187	189	195	250	425
Adjusted EBIT	125	128	135	188	362
Total EBIT	115	121	126	190	311
Adjusted EBIT margin	19.5	19.7	21.5	27.6	43.3
R&D expenditure	23	19	15	8	10
Capital expenditure	72	79	68	82	72
Capital employed, end of period	498	474	546	405	447
Capital employed, average	474	495	483	479	502
Return on Capital Employed (ROCE) (in %)	26.3	25.8	27.9	39.3	72
Workforce, end of period (fully consolidated)	3,170	3,092	2,832	2,849	2,769

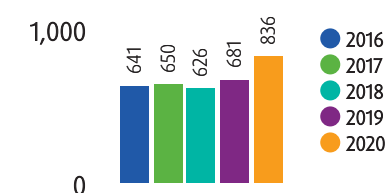
## ADJUSTED EBITDA

Millions of Euros



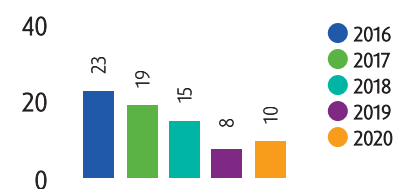
## REVENUES (EXCLUDING METAL)

Millions of Euros



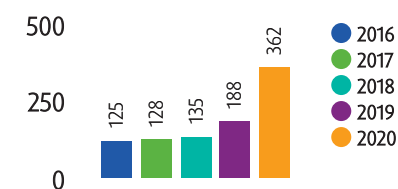
## R&D EXPENDITURE

Millions of Euros



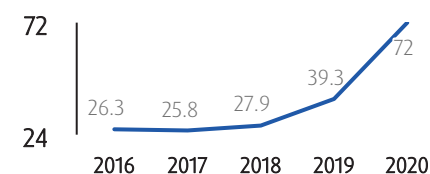
## ADJUSTED EBIT

Millions of Euros



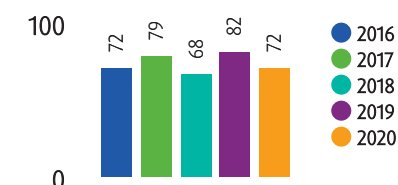
## RETURN ON CAPITAL EMPLOYED (ROCE)

%



## CAPITAL EXPENDITURE

Millions of Euros



## 5 DISTRIBUTION OF ECONOMIC BENEFITS

The most significant portion of Umicore's total income was used to secure the metal component of raw materials (the cost of which is passed on to the customer). After subtracting other raw materials costs, energy-related costs and depreciation, the remaining economic benefits available for distribution stood at € 1.13 billion.

The biggest portion (€ 798 million) was distributed to employees. The bulk of employee benefits was in the form of salaries, with the balance going to national insurance contributions, pensions and other benefits.

Net interest to creditors totaled € 57 million, while taxes to the governments and authorities in the places where we operate, totaled € 79 million. The earnings attributed to minority shareholders were € 4.8 million.

Subject to approval by shareholders at the AGM in April 2021, Umicore's Supervisory Board will propose a gross annual dividend of € 0.75 per share for the full year 2020. This compares to a full dividend of € 0.375 per share paid out for the financial year 2019. Taking into account the interim dividend of € 0.25 per share paid out on 25 August 2020 and subject to shareholder approval, a gross amount of € 0.50 per share will be paid out on 5 May 2021. This is in line with Umicore's policy of paying a **steady** or gradually-increasing dividend.

In 2020, Umicore charitable donations amounted to € 1.5 million.

### DISTRIBUTION OF ECONOMIC BENEFITS

Millions of Euros

	unit	2020
<b>Economic value distributed (including contribution from associates)</b>	MILLIONS OF EUROS	20,785.4
Raw materials cost (excluding water, gas & electricity)	MILLIONS OF EUROS	18,719.6
Water, gas & electricity cost	MILLIONS OF EUROS	99.7
Depreciation & impairments	MILLIONS OF EUROS	362.5
Other costs (net)	MILLIONS OF EUROS	532.8
<b>Direct economic value generated</b>	MILLIONS OF EUROS	<b>1,131.9</b>
Total taxes	MILLIONS OF EUROS	78.5
Creditors	MILLIONS OF EUROS	57.9
Minority Shareholders	MILLIONS OF EUROS	4.8
Shareholders (dividends only)	MILLIONS OF EUROS	60.2
Retained by the company	MILLIONS OF EUROS	130.5
Charitable donations	MILLIONS OF EUROS	1.5
Employee compensation & benefits	MILLIONS OF EUROS	798.5

# Financial statements

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Title

# CONSOLIDATED INCOME STATEMENT

Thousands of Euros	Notes	2019	2020
Turnover	F9	17,485,080	20,710,116
Other operating income	F9	121,078	80,602
<b>OPERATING INCOME</b>		<b>17,606,158</b>	<b>20,790,718</b>
Raw materials and consumables	F9	(15,639,139)	(18,819,323)
Payroll and related benefits	F10	(775,919)	(798,481)
Depreciation and impairments	F9	(307,567)	(362,497)
Other operating expenses	F9	(413,795)	(506,587)
<b>OPERATING EXPENSES</b>		<b>(17,136,420)</b>	<b>(20,486,887)</b>
Income (loss) from other financial assets	F12	706	761
<b>RESULT FROM OPERATING ACTIVITIES</b>		<b>470,444</b>	<b>304,592</b>
Financial income	F11	4,808	4,044
Financial expenses	F11	(56,427)	(77,801)
Foreign exchange gains and losses	F11	(31,618)	(30,445)
Share in result of companies accounted for using the equity method	F17	8,705	(5,332)
<b>PROFIT (LOSS) BEFORE INCOME TAX</b>		<b>395,912</b>	<b>195,057</b>
Income taxes	F13	(96,692)	(59,131)
<b>PROFIT (LOSS) FROM CONTINUING OPERATIONS</b>		<b>299,220</b>	<b>135,927</b>
Profit (loss) of the period		299,220	135,927
of which minority share		11,429	5,397
of which Group share		287,791	130,530
<b>(EUR)</b>			
Basic earnings per share from continuing operations	F39	1.20	0.54
Diluted earnings per share from continuing operations	F39	1.19	0.54
Dividend pay-out per share		0.75	0.25

On 30 April 2020 the ordinary shareholders' meeting approved to reduce the dividend for 2019 to € 0.375 per share, which corresponded to the amount of the interim dividend for 2019 which had been already paid out in the second half of 2019. Therefore, there was no dividend payout in the first half of 2020. The Supervisory Board will propose a gross annual dividend for the financial year 2020 of € 0.75 per share at the Annual General Meeting on 29 April 2021. This compares to a full dividend of € 0.375 p.s. paid

out for the financial year 2019. Taking into account the interim dividend of € 0.25 per share paid out on 25 August 2020 and subject to shareholder approval, a gross amount of € 0.50 per share will be paid out on 5 May 2021.

The notes F1(p. 114) through Parent company separate summarized financial statements(p. 179) are an integral part of these consolidated financial statements

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Thousands of Euros	Notes	2019	2020
<b>Profit (loss) of the period from continuing operations</b>		<b>299,220</b>	<b>135,927</b>
<b>Items in other comprehensive income that will not be reclassified to P&amp;L</b>			
Changes due to remeasurements of post employment benefit obligations		(71,921)	(25,198)
Changes in deferred taxes directly recognized in other comprehensive income		19,869	7,258
<b>Items in other comprehensive income that may be subsequently reclassified to P&amp;L</b>			
Changes in financial assets at FV through OCI reserves		(9)	(4,193)
Changes in cash flow hedge reserves		(27,958)	17,321
Changes in deferred taxes directly recognized in other comprehensive income		8,897	(3,456)
Changes in currency translation differences		9,444	(122,258)
<b>OTHER COMPREHENSIVE INCOME FROM CONTINUING OPERATIONS</b>	<b>F23</b>	<b>(61,678)</b>	<b>(130,525)</b>
<b>TOTAL COMPREHENSIVE INCOME FOR THE PERIOD</b>		<b>237,543</b>	<b>5,402</b>
of which Group share		225,312	2,952
of which minority share		12,230	2,450

The deferred tax impact on the consolidated statement of comprehensive income is due to the cash flow hedge reserves for € -3.5 million and to employee benefit reserves for € 7.3 million.

The notes F1(p. 114) through Parent company separate summarized financial statements(p. 179) are an integral part of these consolidated financial statements

# CONSOLIDATED BALANCE SHEET

Thousands of Euros	Notes	31/12/2019	31/12/2020
<b>Non-current assets</b>		<b>2,810,228</b>	<b>2,895,694</b>
Intangible assets	F14, F15	370,859	346,888
Property, plant and equipment	F16	2,094,672	2,163,661
Investments accounted for using the equity method	F17	150,642	139,839
Financial assets at fair value through Other Comprehensive Income	F18	10,897	8,352
Loans granted	F18	2,192	3,252
Trade and other receivables	F20	12,038	11,765
Deferred tax assets	F21	168,927	221,938
<b>CURRENT ASSETS</b>		<b>4,213,162</b>	<b>5,445,199</b>
Loans granted	F18	2	80
Inventories	F19	2,462,330	2,718,092
Trade and other receivables	F20	1,433,659	1,677,167
Income tax receivables	F21	45,447	39,553
Cash and cash equivalents	F22	271,724	1,010,307
<b>TOTAL ASSETS</b>		<b>7,023,390</b>	<b>8,340,893</b>

Thousands of Euros	Notes	31/12/2019	31/12/2020
<b>EQUITY OF THE GROUP</b>		<b>2,660,464</b>	<b>2,621,856</b>
Group shareholders' equity		2,593,474	2,557,182
Share capital and premiums		1,384,273	1,384,273
Retained earnings		1,678,355	1,749,655
Currency translation differences and other reserves	F23	(284,453)	(367,825)
Treasury shares		(184,701)	(208,921)
Minority interest		66,998	64,674
<b>NON-CURRENT LIABILITIES</b>		<b>1,686,801</b>	<b>2,359,901</b>
Provisions for employee benefits	F27	392,651	426,356
Financial debt	F24	1,151,083	1,705,154
Trade and other payables	F25	24,120	23,505
Deferred tax liabilities	F21	11,461	22,846
Provisions	F29, F30	107,487	182,040
<b>CURRENT LIABILITIES</b>		<b>2,676,124</b>	<b>3,359,136</b>
Financial debt	F24	564,063	719,177
Trade and other payables	F25	1,916,348	2,418,929
Income tax payable	F21	131,483	160,734
Provisions	F29, F30	64,230	60,296
<b>TOTAL EQUITY &amp; LIABILITIES</b>		<b>7,023,390</b>	<b>8,340,893</b>

The notes F1(p. 114) through Parent company separate summarized financial statements(p. 179) are an integral part of these consolidated financial statements

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

Thousands of Euros	Share capital & premiums	Reserves	Currency translation & other reserves	Treasury shares	Minority interest	Total for continuing operations
Balance at the beginning of 2019	1,384,273	1,610,882	(227,644)	(158,103)	49,927	2,659,336
Change in accounting policies	-	(34,110)	-	-	544	(33,566)
<b>RESTATED BALANCE AT THE BEGINNING OF 2019</b>	<b>1,384,273</b>	<b>1,576,772</b>	<b>(227,644)</b>	<b>(158,103)</b>	<b>50,471</b>	<b>2,625,770</b>
Result of the period	-	287,791	-	-	11,428	299,220
Other comprehensive income for the period	-	-	(62,480)	-	802	(61,678)
<b>TOTAL COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>-</b>	<b>287,791</b>	<b>(62,480)</b>	<b>-</b>	<b>12,231</b>	<b>237,543</b>
Changes in share-based payment reserves	-	-	8,211	-	-	8,211
Capital increase	-	-	-	-	15,541	15,541
Dividends	-	(186,394)	-	-	(11,246)	(197,640)
Transfers	-	179	(2,540)	2,361	-	-
Changes in treasury shares	-	-	-	(28,959)	-	(28,959)
<b>BALANCE AT THE END OF 2019</b>	<b>1,384,273</b>	<b>1,678,348</b>	<b>(284,453)</b>	<b>(184,701)</b>	<b>66,997</b>	<b>2,660,464</b>
Result of the period	-	130,530	-	-	5,397	135,927
Other comprehensive income for the period	-	-	(127,578)	-	(2,947)	(130,525)
<b>TOTAL COMPREHENSIVE INCOME FOR THE PERIOD</b>	<b>-</b>	<b>130,530</b>	<b>(127,578)</b>	<b>-</b>	<b>2,450</b>	<b>5,402</b>
Changes in share-based payment reserves	-	-	10,108	-	-	10,108
Convertible Bond - conversion rights*	-	-	37,743	-	-	37,743
Capital increase	-	-	-	-	27	27
Dividends	-	(60,141)	-	-	(4,800)	(64,941)
Transfers	-	917	(3,645)	2,727	-	-
Changes in treasury shares	-	-	-	(26,947)	-	(26,947)
<b>BALANCE AT THE END OF 2020</b>	<b>1,384,273</b>	<b>1,749,655</b>	<b>(367,825)</b>	<b>(208,921)</b>	<b>64,674</b>	<b>2,621,856</b>

The legal reserve of € 55.0 million which is included in the retained earnings is not available for distribution. The share capital of the Group as at 31 December 2020 was composed of 246,400,000 shares with no par value.

\*The conversion rights embedded in the € 500 million convertible bond issued on 23 June 2020 were valued at € 37.7 million net of transaction costs and deferred taxes. This value according to IFRS rules will not be remeasured over time, nor at conversion nor at maturity.

The notes [F1\(p. 114\)](#) through [Parent company separate summarized financial statements\(p. 179\)](#) are an integral part of these consolidated financial statements.

# CONSOLIDATED STATEMENT OF CASH FLOW

Thousands of Euros	Notes	2019	2020
Profit (loss) from continuing operations		299,220	135,927
Adjustments for profit of equity companies		(8,705)	5,332
Adjustment for non-cash transactions	F34	207,302	449,023
Adjustments for items to disclose separately or under investing and financing cashflows	F34	129,568	116,051
Change in working capital requirement	F34	(78,441)	(103,756)
<b>Cashflow generated from operations</b>		<b>548,946</b>	<b>602,576</b>
Dividend received		11,454	2,026
Tax paid during the period		(86,661)	(78,955)
Government grants received		5,444	2,673
<b>NET OPERATING CASHFLOW</b>	<b>F34</b>	<b>479,182</b>	<b>528,320</b>
Acquisition of property, plant and equipment	F16	(529,487)	(391,475)
Acquisition of intangible assets	F14	(58,362)	(44,060)
Acquisition of new subsidiaries, net of cash acquired	F8	(188,138)	(156)
Acquisition of financial assets	F18	(2,375)	(1,633)
New loans extended	F18	(126)	(752)
<b>SUB-TOTAL ACQUISITIONS</b>		<b>(778,489)</b>	<b>(438,076)</b>
Disposal of property, plant and equipment		11,777	1,475
Disposal of intangible assets		9,329	6,619
Disposal of subsidiaries and associates, net of cash disposed		910	518
Repayment of loans	F18	6,442	0
<b>SUB-TOTAL DISPOSALS</b>		<b>28,457</b>	<b>8,613</b>
<b>NET CASHFLOW GENERATED BY (USED IN) INVESTING ACTIVITIES</b>	<b>F34</b>	<b>(750,032)</b>	<b>(429,463)</b>

Thousands of Euros	Notes	2019	2020
Capital increase (decrease) minority		15,541	27
Own shares		(28,959)	(26,947)
Change in lease liability	F24	(16,536)	(19,801)
Interest received		4,608	3,392
Interest paid		(44,158)	(59,689)
New loans and repayments	F24	517,106	806,036
Dividends paid to Umicore shareholders		(186,387)	(60,141)
Dividends paid to minority shareholders		(11,246)	(4,800)
<b>NET CASHFLOW GENERATED BY (USED IN) FINANCING ACTIVITIES</b>	<b>F34</b>	<b>249,969</b>	<b>638,076</b>
Effect of exchange rate fluctuations		2,997	25,465
<b>TOTAL NET CASHFLOW OF THE PERIOD</b>		<b>(17,884)</b>	<b>762,399</b>
<b>Net cash and cash equivalents at the beginning of the period for continuing operations</b>	<b>F22</b>	<b>257,114</b>	<b>239,230</b>
<b>Net cash and cash equivalents at the end of the period for continuing operations</b>	<b>F22</b>	<b>239,230</b>	<b>1,001,630</b>
of which cash and cash equivalents		271,724	1,010,307
of which bank overdrafts		(32,493)	(8,678)

The notes F1(p. 114) through Parent company separate summarized financial statements(p. 179) are an integral part of these consolidated financial statements.



# Notes of the financial statements

The company's consolidated financial statements and the management report prepared in accordance with article 3:33 of the Belgian Companies and Associations Code set forth in the sections labelled [About us](#) (p. 3) through [Management Responsibility Statement](#) (p. 181) for the year ended 31 December 2020 were authorized for issue by the Supervisory Board on 12 March 2021. They have been prepared in accordance with the legal and regulatory requirements applicable to the consolidated financial statements of Belgian companies. They include those of the company, its subsidiaries and its interests in companies accounted for using the equity method.

## F1 BASIS OF PREPARATION

The Group presents its annual consolidated financial statements in accordance with all International Financial Reporting Standards (IFRS) adopted by the European Union (EU).

The consolidated financial statements are presented in thousands of euros, rounded to the nearest thousand, and have been prepared on a historical cost basis, except for those items that are measured at fair value.

## F2 ACCOUNTING POLICIES

### 2.1 PRINCIPLES OF CONSOLIDATION AND SEGMENTATION

#### 2.1.1 SUBSIDIARIES

Subsidiaries are all entities (including structured entities) over which the group has control.

The group controls an entity when the group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are deconsolidated from the date that control ceases.

Note F5 lists all significant subsidiaries of the company at the closing date.

The group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair values of the assets transferred, the liabilities

incurred to the former owners of the acquiree and the equity interests issued by the group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair values at the acquisition date. The group recognizes any minority interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the minority interest's proportionate share of the recognized amounts of acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurement are recognized in profit or loss.

Any contingent consideration to be transferred by the group is recognized at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration that is deemed to be an asset or liability is recognized in profit or loss. Contingent consideration that is classified as equity is not re-measured, and its subsequent settlement is accounted for within equity.

Inter-company transactions, balances and unrealized gains on transactions between group companies are eliminated. Unrealized losses are also eliminated. When necessary, amounts reported by subsidiaries have been adjusted to conform with the group's accounting policies. The line "other operating income" and "other financial income" of the income statements include, depending on the nature of the underlying transactions, the currency translation differences due to intercompany transactions to be translated from the transaction currency into functional currency which may differ from euro for some entities and regions.

IFRS 5 (Non-current Assets Held for Sale and Discontinued Operations) does not specify the treatment for the elimination of inter-company transactions between discontinued and continued operations. As an accounting policy Umicore opts not to eliminate the intercompany transactions within the income statement between the discontinued and continued operations. For the balance sheet presentation however, IFRS 10 (Consolidated Financial Statements) overrides IFRS 5 and requires all intercompany balances to be eliminated including between the discontinued and continued operations.

#### 2.1.2 CHANGES IN OWNERSHIP INTERESTS IN SUBSIDIARIES WITHOUT CHANGE OF CONTROL

Transactions with minority interests that do not result in loss of control are accounted for as equity transactions – that is, as transactions with the owners in their capacity as owners.

The difference between fair value of any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals to minority interests are also recorded in equity.

### 2.1.3 DISPOSAL OF SUBSIDIARIES

When the group ceases to have control, any retained interest in the entity is remeasured to its fair value at the date when control is lost, with the change in carrying amount recognized in profit or loss. The fair value is the initial carrying amount for the purposes of subsequently accounting for the retained interest as an associate, joint venture or financial asset. In addition, any amounts previously recognized in other comprehensive income in respect of that entity are accounted for as if the group had directly disposed of the related assets or liabilities. This may mean that amounts previously recognized in other comprehensive income are reclassified to profit or loss.

### 2.1.4 ASSOCIATES

Associates are all entities over which the group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss of the investee after the date of acquisition.

The group's investment in associates includes goodwill identified on acquisition. If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognized in other comprehensive income is reclassified to profit or loss where appropriate. The group's share of post-acquisition profit or loss is recognized in the income statement, and its share of post-acquisition movements in other comprehensive income is recognized in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the group does not recognize further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate. The group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognizes the amount adjacent to "share of profit/(loss) of associates" in the income statement.

Profits and losses resulting from upstream and downstream transactions between the group and its associate are recognized in the group's financial statements only to the extent of unrelated investor's interests in the associates. Unrealized losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the group. Dilution gains and losses arising in investments in associates are recognized in the income statement.

### 2.1.5 JOINT ARRANGEMENTS

The group applies IFRS 11 to all joint arrangements. Under IFRS 11 investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor. The group has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method. Under the equity method of accounting, interests in joint ventures are initially recognized at cost and adjusted thereafter to recognize the group's share of the postacquisition profits or losses and movements in other comprehensive income.

When the group's share of losses in a joint venture equals or exceeds its interests in the joint ventures (which includes any long-term interests that, in substance, form part of the group's net investment in the joint ventures), the group does not recognize further losses, unless it has incurred obligations or made payments on behalf of the joint ventures.

Unrealized gains on transactions between the group and its joint ventures are eliminated to the extent of the group's interest in the joint ventures. Unrealized losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures have been changed where necessary to ensure consistency with the policies adopted by the group.

### 2.1.6 SEGMENT REPORTING

Note F7 provides the Company's segment information, in line with IFRS 8. Umicore is organized in business units. Operating segments under IFRS 8 at Umicore are differentiated by their growth drivers in the areas of Catalysis, Energy & Surface Technologies, and Recycling.

The Catalysis segment provides automotive catalysts for gasoline and diesel light and heavyduty diesel applications, including on-road and non-road vehicles. The business group also offers stationary catalysis for industrial emissions control and produces precious metalsbased compounds and catalysts for use in the pharmaceutical and fine chemicals industries.

The Energy & Surface Technologies segment is focused on products that are found in applications used in the production and storage of clean energy and in a range of applications for surface technologies that bring specific properties and functionalities to end products. All the activities offer a closed loop service for the customers. The Recycling segment treats complex waste streams containing precious and other specialty metals. The operations can recover 20 of these metals from a wide range of input materials ranging from industrial residues to end-of-life materials. Other activities include production of precious metals-based materials that are essential for applications as diverse as high-tech glass production, electrics and electronics.

Corporate covers corporate activities, shared operational functions and the Group's Research, Development & Innovation unit. Umicore's minority share in Element Six Abrasives and Ieqsa is also included in Corporate.

Operating segments are reported in a manner consistent with the internal reporting provided to the supervisory board and the management board.

The segment results, assets and liabilities include items directly attributable to the segment as well as those elements that can reasonably be allocated to a segment.

The pricing of inter-segment sales is based on an arm's length transfer pricing system. In the absence of relevant market price references, 'cost plus' mechanisms are used.

Associate companies are allocated to the business group with the closest fit from a market segment perspective.

## 2.2 INFLATION ACCOUNTING

For the reported period, there is one subsidiary in the Umicore Group having a functional currency belonging to a hyperinflationary economy in Argentina. However, in view of significance to the Group, this is not material for IAS 29 to be applied.

## 2.3 FOREIGN CURRENCY TRANSLATION

Functional currency: items included in the financial statements of each entity in the Group are measured using the currency that best reflects the economic substance of the underlying events and circumstances relevant to that entity. The consolidated financial statements are presented in euros which is the functional currency of the parent. To consolidate the Group and each of its subsidiaries, the financial statements are translated as follows:

- Assets and liabilities at the year-end rate as published by the European Central Bank.
- Income statements at the average exchange rate for the year.
- The components of shareholders' equity at the historical exchange rate.

Exchange differences arising from the translation of the net investment in foreign subsidiaries, joint ventures and associated entities at the period-end exchange rate are recorded as part of the shareholders' equity under "currency translation differences".

When a foreign operation is partially disposed of or sold, exchange differences that were recorded in equity are recognized in the income statement as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as local currency assets and liabilities of the foreign entity and are translated at the closing rate.

## 2.4 FOREIGN CURRENCY TRANSACTIONS

Foreign currency transactions are recognized during the period in the functional currency of each entity at exchange rates prevailing at the date of transaction. The date of a transaction is the date at which the transaction first qualifies for recognition. For practical reasons a rate that approximates the actual rate at the date of the transaction is used at some operations, for example, an average rate for the week or the month in which the transactions occur.

Subsequently, monetary assets and liabilities denominated in foreign currencies are translated at the closing rate at the end of the reporting period.

Gains and losses resulting from the settlement of foreign currency transactions, and from the translation of monetary assets and liabilities denominated in foreign currencies, are recognized in the income statement as a financial result.

In order to hedge its exposure to certain foreign exchange risks, the Company has entered into certain forward contracts (see Note F2.21, Financial instruments).

## 2.5 PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is recorded at historical cost, less accumulated depreciation and impairment losses. Cost includes all direct costs and appropriate allocation of indirect costs incurred to bring the asset to working condition for its intended use.

Borrowing costs that are directly attributable to investments are capitalized together with the costs of the assets in accordance with IAS 23. All borrowing costs that cannot be linked directly to an investment are recognized as expenses in the period when incurred.

The straight-line depreciation method is applied through the estimated useful life of the assets.

Useful life is the period of time over which an asset is expected to be used by the company.

Repair and maintenance costs are expensed in the period in which they are incurred, if they do not increase the future economic benefits of the asset. Otherwise they are classified as separate components of items of property, plant and equipment. Those major components of items of property, plant and equipment that are replaced at regular intervals are accounted for as separate assets as they have useful lives different from those items of property, plant and equipment to which they relate. Umicore's PPE, being complex and highly customized industrial assets, typically do not have an individual resale value if

put outside the overall context of the operations. Therefore, no residual value is taken into account when determining the depreciable value.

The typical useful life per main type of property, plant and equipment are as per table below. For material newly acquired or constructed assets, the useful life is separately assessed at the moment of the investment request and can deviate from the above standards.

Management determines the estimated useful lives and related depreciation charges for property, plant and equipment. Management uses standard estimates based on a combination of physical durability and projected product life or industry life cycles. These useful lives could change significantly as a result of technical innovations, market developments or competitor actions. Management will increase the depreciation charge where useful lives are shorter than previously estimated, or it will write-off or write-down technically obsolete or non-strategic assets that have been abandoned or sold.

Land use rights are part of the Property, Plant and Equipment and are typically amortized over the contractual period.

	years
<b>Land</b>	Non-depreciable
<b>Buildings</b>	
- Industrial buildings	20
- Improvements to buildings	10
- Other buildings such as offices and laboratories	40
- Investment properties	40
<b>Plant, machinery and equipment</b>	10
- Furnaces	7
- Small equipment	5
<b>Furniture and vehicles</b>	
- Vehicles	5
- Mobile handling equipment	7
- Computer equipment	3 - 5
- Furniture and office equipment	5 - 10

## 2.6 INTANGIBLE ASSETS & EQUITY TRANSACTION EXPENSES

### 2.6.1 EQUITY TRANSACTION EXPENSES

Expenses for formation and capital increase are deducted from the share capital.

### 2.6.2 GOODWILL

Goodwill represents the excess of the cost of an acquisition of a subsidiary, associate or jointly controlled entity over the Group's share in the fair value of the identifiable assets and liabilities of the acquired entity at the date of acquisition. Goodwill is recognized at cost less any accumulated impairment losses.

Goodwill from associates and joint ventures is presented in the balance sheet on the line "Investments accounted for under the equity method", together with the investment itself.

To assess impairment, goodwill is allocated to a cash generating unit (CGU). At each balance sheet date, these CGUs are tested for impairment, meaning an analysis is performed to determine whether the carrying amount of goodwill allocated to the CGU is fully recoverable.

If the carrying amount is not fully recoverable, an appropriate impairment loss is recognized in the income statement. These impairment losses are never reversed.

The excess of the Group's interest in the fair value of the net identifiable assets acquired over the cost of acquisition is recognized in the income statement immediately.

### 2.6.3 RESEARCH AND DEVELOPMENT

Research costs related to the prospect of gaining new scientific or technological knowledge and understanding are recognized in the income statement as an incurred expense.

Development costs are defined as costs incurred for the design of new or substantially improved products and for the processes prior to commercial production or use. They are capitalized if, among others, the following conditions are met:

- the intangible asset will give rise to future economic benefits, or in other words, the market potential has been clearly demonstrated.
- the expenditures related to the process or product can be clearly identified and reliably measured.

In case it is difficult to clearly distinguish between research or development costs, the costs are considered as being research. If development costs are capitalized they are amortized using a straight-line method over the period of their expected benefit, in general five years.

### 2.6.4 CO<sub>2</sub> EMISSION RIGHTS

Within the framework of the Kyoto protocol, a third emission trading period started, covering 2013-2020. Therefore, the Flemish Government granted emission rights to the Flemish sites of certain companies, including Umicore. Each year, at the end of February, one fifth of these emission rights is put on an official registry account. The release of emission rights to this registry account entails the capitalization in the

intangible assets, which is in line with the guidance of the Belgian Accounting Standards Commission. Gains on the recognition of emission rights at fair value are deferred until the certificates are used. Emission rights owned are subject to impairment testing but are not depreciated. If, at a certain closing date, it appears that the closing market price is below the carrying value, a write-down is booked. At each closing date, the group estimates the actual use of rights for the period and recognizes a provision for the rights that will have to be restituted to the Government. The charge related to the impairment loss or the recognition of provisions are fully compensated in the income statement by the release of deferred revenue. Historically, Umicore owns the required rights to ensure its normal operating activities.

#### 2.6.5 OTHER INTANGIBLE ASSETS

All the following types are recorded at historical cost, less accumulated amortization and impairment losses:

- Concessions, patents, licenses: are amortized over the period of their legal protection with a minimum of 5% (in general over 5 years).
- Customer portfolios: are typically amortized over a period of five years.
- ERP software is typically amortized over a period of ten years.
- Smaller software is typically amortized over a period of five years.

In case of an earn-out component, a remeasurement is foreseen, adapting the carrying amount of the asset and the amortization accordingly.

Umicore has currently no intangible asset with an indefinite useful live.

#### 2.7 LEASE

IFRS 16 sets out the principles for the recognition, measurement, presentation, and disclosure of leases and requires lessees to account for all leases under a single on-balance sheet model, similar to the accounting for finance leases under IAS 17. At the commencement date of a lease, lessees recognize a lease liability (i.e. a liability to make lease payments), and a right-of-use asset (i.e. an asset representing the right to use the underlying asset over the lease term).

The lease liabilities are recognized at the present value of the remaining lease payments (see note F24).

The right-of-use asset is depreciated over the term of the lease (see note F16). Interest expense is recognized on the lease liability (see note F11). The lease liability is remeasured upon the occurrence of certain events (e.g. a change in the lease term or a change in future lease payments resulting from a change in index). Such remeasurements of the lease liability will generally be recognized as an adjustment to the right-of-use asset.

The Group applies the lease recognition exemptions for short-term leases and leases for which the underlying asset is of low value. The Group elects, by class of underlying asset, not to separate non-lease components from lease components and instead accounts for each lease component and any associated non-lease component as one single lease component.

The group leases metals to and from third parties for specified periods for which the group receives or pays fees. Metal lease contracts are typically concluded for less than one year.

The metal leases from and to third parties are still reported as off-balance sheet commitments, as not in the scope of IFRS 16.

#### 2.8 FINANCIAL ASSETS AT FAIR VALUE THROUGH OCI, LOANS AND NON-CURRENT RECEIVABLES

All movements in financial assets at fair value through OCI, loans and receivables are accounted for at trade date.

Financial assets at fair value through OCI are carried at fair value. Unrealized gains and losses from changes in the fair value of such assets are recognized in equity as financial assets at fair value through OCI reserves (Other Comprehensive Income). When the assets are sold or impaired, the accumulated fair value adjustments are also included in the OCI. Financial assets are derecognized when the rights to receive cash flows from the investments have expired or have been transferred and the group has transferred substantially all risks and rewards of ownership.

Loans and receivables are carried at amortized cost less any impairment.

All write-downs are recorded on a separate account and are netted with the carrying amounts when all chances of recovery are depleted. Own shares are deducted from equity.

#### 2.9 INVENTORY

Inventories are classified as:

1. Base products (gross values)
  - a. Permanently tied up metal inventories (not hedged)
  - b. Commercially available metal inventories (hedged)
  - c. Other base products inventories (not hedged)
2. Consumables (gross values)
3. Write down and impairments
4. Advances paid
5. Contracts in progress

Inventories are carried at cost. Cost comprises direct purchase or manufacturing costs and an appropriate allocation of overheads.

**Base products (gross values)** are mostly metal-containing products on which Umicore is exposed to price fluctuation risks. Most of these inventories follow Umicore's metal accounting rules and are classified in two inventory categories that reflect their specific nature and business use: the permanently tied up metal inventories and the commercially available metal inventories. The latter inventories are subject to an active and systematic hedging process to minimize the effects of market price fluctuations on the financial performance of the Group. Conversely, the permanently tied up metal inventories are typically not hedged. Next to these categories, the other base product inventories consist of materials used in the manufacturing processes to obtain the marketable basis products. These inventories are also typically not hedged. More details on the hedging mechanisms can be found in note F3.

Individualized or weighted average valuation is applied on the initial at cost valuation per category of inventory complemented with the following fair value principles:

- On the permanently tied up metal inventories : In view of their permanent nature, Umicore opted to apply the measurement and recognition rules of Property, Plant and Equipment (IAS 16) and Impairment of Assets (IAS 36). The valuation is based on the "historical cost less any accumulated depreciation and accumulated impairment" principle. As the inventories are considered to have an unlimited useful life, no depreciations are applied. Instead they are subject to Umicore's annual impairment testing of the CGUs carrying these inventories. Any impairments booked are classified under the caption Write downs & Impairments.
- On the commercially available metal inventories : as they are hedged, see note F3, Umicore applies the mark-to-market valuation principles. The classification of these mark-to-markets depends if Umicore obtained IFRS 9 Fair Value hedge accounting, see note F2.21.1 transactional risks – fair value hedging.
- On the other Base products, LOCOM (lower of cost or net realizable value, meaning the estimated selling price less the estimated costs of completion and the estimated cost necessary to make the sale) and slow moving principles are applied. Any write-downs booked are classified under the caption Write downs & Impairments.

**Consumables (gross values)** are products that are not used in a direct way in the manufacturing processes (for example: packaging material). They are valued using the weighted-average cost method and are submitting to LOCOM. Any write-downs booked are classified under the caption Write downs & Impairments

**Write-downs & Impairments** are any impairments or write downs booked on the Base products and Consumables are captured under this line item.

**Advances paid** are down-payments on transactions with suppliers for which the physical delivery has not yet taken place and are booked at nominal value.

**Contracts in progress** are valued using the percentage-of-completion method.

## 2.10 TRADE AND OTHER RECEIVABLES

Trade and other receivables are measured at amortized cost, i.e. at the net present value of the receivable amount. Unless the impact of discounting is material, the nominal value is taken. Receivables are written down for irrecoverable amounts. All write-downs are recorded on a separate account and are netted with the carrying amounts when all chances of recovery are depleted.

Trade receivables of which substantially all the risks and rewards have been transferred are derecognized from the balance sheet. The positive fair value of derivative financial instruments is included under this heading.

Trade and other receivables are subject to a new impairment methodology, referred to as the Expected Credit Loss (ECL) model, measuring the expected credit losses based on shared credit risk characteristics. Umicore has established an allowance matrix based on different customer and sector ratings, ageing balances, macro-economic and regional factors and historical loss patterns.

The Group may undertake certain linked contracts to sell or buy metal and commit to repurchase or sell the metal in the future. An asset representing the metal which the Groups has committed to sell or a liability representing the obligation to repurchase the metal are recognized in trade and other receivables or trade and other payables, respectively. Accordingly, principal cash flows in respect of sale and repurchase agreements are shown as cash flows from operating activities in the cash flow statement rather than cash flows from financing activities as long the financing is short term in time and the underlying transactions are not rolled over. Consistently interest paid and received are shown as cash flows from operating activities and presented as other income in the income statement in line with lease and factoring fees. No revenues are recognized in respect of the sale leg or costs are recognized in respect of the purchase leg if it regards the same metals and quantities engaged with the same party.

## 2.11 CASH AND CASH EQUIVALENTS

Cash includes cash-in-hand and cash with banks. Cash equivalents are short-term, highly liquid investments that are readily convertible into known amounts of cash, have maturity dates of three months or less and are subject to an insignificant risk of change in value.

These items are carried in the balance sheet at nominal value or amortized cost. Bank overdrafts are included in the current liabilities on the balance sheet.

## 2.12 IMPAIRMENT OF NON-FINANCIAL ASSETS

Property, plant and equipment and other non-current assets, including intangible assets and financial assets not held for trading, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If any such indication exists, the recoverable amount of the asset is estimated.

The recoverable amount is the higher of an asset's net selling price and value in use. To estimate the recoverable amount of individual assets the company often determines the recoverable amount of the cash-generating unit (CGU) to which the asset belongs.

Whenever the carrying amount of an asset exceeds its recoverable value, an impairment loss is recognized as an expense immediately.

A reversal of impairment losses is recognized when there is an indication that the impairment losses recognized for the asset or for the CGU no longer exist or have decreased. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

## 2.13 SHARE CAPITAL AND RETAINED EARNINGS

A. Repurchase of share capital: When the company purchases some of its own shares, the consideration paid, including any attributable transaction costs net of income taxes, is deducted from the total shareholders' equity as treasury shares. No gain or loss shall be recognized in profit or loss on the purchase, sale, issue or cancellation of own shares. When such shares are subsequently sold or reissued, any consideration received is included in shareholders' equity.

B. Incremental costs directly attributable to the issue of new shares are shown in equity as a deduction from the proceeds of the issue, net of tax.

C. Dividends of the parent company payable on ordinary shares are only recognized as a liability following approval by the shareholders.

## 2.14 MINORITY INTERESTS

Minority interests include a proportion of the fair value of identifiable assets and liabilities recognized upon acquisition of a subsidiary that is attributable to third parties, together with the appropriate proportion of subsequent profits and losses.

In the income statement, the minority share in the Group's profit or loss is presented separately from the Group's consolidated result.

## 2.15 PROVISIONS

Provisions are recognized in the balance sheet when:

- There is a present obligation (legal or constructive) as a result of a past event.
- It is probable that an outflow of resources will be required to settle the obligation.
- A reliable estimate can be made on the amount of the obligation.

A constructive obligation is an obligation that derives from company actions where, by an established pattern of past practice or published policies, the company has indicated that it will accept certain responsibilities and, as a result, the company has created a valid expectation that it will discharge those responsibilities.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the end of the reporting period and taking into account the probability of the possible outcome of the event. Where the effect of the time value of money is material, the amount of a provision is the present value of the expenditure expected to be required to settle the obligation. The result of the yearly discounting of the provision, if any, is accounted for as a financial result.

The main types of provision are the following:

### 1. PROVISIONS FOR EMPLOYEE BENEFITS (SEE NOTE F2.16, EMPLOYEE BENEFITS)

### 2. ENVIRONMENTAL OBLIGATIONS

Environmental provisions are based on legal and constructive obligations from past events, in accordance with the company's environmental approach and applicable legal requirements.

The full amount of the estimated obligation is recognized at the moment the event occurs.

When the obligation is production/activity related, the provision is recognized gradually depending on normal usage/production level.

### 3. OTHER PROVISIONS

These include provisions for litigation, onerous contracts, warranties, exposure to equity investments and restructuring. A provision for restructuring is recognized when the company has approved a detailed and formal restructuring plan and the restructuring has either commenced or has been announced publicly before the end of the reporting period. Any restructuring provision only includes the direct expenditure arising from the restructuring which is necessarily entailed and is not associated with the ongoing activities of the Company.



## 2.16 EMPLOYEE BENEFITS

### 2.16.1 SHORT-TERM EMPLOYEE BENEFITS

These include wages, salaries and social security contributions, paid annual leave and sick leave, bonuses and non-monetary benefits, and are taken as an expense in the relevant period.

All company managers are eligible for bonuses that are based on indicators including personal performance and key financial targets. The amount of the bonus is recognized as an expense, based on an estimation made at the end of the reporting period.

### 2.16.2 POST-EMPLOYMENT BENEFITS (PENSIONS, MEDICAL CARE)

The company has various pension and medical care schemes in accordance with the conditions and practices of the countries it operates in. The schemes are generally funded through payments to insurance companies or trustee-administered funds.

#### 2.16.2.1 DEFINED BENEFIT PLANS

The company has accounted for all legal and constructive obligations both under the formal terms of defined benefit plans and under the company's informal practices.

The amount presented in the balance sheet is based on actuarial calculations (using the projected unit credit method) and represents the present value of the defined benefit obligations netted with the fair value of the plan assets.

The past service costs are immediately recognized in the income statement since IAS 19 revised.

All remeasurements as a result of changes in the actuarial assumptions of post-employment defined benefit plans are recognized through other comprehensive income (OCI) in the period in which they occur and are disclosed in the statement of comprehensive income as post-employment benefit reserves.

In Belgium, in line with the Belgian legislation applicable to 2nd pillar pension plans (so-called "Law Vandenbroucke"), all Belgian Defined Contribution plans, for which the legal minimum guaranteed return is applicable have to be considered under IFRS as Defined Benefit plans. Liabilities and costs of these plans are therefore calculated following the Projected Unit Credit Method.

In Germany two defined contribution pension plans exist which are externally financed via the "Pensionskasse Degussa" (PKD) or the support fund "Unterstützungskasse Degussa" (RUK). The PKD and RUK plans secure the inflation and guaranteed interest rate adjustments of the benefits. In recent years, due to the low interest rate environment, there is a risk of shortfalls in the self-funding at the PKD and RUK to honor these adjustments. In case of such shortfalls the PKD and RUK would call upon Umicore to

contribute the extra funding required. For this reason, the PKD and RUK plans are recognized as defined benefit obligation plans under IFRS. Management applied a best estimate simplified method to calculate the shortfall risk and recognized this as an additional obligation.

#### 2.16.2.2 DEFINED CONTRIBUTION PLANS

The company pays contributions to publicly or privately administered insurance plans.

The payments are recognized as expenses as they fall due and as such are included in personnel costs.

### 2.16.3 OTHER LONG-TERM EMPLOYEE BENEFITS (JUBILEE PREMIUMS)

These benefits are accrued for their expected costs over the period of employment using an accounting methodology similar to that for defined benefit pension plans. These obligations are in general valued annually by independent qualified actuaries. All remeasurements as a result of changes in the actuarial assumptions are immediately recognized in the income statement.

### 2.16.4 TERMINATION BENEFITS (PRE-RETIREMENT PLANS, OTHER TERMINATION OBLIGATIONS)

These benefits arise as a result of the company's decision to terminate an employee's employment before the normal retirement date or of an employee's decision to accept voluntary redundancy in exchange for those benefits. When they are reasonably predictable in accordance with the conditions and practices of the countries the company operates in, future obligations are also recognized.

These benefits are accrued for their expected costs over the period of employment, using an accounting methodology similar to that for defined benefit pension plans. In general, these obligations are valued annually by independent qualified actuaries. All remeasurements as a result of changes in the actuarial assumptions are immediately recognized in the income statement.

### 2.16.5 EQUITY AND EQUITY-RELATED COMPENSATION BENEFITS (SHARE-BASED PAYMENTS IFRS 2)

Different stock option and share programs allow company employees and company senior management to acquire or obtain shares of the company.

The option or share exercise price equals the market price of the (underlying) shares at the date of the grant. When the options are exercised, shares are delivered to the beneficiaries from existing own shares. For the share programs, shares are delivered to the beneficiaries from existing own shares. In both cases, the equity is increased by the amount of the proceeds received corresponding to the exercise price.

The options and shares are typically vested at the moment of the grant and their fair value is recognized as an employee benefit expense with a corresponding increase in equity as share based payment reserves. For the options, the expense to be recognized is calculated by an actuary, using a valuation

model which takes into account all features of the stock options, the volatility of the underlying stock and an assumed exercise pattern.

As long as the options granted have not been exercised, their value is reported in the Statement of Changes in Equity as 'share based payments reserve'. The value of the options exercised during the period is transferred to 'retained earnings'.

#### 2.16.6 PRESENTATION

The impact of employee benefits on results is booked under operating results in the income statement, except for the interest and discount rate impacts which are classified under financial results.

#### 2.17 FINANCIAL LIABILITIES

All movements in financial liabilities are accounted for at trade date.

Borrowings are initially recognized as proceeds received, net of transaction costs.

Subsequently they are carried at amortized cost using the effective interest rate method.

Amortized cost is calculated by taking into account any issue costs, and any discount or premium on issue. Any differences between cost and redemption value are recognized in the income statement upon redemption.

As from 2019, the financial debt also contains the lease liability as per IFRS 16 (see note F2.23.1).

The convertible bond is considered as a compound instrument. It contains a liability and an equity component. This instrument is convertible into shares at the option of the holder. Each component is, therefore, accounted for separately. The liability element is determined by fair valuing the cash flows excluding any equity component. The residual is assigned to equity. The equity component is not remeasured, nor at conversion nor at maturity. Note, finally, that the convertible bond is a zero coupon instrument.

#### 2.18 TRADE AND OTHER PAYABLES

Trade payables are measured at amortized cost, i.e. at the net present value of the payable amount. Unless the impact of discounting is material, the nominal value is taken.

The Group may undertake certain linked contracts to sell or buy metal and commit to repurchase or sell the metal in the future. An asset representing the metal which the Groups has committed to sell or a liability representing the obligation to repurchase the metal are recognized in trade and other receivables or trade and other payables, respectively. Accordingly, principal cash flows in respect of sale

and repurchase agreements are shown as cash flows from operating activities in the cash flow statement rather than cash flows from financing activities as long as the financing is short term in time and the underlying transactions are not rolled over. Consistently interest paid and received are shown as cash flows from operating activities and presented as other income in the income statement in line with lease and factoring fees. No revenues are recognized in respect of the sale leg or costs are recognized in respect of the purchase leg if it regards the same metals and quantities engaged with the same party.

The negative fair value of derivative financial instruments is included under this heading.

#### 2.19 INCOME TAXES

Taxes on profit or loss of the year include current and deferred tax. Such taxes are calculated in accordance with the tax regulations in effect in each country the company operates in.

Current tax is the expected tax payable on the taxable income of the year, using tax rates enacted at the end of the reporting period, and any adjustment to tax payable (or receivable) in respect of previous years.

The tax payable is determined based on tax laws and regulations that apply in each of the numerous jurisdictions in which the Group operates. The income tax positions taken are considered by the Group to be supportable and are intended to withstand challenge from tax authorities. However, it is accepted that some of the position can be uncertain and include interpretation of complex tax laws.

Tax provisions are recognized where the precise impact of the tax law and regulations on taxes payable with respect to profit arising in those jurisdiction is unclear and could trigger a tax adjustment represented by a future flow of funds to a tax authority or a consequent adjustment to a deferred tax asset. Uncertain tax positions are assessed periodically, implying a detail assessment following the interpretation of IFRIC 23, considering uncertainties individually or collectively, based on which approach provided the best predictions of the resolution of the uncertainties with the tax authorities; assuming that the tax authority will examine the position (if entitled to do so) and will have full knowledge of all the relevant information; and recognizing an Uncertain Tax Position or UTP (or group of UTPs) using either the most likely amount or the expected value, depending on which is thought to give a better prediction of the resolution of each (group of) UTP(s), to reflect the likelihood of an adjustment being realised on examination. The estimation and judgements in relation to uncertain tax positions are reassessed if the facts and circumstances on which those estimates and judgements were based have changed or as a result of new information that affects the initial assessments. In the measurement of the Uncertain tax positions, the Group considers the statute of limitation applicable in each jurisdiction, additionally interest and penalties are included in the assessment.

Deferred taxes are calculated using the liability method on temporary differences arising between the tax base of assets and liabilities and their carrying amounts in the financial statements. These taxes

are measured using the rate prevailing at the end of the reporting period or future applicable tax rates formally announced by the government in the country the Company operates in.

Deferred tax assets are only recognized to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilized.

Deferred tax assets and liabilities are offset and presented net only if they relate to income taxes levied by the same taxation authority on the same taxable entity.

## 2.20 REVENUE RECOGNITION

### 2.20.1 REVENUE RECOGNITION FROM CONTRACTS WITH CUSTOMERS

Despite the complexity of several processes within each business unit, the performance obligations are rather straightforward, those being:

- **Catalysis:** the delivery of the goods in accordance with contract specifications. These specifications have been predefined and validated through samples. This latter is not considered as a significant stream for further analysis under IFRS 15.
- **Recycling:** the return of the refined metals back to the client in accordance with the contract either in their pure metal content or as part of a (semi)finished product and the sale of metal (including boni) towards the customers.
- **Energy and Surface Technologies:** the delivery of the products according to specification agreed in the sales order received.

Umicore has carefully considered the satisfaction of the performance obligation and concludes that for sales within Catalysis the revenue is recognized at a point of time when the control transfers to the customer. Despite the products being customized, the considerations for over time have not been met given that the customer does not control the production process nor has the Group the entitlement to be paid prior to delivery of the goods. The control is therefore transferred based upon the usual delivery terms (incoterms) and the customer accepting the goods upon delivery.

For sales within Recycling, the revenue is recognized at a point in time when the control of the refined products or metal is back in the hands of the customers (refinery) or in the hands of the customers (sale of metal, including boni), embarked by the delivery.

For sales within Energy and Surface Technologies the revenue is recognized at a point in time when the control is transferred to the customer, this moment being driven by the delivery of the products according to the incoterms.

Some of the contracts do contain commercial discounts and rebates, however frequency is relatively low, and magnitude is not significant. If applicable, these are recognized in the same period the sale is established.

There are no additional warranty agreements sold to clients on top of legal requirements, therefore these are not considered as a separate performance obligation.

Consequently, the transaction price identified within the agreement is allocated in full to the performance obligation.

There are no significant contract balances where either the Group has performed the performance obligation for which no billing occurred yet, or alternatively has received advance payments for which the performance obligation has not been satisfied.

The revenue from contracts with customers is further detailed in note F7 and F9.

The assessment in view of impairment losses is captured under the expected credit loss model as detailed in note F20.

### 2.20.2 GOVERNMENT GRANTS

A government grant is accounted for in the balance sheet initially as deferred income when there is reasonable assurance that it will be received and that the company will comply with the conditions attached to it. Grants are recognized in the income statement over the period necessary to match them with the costs they are intended to compensate.

## 2.21 FINANCIAL INSTRUMENTS

The company uses derivative financial and commodity instruments primarily to reduce the exposure to adverse fluctuations in foreign exchange rates, commodity prices, interest rates and other market risks. The company uses mainly spot and forward contracts to cover the metal and currency risk, and swaps to hedge the interest rate risk. The operations carried out on the futures markets are not of a speculative nature.

### 2.21.1 TRANSACTIONAL RISKS – FAIR VALUE HEDGING

Derivative financial and commodity instruments are used for the protection of the fair value of underlying hedged items (assets, liabilities and firm commitments) and are recognized initially at fair value at trade date. The hedged items (physical commitments and commercially available inventory, primarily) are, under Umicore's economical hedging policies, initially valued at fair value by applying mark-to-market.

Where possible Umicore documents hedge accounting according to the criteria set out in IFRS 9. The bottom layer or the net position approach for the fair value hedge on groups of closed portfolios of foreign exchange risk and commodity risk exposures are applied. Under the bottom layer approach, a layer representing the nominal amount of an exposure that has historically been present on a constant and continuous basis is defined. This layer is further split into smaller unit of accounts, sublayers, which are designated as hedged items. The sublayers are then hedged by hedging instruments that are designated as hedging multiples of such sublayers

Under the net position approach, hedging is applied based on a group of items with offsetting risk positions, the net position being the hedged item hedged by a hedging instrument.

In both approaches, it regards closed hedged portfolios in which items cannot be added, removed or replaced without treating each change as the transition to a new portfolio. In both approaches, the exposures cover a group of both on balance and off balance foreign exchange and commodity positions, that is, either trade payables, inventories and purchase commitments or trade receivables and sales commitments exposed to the variability of foreign currencies or commodity prices.

In the absence of reaching the IFRS 9 bottom layer criteria or the net position criteria for closed portfolios or in the absence of market-based derivatives and so obtaining fair value hedge accounting at inception as defined under IFRS 9, the hedged items are kept at cost and are subject to IAS 37 principles. In practice this means that Umicore offsets any initially booked material positive mark-to-markets with provisions for onerous contracts and reclassifies the negative mark-to-markets under the provisions for onerous contracts.

When there is a consistent practice of trading of commodities through the use of commodity contracts by a dedicated subsidiary or a cash generating unit (CGU) of the Group and by which the entity takes delivery of the underlying commodity to sell it within a short period after delivery for the purpose of generating a profit from short-term fluctuations in price or trading margins, the inventory is valued at fair value through the income statement and the related physical and / or commodity commitments are classified as derivatives and measured at fair value through the income statement.

#### 2.21.2 STRUCTURAL RISKS – CASH FLOW HEDGING

Derivative financial and commodity instruments used for the protection of future cash flows are designated as hedges under cash-flow hedge accounting. The effective portion of changes in the fair value of hedging instruments which qualify as cash flow hedges are recognized in the shareholders equity as hedging reserves until the underlying forecasted or committed transactions occur (i.e. affect the income statement). At that time the recognized gains and losses on the hedging instruments are transferred from equity to the income statement.

When the underlying hedged transactions are no longer probable or the hedges become ineffective, the corresponding hedging instrument will immediately be terminated and all profits or losses including those which were deferred in equity, are immediately recognized in the income statement.

In the absence of obtaining cash-flow hedge accounting at inception as defined under IFRS 9, then the fair value of the related hedging instruments is recognized in the income statement instead of the equity and this prior to the occurrence of the underlying forecasted or committed transactions.

#### 2.21.3 EMBEDDED DERIVATIVES

Executory contracts (the “host contract”) may sometimes contain embedded derivatives.

Embedded derivatives cause some or all of the cash flows that would otherwise be expected from the host contract, to be modified according to a specified interest rate, financial instrument price, commodity price, foreign exchange rate, or another variable. If it is concluded that such a derivative is not closely related to the host contract, it is separated from the host contract and accounted for under the rules of IFRS 9 (fair value through profit or loss). The host contract is accounted for using the rules applicable to executory contracts, which effectively means that such a contract is not recognized in the balance sheet or profit and loss before delivery on the contract takes place.

#### 2.22 ADJUSTMENTS

The adjustments to the result relate to restructuring measures, impairment of assets linked to restructuring measures and other income or expenses arising from events or transactions that are clearly distinct from the ordinary activities of the company such as discontinuation of activities and environmental provisions that relate to historical pollution or linked to non-active sites.

### F3 FINANCIAL RISK MANAGEMENT

Each of the Group's activities is exposed to a variety of risks that are financial or non-financial in nature but have the potential to impact the financial performance of the Group. Financial risks include changes in metal prices, in foreign currency exchange rates, in certain market-defined commercial conditions, and in interest rates as well as credit and liquidity risks. The Group's overall risk management program seeks to mitigate risks and potential adverse effects on the financial performance of the Group, including through the use of hedging and insurance instruments.

#### 3.1 CURRENCY RISK

Umicore's currency risk can be split into three distinct categories: structural, transactional and translational risks.

### 3.1.1 STRUCTURAL RISK

A portion of Umicore's revenues are structurally denominated in US dollar (USD), while many of the related operations are located outside the USD zone (particularly in Europe and Asia).

Any change in the USD exchange rate against the EUR or other currencies which are not pegged to the USD will have an impact on the results.

A large portion of such structural currency exposure derives from US dollar denominated metal prices linked to the recycling and refining operations.

An increasing portion of the structural risk exposure stems from non-metal related revenues denominated in USD such as product premiums and refining charges. This increase is particularly related to the accelerating growth in battery materials activities in Asia.

Next to the sensitivity USD vs EUR, there is also a structural and increasing sensitivity to certain other currency pairs such as the USD and EUR vs the Korean won (KRW), the Chinese yuan (CNY), the Canadian dollar (CAD), the South African rand (ZAR) and the Brazilian real (BRL).

#### Structural currency hedging

Umicore's hedging policy allows for hedging forward its structural currency exposure, either in conjunction with the hedging of structural metal price exposure or in isolation, typically when a currency exchange rate or a metal price denominated in EUR is above its historical average and at a level where attractive margins can be secured.

In relation to the structural risk, the Group assesses the hedge effectiveness through a critical terms match between the hedged item (future probable cash flows) and the hedging instrument including amount and maturity. The Group applies a prudent approach in the application of structural hedging, never up to 100 %, avoiding thereby ineffectiveness arising from difference in maturity between hedged item and hedging instrument or changes in exposure amounts.

At the end of 2020, Umicore had structural currency hedging in place relating to its non-metal related currency sensitivity including the following pairs of currencies: EUR/USD, USD/KRW, USD/CNY, EUR/CNY, EUR/ZAR and USD/CAD.

### 3.1.2 TRANSACTIONAL RISK

The company is also subject to transactional risks in respect of currencies, i.e. the risk of currency exchange rates fluctuating between the time the price is fixed with a customer or supplier and the time

the transaction is settled. The Group's policy is to hedge the transactional risk to the maximum extent possible, primarily through forward contracts.

In relation to the transactional risk, the Group assesses the hedge effectiveness through a critical terms match between the hedged item (Balance sheet items and commitments) and the hedging instrument including amount and maturity. The Group hedges transactional risks to the maximum extent up to 100 %. Any ineffectiveness can arise from difference in maturity between hedged item and hedging instrument or changes in exposure amounts, but this is not expected to be material.

### 3.1.3 TRANSLATIONAL RISK

Umicore is an international company and has foreign operations which do not have the EUR as their functional currency. When the results and the balance sheets of these operations are consolidated into Umicore's Group accounts the translated amount is exposed to variations in the value of such local currencies against the EUR, predominantly the KRW, CNY, USD, BRL and ZAR. While Umicore does not systematically hedge its translational currency exposures, it may enter into ad hoc translational hedges.

### 3.2 METAL PRICE RISK

Umicore's metal price risk can be split into three distinct categories: structural, transactional and inventory risks.

In relation to the structural and transactional risk, for the purpose of assessing our hedge effectiveness we apply a critical terms match between the hedged item and the hedging instrument including in terms of quantity and maturity. Hedge ratio is 100% whereby our sources of ineffectiveness could be a difference in maturity between hedged item and financial instrument or a change in exposure.

### 3.2.1 STRUCTURAL RISK

Umicore is exposed to structural metal related price risks. Those risks relate mainly to the impact that metal prices have on surplus metals recovered from materials supplied for treatment or any other revenue component that fluctuates with the metal price. Umicore's policy allows hedging of such metal price exposure, typically if forward metal prices expressed in the functional currency of the concerned businesses are above their historical average and at a level where attractive margins can be secured. The extent to which metal price risk can be hedged depends on the availability of hedging instruments and sufficient associated market liquidity.

The Recycling segment recycles platinum, palladium, rhodium, gold and silver and a wide range of other base and specialty metals. In this segment the short-term sensitivity of revenues and operating profits to metals prices is particularly material. However, given the variability of the raw-material feed over time and the variable duration of the supply contracts negotiated, it is not suitable to provide a fixed sensitivity to any particular metal. In general terms, higher metals prices tend to be earnings enhancing

for the Recycling business (and vice versa). Umicore also has a metal price sensitivity in its other business segments (Catalysis, Energy & Surface Technologies) linked primarily to the revenue components that are metal price related and depending on the metals used in these segments. Also, in these cases a higher metal price tends to carry short term benefits for the profitability of each business (and vice versa). However, other commercial conditions which are largely independent of the metal price, such as product premiums, are also significant and independent drivers of revenues and profitability. Finally, sustained high metal prices could in some cases increase other risks such as the risk of substitution or the risk of supply chain disruptions.

### Structural metal price hedging

For some metals Umicore hedges part of its forward metal exposure. This hedging is based on documentation demonstrating a high probability of future metal price based cash flows originating from commercial contracts. Umicore hedged part of its forward metal exposure. Over the course of 2020 and early 2021, Umicore entered into additional forward contracts, thereby securing a substantial portion of its structural future price exposure to certain precious metals and providing increased earnings visibility. For 2021 and 2022, approximately two thirds of the expected gold and palladium exposure and somewhat less than half of the expected silver exposure have been locked-in. In addition, close to one third of the expected platinum exposure for 2021 has been hedged. In spite of the absence of a liquid futures market, Umicore entered in recent months into forward contracts locking in a minority of its expected 2022 and 2023 rhodium exposure. Finally, Umicore also hedged the majority of its expected lead exposure for 2021 and 2022.

In relation to the structural risk, the Group assesses the hedge effectiveness through a critical terms match between the hedged item (future probable cash flows) and the hedging instrument amongst others amount and maturity. The Group applies a prudent approach in the application of structural hedging, never up to 100 %, avoiding thereby ineffectiveness arising from difference in maturity between hedged item and hedging instrument or changes in exposure amounts.

### 3.2.2 TRANSACTIONAL RISK

The Group faces transactional price risks on metals. The majority of its metal-based transactions use third party metal market references, such as the London Metal Exchange. If the underlying metal price were to be constant, the price Umicore pays for the metal contained in the raw materials purchased would be passed through 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 fluctuations in price between the moment raw materials are purchased (i.e., when the metal is “priced in”) and the moment the products are sold (i.e. when the metal is “priced out”).

The Group’s policy is to hedge the transactional risk to the maximum extent possible, primarily through forward contracts.

In relation to the transactional risk, the Group assesses the hedge effectiveness through a critical terms match between the hedged item (Balance sheet items and commitments) and the hedging instrument amongst others amount and maturity. The Group hedges transactional risks to the maximum extent up to 100 %. Any ineffectiveness of such hedges can arise from difference in maturity between hedged item and hedging instrument or changes in exposure amounts, but this is not expected to be material.

The accelerating growth in battery materials in recent years substantially increased the exposure to specific related metals such as cobalt or nickel. Increasing volumes, the vulnerability to the associated price volatility and in the case of certain metals such as cobalt the absence of a liquid paper forward market result in increased metal risks. For cobalt, Umicore’s transactional hedging policy aims to match to a maximum extent the pricing in and pricing out of the contracted metal. Such physical back-to-back hedging allows management of transactional risks related to cobalt in a volatile market.

The Group’s economical transactional metal hedging policy prescribes that mark-to-market valuation principles are initially applied on all elements of the transactional hedging position, hedging instruments as well as hedged items. Where possible this happens under IFRS 9 hedge accounting criteria. When IFRS 9 hedge accounting cannot be applied or obtained, Umicore offsets any material positive mark-to-markets with provisions for onerous contracts and reclassifies the negative mark-to-markets under the provisions for onerous contracts.

### 3.2.3 METAL INVENTORY RISK

The group faces metal price risks on its permanently tied up metal inventories. This risk is related to the market metal price moving below the carrying value of these inventories.

Umicore tends not to hedge against this risk.

### 3.3 INTEREST RATE RISK

Interest rate risks arise from changes in prevailing market interest rates, which can lead to changes in the fair value of fixed-rate debt instruments and in changes in interest payments for variable-rate debt instruments. This risk is managed by regularly assessing the debt profile of the Group and by entering into interest rate swaps. At the end of December 2020, the Group’s gross financial debt stood at

€ 2,424 million, of which 1,609 million carrying a fixed interest rate. The outstanding interest rate swaps totaled € 40 million and will expire in 2023.

### 3.4 CREDIT RISK

#### Credit risk and concentration of credit risk

Credit risk is the risk of non-payment by any counterparty in relation to sales of goods or metal lease operations. In order to manage its credit exposure, Umicore has determined a credit policy with credit limit requests, approval procedures, continuous monitoring of the credit exposure and dunning procedure in case of delays. The credit risk resulting from sales is, to a certain extent, covered by credit insurance, letters of credit or similar secure payment means. Umicore entered into several credit insurance agreements with different insurers. One global credit insurance contract has been put in place on a world-wide basis. This contract protects the insured activities against insolvency, political and commercial risks with an individual deductible per invoice of 5% and foresees an indemnification cap set at regional or country levels. Umicore has determined that in a certain number of cases where the cost of credit insurance is disproportionate in relation to the risk to be insured, no such global credit insurance coverage will be sought. For those businesses, characterized by a significant level of customer concentration or by a specific and close relationship with the customers, specific insurance contracts may be set up for a certain period. It should be noted that some sizeable transactions, such as the sales of precious metals by Recycling, have a limited credit risk as payment before delivery is a widely accepted practice. Umicore may further limit selected credit risks by entering into without recourse receivables discounting arrangements or particularly in China by without recourse bank draft discounting. Regarding its risk exposure to financial institutions such as banks and brokers, Umicore is also establishing internal credit lines. Specific limits are set, per financial instrument, covering the various risks to which the Group is exposed when transacting with such counterparties. In accordance with IFRS 9, impairments for expected credit losses on receivables are measured and recognized, applying a simplified approach.

### 3.5 LIQUIDITY RISK

Liquidity risk relates to the ability to service and refinance debt (including notes issued) and to fund operations. The Group manages liquidity risk by maintaining adequate sources of funding, by ensuring a sufficient diversification of such funding sources, by matching as close as possible the maturity profiles of financial assets and liabilities and by staggering the maturities of financing sources. Sources of funding include a.o. operating cash flows, committed and uncommitted bank facilities including Chinese bank draft lines, metal lease lines, commercial paper issuance and long term private debt placements.

### 3.6 TAX RISK

The tax charge included in the financial statements is the Group's best estimate of its tax liability but, until such time as audits by tax authorities are concluded, there is a degree of uncertainty regarding the final tax liability for the period. The Group's policy is to submit tax returns within the statutory time limits

and engage tax authorities to ensure that the Group's tax affairs are as current as possible and that any differences in the interpretation of tax legislation and regulation are resolved as quickly as possible. Given the scale and the international nature of the Group's business, VAT, sales tax and intra- Group transfer pricing are an inherent tax risk as it is for other international businesses. Changes in tax laws or in their application with respect to matters such as transfer pricing, VAT, foreign dividends, R&D tax credits and tax deductions, could increase the Group's effective tax rate and adversely affect its net results. Based on these tax risks described, management performed a detailed assessment for uncertain tax positions which resulted in provisions recorded for these uncertainties in line with IFRIC 23.

### 3.7 CAPITAL RISK MANAGEMENT

The Group's objectives when managing capital are to safeguard its ability to continue as a going concern, to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, the Group may for example adjust the amount of dividends paid to shareholders, return capital to shareholders, buy back its own shares or issue new shares.

The Group monitors its capital structure primarily on the basis of the gearing ratio and the net financial debt over adjusted EBITDA ratio. The gearing ratio is calculated as net financial debt divided by the sum of net financial debt and total Group equity. Net financial debt is calculated as non-current financial debt plus current financial debt less cash and cash equivalents.

The figures for the presented periods are detailed under the note F24 on Financial Debt.

In an ordinary course of business operating environment, the group aims for a capital structure equivalent to investment-grade credit rating status. The group could consider temporarily exceeding the equivalent level of indebtedness in the case of an extraordinary event, such as for example a major acquisition.

### 3.8 STRATEGIC AND OPERATIONAL RISKS

Umicore faces certain strategic and operational risks that are not necessarily financial in nature but which have the potential to impact the financial performance of the Group. These include a.o. technology risks, supply risks, the risk of product substitution by customers, security of supply related risks (such as for selected critical metals), operational risks related to critical production installations, information system availability and cyber security risks, risks from legal disputes and proceedings, risks related to metal trading activities, asset impairment risks due to a change in the asset's underlying business context & outlook, etc. In some cases a direct link exists between financial and operational risks. For example, a potential continuity of supply risk for certain critical raw materials or metals due to sudden or extreme physical supply tightness could substantially enhance financial risks and in particular metal price-related



risks. In the past, certain metals such as for example rhodium or cobalt showed high price volatility related to supply tightness considerations. Please refer to the chapter about [Managing Risk Effectively](#)(p. 76) for a description of some of these risks and an outline of Umicore's general approach to risk management.

Umicore does not expect a material direct financial impact from the Brexit.

### 3.9 COVID-19 RELATED RISKS

The COVID-19 outbreak in 2020 resulted in higher financial risks for Umicore. In response to decreased volumes in certain business segments, the recoverable amounts of some individual non-current assets (PPE, IP and capitalized development costs) within such segments was assessed and impairments on these individual assets were accounted for. In addition, Umicore assessed its production footprint resulting in some restructuring measures. We refer to the Adjustments section of note F9 for more details. COVID-19 also triggered potentially higher liquidity and credit risks that the Group managed effectively in 2020. Umicore's sources of funding were increased and further diversified and we refer to note F24 Financial debt for more details. Credit risks were closely monitored and the Group faced no material credit losses in 2020; we refer to note F20 Trade and other receivables for more details. As the COVID-19 pandemic extends into 2021, related risks remain relevant.

## F4 CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments used in developing and applying the consolidated entity's financial statements are continually evaluated and are based on historical experience and other factors, including the expectations of future events that may have a financial impact on the entity and that are believed to be reasonable under the circumstances. The resulting accounting estimates will, by definition, seldom equal the related actual results.

Assumptions and estimates are applied when:

- Assessing the need for and measurement of impairment losses.
- Accounting for pension obligations.
- Recognizing and measuring provisions for tax, environmental, warranty and litigation risks, product returns, onerous contracts and restructuring.
- Determining inventory write-downs.
- Assessing the extent to which deferred tax assets will be realized.
- Useful lives of Property, Plant and Equipment and Intangible assets excluding goodwill.

The critical estimates and judgments that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are listed below.

### 4.1 IMPAIRMENT TESTING

The Group performs an impairment test on the carrying value of its cash generating units whenever certain external or internal triggering events suggest a potential impairment risk for such unit. The Group performs annual impairment tests on the goodwill carried by its cash generating units. An impairment loss is recognized when the carrying value exceeds the recoverable amount in a structural way. The recoverable amount is the higher of the fair value less costs to sell and its value in use in accordance with the accounting policy. This value in use is calculated by discounting related future free cash flows (DCF model) to calculate their present value. These calculations require the use of and are sensitive to estimates and assumptions such as discount rates, exchange rates, commodity prices, future capital requirements and future operating performance. Internal estimates of future business performance are based on an analysis of a combination of factors including: market growth projections, market share estimates, competitive landscape, pricing and cost evolution. Such analysis combines both internally-generated estimates and data from external sources.

As at 31 December 2020, the carrying amount of the goodwill for the consolidated entity was € 156.0 million (€ 156.7 million in 2019). We refer to note F15 Goodwill for more details on the annual goodwill impairment testing.

### 4.2 REHABILITATION OBLIGATIONS

Provision is made for the anticipated costs of future rehabilitation of industrial sites and surrounding areas to the extent that a legal or constructive obligation exists in accordance with accounting policy 2.15. These provisions include future cost estimates associated with reclamation, plant closures, waste site closures, monitoring, demolition, decontamination, water purification and permanent storage of historical residues. These future cost estimates are discounted to their present value. The calculation of these provision estimates requires assumptions such as application of environmental legislation, plant closure dates, available technologies and engineering cost estimates and specifically related to the Hoboken Green Zone, the purchase cost of houses. A change in any of the assumptions used may have a material impact on the carrying value of rehabilitation provisions. As at 31 December 2020, the carrying amount of rehabilitation provisions was € 108.2 (€ 58.0 million in 2019). We refer to note F29 Environmental provisions for more details.

### 4.3 DEFINED BENEFIT OBLIGATIONS

An asset or liability in respect of defined benefit plan is recognized on the balance sheet in accordance with accounting policy 2.16. The present value of a defined benefit obligation is dependent upon a number of factors that are determined on an actuarial basis.

The consolidated entity determines the appropriate discount rate to be used at the end of each year. The consolidated entity's employee benefit obligations are discussed in more detail in Note F27. At



31 December 2020, a liability with respect to employee benefit obligations of € 426.4 million was recognized (€ 392.6 million in 2019).

#### 4.4 RECOVERY OF DEFERRED TAX ASSETS

Deferred tax assets are recognized for deductible temporary differences, unused tax losses and fair value reserves entries only if it is probable that future taxable profits (based on Group operational plans) are available to use those temporary differences and losses. The actual tax results in future periods may differ from the estimate made at the time the deferred taxes are recognized.

Other assumptions and estimates are disclosed in the respective notes relevant to the item where the assumptions or estimates were used for measurement.

#### 4.5 PROVISIONS FOR OTHER LIABILITIES AND CHARGES

As mentioned under notes 2.21.1 and 3.2.2., Umicore's policy is to hedge to the maximum extent possible its transactional metal price risk, applying IFRS 9 based fair value hedge accounting to the extent there are market-based derivatives available.

In the absence of such market-based derivatives or in the absence of obtaining fair value hedge accounting at all, the hedged items are kept at cost and are subject to the IAS 37 principles, in particular the onerous contract judgment.

The onerous contract provision decisions related to replicate maximally the IFRS 9 fair valuation on Umicore's metal transactional positions are based on the one hand on an assessment of the level of commitment expected from a third party to honor its contractual obligations towards Umicore (in the event the metal price at the close would be substantially higher (lower) than the contracted metal price in the case of Umicore purchases (sales)) and on the other hand on the commitment of Umicore to honor itself contractual transactional metal obligations out of the money

Both in 2019 and 2020, the market volatility in the cobalt price and in 2020 as well in the nickel price triggered such risk assessments.

The amount of such onerous contract provisions stood at € 20.0 million end 2020 (€ 24.1 million end 2019).

The fast growth of Umicore's battery materials sales for transport applications in particular is increasing the group's exposure to the automotive industry end market. This industry has a practice of applying warranty and recall settlements related to potential product quality events (irrespective of whether any legal obligation exists). In view thereof, Umicore continued in 2020 its dedicated provisioning model for battery materials as introduced in 2018.

As at 31 December 2020, the carrying amount of the provisions for other liabilities and charges amount to € 80.1 million (€ 80.7 million in 2019).

#### 4.6 PROVISIONS FOR UNCERTAINTY OVER INCOME TAX TREATMENTS

As mentioned under the note F.2.19, Umicore makes a detail assessment of all tax uncertainties within the group as per IFRIC 23. In the measurement of the uncertain tax positions, the Group has considered the statute of limitation taking into account the tax law and regulations that are applied in the correspondent country, resulting in a range of three to seven years. The resolution of the tax positions taken by the Group can take considerable period of time to conclude and, in some cases, it is difficult to predict the outcome. The estimates made reflects where the Group: is involved in routine tax audits; has identified potential tax exposures related to transfer pricing ; or is involved in discussions with tax authorities. The estimation of the tax liability and income tax expense includes the corresponding penalties and late payment interests. Most of the uncertain tax positions are measured using the the expected value, consisting to the sum of the probability - weighted outcome of a range of potential outcomes, nevertheless the most likely amount has also been used in a limited number of uncertain tax positions. Group provision for uncertainty over tax treatments at December 2020 amounting to € 114.9 million (2019 : € 91.4 million) results in an increase of those liabilities by € 23.5 million. This provision was booked under Income Tax Payable in the consolidated balance sheet. The movement of the year corresponds from remeasurement and roll-forward of existing uncertain tax positions; reversal of uncertain tax position based on mitigation actions taken and on the expiration of the statute of limitation; and the recognition of newly uncertain tax positions.

## F5 GROUP COMPANIES

Below is a list of the main operating companies included in the consolidated financial statements

		% INTEREST IN 2019	% INTEREST IN 2020
<b>For continuing operations</b>			
Argentina	Umicore Argentina S.A.	100.00	100.00
Australia	Umicore Marketing Services Australia Pty Ltd.	100.00	100.00
Austria	Oegussa GmbH	91.29	91.29
Belgium	Todini (BE 0834.075.185)	100.00	100.00
-	Umicore Financial Services (BE 0428.179.081)	100.00	100.00
-	Umicore Marketing Services Belgium (BE 0402.964.625)	100.00	100.00
-	Umicore Specialty Materials Brugge (BE 0405.150.984)	100.00	100.00
-	Umicore Holding Belgium (BE 0731.571.921)	100.00	100.00
Brazil	Coimpa Industrial Ltda	100.00	100.00
-	Umicore Brasil Ltda	100.00	100.00
-	Clarex	100.00	100.00
-	Umicore Shokubai Brasil Industrial Ltda	60.00	60.00
-	Umicore Catalisadores Ltda.	100.00	100.00
Canada	Umicore Canada Inc.	100.00	100.00
-	Umicore Autocat Canada Corp.	100.00	100.00
-	Umicore Precious Metals Canada Inc.	100.00	100.00
China	Umicore Marketing Services (Shanghai) Co., Ltd.	100.00	100.00
-	Umicore Marketing Services (Hong Kong) Ltd.	100.00	100.00
-	Umicore Autocat (China) Co. Ltd.	100.00	100.00
-	Umicore Changxin Surface Technology (Jiangmen) Co., Ltd.	80.00	80.00
-	Jiangmen Umicore Changxin New Materials Co., Ltd.	90.00	90.00
-	Umicore Shokubai (China) Co Ltd	60.00	60.00
-	Umicore Platinum Engineered Materials (Suzhou) Co., Ltd.	100.00	100.00
-	Umicore Catalyst (China) Co., Ltd.	100.00	100.00
Denmark	Umicore Denmark ApS	100.00	100.00
Finland	Umicore Finland OY	100.00	100.00

		% INTEREST IN 2019	% INTEREST IN 2020
France	Umicore France S.A.S.	100.00	100.00
-	Umicore IR Glass S.A.S.	100.00	100.00
-	Umicore Autocat France S.A.S.	100.00	100.00
-	Umicore Specialty Powders France S.A.S.	100.00	100.00
-	Umicore Marketing Services France	100.00	100.00
-	Todini France S.A.S.	100.00	100.00
Germany	Umicore AG & Co. KG (*)	100.00	100.00
-	Allgemeine Gold- und Silberscheideanstalt AG	91.21	91.21
-	Umicore Galvanotechnik GmbH	91.21	91.21
-	Todini Deutschland GmbH	100.00	100.00
-	Umicore Shokubai Germany GmbH	60.00	60.00
Italy	Todini and CO. S.P.A.	100.00	100.00
India	Umicore Autocat India Pvt LTD	100.00	100.00
-	Umicore India Private Limited	100.00	100.00
-	Todini Metals and Chemicals India Private Limited	70.00	70.00
Japan	Umicore Japan KK	100.00	100.00
-	Umicore Shokubai Japan Co Ltd	60.00	60.00
South Korea	Umicore Korea Ltd.	100.00	100.00
-	Umicore Marketing Services Korea Co., Ltd.	100.00	100.00
-	Ordeg Co.,Ltd.	100.00	100.00
Liechtenstein	Umicore Thin Film Products AG	100.00	100.00
Luxemburg	Umicore International	100.00	100.00
-	Umicore Autocat Luxembourg	100.00	100.00
Mexico	Todini Atlántica S.A. de C.V.	70.00	70.00
Netherlands	Schöne Edelmetaal BV	91.21	91.21
Philippines	Umicore Specialty Chemicals Subic Inc.	78.20	78.20
Poland	Umicore Autocat Poland sp. z o.o.	100.00	100.00
-	Todini Europe sp. z o.o.	70.00	70.00
-	Umicore Poland Sp. z o.o.	100.00	100.00

		% INTEREST IN 2019	% INTEREST IN 2020
Portugal	Umicore Marketing Services Lusitana Metais Lda	100.00	100.00
South Africa	Umicore Marketing Services Africa (Pty) Ltd.	100.00	100.00
-	Umicore Catalyst South Africa (Pty) Ltd.	65.00	65.00
Spain	Todini Quimica Ibérica, S.L.	100.00	100.00
Sweden	Umicore Autocat Sweden AB	100.00	100.00
Switzerland	Allgemeine Suisse SA	91.21	91.21
Taiwan	Umicore Thin Film Products Taiwan Co Ltd	100.00	100.00
Thailand	Umicore Precious Metals Thailand Ltd.	91.21	91.21
-	Umicore Autocat (Thailand) Co., Ltd.	100.00	100.00
-	Umicore Shokubai (Thailand) Co., Ltd.	60.00	60.00
United Kingdom	Umicore Coating Services Ltd.	100.00	100.00
-	Umicore Marketing Services UK Ltd	100.00	100.00
USA	Umicore USA Inc.	100.00	100.00
-	Umicore Autocat USA Inc.	100.00	100.00
-	Umicore Precious Metals NJ LLC	100.00	100.00
-	Umicore Precious Metal Chemistry USA LLC	100.00	100.00
-	Umicore Precious Metals USA Inc.	100.00	100.00
-	Umicore Optical Materials USA Inc.	100.00	100.00
-	Umicore Shokubai USA Inc	60.00	60.00
-	Palm Commodities International	100.00	100.00
-	Umicore Electrical Materials USA Inc.	100.00	100.00
-	Umicore Specialty Materials Recycling, LLC.	100.00	100.00
-	Umicore Catalyst USA, LLC	100.00	100.00

(\*) Umicore AG & Co. KG, with its registered office in Hanau, Germany, is exempt from its obligation to prepare, audit and publish annual and consolidated financial statements and a management and group management report in accordance with sections 264b and 291 of the German Commercial Code (HGB).

## F6 FOREIGN CURRENCY MEASUREMENT

For the main currencies applicable within the Group's consolidated entities and investments, the prevailing rates used for translation into the Group's presentation currency (€), are as set out below. All subsidiaries, associates and joint-ventures have as functional currency the currency of the country in which they operate, except for Element Six Abrasives (United Kingdom) where the functional currency is the US dollar.

		CLOSING RATES		AVERAGE RATES	
		2019	2020	2019	2020
American Dollar	USD	1.123	1.227	1.119	1.142
UK Pound Sterling	GBP	0.851	0.899	0.878	0.890
Canadian Dollar	CAD	1.460	1.563	1.485	1.530
Swiss Franc	CHF	1.085	1.080	1.112	1.071
Japanese Yen	JPY	121.940	126.490	122.006	121.846
Brazilian Real	BRL	4.528	6.377	4.416	5.889
South African Rand	ZAR	15.777	18.022	16.176	18.765
Chinese Yuan	CNY	7.821	8.023	7.735	7.875
Thai Baht	THB	33.415	36.727	34.757	35.708
Korean Won (100)	KRW	12.963	13.360	13.053	13.456

## F7 SEGMENT INFORMATION

## BUSINESS GROUP INFORMATION 2019

Thousands of Euros	Notes	Catalysis	Energy & Surface Technologies	Recycling	Corporate & Unallocated	Eliminations	Total Continued
<b>Total segment turnover</b>		<b>4,539,213</b>	<b>2,938,485</b>	<b>11,319,935</b>	<b>58,778</b>	<b>(1,371,330)</b>	<b>17,485,081</b>
External turnover		4,444,620	2,877,280	10,104,403	58,778	-	17,485,081
Inter-segment turnover		94,593	61,205	1,215,532	-	(1,371,330)	-
<b>Total segment revenues (excluding metals)</b>		<b>1,459,902</b>	<b>1,225,408</b>	<b>680,981</b>	<b>-</b>	<b>(5,667)</b>	<b>3,360,624</b>
External revenues		1,458,227	1,225,242	677,155	-	-	3,360,624
Inter-segment revenues		1,675	166	3,826	-	(5,667)	-
<b>Operating result</b>	<b>F9</b>	<b>184,884</b>	<b>149,065</b>	<b>190,086</b>	<b>(53,588)</b>	<b>-</b>	<b>470,447</b>
Adjusted		185,270	177,164	188,069	(52,371)	-	498,131
Adjustments		(386)	(28,099)	2,017	(1,217)	-	(27,684)
<b>Equity method companies</b>	<b>F9</b>	<b>-</b>	<b>5,382</b>	<b>-</b>	<b>3,323</b>	<b>-</b>	<b>8,705</b>
Adjusted		-	5,382	-	5,407	-	10,789
Adjustments		-	-	-	(2,084)	-	(2,084)
<b>EBIT</b>	<b>F9</b>	<b>184,884</b>	<b>154,447</b>	<b>190,086</b>	<b>(50,265)</b>	<b>-</b>	<b>479,152</b>
Adjusted		185,270	182,546	188,069	(46,964)	-	508,920
Adjustments		(386)	(28,099)	2,017	(3,301)	-	(29,768)
<b>Depreciation and amortisation</b>	<b>F9</b>	<b>78,507</b>	<b>88,300</b>	<b>62,313</b>	<b>14,918</b>	<b>-</b>	<b>244,038</b>
Adjusted		78,507	88,300	62,313	14,918	-	244,038
<b>EBITDA</b>	<b>F9</b>	<b>263,390</b>	<b>242,747</b>	<b>252,399</b>	<b>(35,346)</b>	<b>-</b>	<b>723,190</b>
Adjusted		263,776	270,846	250,382	(32,045)	-	752,959
<b>Consolidated total assets</b>		<b>2,747,773</b>	<b>3,781,786</b>	<b>1,345,517</b>	<b>808,926</b>	<b>(1,660,612)</b>	<b>7,023,390</b>
Segment assets		2,747,773	3,747,271	1,345,517	692,799	(1,660,612)	6,872,748
Investments in associates		-	34,515	-	116,127	-	150,642
<b>Consolidated total liabilities</b>		<b>1,254,284</b>	<b>1,435,241</b>	<b>947,340</b>	<b>2,386,672</b>	<b>(1,660,612)</b>	<b>4,362,925</b>
Capital Employed at 31/12 of previous year	F31	1,264,885	1,769,135	546,396	221,997	-	3,802,413
Capital Employed at 30/06	F31	1,314,779	1,982,482	481,776	195,514	-	3,974,551
Capital Employed at 31/12	F31	1,536,950	2,323,770	405,422	175,849	-	4,441,991
Average Capital Employed in first half year	F31	1,289,832	1,875,809	514,086	208,756	-	3,888,482
Average Capital Employed in second half year	F31	1,425,864	2,153,126	443,599	185,682	-	4,208,271
<b>Average Capital Employed in the year</b>	<b>F31</b>	<b>1,357,848</b>	<b>2,014,467</b>	<b>478,842</b>	<b>197,219</b>	<b>-</b>	<b>4,048,377</b>
ROCE	F31	13.64%	9.06%	39.28%	-23.81%	0.00%	12.57%
<b>Capital expenditure</b>	<b>F34</b>	<b>103,960</b>	<b>348,217</b>	<b>82,023</b>	<b>18,990</b>	<b>-</b>	<b>553,189</b>
<b>Total R&amp;D expenditure</b>	<b>F9</b>	<b>146,624</b>	<b>45,619</b>	<b>8,313</b>	<b>9,989</b>	<b>-</b>	<b>210,546</b>
R&D recognized in operating expenses	F9	132,011	30,687	8,313	4,875	-	175,885
R&D capitalized as intangible assets	F34	14,614	14,933	-	5,114	-	34,660

## BUSINESS GROUP INFORMATION 2020

Thousands of Euros	Notes	Catalysis	Energy & Surface Technologies	Recycling	Corporate & Unallocated	Eliminations	Total Continued
<b>Total segment turnover</b>		<b>5,916,870</b>	<b>2,811,050</b>	<b>13,903,640</b>	<b>25,676</b>	<b>(1,947,120)</b>	<b>20,710,116</b>
External turnover		5,783,840	2,750,410	12,150,190	25,676	-	20,710,116
Inter-segment turnover		133,030	60,640	1,753,450	-	(1,947,120)	-
<b>Total segment revenues (excluding metals)</b>		<b>1,364,210</b>	<b>1,045,040</b>	<b>836,000</b>	<b>-</b>	<b>(6,530)</b>	<b>3,238,720</b>
External revenues		1,362,640	1,044,940	831,140	-	-	3,238,720
Inter-segment revenues		1,570	100	4,860	-	(6,530)	-
<b>Operating result</b>	<b>F9</b>	<b>96,338</b>	<b>(41,118)</b>	<b>310,900</b>	<b>(61,528)</b>	<b>-</b>	<b>304,592</b>
Adjusted		153,688	70,422	361,815	(57,894)	-	528,030
Adjustments		(57,350)	(111,539)	(50,915)	(3,634)	-	(223,438)
<b>Equity method companies</b>	<b>F9</b>	<b>-</b>	<b>4,874</b>	<b>-</b>	<b>(10,206)</b>	<b>-</b>	<b>(5,332)</b>
Adjusted		-	4,874	-	3,457	-	8,331
Adjustments		-	-	-	(13,663)	-	(13,663)
<b>EBIT</b>	<b>F9</b>	<b>96,338</b>	<b>(36,244)</b>	<b>310,900</b>	<b>(71,734)</b>	<b>-</b>	<b>299,260</b>
Adjusted		153,688	75,295	361,815	(54,437)	-	536,361
Adjustments		(57,350)	(111,539)	(50,915)	(17,297)	-	(237,101)
<b>Depreciation and amortisation</b>	<b>F9</b>	<b>80,496</b>	<b>110,457</b>	<b>62,949</b>	<b>14,040</b>	<b>-</b>	<b>267,941</b>
Adjusted		80,496	110,457	62,949	14,040	-	267,941
<b>EBITDA</b>	<b>F9</b>	<b>176,834</b>	<b>74,213</b>	<b>373,849</b>	<b>(57,694)</b>	<b>-</b>	<b>567,201</b>
Adjusted		234,184	185,752	424,764	(40,397)	-	804,302
<b>Consolidated total assets</b>		<b>3,447,098</b>	<b>3,376,191</b>	<b>1,643,894</b>	<b>1,568,336</b>	<b>(1,694,627)</b>	<b>8,340,892</b>
Segment assets		3,447,098	3,337,762	1,643,894	1,466,927	(1,694,627)	8,201,054
Investments in associates		-	38,429	-	101,410	-	139,839
<b>Consolidated total liabilities</b>		<b>1,814,687</b>	<b>1,260,177</b>	<b>1,215,316</b>	<b>3,123,485</b>	<b>(1,694,627)</b>	<b>5,719,038</b>
Capital Employed at 31/12 of previous year	<b>F31</b>	1,536,950	2,323,770	405,422	175,849	-	4,441,991
Capital Employed at 30/06	<b>F31</b>	1,560,188	2,189,523	578,205	124,696	-	4,452,611
Capital Employed at 31/12	<b>F31</b>	1,727,443	2,133,138	446,861	149,138	-	4,456,580
Average Capital Employed in first half year	<b>F31</b>	1,548,569	2,256,646	491,813	150,273	-	4,447,301
Average Capital Employed in second half year	<b>F31</b>	1,643,815	2,161,330	512,533	136,917	-	4,454,596
<b>Average Capital Employed in the year</b>	<b>F31</b>	<b>1,596,192</b>	<b>2,208,988</b>	<b>502,173</b>	<b>143,595</b>	<b>-</b>	<b>4,450,948</b>
ROCE	<b>F31</b>	9.63%	3.41%	72.05%	-37.91%	0.00%	12.05%
<b>Capital expenditure</b>	<b>F34</b>	<b>63,798</b>	<b>251,688</b>	<b>71,577</b>	<b>16,105</b>	<b>-</b>	<b>403,169</b>
<b>Total R&amp;D expenditure</b>	<b>F9</b>	<b>138,742</b>	<b>58,269</b>	<b>10,186</b>	<b>15,766</b>	<b>-</b>	<b>222,964</b>
R&D recognized in operating expenses	<b>F9</b>	125,275	43,636	10,186	11,499	-	190,596
R&D capitalized as intangible assets	<b>F34</b>	13,468	14,633	-	4,267	-	32,368

## GEOGRAPHICAL INFORMATION 2019

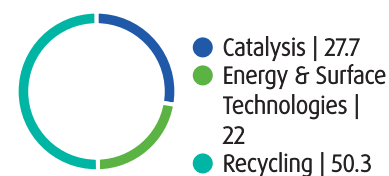
Thousands of Euros	Notes	Europe	of which Belgium	Asia-Pacific	North America	South America	Africa	Total
Total segment turnover		8,061,295	149,183	4,850,973	3,862,500	528,751	181,563	17,485,081
Total non current assets		1,311,600	576,778	1,115,273	144,541	48,186	7,438	2,627,038
Capital expenditure	F34	206,051	156,049	316,729	18,012	12,395	2	553,189

## GEOGRAPHICAL INFORMATION 2020

Thousands of Euros	Notes	Europe	of which Belgium	Asia-Pacific	North America	South America	Africa	Total
Total segment turnover		11,115,296	156,181	5,016,465	3,881,278	561,411	135,667	20,710,116
Total non current assets		1,389,895	564,209	1,109,045	112,075	45,590	4,726	2,661,333
Capital expenditure	F34	274,403	100,914	104,880	8,829	14,750	306	403,169

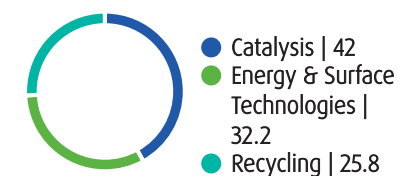
## ADJUSTED EBITDA PER BUSINESS GROUP

%



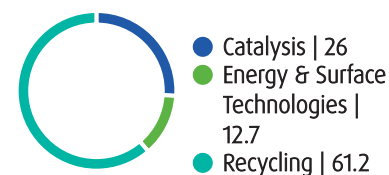
## REVENUES (EXCLUDING METAL) PER BUSINESS GROUP

%



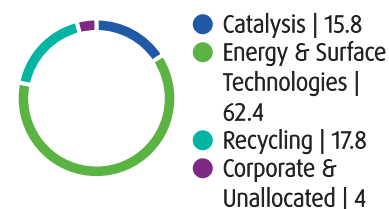
## ADJUSTED EBIT PER BUSINESS GROUP

%



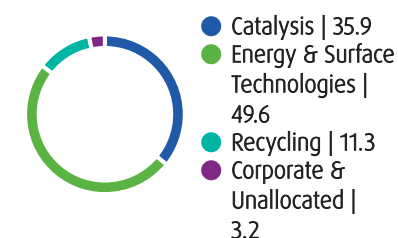
## CAPITAL EXPENDITURE PER BUSINESS GROUP

%

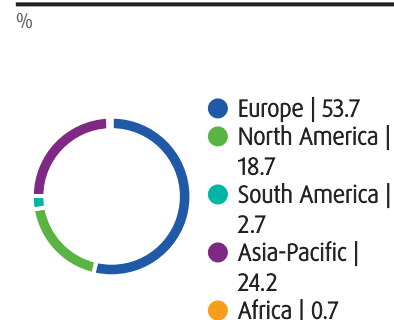


## CAPITAL EMPLOYED, AVERAGE PER BUSINESS GROUP

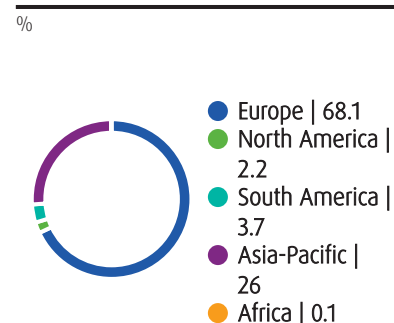
%



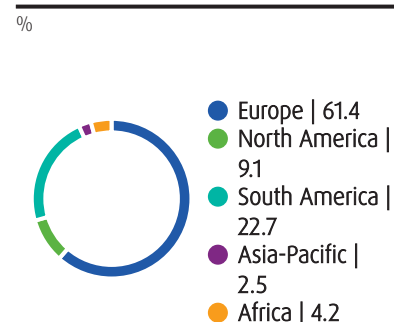
## TURNOVER BY REGION



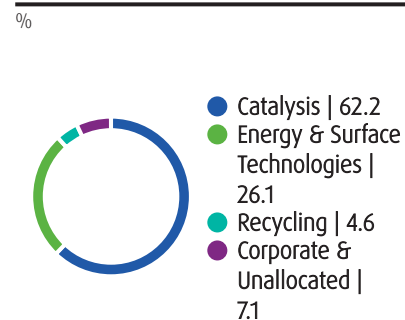
## CAPITAL EXPENDITURE BY REGION



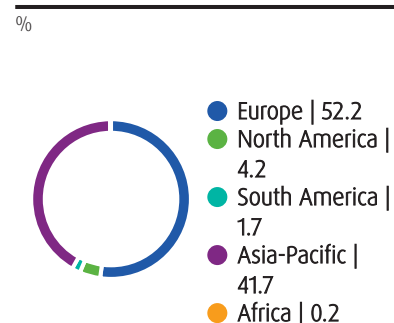
## INCOME TAXES BY REGION



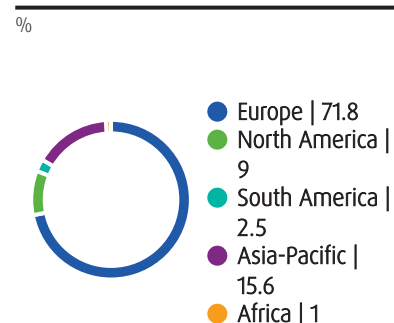
## R&amp;D EXPENDITURE PER BUSINESS GROUP



## NON-CURRENT ASSETS BY REGION



## EMPLOYEE COMPENSATION &amp; BENEFITS BY REGION



Segment information is presented in respect of the Group's business segments as defined below.

The segment results, assets and liabilities include items directly attributable to the segment as well as those elements that can reasonably be allocated to a segment.

The pricing of inter-segment sales is based on an arm's length transfer pricing system. In the absence of relevant market price references, 'cost plus' mechanisms are used. Segment turnover and revenue (without metals) is taking into account intragroup operations. Those are mainly related to recycling services and sales of refined metal from the recycling segment to the other group segments and are important to assess the performance of the segments concerned.

Since these transactions cannot be considered as external operations, they are eliminated at the group level, to present a net view.

The Group's business segments have no single external customer that amounts to 10 per cent or more of the Group's revenue.

Umicore determined segments as the accurate level of detail to split the product sales since the underlying business, competences and technologies, application and product characteristics and customer portfolio within each individual segment are similar. Moreover, obtaining information at a more disaggregated level would result in excessive costs and efforts compared to the added value for an external reader of the consolidated financial statements.

## BUSINESS GROUPS

The Group is organized into the following reporting segments:

## CATALYSIS

The segment in 2020 includes the Automotive Catalysts and Precious Metals Chemistry business units. Catalysis provides automotive catalysts for gasoline and diesel light and heavy-duty diesel applications, including on-road and non-on road vehicles. The business group also offers stationary catalysis for industrial emissions control and produces precious metals-based compounds and catalysts for use in fuel cell applications and in the pharmaceutical and fine chemicals industries.

## ENERGY &amp; SURFACE TECHNOLOGIES

The segment includes the Cobalt & Specialty Materials, Electro-Optic Materials, Electroplating and Rechargeable Battery Materials business units. Energy & Surface Technologies' products are found in applications used in the production and storage of clean energy and in a range of applications for surface technologies that bring specific properties and functionalities to end products. All the activities offer a

closed loop service for the customers. This segment includes the associates Ganzhou Yi Hao Umicore Industries and Jiangmen Chancsun Umicore Industry.

### RECYCLING

The segment consists of the business units Precious Metals Refining, Jewelry & Industrial Metals and Precious Metals Management. Recycling treats complex waste streams containing precious and other specialty metals. The recycling operations can recover 20 of these metals from a wide range of input materials ranging from industrial residues to end-of-life materials.

Other activities include production of precious metals-based materials that are essential for applications as diverse as high-tech glass production, electrics and electronics.

### CORPORATE

Corporate covers corporate activities, shared operational functions and the Group's Research, Development & Innovation unit. Umicore's shareholdings in Element Six Abrasives and Ieqsa are also included in Corporate.

In the geographical segment information, the figures presented as non-current assets exclude the amounts for long term investments, non-current loans granted, deferred tax assets and assets for employee benefits as required by IFRS 8. Performance of the segments is reviewed by the chief operating decision maker based on the adjusted EBIT/ operating result. As illustrated in the table above, the difference between the adjusted operating result and the operating result as presented in the Income Statement consists of the adjustments for which definitions are given in the glossary.

Associate companies are allocated to the business group with the closest fit from a market segment perspective.

## F8 BUSINESS COMBINATIONS AND ACQUISITIONS OF ASSOCIATES AND JOINT VENTURES

At the end of November 2019, Umicore completed the acquisition of the cobalt refining and cathode precursor activities in Kokkola, Finland, from Freeport Cobalt. A preliminary opening balance sheet was prepared as of 1 December 2019 but was still subject to adjustments on a number of restatements over the coming 11 months. Following the final opening balance sheet as per the end of November 2019, the net value of the assets bought represented a total of € 226.6 million (€227.3 million in 2019) and the total purchase price has been adjusted to € 242.6 million (€241.9 million in 2019). This results in a goodwill of € 16.0 million (€14.5 million in 2019). The main lines of the balance sheet that have been updated since 2019 are "Property, plant and equipment" (see note F16), "Inventories", "Cash", "Provisions for environment" (see note F29) and "Trade payables". Those are reflected under the lines "acquisition through business combinations" of the corresponding impacted notes.



## F9 RESULT FROM OPERATING ACTIVITIES

Thousands of Euros	2019	2020
Sales	17,336,517	20,565,648
Services	148,564	144,468
<b>Turnover</b>	<b>17,485,081</b>	<b>20,710,116</b>
Re-invoicing of costs to third parties	39,283	42,654
Operating grants	10,262	19,865
Royalties and license fees	9,003	6,168
Emission rights income	5,468	5,207
Insurance recovery	27,025	21,580
Various interests and penalties for late payments	1,209	1,167
Gains on disposals of assets	9,744	2,647
Translation difference on intercos Elimination	9,578	(25,567)
Tax incentive	1,645	4,247
Other	7,862	2,633
<b>Other operating income</b>	<b>121,078</b>	<b>80,602</b>
<b>OPERATING INCOME OF CONTINUING OPERATIONS</b>	<b>17,606,159</b>	<b>20,790,718</b>
<b>Raw materials and consumables used</b>	<b>(15,639,139)</b>	<b>(18,819,323)</b>
<b>Payroll and related benefits</b>	<b>(775,919)</b>	<b>(798,481)</b>
Depreciation of fixed assets	(244,038)	(267,941)
Impairment loss on fixed assets	(23,602)	(87,543)
Inventory and bad debt provisions	(39,926)	(7,013)
<b>Depreciation and impairment results</b>	<b>(307,567)</b>	<b>(362,497)</b>
Services and outsourced refining and production costs	(404,292)	(370,526)
Royalties, licence fees, consulting and commissions	(41,347)	(41,606)
Taxes other than income taxes	(20,769)	(19,332)
Provisions (increase/use and reversals)	54,871	(74,128)
Capital losses on disposal of assets	(2,258)	(996)
<b>Other operating expenses</b>	<b>(413,795)</b>	<b>(506,588)</b>
<b>OPERATING EXPENSES OF CONTINUING OPERATIONS</b>	<b>(17,136,420)</b>	<b>(20,486,888)</b>

Turnover refers to turnover from customers as per IFRS 15. The further disaggregation is detailed in note F7. As described in the accounting policy 2.20, the revenue from contracts with customers are recognized at a point in time. The increase in turnover in 2020 is mainly related to the increase of metal prices.

Services mainly include the revenues from tolling contracts. Some reclassifications have been done between services and sales in 2019 to align with the reclassification done in 2020.

The line "other operating income" of the income statements include the currency translation differences due to intercompany transactions to be translated from the transaction currency into functional currency which may differ from euro for some entities and regions. Those currency translation effects on intercompany eliminations moved substantially this year, mainly related to the variation of the USD compared with the EUR.

The increase in raw materials and consumables used is also mainly related to the increase of metal prices. Raw materials and consumables used include water, gas and electricity for € 99.7 million in 2020 (€ 100.2 million in 2019) for continuing operations.

The impairment losses of fixed assets have increased compared with 2019. Those impairments are mainly related to the restructuring initiatives in Cobalt & Specialty materials and to the consolidation of the North American automotive catalyst production in Catalysis. It also includes in Catalysis some impairments on selected capitalized developments costs and licence agreements.

The line provisions contains the movements in the environmental provisions and in the provisions for other liabilities and charges which are detailed in the notes F29 and F30.

## R&D EXPENDITURE

Thousands of Euros	Notes	2019	2020
R&D recognized in Other operating expenses		175,885	190,596
R&D capitalized as intangible assets	F14	34,660	32,368
<b>TOTAL R&amp;D EXPENDITURE FOR CONTINUING OPERATIONS</b>		<b>210,546</b>	<b>222,964</b>

Total R&D expenditure for continuing operations was € 223.0 million in the fully consolidated companies in 2020 (€ 210.6 million in 2019). The part of the R&D expenditures that is directly recognized in operating expenses amounts to € 190.6 million in 2020 (€ 175.9 million in 2019).

## ADJUSTMENTS INCLUDED IN THE RESULT

Thousands of Euros	Notes	2019 Total	Adjusted	Adjustments	2020 Total	Adjusted	Adjustments
Turnover		17,485,080	17,485,080	-	20,710,116	20,710,116	-
Other operating income		121,078	118,217	2,861	80,602	79,494	1,108
<b>Operating income</b>		<b>17,606,158</b>	<b>17,603,297</b>	<b>2,861</b>	<b>20,790,718</b>	<b>20,789,611</b>	<b>1,108</b>
Raw materials and consumables used		(15,639,139)	(15,639,139)	-	(18,819,323)	(18,781,872)	(37,451)
Payroll and related benefits		(775,919)	(775,701)	(218)	(798,481)	(798,131)	(350)
Depreciation and impairment results		(307,567)	(283,690)	(23,877)	(362,496)	(274,435)	(88,062)
of which depreciation and amortisation		(244,038)	(244,038)	-	(267,941)	(267,941)	-
Other operating expenses		(413,795)	(407,708)	(6,087)	(506,587)	(407,485)	(99,102)
<b>Operating expenses</b>		<b>(17,136,420)</b>	<b>(17,106,238)</b>	<b>(30,182)</b>	<b>(20,486,887)</b>	<b>(20,261,923)</b>	<b>(224,964)</b>
Income from other financial investments		706	1,069	(363)	761	342	419
<b>Result from operating activities</b>		<b>470,444</b>	<b>498,129</b>	<b>(27,684)</b>	<b>304,592</b>	<b>528,030</b>	<b>(223,438)</b>
Net contribution from equity method companies		8,705	10,789	(2,084)	(5,332)	8,331	(13,663)
<b>EBIT</b>		<b>479,152</b>	<b>508,920</b>	<b>(29,768)</b>	<b>299,260</b>	<b>536,361</b>	<b>(237,101)</b>
<b>EBITDA</b>		<b>723,190</b>	<b>752,959</b>	<b>(29,768)</b>	<b>567,201</b>	<b>804,302</b>	<b>(237,101)</b>
Finance cost	F11	(83,238)	(83,238)	-	(104,202)	(104,202)	-
Income taxes	F13	(96,692)	(102,538)	5,846	(59,131)	(102,729)	43,598
<b>Net result</b>		<b>299,219</b>	<b>323,142</b>	<b>(23,923)</b>	<b>135,927</b>	<b>329,430</b>	<b>(193,503)</b>
of which minority shares		11,428	11,428	-	5,397	7,023	(1,626)
of which group shares		287,791	311,714	(23,923)	130,530	322,407	(191,877)

## ADJUSTMENTS PER SEGMENT AND NATURE INCLUDED IN THE RESULT

Thousands of Euros	2019					2020				
	Total	Catalysis	Energy & Surface Technologies	Recycling	Corporate & Unallocated	Total	Catalysis	Energy & Surface Technologies	Recycling	Corporate & Unallocated
Other operating income	2,861	-	-	48	2,813	1,108	-	1,108	-	-
<b>Operating income</b>	<b>2,861</b>	<b>-</b>	<b>-</b>	<b>48</b>	<b>2,813</b>	<b>1,108</b>	<b>-</b>	<b>1,108</b>	<b>-</b>	<b>-</b>
Raw materials and consumables used	-	-	-	-	-	(37,451)	-	(37,451)	-	-
Payroll and related benefits	(218)	-	-	(218)	-	(350)	-	(350)	-	-
Depreciation and impairment results	(23,877)	(386)	(24,217)	726	-	(88,062)	(36,565)	(51,161)	27	(362)
Other operating expenses	(6,087)	-	(3,882)	1,461	(3,666)	(99,102)	(20,785)	(23,781)	(50,942)	(3,594)
<b>Operating expenses</b>	<b>(30,182)</b>	<b>(386)</b>	<b>(28,099)</b>	<b>1,969</b>	<b>(3,666)</b>	<b>(224,964)</b>	<b>(57,350)</b>	<b>(112,743)</b>	<b>(50,915)</b>	<b>(3,957)</b>
Income from other financial investments	(363)	-	-	-	(363)	419	-	96	-	322
<b>Result from operating activities</b>	<b>(27,684)</b>	<b>(386)</b>	<b>(28,099)</b>	<b>2,017</b>	<b>(1,217)</b>	<b>(223,438)</b>	<b>(57,350)</b>	<b>(111,539)</b>	<b>(50,915)</b>	<b>(3,634)</b>
Net contribution from equity method companies	(2,084)	-	-	-	(2,084)	(13,663)	-	-	-	(13,663)
<b>EBIT</b>	<b>(29,768)</b>	<b>(386)</b>	<b>(28,099)</b>	<b>2,017</b>	<b>(3,301)</b>	<b>(237,101)</b>	<b>(57,350)</b>	<b>(111,539)</b>	<b>(50,915)</b>	<b>(17,297)</b>
Related to restructuring	(26,414)	(386)	(28,099)	2,017	54	(128,190)	(22,702)	(99,960)	-	(5,528)
Related to environment	(907)	-	-	-	(907)	(55,788)	-	-	(50,915)	(4,873)
Related to asset impairments	-	-	-	-	-	(45,303)	(28,628)	(8,219)	-	(8,456)
Other	(2,447)	-	-	-	(2,447)	(7,820)	(6,020)	(3,360)	-	1,560

Adjustments had a negative impact of € 237 million on EBIT in 2020 of which € 72 million were already recognized in the first half. Of this total, € 112 million were related to Energy & Surface Technologies. The latter including € 56 million charges linked to the restructuring initiatives in Cobalt & Specialty Materials, a resulting € 34 million impairment charge linked to the rightsizing of permanently tied up cobalt inventories in that same business unit as well as a € 15 million impairment in Rechargeable Battery Materials due to a site reconfiguration in Korea. Catalysis accounted for € 57 million charges of which € 55 million were already recognized in the first half, linked mainly to the consolidation of the North American automotive catalyst production and some impairments including selected capitalized development costs and license agreements. In Recycling, a charge of € 51 million was accounted for, comprising a € 50 million provision to cover costs related to the intention to buy houses closest to the Hoboken plant and create a green zone.

These costs comprise an estimated purchase value of the houses (based on third party appraisal) to be demolished as well as an estimate of demolition and landscaping costs. Concertation with the city council and residents is ongoing and might result in adjustments to this cost estimate. Finally, EBIT adjustments also include € 14 million charges linked to restructuring, property, plant and equipment and goodwill impairments in Element Six Abrasives, a JV in which Umicore has a 40% stake. Of the total adjustments, € 147 million have a non-cash nature. Restructuring-related charges account for € 128 million of the total,

environmental items for € 56 million and selected asset impairments for € 45 million. After tax, the adjustments to net group earnings over the period correspond to - € 192 million.

## F10 PAYROLL AND RELATED BENEFITS

Thousands of Euros	2019	2020
Wages, salaries and direct social advantages	(576,097)	(589,707)
Other charges for personnel	(40,318)	(50,594)
Temporary staff	(10,781)	(7,607)
Share-based payments	(8,211)	(10,108)
<b>Employee salaries</b>	<b>(635,407)</b>	<b>(658,016)</b>
<b>Employer's social security</b>	<b>(102,364)</b>	<b>(97,698)</b>
Defined benefit contributions	(36,692)	(21,438)
Contribution to defined contribution plan	(11,805)	(10,299)
Employer's voluntary contributions (other)	(4,120)	(4,381)
Pensions paid directly to beneficiaries	(3,974)	(3,486)
Provisions for employee benefits (-increase / + use and reversals)	18,444	(3,164)
<b>Pensions and other benefits</b>	<b>(38,147)</b>	<b>(42,768)</b>
<b>PAYROLL AND RELATED BENEFITS OF CONTINUING OPERATIONS</b>	<b>(775,919)</b>	<b>(798,481)</b>

## AVERAGE HEADCOUNT IN CONSOLIDATED COMPANIES

	2019	2020
Executives and managerial staff	1,934	2,009
Non managers	8,852	8,997
Total for continuing operations	10,786	11,006

## SHARE-BASED PAYMENTS

Thousands of Euros	Notes	2019	2020
Date of grant		11-02-2019	10-02-2020
Share price at the date of grant (Belgium & Other)	F28	34.08	42.05
Share price at the date of grant (France)	F28	36.78	NA
Number of stock options granted	F28	1,221,000	1,168,375
Valuation model		Present Economic Value	
Assumed volatility (% pa)		25.00	25.00
Risk-free interest rate (% pa)		(0.370)	(0.620)
Dividend increase (% pa)		10.00	10.00
Rate of pre-vesting forfeiture (%pa)		NA	NA
Rate of post-vesting leaving (%pa)		7.50	7.50
Minimum gain threshold (% pa)		15.00	15.00
Proportion who exercise given minimum gain achieved (% pa)		100.00	100.00
Fair value per granted instrument determined at the grant date (EUR)		5.09	6.46
<b>TOTAL FAIR VALUE OF OPTIONS GRANTED</b>		<b>6,211</b>	<b>7,548</b>
52.000 shares granted at 42,05 EUR		-	2,187
10.000 shares granted at 37,33 EUR		-	373
43.700 shares granted at 34,08 EUR		1,489	-
7.400 shares granted at 33,30 EUR		246	-
10.000 shares granted at 26,43 EUR		264	-
<b>TOTAL FAIR VALUE OF SHARES GRANTED</b>		<b>2,000</b>	<b>2,560</b>
<b>SHARE-BASED PAYMENTS</b>		<b>8,211</b>	<b>10,108</b>

The Group recognized a share-based payment expense of € 10.1 million during the year for continuing operations.

The part of this expense related to stock options is calculated by an external actuary using the Present Economic Value model which takes into account all features of the stock option plans and the volatility of the underlying stock. This volatility has been determined using the historical volatility of the Group shareholders' return over different averaging periods and different terms. For the calculation of the option value based on the lattice model, weekly steps were introduced, therefore focusing on a weekly term of volatility. The observed volatility calculated over a 5 year period amounted approximately to 25% despite a recent increase. Hence, the retained volatility assumption was maintained at 25%. No other market condition has been included on the basis of calculation of fair market value.

The free share part of the expense is valued at the market price of the shares at the grant date. In 2020, shares have been granted to top management resulting in an extra charge of € 2.6 million for continuing operations.

The defined contribution plans of the Group in some countries like the USA, Canada, South Africa and Germany are directly recognized in the income statement under the line "Contribution to defined contribution plans".

The cash discounts that the authorities give back to Umicore Belgium on the social security contributions, relating to incentives regarding a.o. shift premiums, overtime and R&D are disclosed under the item "Employer's social security".

## F11 FINANCE COST – NET

Thousands of Euros	2019	2020
Interest income	4,585	3,749
Interest expenses	(45,627)	(61,659)
Discounting of non-current provisions	(5,942)	(3,146)
Foreign exchange gains and losses	(31,618)	(30,445)
Other financial income	222	295
Other financial expenses	(4,858)	(12,996)
<b>TOTAL OF CONTINUING OPERATIONS</b>	<b>(83,238)</b>	<b>(104,202)</b>

The net interest charge in 2020 totaled € 57.9 million, in line with the increase of the average financial debt as well as fees and costs linked to the issuance of new debt instruments. The net interest charge contains € 0.8 million interest related to leases as per IFRS 16 and € 5.2 million being the phantom interest component of the convertible bond. These higher net interest charges were partly offset by lower foreign exchange costs and lower discounting expenses.

The discounting of non-current provisions relates mainly to employee benefits provisions and to a lesser extent to environmental provisions. This amount is influenced by the present value of these liabilities, which in turn is influenced by changes in the discount rate, by the cash-out profile and by the recognition of new non-current liabilities. Most of the discounting results in 2020 were booked in Germany and to a lesser extent in Belgium.

Foreign exchange results include realized exchange results and the unrealized translation adjustments on monetary items using the closing rate of the period. In 2020, the forex result is mainly explained by the cost of forward points in hedging instruments and by the impact from metal fixations. They also

include fair value gains and losses on other currency financial instruments (see Note F33). Other financial expenses include payment discounts, bank expenses and other financial fees incurred.

## F12 INCOME FROM OTHER FINANCIAL INVESTMENTS

Thousands of Euros	2019	2020
Capital gains and losses on disposal of financial investments	547	517
Dividend income	133	230
Interest income from financial assets	26	14
<b>TOTAL FOR CONTINUING OPERATIONS</b>	<b>706</b>	<b>761</b>

## F13 INCOME TAXES

Thousands of Euros	2019	2020
<b>Income tax expense</b>		
<b>Recognized in the income statement</b>		
Current income tax	(113,229)	(115,672)
Deferred income tax	16,537	56,542
<b>TOTAL TAX EXPENSE FOR CONTINUING OPERATIONS</b>	<b>(96,692)</b>	<b>(59,131)</b>
<b>RELATIONSHIP BETWEEN TAX EXPENSE (INCOME) AND ACCOUNTING PROFIT</b>		
Result from operating activities	470,444	304,592
Financial result	(83,238)	(104,202)
<b>Profit (loss) before income tax of consolidated companies for continuing operations</b>	<b>387,206</b>	<b>200,390</b>
Weighted average theoretical tax rate (%)	24.81	25.48
<b>INCOME TAX CALCULATED AT THE WEIGHTED AVERAGE THEORETICAL TAX RATE FOR CONTINUING OPERATIONS</b>	<b>(96,076)</b>	<b>(51,055)</b>
<b>Tax effect of :</b>		
Expenses not deductible for tax purposes	(4,276)	(4,383)
Tax-exempted revenues	4,797	3,457
Dividends from consolidates companies & Associates	(1,596)	(267)
Gains & Losses taxed at a reduced rate	-	37
Tax incentives and tax holidays	15,758	14,563
Tax computed on other basis	(1,377)	(1,657)
Utilisation of previously unrecognized tax losses	1,443	4,349
Write down (or reverse of previous write down) of DTA	(3,817)	6,050
Change in applicable tax rate	3,720	(31)
Other tax credits (excluding R&D tax credits)	585	958
Non recoverable foreign withholding taxes	(11,552)	(12,003)
Previous years adjustments	(114)	988
Other (including IFRIC 23)	(4,187)	(20,135)
<b>TAX EXPENSE AT THE EFFECTIVE TAX RATE FOR THE YEAR</b>	<b>(96,692)</b>	<b>(59,129)</b>

The weighted average theoretical tax rate evolved from 24.8% in 2019 to 25.5% in 2020 for the continuing operations. Excluding the impact of adjustments, the adjusted effective tax rate for 2020 was 24.2%. This compares to the 24.7% in 2019.

## F14 INTANGIBLE ASSETS OTHER THAN GOODWILL

Thousands of Euros	Development expenses capitalized	Concessions, patents, licences, etc.	Software	CO2 emission rights	Other intangible assets	Total
<b>At the beginning of previous year</b>						
Gross value	131,273	107,319	140,054	11,106	60,584	450,336
Accumulated amortisation	(83,920)	(37,639)	(114,124)	-	(19,839)	(255,522)
<b>Net book value at the beginning of previous year</b>	<b>47,353</b>	<b>69,680</b>	<b>25,930</b>	<b>11,106</b>	<b>40,745</b>	<b>194,814</b>
. acquisition through business combinations	-	-	-	-	8,223	8,223
. additions	34,660	1,495	1,115	4,925	16,167	58,362
. disposals	-	(6,483)	-	-	-	(6,483)
. amortisation charged (included in "Depreciation and impairments")	(11,129)	(9,878)	(9,464)	-	(5,742)	(36,214)
. impairment losses recognized (included in "Depreciation and impairments")	(2,771)	-	(497)	-	-	(3,268)
. emission rights allowances	-	-	-	3,184	-	3,184
. translation differences	282	5	82	(2)	251	619
. other movements	(14,627)	(90)	9,783	(0)	(150)	(5,085)
<b>AT THE END OF PREVIOUS YEAR</b>	<b>53,768</b>	<b>54,730</b>	<b>26,949</b>	<b>19,213</b>	<b>59,494</b>	<b>214,154</b>
Gross value	151,880	101,229	149,792	19,213	85,216	507,329
Accumulated amortisation	(98,113)	(46,499)	(122,842)	-	(25,721)	(293,176)
<b>NET BOOK VALUE AT THE END OF PREVIOUS YEAR</b>	<b>53,768</b>	<b>54,730</b>	<b>26,949</b>	<b>19,213</b>	<b>59,494</b>	<b>214,154</b>
. acquisition through business combinations	-	82	40	-	(23)	98
. additions	13,784	50	5,404	-	24,821	44,060
. disposals	-	(2,336)	(3)	(4,009)	(217)	(6,564)
. amortisation charged (included in "Depreciation and impairments")	(12,708)	(9,334)	(8,267)	-	(4,901)	(35,209)
. impairment losses recognized (included in "Depreciation and impairments")	(17,299)	(8,529)	(1,485)	-	-	(27,313)
. emission rights allowances	-	-	-	697	-	697
. translation differences	(450)	(6)	(346)	(3)	(908)	(1,712)
. other movements	1,422	50	4,401	(0)	(3,186)	2,687
<b>AT THE END OF THE YEAR</b>	<b>38,517</b>	<b>34,707</b>	<b>26,694</b>	<b>15,898</b>	<b>75,081</b>	<b>190,897</b>
Gross value	157,704	98,840	150,989	15,898	103,637	527,068
Accumulated amortisation	(119,187)	(64,134)	(124,295)	-	(28,556)	(336,172)
<b>NET BOOK VALUE FOR CONTINUING OPERATIONS</b>	<b>38,517</b>	<b>34,707</b>	<b>26,694</b>	<b>15,898</b>	<b>75,081</b>	<b>190,897</b>

The line "Additions" for € 44.1 million mainly contains capitalized expenses in internally generated developments for € 32.4 million (see note F9), of which € 18.6 million are still shown under the category "Other intangible assets" as "Intangible assets under construction". The "Additions" also contain capitalized expenses in new information systems for around € 10.3 million.

The acquisitions through business combination are related to the subsequent opening balance sheet adjustments in Finland (see note F8). Impairment losses have been taken mainly in Catalysis and are related to selected capitalized development costs and license agreements.

The line 'other movements' mainly includes the transfer between intangible assets in progress (included under "other intangible assets") and the other categories of intangible assets and to a lesser extent transfer from tangible assets.

The other intangible assets category contain intangible assets in progress for € 53.9 million (mainly capitalized development costs and in less extent the information systems) but also some business portfolio and customers' list acquired during the business combinations for € 20.6 million.

There are no pledges on, or restrictions to, the title on intangible assets, other than disclosed in note F35.

## F15 GOODWILL

Thousands of Euros	31/12/2019	31/12/2020
<b>At the end of the previous year</b>		
Gross value	158,457	169,915
Accumulated impairment losses	(15,966)	(13,210)
<b>NET BOOK VALUE AT THE END OF PREVIOUS YEAR</b>	<b>142,491</b>	<b>156,705</b>
. acquisition through business combinations	14,549	1,499
. impairment losses (included in "Depreciation and impairment results")	(1,422)	-
. translation differences	1,087	(2,214)
<b>AT THE END OF THE YEAR</b>	<b>156,705</b>	<b>155,990</b>
Gross value	169,915	165,627
Accumulated impairment losses	(13,210)	(9,637)
<b>NET BOOK VALUE FOR CONTINUING OPERATIONS</b>	<b>156,705</b>	<b>155,990</b>

This table includes goodwill related to fully consolidated companies only. Goodwill relating to companies accounted for by the equity method is detailed in note F17.

The change of the period relates mainly to the final adjustment of the goodwill in Finland following the finalization of the opening balance sheet exercise (see note F8).

The goodwill accounted in each of the primary segments is as follows:

Thousands of Euros	Catalysis	Energy & Surface Technologies	Recycling	Total
<b>31/12/2019</b>	<b>50,037</b>	<b>88,357</b>	<b>18,311</b>	<b>156,705</b>
<b>31/12/2020</b>	<b>49,999</b>	<b>87,737</b>	<b>18,254</b>	<b>155,990</b>

Management tests annually whether goodwill has suffered any impairment in accordance with the accounting policy stated in note F2. Such impairment tests are performed at a cash generating unit level, which may vary in scope from a total business unit to an individual plant but never a full segment scope. The recoverable amounts of cash-generating units to which goodwill is allocated have been determined based on value-in-use calculations by means of discounted cash flow modelling on the basis of the Group's operational plans which typically look forward 5 years, followed by a long term projection. On macroeconomic and external indicators such as currency and metal prices, the testing uses typically

prevailing market conditions at the time the plans are drafted. The rates used are typically the ones observed on international exchanges in the last quarter of the year unless a normalization is considered appropriate. The 2020 goodwill impairment testing indicated sufficient headroom in the respective cash generating units and hence no goodwill impairments were recognized. The 2020 impairment testing used an average tax rate of 25.0% (unchanged versus 2019) and a weighted average cost of capital post-tax of 7% which was reviewed down from the 8.5% used in 2019 and prior years to reflect the Group's lowered weighted cost of funding driven a.o. by the decrease in market interest rates in recent years. A uniform WACC rate was applied across cash generating units with unit-specific risk factors considered to be reflected in the underlying cash flow projections. Terminal values were determined on the basis of a perpetual growth rate of on average 2% (same as in 2019). Inflation rates were based on guidance from national and international institutes such as the NBB or ECB.



## F16 PROPERTY, PLANT AND EQUIPMENT

Thousands of Euros	Land and buildings	Plant, machinery and equipment	Furniture and vehicles	Other tangible assets	Construction in progress and advance payments	Total
<b>At the beginning of previous year without leasing</b>						
Gross value	973,873	2,090,262	226,496	14,678	388,791	3,694,100
Accumulated depreciation	(491,424)	(1,431,137)	(158,858)	(13,715)	-	(2,095,133)
<b>NET BOOK VALUE AT THE BEGINNING OF PREVIOUS YEAR WITHOUT LEASING</b>	<b>482,450</b>	<b>659,125</b>	<b>67,638</b>	<b>964</b>	<b>388,791</b>	<b>1,598,967</b>
. acquisition through business combinations	31,638	75,142	517	-	20,426	127,724
. additions	16,393	36,164	9,535	69	467,326	529,487
. disposals	(1,509)	(2,772)	(419)	(10)	(2,369)	(7,079)
. depreciations (included in "Depreciation and impairments")	(37,030)	(135,690)	(18,086)	(228)	-	(191,035)
. net impairment losses recognized (included in "Depreciation and impairments")	(2,454)	(16,169)	(289)	-	-	(18,911)
. translation differences	1,642	944	71	12	(1,844)	825
. other movements	168,212	231,710	16,534	314	(410,962)	5,809
<b>AT THE END OF PREVIOUS YEAR WITHOUT LEASING</b>	<b>659,342</b>	<b>848,457</b>	<b>75,500</b>	<b>1,120</b>	<b>461,368</b>	<b>2,045,788</b>
<b>At the beginning of the year without leasing</b>						
Gross value	1,189,490	2,402,378	242,362	15,070	461,369	4,310,669
Accumulated depreciation	(530,148)	(1,553,922)	(166,862)	(13,950)	-	(2,264,881)
<b>NET BOOK VALUE AT THE BEGINNING OF THE YEAR WITHOUT LEASING</b>	<b>659,343</b>	<b>848,457</b>	<b>75,500</b>	<b>1,120</b>	<b>461,369</b>	<b>2,045,788</b>
. acquisition through business combinations	3,510	(798)	548	-	876	4,136
. additions	20,663	32,588	7,852	364	330,009	391,475
. disposals	(10)	(938)	(176)	(20)	(134)	(1,278)
. depreciations (included in "Depreciation and impairments")	(43,501)	(148,434)	(19,154)	(194)	-	(211,282)
. net impairment losses recognized (included in "Depreciation and impairments")	(15,053)	(44,416)	(654)	(312)	-	(60,435)
. translation differences	(18,017)	(20,505)	(2,321)	(54)	(16,266)	(57,164)
. other movements	88,832	154,714	20,807	-	(267,820)	(3,466)
<b>AT THE END OF THE FINANCIAL YEAR WITHOUT LEASING</b>	<b>695,767</b>	<b>820,668</b>	<b>82,403</b>	<b>903</b>	<b>508,033</b>	<b>2,107,775</b>
Gross value	1,242,294	2,478,662	260,590	23,522	508,033	4,513,101
Accumulated depreciation	(546,526)	(1,657,994)	(178,187)	(22,619)	-	(2,405,326)
<b>NET BOOK VALUE FOR CONTINUING OPERATIONS WITHOUT LEASING</b>	<b>695,767</b>	<b>820,668</b>	<b>82,403</b>	<b>903</b>	<b>508,033</b>	<b>2,107,775</b>

Thousands of Euros	Land and buildings	Plant, machinery and equipment	Furniture and vehicles	Other tangible assets	Construction in progress and advance payments	Total
Gross value	3,300	43	31	-	-	3,374
Accumulated depreciation	(399)	(20)	(31)	-	-	(450)
<b>NET BOOK VALUE AT THE BEGINNING OF PREVIOUS YEAR FOR LEASING</b>	<b>2,901</b>	<b>23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2,924</b>
. change in accounting policies	25,788	77	11,396	-	-	37,262
. acquisition through business combinations	2,681	-	-	500	-	3,181
. additions	15,466	21	6,780	-	-	22,266
. depreciations (included in "Depreciation and impairments")	(11,063)	(44)	(5,722)	-	-	(16,829)
. translation differences	72	0	8	-	-	80
<b>AT THE END OF PREVIOUS YEAR FOR LEASING</b>	<b>35,845</b>	<b>77</b>	<b>12,462</b>	<b>500</b>	<b>-</b>	<b>48,884</b>
<b>Leasing at begining of the year</b>						
Gross value	47,341	135	18,175	500	-	66,152
Accumulated amortisation	(11,496)	(58)	(5,713)	-	-	(17,268)
<b>NET BOOK VALUE AT THE BEGINNING OF THE YEAR FOR LEASING</b>	<b>35,845</b>	<b>77</b>	<b>12,462</b>	<b>500</b>	<b>-</b>	<b>48,884</b>
. additions	17,901	1,034	8,578	144	-	27,657
. depreciations (included in "Depreciation and impairments")	(12,726)	(724)	(6,765)	(142)	-	(20,357)
. translation differences	(1,133)	(10)	(99)	(0)	-	(1,242)
. transfer	979	(35)	-	-	-	944
<b>AT THE END OF THE FINANCIAL YEAR FOR LEASING</b>	<b>40,866</b>	<b>342</b>	<b>14,176</b>	<b>502</b>	<b>-</b>	<b>55,886</b>
Gross value	67,193	1,055	24,865	637	-	93,750
Accumulated amortisation	(26,327)	(713)	(10,689)	(135)	-	(37,864)
<b>NET BOOK VALUE FOR LEASING</b>	<b>40,865</b>	<b>342</b>	<b>14,176</b>	<b>502</b>	<b>-</b>	<b>55,886</b>
<b>Tangible asset including leasing</b>						
Gross value	1,309,486	2,479,718	285,456	24,159	508,033	4,606,851
Accumulated amortisation	(572,854)	(1,658,707)	(188,876)	(22,754)	-	(2,443,190)
<b>NET BOOK VALUE FOR CONTINUING OPERATIONS INCLUDING LEASING</b>	<b>736,633</b>	<b>821,010</b>	<b>96,580</b>	<b>1,405</b>	<b>508,033</b>	<b>2,163,661</b>

The reduction in capital expenditures (line "Additions") compared to 2019 reflects the decision taken shortly after the start of the COVID-19 outbreak to postpone selected investment projects with the exception of safety and license to operate investments, awaiting more clarity on market outlook. Taking into account the continued investment in Rechargeable Battery Materials' greenfield plant in Poland, Energy & Surface Technologies accounted for close to two thirds of the Group's capex. Spending for this strategic project will continue into 2021.

The acquisitions through business combination are related to the subsequent adjustments of the opening balance sheet of the acquired cobalt refining and cathode precursor activities at Kokkola at the end of December 2019 (Finland) (see note F8).

The changes in accounting policies in 2019 are related to the introduction of IFRS 16.

Impairments on property, plant and equipment are mainly related to the restructuring initiatives in Cobalt & Specialty Materials and in Catalysis the consolidation of the North American automotive catalyst production.

The line 'other movements' mainly includes the transfer between tangible assets in progress and the other categories and to a lesser extent transfer to intangible assets.

There are no pledges on, or restrictions to, the title on property, plant and equipment, other than disclosed in note F35.

## F17 INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

The investments in companies accounted for using the equity method are composed mainly of the following associates and joint ventures:

	Country	Measurement currency	Percentage 2019	Percentage 2020
<b>For continuing operations</b>				
<b>Associates</b>				
IEQSA	Peru	PEN	40.00	40.00
Ganzhou Yi Hao Umicore Industries	China	CNY	40.00	40.00
Element Six Abrasives	United Kingdom	USD	40.22	40.22
Jiangmen Chancsun Umicore Industry Co.,LTD	China	CNY	40.00	40.00

The elements recognized in Other Comprehensive Income for investments accounted for using the equity method are mainly related to employee benefits reserves and translation reserves.

Investments in associates are accounted for in accordance with the equity method and represent approximately 1.7% of Umicore's consolidated balance sheet total. Umicore has no individual material investments in associates. Considering the objectives of the IFRS 12 disclosure requirements, the most significant associate is Element Six Abrasives, in which Umicore holds 40.22%. Element Six Abrasives is a synthetic diamond materials group, part of De Beers Group, its majority shareholder. The group operates worldwide with primary manufacturing facilities in Ireland, Germany, the UK, the US and South Africa. Element Six Abrasives is on an adjusted results basis a profitable group, generating positive cash flow. The group's functional currency is USD. Umicore is represented in the Board of Directors and the audit committee of Element Six Abrasives. Besides its equity share in this company, Umicore has no other commitments, guarantees or obligations arising from its involvement in this associate. Adjustments and material contingencies, if any, in respect of the financial statements of Element Six Abrasives, are separately disclosed under the relevant captions of Umicore's consolidated financial statements (see note F36 for pending file qualified as contingent liability at Element Six Abrasives and note F9 for adjustments).

Thousands of Euros	Net book value	Goodwill	Total
<b>At the end of previous year</b>	<b>104,653</b>	<b>45,989</b>	<b>150,642</b>
. profit for the year	(5,332)	-	(5,332)
. dividends	(1,796)	-	(1,796)
. change in other reserves	1,536	-	1,536
. translation differences	(4,379)	(833)	(5,210)
<b>AT THE END OF THE YEAR FOR CONTINUING OPERATIONS</b>	<b>94,683</b>	<b>45,156</b>	<b>139,839</b>

Umicore's share in the aggregated balance sheet and profit and loss items of the associates and joint ventures would have been as follows:

Thousands of Euros	31/12/2019	31/12/2020
Assets	231,747	214,719
Liabilities	108,620	101,894
Turnover	251,313	195,889
Net result	8,705	(5,332)

In the above table, there are no more assets and liabilities related to joint ventures.

## F18 FINANCIAL ASSETS AT FAIR VALUE THROUGH OCI AND LOANS GRANTED

Thousands of Euros	Financial assets at FV through OCI	Loans granted
<b>Non-current financial assets</b>		
<b>AT THE BEGINNING OF PREVIOUS YEAR</b>	<b>8,028</b>	<b>2,627</b>
. increase	2,375	126
. decrease	-	(114)
. translation differences	3	72
. fair value recognized in equity	(9)	-
. other movements	500	(520)
<b>AT THE END OF PREVIOUS YEAR</b>	<b>10,897</b>	<b>2,192</b>
. increase	1,633	753
. reversals of impairment losses (included in "Income from other financial instruments")	2	-
. translation differences	(45)	(79)
. fair value recognized in equity	(4,193)	-
. other movements	59	386
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>8,352</b>	<b>3,252</b>
<b>CURRENT FINANCIAL ASSETS</b>		
. increase	-	92
. decrease	-	(1)
. translation differences	-	(12)
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>-</b>	<b>80</b>

The increase and fair value recognized in equity of the financial assets at fair value through OCI are related to movements in non-consolidated entities. The new loans granted are related to convertible loans to non-consolidated entities.

## F19 INVENTORIES

Thousands of Euros	31/12/2019	31/12/2020
<b>Analysis of inventories</b>		
Base products - gross value	2,469,632	2,706,918
.Permanently tied up metal inventories (not hedged)	862,215	775,213
.Commercially available metal inventories (hedged) (*)	1,176,095	1,477,096
.Other base products inventories (not hedged)	431,322	454,609
Consumables - gross value	87,030	102,163
Write-downs	(101,960)	(105,715)
Advances paid	6,173	7,222
Contracts in progress	1,454	7,503
<b>TOTAL INVENTORIES FOR CONTINUING OPERATIONS</b>	<b>2,462,330</b>	<b>2,718,092</b>
* applying Umicore's transactional metal hedging - see note F2.21.1 and F3.2.2		

Inventories have increased by € 255.8 million compared with December 2019. This increase is mainly due to higher metal prices impacting the value of the commercially available metal inventories. The decrease of the permanently tied up metal inventories is predominantly linked to the rightsizing of the cobalt permanently tied up metal inventories linked to the restructuring initiatives in Cobalt & Specialty Materials. This rightsizing brought a € 34 million impairment charge classified under Adjustments.

The total gross book value of Umicore's permanently tied-up metal inventories at 31 December 2020 compares to a value of € 3,008 million when applying the 31 December market prices (€ 2,135 million at end December 2019).

As per the accounting policy with regards to permanently tied-up metal inventories (see Chapter 2.9), the permanently tied-up metal inventories are considered to have an unlimited useful life (no depreciations are applied) and are instead subject to Umicore's annual impairment testing of the CGU's carrying these inventories. Applying the LOCOM principle on permanently tied-up metal inventories on 31 December 2020 would have given rise to a non-cash impairment charge of € 110.5 million for the Group.

The change in inventory recognized in Raw Materials and Consumables in the income statements is a positive amount of € 378 million (representing the cash movements on inventory balances).

There are no pledges on, or restrictions to, the title on inventories.

## F20 TRADE AND OTHER RECEIVABLES

Thousands of Euros	Notes	31/12/2019	31/12/2020
<b>Non current</b>			
Cash guarantees and deposits		8,893	8,370
Other receivables maturing > 1 year		1,972	2,574
Assets employee benefits		1,173	820
<b>TOTAL FOR CONTINUING OPERATIONS</b>		<b>12,038</b>	<b>11,764</b>
<b>Current</b>			
Trade receivables (at cost)		1,171,835	1,366,686
Trade receivables (write down)		(22,983)	(22,319)
Other receivables (at cost)		180,336	177,008
Other receivables (write down)		(207)	(207)
Interest receivable		156	495
Fair value receivable financial instruments held for cash-flow hedging	F33	19,699	45,091
Fair value receivable - financial instruments related to FV hedging	F33	47,495	23,442
Deferred charges and accrued income		37,327	86,973
<b>TOTAL FOR CONTINUING OPERATIONS</b>		<b>1,433,658</b>	<b>1,677,167</b>

Compared to 31 December 2019, trade receivables substantially increased driven mainly by a substantial increase in Catalysis, fueled by higher metal prices.

Thousands of Euros	Total	Not due	Overdue between			
			0-30 days	30-60 days	60-90 days	> 90 days
<b>Ageing balance analysis at the beginning of the year</b>						
Trade receivables (w/o doubtful and securitized receivables) - at cost	1,131,666	928,369	160,856	22,261	5,549	14,632
Other receivables - at cost	180,336	179,925	595	(340)	-	157
Loss allowance	12,794	5,431	901	17	1,497	4,948
Expected loss rate	0.98%	0.49%	0.56%	0.08%	26.98%	33.46%
<b>Ageing balance analysis at the end of year</b>						
Trade receivables (w/o doubtful and securitized receivables) - at cost	1,328,476	1,161,303	137,088	21,569	4,384	4,131
Other receivables - at cost	177,007	176,020	(0)	-	223	765
Loss allowance	14,888	9,412	1,291	334	240	3,611
Expected loss rate	0.99%	0.70%	0.94%	1.55%	5.21%	73.75%

## CREDIT RISK – TRADE RECEIVABLES

Thousands of Euros	Trade receivables (write-down)	Other receivables (write-down)	Total
<b>At the beginning of previous year</b>	<b>(22,577)</b>	<b>(247)</b>	<b>(22,824)</b>
. Impairment losses recognized in P&L	(9,373)	-	(9,373)
. Reversal of impairment losses	9,705	39	9,744
. Impairment written off against asset carrying amount	83	-	83
. Other movements	(850)	(0)	(850)
. Translation differences	30	1	31
<b>AT THE END OF PREVIOUS YEAR</b>	<b>(22,983)</b>	<b>(207)</b>	<b>(23,190)</b>
<b>AT THE BEGINNING OF THE FINANCIAL YEAR</b>	<b>(22,983)</b>	<b>(207)</b>	<b>(23,190)</b>
. Impairment losses recognized in P&L	(3,943)	342	(3,602)
. Reversal of impairment losses	4,328	-	4,328
. Impairment written off against asset carrying amount	48	-	48
. Other movements	(408)	(346)	(755)
. Translation differences	639	5	644
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>(22,320)</b>	<b>(207)</b>	<b>(22,526)</b>

The group applies the IFRS 9 simplified approach to measure expected credit losses which uses a lifetime expected loss allowance for all trade receivables. To measure the expected credit losses, trade receivables have been grouped based on shared credit risk characteristics and the days past due. The expected loss rates are based on historical payment profiles of sales and the corresponding credit losses experienced. The historical loss rates are adjusted to reflect current and forward-looking information on macro-economic factors affecting the ability of the customers to settle the receivables. The group has identified macro-economic factors, Probability of Default (PD) and Loss Given Default (LGD) to be the most relevant factors, and accordingly adjusts the historical loss rates based on expected changes in these factors.

In principle, Umicore uses credit insurance as a means to mitigate the credit risk related to trade receivables. In 2020, two credit insurance policies with two different insurers were in place. At closing, € 355 million of the group's outstanding invoices were covered by a policy where indemnification in case of non-payment amounts to 95% with an indemnification cap set at regional or country level. The other policy covered € 272 million of trade invoices with a global annual deductible of € 5 million, a maximum indemnity per year of € 70 million and an indemnification in case of non-payment of 90%. The Group also managed credit exposure by selling invoices to financial institutions without recourse (and hence derecognized) (€ 301 million end of 2020 compared to € 213 million end of 2019), partly covered by the above credit insurance policies.

Specifically in China, Umicore reduces credit risk by discounting bank acceptance drafts it receives from its customers without recourse (and hence derecognized) (€ 245 million end of year 2020 compared to € 185 million end of 2019).

Finally, some of our businesses function without credit insurance and instead internal credit limits are set based on available financial information and business knowledge. These limits are duly reviewed and approved by management.

## F21 TAX ASSETS AND LIABILITIES

Thousands of Euros	31/12/2019	31/12/2020
<b>Tax assets and liabilities</b>		
Income tax receivables	45,447	39,553
Deferred tax assets	168,927	221,938
Income tax payable	(131,483)	(160,734)
Deferred tax liabilities	(11,461)	(22,846)

Thousands of Euros	Assets		Liabilities		Net	
	2019	2020	2019	2020	2019	2020
<b>At the end of preceding financial year</b>	<b>132,855</b>	<b>168,927</b>	<b>(6,225)</b>	<b>(11,461)</b>	<b>126,630</b>	<b>157,466</b>
Change in accounting policies	(39)	-	-	-	(39)	-
Deferred tax recognized in the P&L	15,207	59,688	1,330	(3,146)	16,537	56,542
Deferred tax recognized in equity	21,502	(12,208)	7,276	3,632	28,778	(8,576)
Acquisitions through business combination	-	-	(14,972)	(359)	(14,972)	(359)
Translation adjustments	142	(6,199)	(152)	218	(10)	(5,981)
Transfer	(1,201)	11,722	1,201	(11,722)	-	-
Other movements	461	8	81	(8)	542	-
<b>AT THE END OF FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>168,927</b>	<b>221,938</b>	<b>(11,461)</b>	<b>(22,846)</b>	<b>157,466</b>	<b>199,092</b>

Thousands of Euros	Assets		Liabilities		Net	
	2019	2020	2019	2020	2019	2020
<b>Deferred tax in respect of each type of temporary difference</b>						
Intangible assets	16,412	22,144	(17,894)	(11,043)	(1,482)	11,101
Goodwill on fully consolidated companies	-	-	(561)	(514)	(561)	(514)
Property, plant and equipment	11,554	11,506	(33,516)	(29,644)	(21,962)	(18,138)
Long term receivables	1,087	1,371	(31)	(181)	1,056	1,190
Inventories	72,552	41,534	(37,403)	(33,159)	35,149	8,375
Trade and other receivables	8,424	8,212	(11,930)	(25,600)	(3,506)	(17,388)
Group Shareholder's equity	-	-	(4,032)	(6,148)	(4,032)	(6,148)
Long Term Financial Debt and other payable	9,109	11,688	(5,172)	(18,023)	3,937	(6,335)
Provisions Employee Benefits	81,392	89,764	(8,245)	(8,267)	73,147	81,497
Provisions for Environment	12,697	26,150	(384)	(378)	12,313	25,772
Provisions for other liabilities and charges	9,480	12,968	(463)	(583)	9,017	12,385
Current Financial Debt	539	40	(344)	(1,080)	195	(1,040)
Current Provisions for Environment	2,323	1,969	-	-	2,323	1,969
Current Provisions for Other Liabilities & Charges	9,079	9,952	(8)	(8)	9,071	9,944
Trade and other payables	36,431	67,076	(5,262)	(1,309)	31,169	65,767
<b>TOTAL DEFERRED TAX DUE TO TEMPORARY DIFFERENCES</b>	<b>271,079</b>	<b>304,374</b>	<b>(125,245)</b>	<b>(135,937)</b>	<b>145,834</b>	<b>168,437</b>
<b>Tax losses to carry forward</b>	<b>56,598</b>	<b>70,257</b>	<b>-</b>	<b>-</b>	<b>56,598</b>	<b>70,257</b>
Investments deductions	1,156	867	-	-	1,156	867
Other	5,002	3,389	-	-	5,002	3,389
Deferred tax assets not recognized	(51,124)	(43,858)	-	-	(51,124)	(43,858)
<b>TOTAL TAX ASSETS/LIABILITIES</b>	<b>282,711</b>	<b>335,029</b>	<b>(125,245)</b>	<b>(135,937)</b>	<b>157,466</b>	<b>199,092</b>
Compensation of assets and liabilities within same entity	(113,784)	(113,091)	113,784	113,091	-	-
<b>NET AMOUNT</b>	<b>168,927</b>	<b>221,938</b>	<b>(11,461)</b>	<b>(22,846)</b>	<b>157,466</b>	<b>199,092</b>

Thousands of Euros	2019 Base	2020 Base	2019 Tax	2020 Tax
<b>Amount of deductible temporary differences, unused tax losses or tax credits for which no deferred tax asset is recognized in the balance sheet</b>				
Expiration date with no time limit	187,883	158,635	51,124	43,858

The changes of the period in temporary differences are charged to the income statement except those arising from events that were recognized directly in the other comprehensive income.

The main movements in deferred tax recognized directly in the other comprehensive income are deferred taxes generated by temporary differences included within the lines "Trade and other receivables" (negative by € 6.1 million), "Provisions for employee benefits" (positive by € 8.0 million), long-term financial debt (negative by 12.6 million) and "Trade and other payables" (positive by € 2.8 million).

Deferred tax assets are only recognized to the extent that their utilization is probable, i.e. if a tax benefit is expected in future periods. The Group assesses a recoverability in a range of 5 to 10 years. The actual tax results in future periods may differ from the estimate made at the time the deferred taxes are recognized.

Unrecognized deferred tax assets of € 43.9 million mainly arise from tax losses (€ 39.6 million).

In accordance with IAS 12, a deferred tax liability on untaxed reserves of the Belgian companies, amounting potentially to € 37.5 million, has not been recognized as management anticipates that this liability will not be incurred in a foreseeable future.

Group current income tax payable at December 2020 amounting € 160,7 million (2019 : € 131,5 million) include uncertain tax positions of € 114.9 million (€ 91.4 million in 2019).

## F22 NET CASH AND CASH EQUIVALENTS

Thousands of Euros	31/12/2019	31/12/2020
Cash and cash equivalents		
Short-term investments : bank term deposits	25,524	373,904
Short-term investments : term deposits (other)	7	5
Cash-in-hands and bank current accounts	246,192	636,397
<b>TOTAL CASH AND CASH EQUIVALENTS</b>	<b>271,724</b>	<b>1,010,307</b>
Bank overdrafts	32,493	8,678
<b>NET CASH AS IN CASH FLOW STATEMENT FOR CONTINUING OPERATIONS</b>	<b>239,231</b>	<b>1,001,629</b>

All cash and cash equivalents are fully available for the Group.

Liquidity risk management implies maintaining sufficient cash and marketable securities, the availability of funding through an adequate amount of committed and uncommitted credit facilities and the ability to close out market positions.

Due to the dynamic nature of the underlying businesses, the group aims to maintain funding flexibility through committed credit lines. Excess liquidities are invested for very short periods and are spread over a limited number of banks, all enjoying a satisfactory credit rating.

The increase in term deposit amount mainly stems from the cash proceeds of the convertible bond issuance (€ 500 million nominal).

## F23 CURRENCY TRANSLATION DIFFERENCES AND OTHER RESERVES

The detail of the Group's share in currency translation differences and other reserves is as follows:

Thousands of Euros	Conversion rights recognized in equity	Financial assets at FV through OCI reserves	Cash flow hedge reserves - Commodities	Cash flow hedge reserves - Currencies	Cash flow hedge reserves - IRS	Deferred taxes directly recognized in OCI	Changes in post employment benefits, arising from changes in actuarial assumptions	Share-based payment reserves	Currency translation differences	Total
<b>Balance at the beginning of previous year</b>	-	1,150	(3,925)	3,411	(586)	58,663	(226,884)	31,600	(91,073)	(227,644)
Remeasurements recognized in other comprehensive income	-	(129)	(28,728)	1,937	(101)	28,587	(70,605)	8,211	-	(60,828)
Remeasurements derecognized out of other comprehensive income	-	-	(1,212)	174	-	(145)	-	-	-	(1,183)
Transfer from/to retained earnings	-	-	-	-	-	-	-	(2,540)	-	(2,540)
Other movements	-	120	-	-	-	-	-	-	-	120
Exchange differences	-	-	-	(29)	-	(11)	(539)	-	8,200	7,621
<b>BALANCE AT THE END OF PREVIOUS YEAR</b>	-	1,141	(33,865)	5,493	(687)	87,094	(298,028)	37,271	(82,873)	(284,454)
<b>Balance at the beginning of the year</b>	-	1,141	(33,865)	5,493	(687)	87,094	(298,028)	37,271	(82,873)	(284,454)
Remeasurements recognized in other comprehensive income	50,324	(4,198)	(20,951)	7,972	(84)	(513)	(27,632)	10,108	-	15,026
Remeasurements derecognized out of other comprehensive income	-	-	27,054	2,707	-	(8,057)	-	-	-	21,704
Transfer from/to retained earnings	-	-	-	-	-	-	-	(2,737)	-	(2,737)
Other movements	-	-	-	-	-	868	(1,775)	-	-	(908)
Exchange differences	-	5	74	549	-	(204)	2,403	-	(119,284)	(116,457)
<b>BALANCE AT THE END OF THE YEAR</b>	50,324	(3,052)	(27,688)	16,721	(771)	79,187	(325,033)	44,642	(202,157)	(367,826)

The net losses recognized in the OCI regarding cash flow hedges (€ 13.1 million) are the changes in fair value of new cash flow hedging instruments or existing ones at opening but which have not yet expired at year end. The net losses derecognized from OCI (€ 29.8 million) are the fair values of the cash-flow hedging instruments existing at the opening which expired during the year. The total impact incurred at expiration of the cash-flow hedges during the year represents a loss of € 54.8 million, recognized in the income statement. This amount includes the mentioned net losses derecognized from OCI (€ 29.8 million) and the fair value changes incurred in the course of the year on expired existing cash-flow hedges and on new instruments contracted during the year (€ 25.0 million).

New net remeasurements as a result of changes in the actuarial assumptions on the defined post-employment benefit plans have been recognized in OCI for € -27.6 million. The 2020 shares and stock option plans have led to a share-based payment reserve increase of € 10.1 million (refer to note F10 on employee benefits). € 2.7 million, linked to exercised options and free shares plans, have been transferred to retained earnings.

The conversion rights embedded in the € 500 million convertible bond issued on 23 June 2020 were valued at € 50.3 million net of transaction costs and have been recognized in equity (see note F2.17).



## F24 FINANCIAL DEBT

Thousands of Euros	Bank loans	Lease liability	Other loans	Total
<b>Non-current</b>				
<b>AT THE BEGINNING OF PREVIOUS YEAR</b>	<b>705,004</b>		<b>3,843</b>	<b>708,846</b>
. Change in accounting policies	-	37,262	-	<b>37,262</b>
. Acquisition through business combinations	-	3,181	-	<b>3,181</b>
. Increase	400,579	22,266	6	<b>422,851</b>
. Decrease	-	(16,536)	(291)	<b>(16,827)</b>
. Translation differences	37	89	-	<b>126</b>
. Transfers	(4,354)		1	<b>(4,353)</b>
<b>AT THE END OF PREVIOUS YEAR</b>	<b>1,101,266</b>	<b>46,262</b>	<b>3,555</b>	<b>1,151,083</b>
. Increase	125,000	27,657	494,360	<b>647,017</b>
. Decrease	-	(19,801)	(304)	<b>(20,105)</b>
. Translation differences	(146)	(1,251)	5	<b>(1,392)</b>
. Transfers	(21,120)	-	(4)	<b>(21,124)</b>
. Conversion rights recognized in equity	-	-	(50,324)	<b>(50,324)</b>
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>1,205,000</b>	<b>52,865</b>	<b>447,289</b>	<b>1,705,154</b>
<b>Current portion of long-term financial debts</b>				
<b>At the end of the preceding financial year</b>	<b>3,545</b>	<b>-</b>	<b>154</b>	<b>3,700</b>
. Increase / decrease	(12,151)	-	0	<b>(12,151)</b>
. Translation differences	(526)	-	(0)	<b>(526)</b>
. Transfers	30,922	-	4	<b>30,926</b>
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>21,790</b>	<b>-</b>	<b>158</b>	<b>21,948</b>

Thousands of Euros	Short term bank loans	Bank overdrafts	Short term loan : commercial paper	Other loans	Total
<b>Current</b>					
<b>AT THE END OF THE PRECEDING FINANCIAL YEAR</b>	<b>244,933</b>	<b>32,493</b>	<b>282,936</b>	<b>-</b>	<b>560,363</b>
. Increase / decrease	346,873	(22,392)	(148,654)	914	<b>176,742</b>
. Transfers	(9,802)	-	-	-	<b>(9,802)</b>
. Translation differences	(27,738)	(1,424)	-	(910)	<b>(30,072)</b>
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>554,266</b>	<b>8,678</b>	<b>134,282</b>	<b>4</b>	<b>697,230</b>

Net financial debt at 31 December 2020 stood at € 1,414.0 million, slightly down compared with € 1,443.4 million at the start of the year.

On June 15, 2020, Umicore and the European Investment Bank ("EIB") concluded a € 125 million loan agreement (fair value of €126 million). The proceeds of the loan, which has a maturity of eight years, will finance part of Umicore's investment in cathode materials plant in Nysa, Poland. Once completed, this greenfield plant will supply the European operations of Umicore's global battery cell and automotive customers.

On June 16, 2020, Umicore issued senior unsecured convertible bonds (the "Bonds") with a contractual maturity of 5 years, under Umicore's authorized capital, for an aggregate principal amount of € 500 million. The net proceeds will be used for general corporate purposes and to fund Umicore's strategic developments in the areas of clean mobility and materials recycling. Unless previously converted, redeemed or repurchased and cancelled, the Bonds will be redeemed at 100% of their principal amount on June 23, 2025. At inception, Umicore determined the bonds met the IFRS definition of a compound financial instrument. At the date of issuance, the equity portion of the Bonds representing the option to convert the instrument into ordinary shares is valued € 50.3 million (net of transaction costs).

The transaction costs that relate to the issuance of the Bonds were allocated to the liability and equity components of the instrument in proportion to the allocation of the proceeds.

The fair value of the financial liability component of the convertible bond as of December 31, 2020 amounted to € 444.1 million.

On October 2, 2020, Umicore received confirmation from Banque de France, as foreseen by art. D.213-2 of "Code monétaire et financier" of the French law, that the conditions as described in the financial documentation of its NEU commercial paper (no longer than 1 year maturity) and NEU medium term note (maximum 3 years maturity), for a maximum amount of € 600 million each, fulfill the requirements of the law.

On December 31, 2020, an amount of € 45 million was outstanding on the NEU CP program and no amount was outstanding on the NEU MTN program.

An amount of €89.75 million was outstanding on the Belgian Commercial Paper programme (out of € 600 million available under the program).

The financial debt includes the US private debt placements issued in 2019 (€ 390 million; fair value of € 413.8 million) and in 2017 (€ 360 million; fair value € 394.0 million) and also the Schuldschein issued in 2017 (€ 330 million; fair value € 342.2 million).

On 31 December 2020, there were no outstanding advances under the € 300 million Syndicated Bank Credit Facility maturing in October 2022 and no outstanding advances under the € 495 million Syndicated Bank Credit Facility maturing in April 2025.

The aforementioned Syndicated Bank Credit Facilities and the long term debt instruments require the Company to comply with certain financial covenants. Umicore has not faced any breach of those covenants in 2020 or in previous years.

The long-term debts mainly include debt instruments in EUR.

The average interest rate on the average gross debt amounted to 1.91% for full year 2020 (2.11% for full year 2019).

The line "new loans and repayment of loans" in the consolidated statement of cash flow do not include the movements on bank overdrafts and the currency translation differences.

The net gearing ratio end of 2020 of 35.0% (35.2% in 2019) and the net financial debt over adjusted EBITDA ratio of 1.76x (compared to 1.92x end of 2019) position the Group well within its targeted capital structure limits.

Thousands of Euros	Type of Interest	Due within 1 year	Due between 1 and 5 years	Due beyond 5 years	Total
<b>Gross Financial debt of previous year</b>					
Lease Liabilities		-	38,087	8,174	46,262
Credit Institutions	Fixed/Floating	281,126	24,820	-	305,946
Commercial Papers	Floating	282,936	-	-	282,936
Schuldschein	Fixed/Floating	-	287,000	43,000	330,000
US Private Placement	Fixed	-	-	750,000	750,000
<b>TOTAL</b>		<b>564,062</b>	<b>349,907</b>	<b>801,174</b>	<b>1,715,144</b>

Thousands of Euros	Type of Interest	Due within 1 year	Due between 1 and 5 years	Due beyond 5 years	Total
<b>Gross Financial debt of the year</b>					
Lease Liabilities		-	40,478	12,387	52,865
Credit Institutions	Fixed/Floating	584,895	3,190	-	588,085
Commercial Papers	Floating	134,282	-	-	134,282
Schuldschein	Fixed/Floating	-	287,000	43,000	330,000
US Private Placement	Fixed	-	-	750,000	750,000
EIB Loan	Fixed	-	-	125,000	125,000
Convertible Bond	Fixed	-	444,100	-	444,100
<b>TOTAL</b>		<b>719,177</b>	<b>774,768</b>	<b>930,387</b>	<b>2,424,332</b>

Thousands of Euros	EUR	Other currencies	Total
<b>Analysis of long term debts by currencies (including current portion)</b>			
Bank loans	1,205,000	21,790	1,226,790
Other loans	447,445	2	447,447
<b>NON-CURRENT FINANCIAL DEBTS (INCLUDING CURRENT PORTION)</b>	<b>1,652,445</b>	<b>21,792</b>	<b>1,674,237</b>

Thousands of Euros	2019	2020
Non current financial debt	1,151,083	1,705,154
Current portion of non current financial debt	3,700	21,948
Current financial debt	560,363	697,230
Cash and cash equivalents	(271,724)	(1,010,307)
<b>NET FINANCIAL DEBT</b>	<b>1,443,422</b>	<b>1,414,024</b>

<b>Gross outstanding debt</b>	
Short term bank loans	23.8%
Long term bank loans	49.7%
Commercial paper	5.5%
Bank overdrafts	0.4%
Lease liability	2.2%
Convertible Bond	18.3%
Other bank facilities	0.1%

Millions of Euros	2019	2020
Net financial debt	1,443.4	1,414.0
Equity	2,660.5	2,621.9
Total	4,103.9	4,035.9
Gearing ratio (%)	35.2	35.0

## F25 TRADE DEBT AND OTHER PAYABLES

Thousands of Euros	Notes	31/12/2019	31/12/2020
<b>Non-current</b>			
Long-term trade payables		2,579	-
Other long-term debts		5,520	5,682
Investment grants and deferred income from grants		16,021	17,823
<b>TOTAL FOR CONTINUING OPERATIONS</b>		<b>24,120</b>	<b>23,505</b>
<b>Current</b>			
Trade payables		1,466,140	1,896,099
Advances received on contracts in progress		15,448	32,180
Tax payable (other than income tax)		26,190	38,317
Payroll and related charges		125,252	135,835
Other amounts payable		56,399	39,733
Dividends payable		11,657	11,618
Accrued interest payable		7,856	9,109
Fair value payable financial instrument held for cash flow hedging	F33	48,829	57,957
Fair value payable - financial instruments related to FV hedging	F33	18,670	38,296
Accrued charges and deferred income		139,907	159,784
<b>TOTAL FOR CONTINUING OPERATIONS</b>		<b>1,916,348</b>	<b>2,418,928</b>

Compared to 31 December 2019, trade payables increased, driven mainly by a substantial increase in Catalysis, fueled by higher metal prices. Trade payables include bank acceptance drafts issued by Umicore in China. Bank acceptance drafts are a commonly used form of payment in China, often preferred by suppliers in view of their transferrability, their use as financing collateral or their ability to be discounted. End of 2020, Umicore issued € 280 million of bank acceptance drafts in China (compared to € 196 million end of 2019). Trade payables end of 2020 include contracted metals to be repurchased for an amount of € 230 million (compared to € 206 million end of 2019). The tax payables (other than income tax) mainly include VAT payables.

## F26 LIQUIDITY OF THE FINANCIAL LIABILITIES

## PREVIOUS FINANCIAL YEAR

Thousands of Euros	Earliest contractual maturity					Total
	< 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	> 5 years	
<b>Financial debt</b>	<b>153,186</b>	<b>192,344</b>	<b>218,525</b>	<b>349,908</b>	<b>801,174</b>	<b>1,715,137</b>
<b>CURRENT</b>	<b>153,186</b>	<b>192,344</b>	<b>218,525</b>	-	-	<b>564,055</b>
Short term bank loans	130,764	56,370	57,799	-	-	244,933
Bank overdrafts	21,188	-	11,305	-	-	32,493
Short-term loan: commercial paper	-	134,155	148,781	-	-	282,936
Other loans	(7)	-	0	-	-	(7)
Current portion of long-term bank loans	1,229	1,793	523	-	-	3,545
Current portion of other long-term loans	13	26	116	-	-	154
<b>NON-CURRENT</b>	-	-	-	<b>349,908</b>	<b>801,174</b>	<b>1,151,082</b>
Bank loans	-	-	-	308,267	793,000	1,101,267
Lease liability	-	-	-	38,087	8,174	46,261
Other loans	-	-	-	3,554	-	3,555
<b>TRADE AND OTHER PAYABLES</b>	<b>1,343,059</b>	<b>323,292</b>	<b>231,717</b>	<b>29,510</b>	<b>12,891</b>	<b>1,940,469</b>
<b>CURRENT</b>	<b>1,343,059</b>	<b>323,292</b>	<b>231,717</b>	<b>18,281</b>	-	<b>1,916,349</b>
Trade payables	1,113,438	216,335	136,367	-	-	1,466,140
Advances received on contracts in progress	5,092	8,720	1,636	-	-	15,448
Tax payable (other than income tax )	22,491	3,700	(0)	-	-	26,190
Payroll and related charges	43,063	26,409	55,780	-	-	125,252
Other amounts payable	25,106	16,656	14,638	-	-	56,400
Dividends payable	11,657	-	-	-	-	11,657
Accrued interest payable, third parties	6,165	1,390	300	-	-	7,856
Fair value payable financial instrument held for cash flow hedging	399	9,372	20,778	18,281	-	48,829
Fair value payable - financial instruments related to FV hedging	8,198	8,252	2,219	-	-	18,670
Accrued charges and deferred income	107,450	32,457	0	-	-	139,907
<b>NON-CURRENT</b>	-	-	-	<b>11,229</b>	<b>12,891</b>	<b>24,120</b>
Long-term trade payables	-	-	-	-	2,579	2,579
Other long-term debts	-	-	-	1,192	4,328	5,520
Investment grants and deferred income from grants	-	-	-	10,037	5,984	16,021

## FINANCIAL YEAR

(EUR thousand)	Earliest contractual maturity					Total
	< 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	> 5 years	
<b>Financial debt</b>	<b>274,765</b>	<b>90,870</b>	<b>353,542</b>	<b>774,766</b>	<b>930,387</b>	<b>2,424,330</b>
<b>Current</b>	<b>274,765</b>	<b>90,870</b>	<b>353,542</b>	<b>-</b>	<b>-</b>	<b>719,177</b>
Short term bank loans	231,384	55,590	267,293	-	-	554,266
Bank overdrafts	8,678	-	-	-	-	8,678
Short-term loan: commercial paper	25,000	35,250	74,032	-	-	134,282
Other loans	-	4	-	-	-	4
Current portion of long-term bank loans	9,691	-	12,099	-	-	21,790
Current portion of other long-term loans	13	26	119	-	-	158
<b>Non-current</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>774,766</b>	<b>930,387</b>	<b>1,705,153</b>
Bank loans	-	-	-	287,000	918,000	1,205,000
Lease liability	-	-	-	40,478	12,387	52,865
Other loans	-	-	-	447,288	0	447,288
<b>Trade and other payables</b>	<b>1,377,057</b>	<b>362,626</b>	<b>659,330</b>	<b>32,008</b>	<b>11,409</b>	<b>2,442,430</b>
<b>Current</b>	<b>1,377,057</b>	<b>362,626</b>	<b>659,330</b>	<b>19,912</b>	<b>-</b>	<b>2,418,925</b>
Trade payables	1,105,279	246,622	544,198	-	-	1,896,099
Advances received on contracts in progress	13,586	18,199	395	-	-	32,180
Tax payable (other than income tax )	35,188	2,591	539	-	-	38,317
Payroll and related charges	38,663	41,765	55,407	-	-	135,835
Other amounts payable	28,760	4,627	6,346	-	-	39,733
Dividends payable	11,618	-	-	-	-	11,618
Accrued interest payable, third parties	6,960	1,653	496	-	-	9,109
Fair value payable financial instrument held for cash flow hedging	471	9,324	28,631	19,527	-	57,953
Fair value payable - financial instruments related to FV hedging	16,119	17,902	3,890	385	-	38,296
Accrued charges and deferred income	120,413	19,943	19,428	-	-	159,784
<b>Non-current</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>12,096</b>	<b>11,409</b>	<b>23,505</b>
Other long-term debts	-	-	-	1,182	4,500	5,682
Investment grants and deferred income from grants	-	-	-	10,914	6,909	17,823

## F27 PROVISIONS FOR EMPLOYEE BENEFITS

The Group has various legal and constructive defined benefit obligations, the vast majority of them being “final pay” plans linked to the Belgian and German operations

Thousands of Euros	Post-employment benefits, pensions and similar	Post-employment benefits - other	Termination benefits early retirement & similar	Other long-term employee benefits	Total
<b>At the end of the previous year</b>	<b>347,160</b>	<b>3,806</b>	<b>26,546</b>	<b>15,137</b>	<b>392,650</b>
. Increase (included in "Payroll and related benefits")	27,668	(106)	6,157	1,335	35,054
. Reversal (included in "Payroll and related benefits")	(63)	-	-	(7)	(70)
. Use (included in "Payroll and related benefits")	(25,943)	(170)	(4,985)	(723)	(31,820)
. Interest and discount rate impacts (included in "Finance cost - Net")	3,175	9	23	110	3,317
. Translation differences	(72)	(282)	(444)	(24)	(822)
. Transfers	747	(467)	(210)	(26)	44
. recognized in other comprehensive income	28,162	(159)	(0)	0	28,004
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>380,834</b>	<b>2,633</b>	<b>27,087</b>	<b>15,802</b>	<b>426,356</b>

Thousands of Euros	31/12/2019	Movements 2020	31/12/2020
Belgium	67,478	28,095	95,573
Germany	297,653	3,090	300,743
<b>SUBTOTAL</b>	<b>365,131</b>	<b>31,185</b>	<b>396,316</b>
Other entities	27,519	2,522	30,040
<b>TOTAL FOR CONTINUING OPERATIONS</b>	<b>392,650</b>	<b>33,707</b>	<b>426,356</b>

The first table shows the balances and the movements in provisions for employee benefits of the fully consolidated subsidiaries only.

The termination benefits mainly concern mainly Belgian pre-retirement plans and some severance pay schemes in Korea. Other long-term benefits mainly concern jubilee premium in Belgium and Germany.

The lines “Increase”, “Reversal” and “Use” of employee benefits provisions can be linked with the line “Provisions for employee benefits” of the note F10. The amount recognized in OCI originates mainly from

a decrease in discount rates on the pension plans. A reconciliation with the note F23 and the Statement of Comprehensive income is provided in the tables below.

The defined contribution plans of the Group in some countries like in the USA, Canada, South Africa and Germany are not part of this note as the amounts are directly recognized in the income statement under the line “Contribution to defined contribution plans” (see note F10).

The following disclosure requirements under IAS 19 amended were derived from the reports obtained from external actuaries.

Umicore defined benefit pension schemes for the 2 major countries are the following:

## BELGIUM

**Characteristics of the Defined Benefit plans** Umicore companies in Belgium operate defined benefit plans that provide retirement or long-term employee benefits which are related to salary and age or length of service. These retirement and long term benefit plans represent a defined benefit obligation of € 314.0 million and assets for € 218.5 million. They foresee in lump sum or monthly payments upon retirement or pre-retirement and benefits in case of reaching a number of years of service or in case of death or disability prior to retirement.

The net provisions for pension of € 95.5 million can be broken down in post-employment defined benefit plans (€ 67.2 million of which € 172.9 million is the obligation and € 105.7 million relates to plan assets), termination benefits plan (€ 6.3 million of obligation not funded), jubilee premium (€ 3.5 million, not funded) and post-employment defined contributions plans and bonus saving plans with guaranteed return and therefore treated as Defined Benefit plans (€ 18.6 million of which € 131.3 million is the obligation and € 112.7 million relates to plan assets).

**Funding** The post-employment plans are externally funded through either insurance companies or a self-administrated institution for occupational retirement provision ("IORP"). For the IORP, the necessary governance processes for risk management are in place. One of the risk measures is to perform on a regular basis a "Continuity Test" in which the consequences of strategic investment policies are analyzed in terms of risk- and return profiles and solvency measures. A statement of investment principles and funding policy are derived from this. The purpose is to have a well-diversified asset allocation to control the risk.

**Fair values of plan assets** The fair values of the equity and debt instruments are determined based on quoted market prices in active markets (level 1 fair value classification). The plans hold no direct positions in Umicore shares or bonds, nor do they own any property used by an Umicore entity. Investments are well diversified so that the failure of any single investment would not have a material impact on the overall level of assets.

## GERMANY

**Characteristics of the Defined Benefit plans** The post-employment benefits are mainly unfunded pension plans of defined benefit type providing retirement, disability and death benefits. All benefit plans are based on final or final average pay excluding the deferred compensation plans. The benefits of the deferred compensation plan are based on annual converted salary and provide a guaranteed interest of 3.0% p.a. (6.0% p.a. for salary conversions before 2014). All post-employment plans represent a defined benefit obligation of € 308.3 million and assets for € 7.6 million.

The net provisions for pension of € 300.7 million mainly includes the Degussa pension defined benefit plans, including the contribution plan where the inflation and interest rate adjustments of the benefits are guaranteed (€ 224.1 million), the closed and open compensation plans (€ 62.0 million), a jubilee premium plan (€ 7.0 million) and other termination benefits (€ 7.8 million).

**Funding** As mentioned above, the post-employment benefits are mainly unfunded plans. A minor part is funded by pledged reinsurance contracts.

**Fair values of plan assets** All plan assets relate to pledged insurance contracts and have no quoted market price.

The most significant risks related to the defined benefit plans are:

- Asset volatility: The plan liabilities are calculated using a discount rate set with reference to corporate bond yields; if plan assets underperform this yield, this will create a deficit.

- Changes in bond yields: A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plan's bond holdings.
- Salary risk: The majority of the plans' benefit obligations are calculated by reference to the future salaries of plan members. As such, any salary increase of plan members higher than expected will lead to higher liabilities.
- Longevity risk: All pension plans beside the new deferred compensation plan as from 2014 provide life annuities which involve the risk of longevity i.e. the risk that the payment period of the pension increases due to the increase in life expectancy. The company uses mortality rates which depend on the year of birth to include this risk in the pension obligation.
- Risk of cash outflow: Since death as active and disability benefits are provided there is a risk of cash outflow before retirement.
- Legislation risks: If the law which define the benefit changes, it can result in a change of the obligations.

Some additional risks are related to Germany only:

- In Germany two defined contribution pension plans exist which are externally financed via the "Pensionskasse Degussa" (PKD) or the support fund "Unterstützungskasse Degussa" (RUK). With respect to the required pension adjustments of pensions paid by these plans, there is a risk that these adjustments cannot be fully borne by the PKD or RUK and therefore can result in additional unfunded pension obligations. This part of the PKD and RUK plans is therefore considered as a Defined Benefit Plan and the risk of the additional obligation expected until end of 2023 has been included in the defined benefit obligation and is yearly reviewed (additional obligation of € 5.1 million for PKD and € 0.9 million for RUK at the end of 2020).
- The closed deferred compensation plan provides a guaranteed interest rate of 6% which increases the risk for a pension cost in addition to the converted salary. The plan was closed at 31 December 2013 and replaced by a plan with no significant risk in this respect.

And some risks are related to Belgium only:

- Because of the Belgian legislation applicable to 2nd pillar pension plans (so-called "Law Vandenbroucke"), all Belgian Defined Contribution plans have to be considered under IFRS as Defined Benefit plans. Law Vandenbroucke states that in the context of defined contribution plans, the employer must guarantee a minimum return of 3.75% on employee contributions and 3.25% on employer contributions. However, shortly before year-end 2015, a change in the Belgian Law was enacted resulting in a decrease of the guaranteed return from 3.25 % to a minimum interest rate defined based upon the Belgian 10-year interest rate but within the range 1.75% – 3.25%. The new rate (currently 1.75%) applies for the years after 2015 on future contributions and also on the accumulated past contributions as at 31 December 2015 if the financing organization does not guarantee a certain

result on contributions until retirement age. If the organization does guarantee such a result, the rates 3.25/3.75% still apply. Because of this minimum guaranteed return, the employer is exposed to a financial risk: further contributions could be required if the return on assets would not be sufficient to reach the minimum benefits to be paid. The group has plans that are financed through insurance contract as well as one plan financed through an IORP. The related defined benefit obligations have been aggregated with the other obligations for defined benefit plans. The Projected Unit Credit (PUC) methodology has been used. Total defined benefit obligations related to those plans amounts to € 131.3 million as at the end of December 2020 and related plan assets to € 112.7 million.

Pension plans mainly in Belgium, Korean, Liechtenstein, and Japan are wholly or partly funded with assets covering a substantial part of the obligations. All other plans have no material funding or are unfunded.

Thousands of Euros	2019	2020
<b>Change in benefit obligation</b>		
<b>Benefit obligation at beginning of the year</b>	<b>549,052</b>	<b>651,685</b>
Current service cost	32,958	34,591
Interest cost	9,908	6,246
Plan Participants' Contributions	946	905
Remeasurements - changes in demographic assumptions	1,133	1,556
Remeasurements - changes in financial assumptions	81,769	29,185
Remeasurements - experience adjustments	3,032	2,942
Benefits paid from plan/company	(24,272)	(26,873)
Expenses paid	(3,773)	(1,819)
Plan combinations	74	157
Exchange rate changes	858	(1,353)
<b>BENEFIT OBLIGATION AT END OF THE YEAR</b>	<b>651,685</b>	<b>697,222</b>

Thousands of Euros	2019	2020
<b>Change in plan assets</b>		
<b>Fair value of plan assets at the beginning of the year</b>	<b>216,101</b>	<b>259,952</b>
Expected return on plan assets	3,740	2,349
Remeasurements on plan assets	17,138	5,398
Employer contributions	49,291	32,473
Member contributions	946	905
Benefits paid from plan/company	(24,272)	(26,873)
Expenses paid	(3,823)	(1,870)
Net transfer in/(out) (including the effect of any business combinations/divestitures)	87	(76)
Exchange rate changes	744	(568)
<b>FAIR VALUE OF PLAN ASSETS AT THE END OF THE YEAR</b>	<b>259,952</b>	<b>271,690</b>



Thousands of Euros	2019	2020
<b>Amount recognized in the balance sheet</b>		
Defined benefit obligations	651,685	697,222
Fair value of plan assets	259,952	271,690
<b>FUNDED STATUS</b>	<b>391,733</b>	<b>425,532</b>
<b>NET LIABILITY (ASSET)</b>	<b>391,733</b>	<b>425,532</b>
<b>Components of pension costs</b>		
<b>Amounts recognized in profit and loss statement</b>		
Current service cost	32,958	34,591
Interest cost	9,908	6,246
Interest income on plan assets	(3,740)	(2,349)
Remeasurement of Other Long Term Benefits	(1,890)	277
Administrative expenses and taxes	51	51
<b>TOTAL PENSION COST RECOGNIZED IN P&amp;L ACCOUNT</b>	<b>37,287</b>	<b>38,816</b>
<b>Amounts recognized in other comprehensive income</b>		
<b>Cumulative remeasurements at opening</b>	<b>199,949</b>	<b>270,082</b>
Remeasurements of the year	70,882	28,004
Minorities	(772)	37
Other movements	-	1,775
Exchange differences	23	(69)
<b>TOTAL RECOGNIZED IN THE OCI AT SUBSIDIARIES</b>	<b>270,082</b>	<b>299,829</b>
Remeasurements at associates and joint ventures	27,944	25,202
<b>TOTAL RECOGNIZED IN THE OCI</b>	<b>298,026</b>	<b>325,030</b>
Remeasurements recognised in Other comprehensive income as per Note F23 (w/o Minorities)	(70,605)	(27,632)
Currency translation differences as per Note F23 (w/o Minorities)	(539)	2,403
Reameasurements related to Minorities (including ctd's on Minorities )	(776)	32
<b>TOTAL REMEASUREMENT SHOWN IN OCI</b>	<b>(71,921)</b>	<b>(25,198)</b>
.Currency translation differences as per Note F23 (w/o Minorities)	539	(2,403)
.Currency translation differences related to Minorities	4	5
.Remeasurements related to equity companies	496	(409)
<b>TOTAL REMEASUREMENTS SHOWN IN NOTE F27</b>	<b>(70,882)</b>	<b>(28,004)</b>
<b>Remeasurements (recognized in other comprehensive income)</b>		
Effect of changes in demographic assumptions	1,070	1,433
Effect of changes in financial assumptions	80,772	29,124
Effect of experience adjustments	5,859	2,677
(Return) on plan assets (excluding interest income)	(17,015)	(5,230)
<b>TOTAL REMEASUREMENTS INCLUDED IN OTHER COMPREHENSIVE INCOME</b>	<b>70,686</b>	<b>28,004</b>

The interest cost and return on plan assets as well as the discount rate impact on the nonpost-employment benefit plans, are recognized under the finance cost in the income statement (see note F11). All other elements of the expense of the year are classified under the operating result in the “wages, salaries and direct social advantages”.

Remeasurements of the year recognized in OCI originate mainly from a change in discount rates on the pension plans and differences between the expected and actual return on plan assets.

	2019	2020
<b>PRINCIPAL ACTUARIAL ASSUMPTIONS</b>		
<b>Weighted average assumptions to determine benefit obligations at year end</b>		
Discount rate (%)	0.95	0.78
Rate of compensation increase (%)	2.60	2.55
Rate of price inflation (%)	1.78	1.75
Rate of pension increase (%)	1.30	1.30
<b>Weighted average assumptions used to determine net cost</b>		
Discount rate (%)	1.85	0.95
Rate of compensation increase (%)	2.85	2.60
Rate of price inflation (%)	1.78	1.78
Rate of pension increase (%)	1.36	1.30

	2020	
	Fair value of all plan assets	Fair Value of plan assets with quoted market price
<b>Plan assets</b>		
Cash and cash equivalents	25,629	25,624
Equity instruments	37,215	37,204
Debt instruments	104,902	104,786
Real estate	6,083	6,078
Assets held by insurance company	92,047	79,106
Other	5,814	4,542
<b>TOTAL PLAN ASSETS</b>	<b>271,690</b>	<b>257,340</b>

Assumptions are recommended by the local actuaries in line with the IAS19 revised. The standard reference for the Eurozone is iBOXX AA Index yield and similar indexes are used for the other regions. Mortality tables used are country specific.

Other plan assets are predominantly invested in insurance contracts and bank term deposits. The expected long-term rate of return on assets assumptions is documented for the individual plans as recommended by the local actuaries.

	2020	
	Valuation trend +0,25%	Valuation trend -0,25%
<b>Sensitivity to trend rate assumptions on discount rate</b>		
Present value of defined benefit obligation	658,818	709,792
Weighted average duration of benefit obligation (in years)	14.18	15.63
<b>Sensitivity to trend rate assumptions on inflation rate</b>		
Present value of defined benefit obligation	672,805	642,411
<b>Sensitivity to trend rate assumptions on salary increase rate</b>		
Present value of defined benefit obligation	691,403	670,934

Thousands of Euros	2019	2020
<b>BALANCE SHEET RECONCILIATION</b>		
Balance sheet liability (asset) as of previous year	332,951	391,734
Pension expense recognized in P&L in the financial year	37,287	38,816
Amounts recognized in SoCI	70,686	28,004
Employer contributions via funds in the financial year	(37,964)	(20,633)
Employer contributions paid directly in the financial year	(11,327)	(11,840)
Amounts recognized due to plan combinations	(13)	233
Exchange rate adjustment - (gain)/loss	114	(785)
<b>BALANCE SHEET LIABILITY (ASSET) AS OF END OF THE YEAR</b>	<b>391,734</b>	<b>425,529</b>
Provisions for employee benefits in non current liabilities as per Balance Sheet		
	392,651	426,356
Asset employee benefit in non current asset (note F20)	(744)	(820)
Other	(173)	(7)
<b>NET OBLIGATION ON BALANCESHEET</b>	<b>391,734</b>	<b>425,529</b>

At 31 December

Thousands of Euros	2016	2017	2018	2019	2020
Present value of defined benefit obligation	521,153	552,021	549,052	651,685	697,222
Fair value of plan assets	183,246	209,774	216,101	259,952	271,690
<b>DEFICIT (SURPLUS) IN THE PLAN</b>	<b>337,907</b>	<b>342,247</b>	<b>332,951</b>	<b>391,733</b>	<b>425,532</b>
Experience adjustments on plan assets	(16,036)	(5,286)	4,410	(17,138)	(5,398)
Experience adjustments on plan liabilities	14,861	4,611	5,967	3,032	2,942

Thousands of Euros

2020

<b>EXPECTED CASH FLOWS FOR FOLLOWING YEAR</b>	
Expected employer contributions	34,132
Expected total benefit payments	
Year 1	31,359
Year 2	25,960
Year 3	25,600
Year 4	20,150
Year 5	29,209
Next 5 years	160,840

## F28 STOCK OPTION PLANS GRANTED BY THE COMPANY

Plan	Expiry date	Exercise	Exercise price EUR (the exercise price may be higher in certain countries)	Number of options still to be exercised
ISOP 2014	10/02/2021	all working days of Euronext Brussels	16.14	101,750
			15.80	3,000
			16.49	7,875
				<b>112,625</b>
ISOP 2015	09/02/2022	all working days of Euronext Brussels	17.29	344,315
			18.90	10,000
			19.50	24,750
				<b>379,065</b>
ISOP 2016	04/02/2023	all working days of Euronext Brussels	16.63	720,750
				<b>720,750</b>
ISOP 2017	13/02/2024	all working days of Euronext Brussels	25.50	977,000
			27.04	23,750
				<b>1,000,750</b>
ISOP 2018	08/02/2025	all working days of Euronext Brussels	40.90	1,182,625
				<b>1,182,625</b>
ISOP 2019	10/02/2026	all working days of Euronext Brussels	34.08	1,216,000
			36.78	5,000
				<b>1,221,000</b>
ISOP 2020	09/02/2027	all working days of Euronext Brussels	42.05	1,168,375
				<b>1,168,375</b>
<b>TOTAL</b>				<b>5,785,190</b>

ISOP refers to "Incentive Stock Option Plan" (worldwide plan for managers).

The stock options, which are typically vested at the time of the grant, are foreseen to be settled with treasury shares. Options which have not been exercised before the expiry date elapse automatically.

	2019		2020	
	Number of share options	Weighted average exercise price	Number of share options	Weighted average exercise price
<b>DETAILS OF THE SHARE OPTIONS OUTSTANDING DURING THE YEAR</b>				
Outstanding at the beginning of the year	5,356,854	24.14	5,641,250	27.42
Granted during the year	1,221,000	34.09	1,168,375	42.05
Exercised during the year	936,604	17.37	1,024,435	18.25
<b>OUTSTANDING AT THE END OF THE YEAR</b>	<b>5,641,250</b>	<b>27.42</b>	<b>5,785,190</b>	<b>32.00</b>
Exercisable at the end of the year	5,641,250	27.42	5,785,190	32.00

The options outstanding at the end of the year have a weighted average contractual life until January 2025.

The details concerning the calculation of the fair value of the options granted are detailed under note F10 on Payroll and related Benefits.

## F29 ENVIRONMENTAL PROVISIONS

Thousands of Euros	Provisions for soil clean-up & site rehabilitation	Other environmental provisions	Total
<b>At the end of previous year</b>	<b>57,992</b>	<b>10,089</b>	<b>68,081</b>
. Acquisition through business combinations	-	2,079	2,079
. Increase (included in "Other operating expenses")	54,479	7,703	62,182
. Reversal (included in "Other operating expenses")	(353)	(197)	(550)
. Use (included in "Other operating expenses")	(1,777)	(6,501)	(8,278)
. Discounting (included in "Finance cost - Net")	53	-	53
. Translation differences	(2,156)	-	(2,156)
. Other movements	(0)	(38)	(38)
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>108,238</b>	<b>13,136</b>	<b>121,374</b>
Of which - Non Current	105,093	7,165	112,258
Of which - Current	3,145	5,971	9,116

Provisions for environmental legal and constructive obligations are recognized and measured by reference to an estimate of the probability of future cash outflows as well as to historical data based on the facts and circumstances known at the end of the reporting period. The actual liability may differ from the amounts recognized.

Provisions increased overall by € 53.3 million, with additional provisions which are higher than the uses and reversals of existing provisions.

The acquisitions through business combinations are related to the subsequent corrections of the opening balance sheet in Finland during the course of 2020 (note F8).

The new provisions for soil and groundwater remediation are mainly related to new provisions taken in Belgium at the Hoboken and Olen sites. In Recycling, a charge of € 50.9 million was accounted for, comprising a € 50.0 million provision to cover costs related to the intention to buy houses closest to the Hoboken plant and create a green zone. These costs comprise an estimated purchase value of the houses (based on third party appraisal) to be demolished as well as an estimate of demolition and landscaping costs. Concertation with the city council and residents is ongoing and might result in adjustments to this cost estimate.

Most of the uses of provisions for soil and groundwater remediation for the period are linked to the realization of site remediation programs in France, in the USA and in Belgium.

Early 2020, the Federal Agency for Nuclear Control issued guiding principles for the permanent remediation and storage of the legacy radioactive material related to Umicore's Olen site in Belgium. Joint working groups have been established, including governmental agencies such as NIRAS/ONDRAF, OVAM, FANC and Umicore to elaborate a roadmap describing the different steps that need to be taken to reach a permanent storage solution. This exercise will include an update of the estimated future remediation and storage costs and the dedicated existing environmental provisions once the technical aspects will have been determined. Developing and implementing this detailed roadmap is currently expected to take several years. Umicore will in the meantime continue the monitoring works to guarantee that no risks are emanating from those remnants, neither for the workers on site, nor for the surrounding population.

The movements of the other environmental provisions are mainly related to the need for and adjustment of CO2 emission rights in Belgium.

Management expects the most significant cash outflows on these projects for non-current elements to take place within 10 years.

### F30 PROVISIONS FOR OTHER LIABILITIES AND CHARGES

Thousands of Euros	Provisions for reorganisation & restructuring	Provisions for litigation	Provisions for onerous contracts IFRS 9	Provisions for other liabilities and charges	Total
<b>At the end of the previous year</b>	<b>22,945</b>	<b>3,288</b>	<b>24,105</b>	<b>53,293</b>	<b>103,631</b>
. Increase (included in "Other operating expenses")	39,590	-	-	24,819	64,409
. Reversal (included in "Other operating expenses")	(3,111)	-	(2,650)	(16,552)	(22,313)
. Use (included in "Other operating expenses")	(9,888)	(569)	(528)	(9,190)	(20,175)
. Translation differences	(2,100)	(32)	(964)	(1,489)	(4,585)
. Transfers	(6,581)	-	-	6,572	(9)
<b>AT THE END OF THE FINANCIAL YEAR FOR CONTINUING OPERATIONS</b>	<b>40,856</b>	<b>2,686</b>	<b>19,963</b>	<b>57,454</b>	<b>120,958</b>
Of which - Non Current	29,154	945	-	39,683	69,782
Of which - Current	11,703	1,741	19,963	17,773	51,180

Provisions for reorganization and restructuring and other liabilities and charges are recognized and measured by reference to an estimate of the probability of future outflow of cash as well as to historical data based on the facts and circumstances known at the end of the reporting period. The actual liability may differ from the amounts recognized.

Provisions increased overall by € 17.3 million.

Additional provisions for reorganization and restructuring have been taken for the restructuring initiatives in Cobalt & Specialty Materials in Belgium, in the USA and in France for € 9.4 million. € 14.7 million have been booked as well in Rechargeable Battery Materials linked to a site reconfiguration in Korea and € 13.9 million in Catalysis related to the consolidation of the North American automotive catalysts production.

The uses of provisions for reorganization and restructuring relate to the execution of the previously announced restructurings in the USA and in Germany.

The provisions for litigation are not including the tax provisions related to IFRIC 23 as those are booked under the line Income tax payable.

The provisions for onerous contracts related to IFRS 9 are linked to the introduction of IFRS 9 for fair value hedging. The Group's economical transactional metal hedging policy prescribes that mark-to-market valuation principles are initially applied on all elements of the transactional hedging position, hedging instruments as well as hedged items. Where possible this happens under IFRS 9 hedge accounting criteria. When IFRS 9 hedge accounting cannot be applied or obtained, Umicore offsets under IAS 37 principles any material positive mark-to-markets with provisions for onerous contracts and reclassifies the negative mark-to-markets under the provisions for onerous contracts (see also Notes F2.21.1, F3.2.2 and F4.5). The movement in 2020 on the IFRS 9 related onerous contract provisions amounted to net decrease of € 4.1 million.

The other provisions for liabilities and charges include other onerous contracts provisions of € 12.7 million (net increase of € 9.5 million compared with 2019) and provisions for warranty and quality recall risks of € 32.8 million (net decrease of € 10.3 million compared with 2019) that are mainly linked to risks related to automotive end market applications in both Catalysis and Energy & Surface Technologies (the latter referring to the dedicated provisioning model for battery materials introduced in 2018).

No reliable estimation could be made regarding the expected timing of cash outflows related to the non-current part of the provisions for other liabilities and charges.

## F31 CAPITAL EMPLOYED

Thousands of Euros	Notes	31/12/2019	30/06/2020	31/12/2020
Intangible assets	F14,F15	370,859	345,630	346,888
Property, plant and equipment	F16	2,094,672	2,082,292	2,163,661
Investments accounted for under the equity method	F17	150,642	144,233	139,839
Financial assets at FV through OCI	F18	10,897	10,480	8,352
Inventories	F19	2,462,330	2,516,570	2,718,092
Non current receivable (excluding assets employee benefits)	F20	10,865	9,815	10,945
Adjusted current accounts receivable		1,405,810	1,281,869	1,611,461
Income tax receivable		45,447	39,076	39,553
<b>ASSETS INCLUDED IN CAPITAL EMPLOYED</b>		<b>6,551,521</b>	<b>6,429,964</b>	<b>7,038,790</b>
Non-current trade and other payables	F25	24,120	21,246	23,505
Adjusted current accounts payable		1,867,518	1,807,704	2,360,975
Translation reserves	F23	(82,870)	(154,151)	(202,148)
Non-current provisions	F29,F30	107,487	106,666	182,040
Current provisions	F29,F30	64,230	50,721	60,296
Income tax payable		131,483	147,874	160,734
<b>LIABILITIES INCLUDED IN CAPITAL EMPLOYED</b>		<b>2,111,969</b>	<b>1,980,060</b>	<b>2,585,401</b>
<b>Capital employed</b>		<b>4,439,552</b>	<b>4,449,904</b>	<b>4,453,389</b>
Eliminations		2,439	2,707	3,191
<b>CAPITAL EMPLOYED AS PUBLISHED</b>		<b>4,441,991</b>	<b>4,452,611</b>	<b>4,456,580</b>
Average Capital Employed in half year preceding closing date		4,208,271		4,454,596
<b>Average Capital Employed in year preceding closing date</b>		<b>4,048,377</b>		<b>4,450,948</b>
Adjusted EBIT in year preceding closing date	F9	508,920		536,361
<b>ROCE in year preceding closing date</b>		<b>12.57%</b>		<b>12.05%</b>

The adjusted current account receivables included in the “Capital Employed” do not take into account the margin calls (€ 20.6 million at the end of 2020) and the gains booked on the mark-to-market value of strategic hedging instruments (€ 45.1 million in 2020). The adjusted current account payables included in the “Capital Employed” do not take into account the losses booked on the mark-to-market value of strategic hedging instruments (€ 58.0 million at the end of 2020).

Average capital employed for the half years is calculated as the average of the capital employed at the end of the period and at the end of the preceding period. Average capital employed for the year is calculated as the average of the capital employed of both half years.

## F32 FINANCIAL INSTRUMENTS BY CATEGORY

## AS AT THE END OF PREVIOUS YEAR

Thousands of Euros	Level	Fair value	Fair value hedge accounting (*)	Cash Flow hedge accounting	Loans, receivables and payables	Carrying amount Financial assets at FV through OCI
<b>ASSETS</b>						
<b>FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME</b>		<b>10,897</b>	-	-	-	<b>10,897</b>
Financial assets at fair value through Other Comprehensive Income - Shares	1	10,897	-	-	-	10,897
<b>LOANS GRANTED</b>		<b>2,192</b>	-	-	<b>2,192</b>	-
Loans to associates and non consolidated affiliates		2,192	-	-	2,192	-
<b>TRADE AND OTHER RECEIVABLES</b>		<b>1,445,696</b>	<b>47,495</b>	<b>19,699</b>	<b>1,378,502</b>	-
<b>Non-current</b>						
Cash guarantees and deposits		8,893	-	-	8,893	-
Other receivables maturing in more than 1 year		1,972	-	-	1,972	-
Assets employee benefits		1,173	-	-	1,173	-
<b>Current</b>						
Trade receivables (at cost)		1,171,835	-	-	1,171,835	-
Trade receivables (write-down)		(22,983)	-	-	(22,983)	-
Other receivables (at cost)		180,336	-	-	180,336	-
Other receivables (write-down)		(207)	-	-	(207)	-
Interest receivable	2	156	-	-	156	-
Fair value of financial instruments held for cash-flow hedging	2	19,699	-	19,699	-	-
Fair value receivable - financial instruments related to FV hedging		47,495	47,495	-	-	-
Deferred charges and accrued income		37,327	-	-	37,327	-
<b>CASH AND CASH EQUIVALENTS</b>		<b>271,723</b>	-	-	<b>271,723</b>	-
Short-term investments: bank term deposits		25,524	-	-	25,524	-
Short-term investments: term deposits (other)		7	-	-	7	-
Cash-in-hand and bank current accounts		246,192	-	-	246,192	-
<b>TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)</b>		<b>1,730,508</b>	<b>47,495</b>	<b>19,699</b>	<b>1,652,417</b>	<b>10,897</b>

Thousands of Euros	Level	Fair value	Fair value hedge accounting (*)	Cash Flow hedge accounting	Loans, receivables and payables	Carrying amount Financial assets at FV through OCI
<b>Liabilities</b>						
<b>FINANCIAL DEBT</b>		<b>1,753,145</b>	<b>-</b>	<b>-</b>	<b>1,715,146</b>	<b>-</b>
<b>Non-current</b>						
Bank loans		1,139,266	-	-	1,101,266	-
Lease liability		46,262	-	-	46,262	-
Other loans		3,555	-	-	3,555	-
<b>Current</b>						
Short term bank loans		248,478	-	-	248,478	-
Bank overdrafts		32,493	-	-	32,493	-
Short term loan: commercial paper		282,936	-	-	282,936	-
Other loans		155	-	-	155	-
<b>TRADE AND OTHER PAYABLES</b>		<b>1,940,468</b>	<b>18,670</b>	<b>48,829</b>	<b>1,872,969</b>	<b>-</b>
<b>Non-current</b>						
Long term trade payables		2,579	-	-	2,579	-
Other long term debts		5,520	-	-	5,520	-
Investments grants and deferred income from grants		16,021	-	-	16,021	-
<b>Current</b>						
Trade payables		1,466,140	-	-	1,466,140	-
Advances received on contracts in progress		15,448	-	-	15,448	-
Tax - other than income tax - payable		26,190	-	-	26,190	-
Payroll and related charges		125,252	-	-	125,252	-
Other amounts payable		56,399	-	-	56,399	-
Dividends payable		11,657	-	-	11,657	-
Accrued interest payable		7,856	-	-	7,856	-
Fair value financial instrument held for cash flow hedging	2	48,829	-	48,829	-	-
Fair value payable - financial instruments related to FV hedging	2	18,670	18,670	-	-	-
Accrued charges and deferred income		139,907	-	-	139,907	-
<b>TOTAL OF FINANCIAL INSTRUMENTS (LIABILITIES)</b>		<b>3,693,613</b>	<b>18,670</b>	<b>48,829</b>	<b>3,588,115</b>	<b>-</b>

(\*) see note F33.2 paragraph 1 for IFRS 9 classification of financial instruments for currency and commodity hedging.

## AS AT THE END OF THE FINANCIAL YEAR

Thousands of Euros	Level	Fair value	Fair value hedge accounting (*)	Cash Flow hedge accounting	Loans, receivables and payables	Carrying amount Financial assets at FV through OCI
<b>Assets</b>						
<b>FINANCIAL ASSETS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME</b>		<b>8,352</b>	-	-	-	<b>8,352</b>
Financial assets at fair value through Other Comprehensive Income - Shares	1	8,352	-	-	-	8,352
<b>LOANS GRANTED</b>		<b>3,332</b>	-	-	<b>3,332</b>	-
Loans to associates and non consolidated affiliates		3,332	-	-	3,332	-
<b>TRADE AND OTHER RECEIVABLES</b>		<b>1,688,931</b>	<b>23,442</b>	<b>45,091</b>	<b>1,620,398</b>	-
<b>Non-current</b>						
Cash guarantees and deposits		8,370	-	-	8,370	-
Other receivables maturing in more than 1 year		2,574	-	-	2,574	-
Assets employee benefits		820	-	-	820	-
<b>Current</b>						
Trade receivables (at cost)		1,366,686	-	-	1,366,686	-
Trade receivables (write-down)		(22,319)	-	-	(22,319)	-
Other receivables (at cost)		177,008	-	-	177,008	-
Other receivables (write-down)		(207)	-	-	(207)	-
Interest receivable		495	-	-	495	-
Fair value of financial instruments held for cash-flow hedging	2	45,091	-	45,091	-	-
Fair value receivable - financial instruments related to FV hedging	2	23,442	23,442	-	-	-
Deferred charges and accrued income		86,973	-	-	86,973	-
<b>CASH AND CASH EQUIVALENTS</b>		<b>1,010,306</b>	-	-	<b>1,010,306</b>	-
Short-term investments: bank term deposits		373,904	-	-	373,904	-
Short-term investments: term deposits (other)		5	-	-	5	-
Cash-in-hand and bank current accounts		636,397	-	-	636,397	-
<b>TOTAL OF FINANCIAL INSTRUMENTS (ASSETS)</b>		<b>2,710,921</b>	<b>23,442</b>	<b>45,091</b>	<b>2,634,036</b>	<b>8,352</b>



Thousands of Euros	Level	Fair value	Fair value hedge accounting (*)	Cash Flow hedge accounting	Loans, receivables and payables	Carrying amount Financial assets at FV through OCI
<b>Liabilities</b>						
<b>FINANCIAL DEBT</b>		<b>2,495,431</b>	-	-	<b>2,424,331</b>	-
<b>Non-current</b>						
Bank loans		1,276,100	-	-	1,205,000	-
Lease liability		52,865	-	-	52,865	-
Other loans		447,289	-	-	447,289	-
<b>Current</b>						
Short term bank loans		576,056	-	-	576,056	-
Bank overdrafts		8,678	-	-	8,678	-
Short term loan: commercial paper		134,282	-	-	134,282	-
Other loans		162	-	-	162	-
<b>TRADE AND OTHER PAYABLES</b>		<b>2,442,433</b>	<b>38,296</b>	<b>57,957</b>	<b>2,346,180</b>	-
<b>Non-current</b>						
Other long term debts		5,682	-	-	5,682	-
Investments grants and deferred income from grants		17,823	-	-	17,823	-
<b>Current</b>						
Trade payables		1,896,099	-	-	1,896,099	-
Advances received on contracts in progress		32,180	-	-	32,180	-
Tax - other than income tax - payable		38,317	-	-	38,317	-
Payroll and related charges		135,835	-	-	135,835	-
Other amounts payable		39,733	-	-	39,733	-
Dividends payable		11,618	-	-	11,618	-
Accrued interest payable		9,109	-	-	9,109	-
Fair value financial instrument held for cash flow hedging	2	57,957	-	57,957	-	-
Fair value payable - financial instruments related to FV hedging	2	38,296	38,296	-	-	-
Accrued charges and deferred income		159,784	-	-	159,784	-
<b>TOTAL OF FINANCIAL INSTRUMENTS (LIABILITIES)</b>		<b>4,937,864</b>	<b>38,296</b>	<b>57,957</b>	<b>4,770,511</b>	-

(\*) see note F33.2 paragraph 1 for IFRS 9 classification of financial instruments for currency and commodity hedging.

Loans and debt have been issued at market rates which would not create any major differences with effective interest expenses. All categories of financial instruments of Umicore are at fair value except the non-current bank and other loans for which the carrying amounts differ from the fair value (see note F24). The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. The fair value of financial instruments that are not traded in an active market is determined using valuation techniques, mainly discounted cash-flow, using market assumptions prevailing at the end of the reporting period. In particular, the fair value of interest rate swaps is calculated as the present value of the estimated future cash flows. The fair value of forward foreign exchange, metal and energy contracts is determined using quoted forward exchange, metal and energy rates at the end of the reporting period. The fair value of quoted financial assets held by the Group is their quoted market price at the end of the reporting period. The fair value of financial liabilities is estimated by discounting the future contractual cash flows at the current market interest rate that is available to the Group for similar financial instruments. The carrying value less impairment provision of trade receivables and payables are assumed to approximate their fair values.

### 32.1 FAIR VALUE HIERARCHY

The Group adopted the amendment to IFRS 7 for financial instruments which are measured in the balance sheet at fair value, with effect from January 2009. This amendment requires disclosures of fair value measurements by level, based on the following fair value measurement hierarchy:

- Level 1: fair value based on quoted prices in active markets for identical assets or liabilities.
- Level 2: fair value based on inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly.
- Level 3: fair value for the asset or liability valuation are based on unobservable inputs.

In the Group, the fair values on financial assets at fair value through OCI are measured as level 1.

All the metal, energy and foreign currency derivatives are measured as level 2.

### 32.2 SENSITIVITY ANALYSIS ON FINANCIAL INSTRUMENTS

Umicore is sensitive to commodity prices, foreign currency and interest rate risk on its financial instruments.

#### 32.2.1 COMMODITY PRICES

The fair value on financial instruments related to cash flow hedging sales would have been € 18.2 million lower/higher if the metal prices would strengthen/weaken by 10%.

The fair value on financial instruments related to cash flow hedging purchases would have been € 3.0 million higher/lower if the energy prices would strengthen/weaken by 10%. The fair value on financial instruments related to cash flow hedging purchases would have been € 7.9 million higher/lower if the metal prices would strengthen/weaken by 10%.

The fair value on other commodity sales financial instruments would have been € 32.3 million lower/higher and the fair value on other commodity purchases financial instruments would have been € 3.6 million higher/lower if the metal prices would strengthen/weaken by 10%.

#### 32.2.2 FOREIGN CURRENCY

The fair value of forward currency contracts related to cash flow hedging would have been € 11.7 million higher if the EUR would strengthen against USD by 10% and would have been € 16.1 million lower if the EUR would weaken against USD by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 0.9 million lower if the EUR would strengthen against ZAR by 10% and would have been € 1.1 million higher if the EUR would weaken against ZAR by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 4.0 million lower if the USD would strengthen against KRW by 10% and would have been € 4.9 million higher if the USD would weaken against KRW by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 3.8 million higher if the EUR would strengthen against CNY by 10% and would have been € 4.2 million lower if EUR would weaken against CNY by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 9.0 million lower if the USD would strengthen against CNY by 10% and would have been € 10.6 million higher if USD would weaken against CNY by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 5.4 million lower if the USD would strengthen against BRL by 10% and would have been € 6.9 million higher if USD would weaken against BRL by 10%.

The fair value of forward currency contracts related to cash flow hedging would have been € 2.0 million lower if the USD would strengthen against CAD by 10% and would have been € 2.5 million higher if USD would weaken against CAD by 10%.

The fair value of other forward currency contracts sold would have been € 56.3 million higher if the EUR would strengthen against USD by 10% and would have been € 68.8 million lower if the EUR would weaken against USD by 10%.

The fair value of other forward currency contracts bought would have been € 11.6 million lower if the EUR would strengthen against USD by 10% and would have been € 14.1 million higher if the EUR would weaken against USD by 10%.

The fair value of net position of current assets and liabilities exposed to USD would have been € 18.9 million lower if the EUR would strengthen against USD by 10% and would have been € 23.2 million higher if the EUR would weaken against USD by 10%.

The fair value of other forward currency contracts sold would have been € 36.7 million higher if the EUR would strengthen against CNY by 10% and would have been € 44.9 million lower if the EUR would weaken against CNY by 10%.

The fair value of net position of current assets and liabilities exposed to CNY would have been € 29.8 million lower if the EUR would strengthen against CNY by 10% and would have been € 36.4 million higher if the EUR would weaken against CNY by 10%.

The fair value of other forward currency contracts sold would have been € 18.1 million higher if the CNY would strengthen against USD by 10% and would have been € 22.1 million lower if the CNY would weaken against USD by 10%.

The fair value of other forward currency contracts bought would have been € 12.0 million lower if the EUR would strengthen against PLN by 10% and would have been € 14.6 million higher if the EUR would weaken against PLN by 10%.

The fair value of net position of current assets and liabilities exposed to PLN would have been € 12.3 million lower if the EUR would strengthen against PLN by 10% and would have been € 15.0 million higher if the EUR would weaken against PLN by 10%.

The fair value of other forward currency contracts sold would have been € 7.7 million higher if the EUR would strengthen against HKD by 10% and would have been € 9.4 million lower if the EUR would weaken against HKD by 10%.

The fair value of other forward currency contracts bought would have been € 9.6 million lower if the KRW would strengthen against USD by 10% and would have been € 7.9 million higher if the KRW would weaken against USD by 10%.

The fair value of net position of current assets and liabilities exposed to KRW would have been € 10.0 million lower if the EUR would strengthen against KRW by 10% and would have been € 12.2 million higher if the EUR would weaken against KRW by 10%.

### F33 FAIR VALUE OF FINANCIAL INSTRUMENTS (DERIVATIVES)

Umicore hedges its structural and transactional commodity (metal and energy), currency and interest rate risks using respectively commodity derivatives (mainly quoted on the London Metal Exchange), currency derivatives and Interest Rate Swaps with reputable brokers and banks.

### 33.1 FINANCIAL INSTRUMENTS RELATED TO CASH-FLOW HEDGING

Thousands of Euros	Notional or Contractual amount		Fair value	
	31/12/2019	31/12/2020	31/12/2019	31/12/2020
Forward commodities sales	186,117	131,855	(41,403)	(49,786)
Forward commodities purchases	(76,930)	(86,877)	7,538	22,099
Forward currency contracts sales	319,897	641,320	(829)	12,606
Forward currency contracts purchases	(64,264)	(79,688)	6,250	2,986
Forward IRS contracts	40,000	40,000	(687)	(771)
<b>TOTAL FAIR VALUE IMPACT SUBSIDIARIES</b>			<b>(29,130)</b>	<b>(12,866)</b>
recognized under trade and other receivables			19,699	45,091
recognized under trade and other payables			(48,829)	(57,957)
Total fair value impact associates and joint ventures			72	1,114
<b>TOTAL</b>			<b>(29,058)</b>	<b>(11,752)</b>

The principles and documentation on the hedged risks as well as the timing related to the Group's cash flow hedging operations are included in note F3 Financial risk management.

The fair values of the effective hedging instruments are in the first instance recognized in the fair value reserves recorded in equity and are derecognized when the underlying forecasted or committed transactions occur (see note F23).

The forward commodities sales contracts are set up to hedge primarily the following commodities: gold, silver, palladium, platinum nickel, lead and copper. The forward commodity purchase contracts are set up to hedge primarily the electricity, gas and fuel oil price risks and the commodity nickel. The forward currency contracts are set up to hedge USD towards EUR, KRW, CNY, BRL and CAD as well as EUR towards ZAR and CNY. The terms and conditions of the forward contracts are common market conditions. In those circumstances whereby the hedge accounting documentation as defined under IFRS 9 is not available, financial instruments used to hedge structural risks for metals and currencies are measured as if they were held for trading. However, such instruments are being used to hedge future probable cash-flows and are not speculative in nature. Umicore did not face any ineffectiveness on cash flow hedging in P&L in 2019 and 2020.

The fair values of the hedging instruments reflect the difference between the contract rates and the closing rates. The total fair value of financial instruments for cash-flow hedging has a negative impact on the fair value reserves in equity at end of 2020. This negative impact is most significant for commodities sold, while commodities purchased and forward currency contracts offset part of this negative impact. The majority of the hedging instruments have their maturity within the next two years.

## 33.2 FINANCIAL INSTRUMENTS RELATED TO FAIR VALUE HEDGING

Thousands of Euros	Notional or Contractual amount		Fair value	
	31/12/2019	31/12/2020	31/12/2019	31/12/2020
Forward commodities sales	389,955	303,729	28,666	(19,549)
Forward commodities purchases	(390,761)	(33,687)	(937)	1,891
Forward currency contracts sales	1,346,766	1,532,188	2,818	5,342
Forward currency contracts purchases	(613,466)	(536,554)	(1,723)	(2,539)
<b>TOTAL FAIR VALUE IMPACT SUBSIDIARIES</b>			<b>28,824</b>	<b>(14,854)</b>
recognized under trade and other receivables			47,495	23,442
recognized under trade and other payables			(18,670)	(38,296)
<b>TOTAL</b>			<b>28,824</b>	<b>(14,854)</b>

The principles and documentation related to the Group's transactional hedging are included in note F3 "Financial Risk Management". Under Umicore's economical hedging policy, financial instruments for currency and commodity hedging are used to protect the fair value of underlying hedged items (assets, liabilities and firm commitments) and are recognized at fair value at closing date. Umicore obtained for the fair value hedging of its currency risk exposures hedge accounting under the criteria of IFRS 9 (see note F2.21.1). For the fair value hedging of its commodity risk exposures, Umicore did not obtain hedge accounting under the criteria of IFRS 9. In that latter case, the financial instruments are measured at

fair value as if they were held for trading. However, such instruments are being used to cover existing transactions, considered as hedged items under Umicore transactional hedging risk policy (primarily inventory and firm commitments) and so these commodity hedging instruments held for trading are not speculative in nature. The accounting treatment of hedged items in absence of IFRS 9 hedge accounting is further described in note F30 on Provisions for other Liabilities and Charges.

The fair values are immediately recognized in the income statement under Other Operating income for the commodity instruments and the Net Finance cost for the currency instruments.

The fair values of the hedging instruments reflect the difference between the contract rates and the closing rates. The booking of the fair value movements on financial instruments under fair value hedging had a negative impact on the operating income at the end of 2020. Most of the fair values of the hedging instruments are not significant as the closing rates do not materially differ from the strike rates. Only for the commodities sold the fair values are significant. These concern metal hedging instruments of which most have their maturity within the next year. However, in view of the intent of the Group policy on transactional hedging, the net impact on operating income of fair value movements on both hedging instruments and hedged items is neutral. The forward commodities sales contracts are set up to hedge primarily the following commodities: gold, silver, palladium, platinum, nickel, lead and copper. The forward commodity purchase contracts are set up to hedge primarily gold, silver, nickel, lead and copper. The forward currency contracts are set up to hedge USD towards EUR, KRW, CNY, BRL and CAD as well as EUR towards CNY, ZAR, CAD, CHF, JPY, THB, DKK and PLN.

## AS AT THE END OF PREVIOUS YEAR

Thousands of Euros	Earliest contractual maturity (undiscounted) - notional amounts					Earliest contractual maturity (undiscounted) - fair value				
	< 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	Total	< 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	Total
<b>FINANCIAL INSTRUMENTS ASSETS (FAIR VALUE)</b>										
<b>Commodity risk</b>										
Total forward sales (CFH)	1,099	2,078	9,231	2,286	14,694	119	245	1,002	25	1,391
Total forward purchases (CFH)	-	-	-	64,264	64,264	-	-	-	9,764	9,764
Total forward sales (FV Hedging)	49,076	59,043	131,159	-	239,279	8,620	10,327	14,812	-	33,760
Total forward purchases (FV Hedging)	16,865	270,499	-	-	287,364	233	7,370	-	-	7,603
<b>FX Risk</b>										
Forward currency contracts sales (CFH)	3,828	7,480	33,933	67,372	112,613	77	153	680	1,383	2,294
Forward currency contracts purchases (CFH)	-	-	-	64,264	64,264	-	-	-	6,250	6,250
Forward currency contracts sales (FV Hedging)	621,600	85,064	170,640	-	877,304	3,608	760	1,053	-	5,421
Forward currency contracts purchases (FV Hedging)	244,968	9,171	593	-	254,732	567	140	4	-	711
<b>FINANCIAL INSTRUMENTS LIABILITIES (FAIR VALUE)</b>										
<b>Interest Rate Risk</b>										
Interest rate swaps	-	-	-	40,000	40,000	-	-	-	(687)	(687)
<b>Commodity risk</b>										
Total forward sales (CFH)	-	26,944	53,907	90,572	171,423	-	(8,634)	(16,467)	(17,694)	(42,795)
Total forward purchases (CFH)	-	-	10,372	2,295	12,667	-	-	(2,125)	(101)	(2,226)
Total forward sales (FV Hedging)	20,221	82,057	48,397	-	150,676	(372)	(3,303)	(1,418)	-	(5,094)
Total forward purchases (FV Hedging)	45,294	38,073	20,030	-	103,397	(4,700)	(3,849)	9	-	(8,540)
<b>FX Risk</b>										
Forward currency contracts sales (CFH)	15,419	30,481	125,662	35,723	207,284	(399)	(738)	(2,186)	200	(3,123)
Forward currency contracts sales (FV Hedging)	313,853	145,539	10,071	-	469,462	(1,543)	(949)	(110)	-	(2,603)
Forward currency contracts purchases (FV Hedging)	237,483	22,170	98,779	301	358,733	(1,582)	(151)	(701)	(0)	(2,434)

## AS AT THE END OF THE FINANCIAL YEAR

Thousands of Euros	Earliest contractual maturity (undiscounted) - notional amounts					Earliest contractual maturity (undiscounted) - fair value				
	< 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	Total	< 1 Month	1 to 3 Months	3 Months to 1 Year	1 to 5 Years	Total
<b>Financial Instruments Assets</b>										
<b>Commodity risk</b>										
Total forward sales (CFH)	-	249	661	743	1,653	-	6	7	(4)	9
Total forward purchases (CFH)	2,719	5,547	35,851	42,760	86,877	1,007	2,081	10,155	8,855	22,099
Total forward purchases (FV Hedging)	15,741	14,752	-	-	30,493	1,151	780	-	-	1,931
<b>FX Risk</b>										
Forward currency contracts sales (CFH)	32,269	55,116	260,213	204,150	551,748	1,452	2,436	11,856	4,254	19,997
Forward currency contracts purchases (CFH)	3,336	6,807	28,824	33,226	72,194	103	210	1,042	1,632	2,986
Forward currency contracts sales (FV Hedging)	594,604	522,845	173,820	-	1,291,269	6,530	5,360	5,008	-	16,897
Forward currency contracts purchases (FV Hedging)	98,242	10,145	1,786	630	110,803	4,478	124	4	8	4,614
<b>Financial Instruments Liabilities</b>										
<b>Interest Rate Risk</b>										
Interest rate swaps	-	-	-	40,000	40,000	-	-	-	(771)	(771)
<b>Commodity risk</b>										
Total forward sales (CFH)	288	15,247	46,867	67,800	130,202	(13)	(8,268)	(24,383)	(17,131)	(49,795)
Total forward sales (FV Hedging)	44,004	162,083	97,642	-	303,729	(6,675)	(11,827)	(1,047)	-	(19,549)
Total forward purchases (FV Hedging)	3,195	-	-	-	3,195	(40)	-	-	-	(40)
<b>FX Risk</b>										
Forward currency contracts sales (CFH)	3,148	8,156	34,112	39,750	85,167	(458)	(927)	(4,381)	(1,626)	(7,391)
Forward currency contracts sales (FV Hedging)	92,962	56,711	91,247	-	240,920	(7,111)	(3,228)	(1,216)	-	(11,555)
Forward currency contracts purchases (FV Hedging)	211,408	144,148	51,452	18,743	425,751	(2,293)	(2,847)	(1,628)	(385)	(7,153)

## F34 NOTES TO THE CASH FLOW STATEMENT

### 34.1 DEFINITIONS

The cash flow statement identifies operating, investing and financing activities for the period.

Umicore uses the indirect method for the operating cash flows. The net profit and loss is adjusted for:

- the effects of non-cash transactions such as provisions, impairment losses, mark to market, etc., and the variance in operating capital requirements.
- items of income or expense associated with investing or financing cash flows.

Thousands of Euros	2019	2020
<b>Adjustments for non cash transactions</b>		
Depreciations	244,038	267,941
(Reversal) Impairment charges	23,602	87,543
Mark to market of inventories and commitments	(38,277)	464
Exchange difference on long-term loans	(1,946)	(4,169)
Inventories and bad debt provisions	39,926	7,012
Depreciation on government grants	(904)	(199)
Share-based payments	8,211	10,108
Change in provisions	(67,349)	80,323
<b>TOTAL</b>	<b>207,302</b>	<b>449,023</b>
<b>Adjustments for items to disclose separately or under investing and financing cash flows</b>		
Tax charge of the period	96,691	59,131
Interest (income) charges	41,042	57,910
(Gain) loss on disposal of fixed assets	(8,033)	(760)
Dividend income	(133)	(230)
<b>TOTAL</b>	<b>129,568</b>	<b>116,051</b>
<b>Change in working capital requirement analysis</b>		
Inventories	(154,236)	(255,762)
Trade and other receivables	(271,357)	(237,694)
Trade and other payables	383,700	531,216
<b>AS IN THE CONSOLIDATED BALANCE SHEET</b>	<b>(41,893)</b>	<b>37,760</b>
Non-cash items (*)	(10,329)	17,742
Items disclosed elsewhere (**)	(79,639)	(37,822)
Impact of business combination	56,050	(3,136)
Currency translation differences	(2,630)	(118,300)
<b>AS IN THE CONSOLIDATED CASH FLOW STATEMENT</b>	<b>(78,441)</b>	<b>(103,756)</b>

(\*) Non-cash items are mainly linked to mark to market of inventories and commitments, strategic and transactional hedging and inventories, impairments in inventories and bad debt provisions.

(\*\*) Item disclosed elsewhere are mainly due to changes in interest, dividend and tax receivable and payable and government grants.

Thousands of Euros	Net cash and cash equivalent	Loans (w/o bank overdrafts)	Net financial debt
<b>At the end of previous year</b>	<b>239,231</b>	<b>1,682,653</b>	<b>1,443,422</b>
Cash flow of the period	762,398	733,001	(29,397)
<b>AT THE END OF THE FINANCIAL YEAR</b>	<b>1,001,629</b>	<b>2,415,654</b>	<b>1,414,025</b>

### 34.2 NET CASH FLOW GENERATED BY OPERATING ACTIVITIES

Operating cash flow after tax from continuing operations is € 528.3 million. The net working capital requirements for continuing operations increased with € 103.8 million in 2020 compared to 2019, reflecting a pronounced increase in working capital needs in Catalysis and, to a lesser extent, in Recycling due to strong year-on-year price increases in precious metals, PGM's in particular. Energy & Surface Technologies reported a decrease in working capital needs year on year due to subdued sales volumes and metal prices.

### 34.3 NET CASH FLOW USED IN INVESTING ACTIVITIES

Net cash used in investing activities for continuing operations decreased by € 320.6 million in 2020. Capital expenditure for continuing operations reached € 403.2 million (compared to € 553.2 million in 2019) if capitalized R&D costs are excluded as per Umicore's definition of capital expenditures (refer to Glossary). This reduction in capital expenditure reflects the decision taken shortly after the start of the COVID-19 outbreak to postpone selected investment projects with the exception of safety and license to operate investments, awaiting more clarity on market outlook. Taking into account the continued investment in Rechargeable Battery Materials' greenfield plant in Poland, Energy & Surface Technologies accounted for close to two thirds of the Group's capex. Spending for this strategic project will continue into 2021. Capitalized development expenses amounted to € 32 million compared to € 35 million in 2019.

### 34.4 NET CASH FLOW USED IN FINANCING ACTIVITIES

The cash generated in financing activities is mainly the consequence of the net increase of the indebtedness (€ 806.0 million). The cash used in financing activities is mainly related to the purchase and use of own shares to cover the exercise of options (€ 26.9 million), the payment of dividends (€ 65.0 million) and of interest (€ 56.3 million) and the reimbursement of the lease liability (€ 19.8 million).

Thousands of Euros	2019	2020
Acquisition of tangible assets	529,487	391,475
Acquisition of intangible assets	58,362	44,060
<b>ACQUISITIONS OF ASSETS</b>	<b>587,849</b>	<b>435,535</b>
Capitalized R&D	34,660	32,368
<b>CAPITAL EXPENDITURE FOR CONTINUING OPERATIONS</b>	<b>553,189</b>	<b>403,168</b>

## F35 OFF-BALANCE SHEET RIGHTS AND COMMITMENTS

Thousands of Euros	2019	2020
Guarantees constituted by third parties on behalf of the Group	24,802	30,999
Guarantees constituted by the Group on behalf of third parties	10,903	6,940
Guarantees received	130,005	68,596
Goods and titles held by third parties in their own names but at the Group's risk	515,254	1,513,704
Commitments to acquire and sell fixed assets	567	288
Commercial commitments for commodities purchased (to be received)	679,569	701,475
Commercial commitments for commodities sold (to be delivered)	1,213,465	1,667,126
Goods and titles of third parties held by the Group	3,635,638	4,930,583
Miscellaneous rights and commitments	567	288
<b>TOTAL</b>	<b>6,210,203</b>	<b>8,919,711</b>

### 35.1 GUARANTEES CONSTITUTED BY THIRD PARTIES ON BEHALF OF THE GROUP

These are secured and unsecured guarantees given by third parties to the creditors of the group guaranteeing that the Group's debts and commitments, actual and potential, will be satisfactorily discharged.

### 35.2 GUARANTEES CONSTITUTED BY THE GROUP ON BEHALF OF THIRD PARTIES

These are guarantees or irrevocable undertakings given by the Group in favor of third parties guaranteeing the satisfactory discharge of debts or of existing or potential commitments by the third party to its creditors.

There are no loan commitments given to third parties.

### 35.3 GUARANTEES RECEIVED

These are pledges and guarantees received guaranteeing the satisfactory discharge of debts and existing and potential commitments of third parties towards the Group, with the exception of guarantees and security in cash.

The guarantees received are mainly related to supplier guarantees backed by bank institutions. Those guarantees are set up to cover the good execution of work by the supplier.

Some guarantees received are related to customer guarantees, received mainly from a customer's mother company on behalf of one of its subsidiaries. A minor part of the received guarantees is related to rent guarantees.

All guarantees are taken at normal market conditions and their fair value is equivalent to the carrying amount. No re-pledge has been done on any of those guarantees.

### 35.4 GOODS AND TITLES HELD BY THIRD PARTIES IN THEIR OWN NAMES BUT AT THE GROUP'S RISK

These represent goods and titles included in the Group balance sheet for which the Group bears the risk and takes the profit, but where these goods and titles are not present on the premises of the Group. It concerns mainly inventories leased out to third parties or held under consignment or under tolling agreement by third parties.

### 35.5 COMMERCIAL COMMITMENTS

These are firm commitments to deliver or receive metals to customers or from suppliers at fixed prices.

### 35.6 GOODS AND TITLES OF THIRD PARTIES HELD BY THE GROUP

These are goods and titles held by the group, but which are not owned by the Group. It concerns mainly third-party inventories leased in or held under consignment or tolling agreements with third parties. It also includes in a much lesser extent some non-metal leases that are not in the scope of IFRS 16 because of lower values or short-term.

The Group leases metals (particularly gold, silver, platinum and palladium) from and to banks and other third parties for specified, mostly short term, periods and for which the group pays or receives fees. As at 31 December 2020, there was a net lease-in position of € 846 million vs. € 1,088 million at end of 2019. This decrease is mainly caused by lower volumes compensating higher metal prices. As detailed in Note F2.7, those metal leases are not under the scope of IFRS 16.

## F36 CONTINGENCIES

As previously disclosed, the Group has a pending file that can be qualified as a contingent liability according to the definition of IFRS. A subsidiary of Element Six Abrasives received notice of a local tax assessment for € 25 million to be grossed up with statutory interests, estimated at 31 December 2020 at € 12.5 million. Having taken expert advice, Element Six Abrasives submitted an appeal contesting the assessment and recognised the file as a contingent liability. Umicore retains a 40.22 % interest in Element Six Abrasives and accounts for the company using the equity method.



The Group is also subject of a number of other claims and legal proceedings incidental to the normal conduct of its business. Management does not believe that such claims and proceedings are likely to have a material adverse effect on the financial condition of Umicore.

## F37 RELATED PARTIES

Thousands of Euros	2019	2020
<b>Transactions with joint ventures and associates</b>		
Operating income	109,636	100,444
Operating expenses	(208,746)	(148,888)
Dividends received	(11,321)	(1,796)

Thousands of Euros	2019	2020
<b>Outstanding balances with joint ventures and associates</b>		
Current trade and other receivables	24,457	32,685
Current trade and other payables	34,855	38,779

The transactions with associates and joint ventures are mainly commercial transactions, sales and purchases of goods and services.

There are no transaction with entities held by key management personnel.

Thousands of Euros	2019	2020
<b>Supervisory Board</b>		
Salaries and other compensation	897	1,022
Fixed portion	296	296
Variable portion (based on attended meetings)	334	373
Value of the share grant	264	350
Benefit in kind company car chairman	2	3

No variable or other compensation element (apart from attendance-related fees) is associated with directorship. No loan or guarantees have been granted by the company to members of the supervisory board.

Thousands of Euros	2019	2020
<b>Management Board</b>		
Salaries and other benefits	11,565	7,522
Short-term employee benefits	5,072	1,496
Post-employment benefits	1,002	1,052
Other long-term benefits	1,773	492
Share-based payments	3,718	4,483

The data above shows the accounting view of the supervisory board and management board remuneration and differs from the information provided in the remuneration report in the Corporate Governance section.

In the tables above, the employer social security contributions, if applicable, are included in the short-term employee benefits. These do not feature in the remuneration report.

With regards to share-based incentives the share grant figures included in share-based payments above represent the value of the shares granted in 2020 for services rendered in 2019. The remuneration report shows the value of the shares granted in 2021 for services rendered in the reporting year 2020.

The figures related to the undeferred part of the variable remuneration linked to the individual performance for the reference year 2020, included in short-term employee benefits, represent the level of accruals at balance sheet date. The remuneration report features the actual amounts paid with respect to the reference year 2020.

Accruals booked for the deferred parts of the variable cash remuneration for the reference year 2020 are included in the other long-term benefits. The amounts to be paid in 2023 will depend on long-term performance measures and the exact amounts paid will be included in the remuneration report of 2022.

## F38 EVENTS AFTER THE REPORTING PERIOD

The Supervisory Board will propose a gross annual dividend of € 0.75 per share at the Annual General Meeting on 29 April 2021. This compares to a full dividend of € 0.375 p.s. paid out for the financial year 2019. Taking into account the interim dividend of € 0.25 per share paid out on 25 August 2020 and subject to shareholder approval, a gross amount of € 0.50 per share will be paid out on 5 May 2021.

On 11 February 2021, it was announced that the Supervisory Board would start a process to identify a successor to Marc Grynberg, CEO.

## F39 EARNINGS PER SHARE

### EARNINGS PER SHARE

(EUR)	2019	2020
EPS - basic	1.2	0.54
EPS - diluted	1.19	0.54
<b>Basic adjusted EPS</b>	<b>1.3</b>	<b>1.34</b>

The following earnings figures have been used as the numerator in the calculation of basic and diluted earnings per share:

### NUMERATOR ELEMENTS

Thousands of Euros	Notes	2019	2020
<b>Net consolidated profit, Group share</b>	<b>F9</b>		
From continuing operations		287,791	130,530
<b>Adjusted net consolidated profit, Group share</b>	<b>F9</b>	<b>311,714</b>	<b>322,407</b>

The following numbers of shares have been used as the denominator in the calculation of basic and diluted earnings per share:

### DENOMINATOR ELEMENTS

	2019	2020
<b>Total shares issued as at 31 December</b>	<b>246,400,000</b>	<b>246,400,000</b>
of which treasury shares	5,624,550	5,733,685
of which shares outstanding	240,775,450	240,666,315
<b>WEIGHTED AVERAGE NUMBER OF OUTSTANDING SHARES</b>	<b>240,558,659</b>	<b>240,589,550</b>
Potential dilution due to stock option plans	1,354,110	1,183,525
<b>Adjusted weighted average number of outstanding shares</b>	<b>241,912,769</b>	<b>241,773,075</b>

Total outstanding shares are after deduction of treasury shares, which are held to cover existing stock option plans or are available for resale. The denominator for the calculation of diluted earnings per share takes into account an adjustment for stock options.

During 2020, no new shares were created as a result of the exercise of stock options with linked subscriptions rights. During the year Umicore used 1,024,435 of its treasury shares in the context of the exercise of stock and 66,430 for shares granted. In the course of 2020, Umicore bought back 1,200,000 own shares. On 31 December 2020, Umicore owned 5,733,685 of its own shares representing 2.33 % of the total number of shares issued as at that date.

### F40 IFRS DEVELOPMENTS

There were no new standards, amendments and interpretation to standards issued, and **mandatory** for the first time for the financial year beginning 1 January 2020 with a material impact on the Group's consolidated financial statements.

In case of material, these are developed in the accounting policies section.

For all other new interpretations and standards not yet mandatory as from 1 January 2020, management has no indications that this will result in a material impact on the Group's consolidated financial statements.

### F41 AUDITORS' REMUNERATION

The world-wide remuneration for the statutory auditor and its affiliated companies totaled € 2.9 million, including an amount of € 1.8 million for the statutory audit missions (€ 0.5 million for the audit of the mother company) and € 1.2 million for non-statutory audit services including audit-related and other attestation services (€ 0.2 million) and other non-audit related services (€ 1.0 million).

## PARENT COMPANY SEPARATE SUMMARIZED FINANCIAL STATEMENTS

The annual accounts of Umicore are given below in summarized form.

In accordance with the Companies code, the annual accounts of Umicore, together with the management report and the statutory auditor's report will be deposited with the National Bank of Belgium.

These documents are also available on request at:

**UMICORE**  
Rue du Marais 31  
B-1000 Brussels  
(Belgium)

The statutory auditor did not express any reservations in respect of the annual accounts of Umicore.

The legal reserve of € 55.0 million which is included in the retained earnings is not available for distribution.

Thousands of Euros		31/12/2018	31/12/2019	31/12/2020
Summarized balance sheet at 31 December				
<b>1. Assets</b>				
<b>FIXED ASSETS</b>		<b>2,121,852</b>	<b>2,885,295</b>	<b>3,172,625</b>
I. Formation expenses		8,256	6,066	14,685
II. Intangible assets		114,447	114,726	99,032
III. Tangible assets		425,814	467,458	452,430
IV. Financial assets		1,573,335	2,297,045	2,606,478
<b>CURRENT ASSETS</b>		<b>1,696,083</b>	<b>1,748,153</b>	<b>2,060,640</b>
V. Amounts receivable after more than one year		362,679	449,366	476,214
VI. Stocks and contracts in progress		641,452	534,771	617,346
VII. Amounts receivable within one year		502,354	519,135	620,119
VIII. Investments		158,103	184,701	290,395
IX. Cash at bank and in hand		3,937	2,190	4,565
X. Deferred charges and accrued income		27,558	57,990	52,001
<b>TOTAL ASSETS</b>		<b>3,817,935</b>	<b>4,633,448</b>	<b>5,233,265</b>
<b>2. Liabilities and shareholders' equity</b>				
Capital and reserves		2,148,879	2,268,310	2,177,834
I. Capital		550,000	550,000	550,000
II. Share premium account		848,130	848,130	848,130
III. Revaluation surplus		91	91	91
IV. Reserves		363,257	389,855	414,075
V. Result carried forward		152,409	262,604	267,163
Vbis. Result for the period		227,001	209,258	86,475
VI. Investments grants		7,991	8,372	11,900
<b>Provisions and deferred taxation</b>				
VII.A. Provisions for liabilities and charges		125,326	123,600	206,053
<b>CREDITORS</b>		<b>1,543,730</b>	<b>2,241,539</b>	<b>2,849,378</b>
VIII. Amounts payable after more than one year		692,996	1,082,864	1,707,729
IX. Amounts payable within one year		758,721	1,076,244	1,063,641
X. Accrued charges and deferred income		92,013	82,431	78,008
<b>TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY</b>		<b>3,817,935</b>	<b>4,633,449</b>	<b>5,233,265</b>

Thousands of Euros	31/12/2018	31/12/2019	31/12/2020
<b>Income statement</b>			
I. Operating income	3,628,486	3,489,297	4,459,290
II. Operating charges	(3,532,944)	(3,494,693)	(4,481,338)
<b>III. Operating result</b>	<b>95,542</b>	<b>(5,396)</b>	<b>(22,048)</b>
IV. Financial income	193,305	259,275	201,457
V. Financial charges	(59,393)	(41,210)	(85,500)
<b>VI. Result on ordinary activities before taxes</b>	<b>229,454</b>	<b>212,669</b>	<b>93,908</b>
X. Income taxes	(2,453)	(3,411)	(7,433)
<b>XI. Result for the period</b>	<b>227,001</b>	<b>209,258</b>	<b>86,475</b>
<b>XIII. Result for the period available</b>	<b>227,001</b>	<b>209,258</b>	<b>86,475</b>

Thousands of Euros	2018	2019	2020
<b>Appropriation account</b>			
<b>A. Profit (loss) to be appropriated</b>	<b>641,302</b>	<b>588,668</b>	<b>558,337</b>
1. Profit (loss) for the financial year	227,001	209,258	86,475
2. Profit (loss) carried forward	414,301	379,410	471,862
<b>C. Appropriation to equity</b>	<b>(81,349)</b>	<b>(26,598)</b>	<b>(24,220)</b>
2. To the legal reserve	(5,000)		
3. To the reserve for own shares	(76,349)	(26,598)	(24,220)
<b>D. Profit (loss) to be carried forward (1)</b>	<b>379,410</b>	<b>471,862</b>	<b>353,638</b>
2. Profit (loss) to be carried forward	379,410	471,862	353,638
<b>F. Profit to be distributed (1)</b>	<b>(180,543)</b>	<b>(90,208)</b>	<b>(180,479)</b>
1. Dividends			
ordinary shares	(180,543)	(90,208)	(180,479)

(1) The total amount of these two items will be amended to allow for the amount of the company's own shares held by Umicore on the date of the Annual General Meeting of Shareholders on 29 April 2021 ; the gross dividend of EUR 0.75 will be proposed.

Thousands of Euros			Number of shares
Statement of capital			
A. Share capital			
1.	Issued capital		
	At the end of the preceding financial year	550,000	246,400,000
	At the end of the financial year	550,000	246,400,000
2.	Structure of the capital		
2.1.	Categories of shares		
	Ordinary shares	550,000	246,400,000
2.2.	Registered shares or bearer shares		
	Registered		48,472,816
	Bearer		197,927,184
E.	Authorized unissued capital	55,000	

	% capital	Number of shares	Notification date
<b>G. Shareholder base (1)</b>			
Family Trust Desmarais, Albert Frère and Groupe Bruxelles Lambert S.A.	18.62	45,871,052	07/12/2018
BlackRock Investment Management	4.95	12,193,030	08/05/2020
Baillie Gifford & Co and Baillie Gifford Overseas Ltd.	6.46	15,918,969	07/10/2019
Others	67.65	166,683,264	31/12/2019
Own shares held by Umicore	2.33	5,733,685	31/12/2020
	100.00	246,400,000	
of which free float	100.00	246,400,000	

(1) At 31 December 2020, 5,785,190 options on Umicore shares are still to be exercised. This amount includes 5,785,190 acquisition rights of existing shares held by Umicore.

## MANAGEMENT RESPONSIBILITY STATEMENT

We hereby certify that, to the best of our knowledge, the Consolidated Financial Statements as of 31 December 2020, prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union, and with legal requirements applicable in Belgium, give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group and the undertakings included in the consolidation taken as a whole, and that the management report includes a fair review of the development and performance of the business and the position of the group and the undertakings included in the consolidation taken as a whole, together with a description of the principal risks and uncertainties that they face.

15 March 2021,

MARC GRYNBERG  
CHIEF EXECUTIVE OFFICER

# Value chain statements

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## V1 SCOPE OF VALUE CHAIN STATEMENTS

The value chain and society theme focuses on potential impacts on society that we experience as a company through our activities, products and services. For reporting matters, all entities of the Group are considered.

## V2 CRITICAL RAW MATERIALS

Securing adequate volumes of raw materials is an essential factor in the ongoing viability of our product and service offering and in achieving our Horizon 2020 growth objectives. The risks and opportunities vary considerably from one business unit to another and for this reason, we have taken a decentralized approach to risk and opportunity management. We have determined to seek a competitive edge in terms of our access to critical raw materials and in our ability to secure these raw materials in an ethical and sustainable manner.

In 2016, each business unit was asked to identify the raw materials that are critical in achieving the Horizon 2020 objectives using a 3-step process. The process consisted of the following elements:

1. Definition of the criteria applicable to the raw materials specific to the business unit's activity
2. Identification of the raw materials with a high probability of restrictions in supply, considering the selected criteria
3. Calculation of the impact of the supply risk identified on the Horizon 2020 objectives

21 supply criteria, covering various aspects of sustainability, have been offered to the business units as input for the mapping. The criteria can be clustered into the following themes:

- EHS or regulatory aspects of the raw materials
- Concentration in the market or restrictions in the country of origin
- Ethical aspects and potential conflicts with the Code of Conduct linked to the raw materials
- Unavailability due to end-of-life of the mineral source
- Physical constraints at origin

As supply risks and opportunities can change, the identification of the critical raw materials is a dynamic process. In 2020 all business units updated their mapping. Over the course of Horizon 2020, 11 raw materials have been identified as being critical in achieving the Horizon 2020 objectives. The type of risks spans over the main clusters provided above.

It is particularly important to define actions to mitigate the risk of critical materials supply disruption. Mitigation actions can vary depending on the materials and the position of the business unit in the market. Action plans and dedicated mitigation measures must be in line with the identified risks and opportunities and are therefore updated regularly. The reviewing frequency and process vary from business unit to business unit depending on the specific supply conditions. Mitigation measures beyond responsible sourcing include due diligence actions, ensuring critical raw materials can be supplied from several reliable suppliers, looking for secondary raw materials sources and ensuring the responsible status of the raw materials. More details about the mitigation actions are provided in the next pages for specific critical raw materials.

Business units purchasing 1 of the 4 conflict minerals to manufacture their products, use the Conflict Mineral Reporting Template from the Responsible Minerals Initiative for their due diligence on the purchased raw materials.

On 1 January 2021, the Conflict Minerals Regulation has come into full force across the EU. This law is similar in scope to the US Dodd Frank Act of 2012. The new law aims to help stem the trade in 4 minerals – tin, tantalum, tungsten and gold (also known as 3TG) – that sometimes finance armed conflict, are mined in unacceptable conditions and/or using forced labor. The way Umicore has been managing supply risks in the past years is fully in line with the requirements of this new law.

In addition to existing policies and charters, such as the Umicore Code of Conduct, Human Rights Policy and Sustainable Procurement Charter, Umicore also has a specific policy regarding Responsible global supply chain of minerals from conflict-affected and high-risk areas.

 [UMICORE.COM/RESPONSIBLESUPPLYCHAIN-POLICY](https://www.UMICORE.COM/RESPONSIBLESUPPLYCHAIN-POLICY)

Today, responsible mineral sourcing goes beyond conflict minerals. Umicore pursues responsible sourcing certification wherever appropriate to highlight our best practices and to provide the necessary documentation to the increasing number of customers seeking assurance on our products. The Umicore internal "Metals and Minerals" working group streamlines and optimizes the efforts required for this increasing customer demand through best practices sharing.

The London Bullion Market Association (LBMA) manages the accreditation process for all Good Delivery listed refiners for gold and silver. The Responsible Jewelry Council's (RJC) Chain of Custody (CoC) Standard is applicable to gold and platinum group metals (platinum, palladium and rhodium).

The Responsible Minerals Initiative is used by many customers to streamline the process to guarantee conflict-free products in complex supply chains. A typical example is the automotive industry, where a structure has been created to assure that all individual elements of a car can be certified as not containing

conflict minerals sourced from non-certified origins. This procedure is not a ban on those materials (tin, tantalum, tungsten and gold), but a process to create transparency in the supply chain to ensure conflict-free minerals can be sourced. Other industries, such as the electronics industry, implement the same or similar processes

	LBMA Gold	LBMA Silver	RJC Chain of Custody Recycled gold, platinum, palladium and/or rhodium	RMI-Conformant Cobalt Refiners	RMI-Conformant Gold smelters and refiners
Bangkok		X			X
Hoboken	X	X			X
Kokkola				X	
Olen				X	
Pforzheim	X	X	X		X
Vienna			X		X

Both the RJC Chain of Custody and LBMA Good Delivery accreditations qualify the accredited sites for listing in the Responsible Minerals Initiative conformant smelters and refiners.

For more information, please visit:

[LBMA.ORG.UK/GOOD-DELIVERY-LIST-REFINERS-GOLD-CURRENT](https://www.lbma.org.uk/good-delivery-list-refiners-gold-current)

[LBMA.ORG.UK/GOOD-DELIVERY-LIST-REFINERS-SILVER-CURRENT](https://www.lbma.org.uk/good-delivery-list-refiners-silver-current)

[RESPONSIBLEJEWELLERY.COM](https://www.responsiblejewellery.com)

[RESPONSIBLEMINERALSIINITIATIVE.ORG/GOLD-REFINERS-LIST](https://www.responsiblemineralsinitiative.org/gold-refiners-list)

[RESPONSIBLEMINERALSIINITIATIVE.ORG/RESPONSIBLE-MINERALS-ASSURANCE-PROCESS/SMELTER-REFINER-LISTS/COBALT-REFINERS-LIST/CONFORMANT-COBALT-REFINERS](https://www.responsiblemineralsinitiative.org/responsible-minerals-assurance-process/smelter-refiner-lists/cobalt-refiners-list/conformant-cobalt-refiners)

## 2.1 COBALT

Umicore uses cobalt in materials for rechargeable batteries, tools, catalysts and several other applications. The Sustainable Procurement Framework for Cobalt covers Umicore's cobalt purchases worldwide. The Framework is aligned with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas. Umicore obtained, for the sixth year in a row, third party assurance from PwC that its cobalt purchases in 2020 are carried out in line with the conditions set out

in the framework. The share of cobalt from recycled origin was also reviewed by PwC as part of the assurance process and was 4.1% for 2020. The figure is reported in the compliance report.

A dedicated cobalt sourcing committee, referred to as the Approval Committee, is responsible for the principles and guidelines in the framework and has overall control and decision-making power. The Approval Committee includes a member of the Umicore Executive Committee and the senior management of Sustainability and Supply.

In May 2019, Umicore Olen was approved as the first Responsible Minerals Initiative-conformant cobalt refinery worldwide. Umicore's newly acquired Kokkola's cobalt operations were the second recognized refinery. The refineries must undergo a yearly certification process. Given the COVID-19 context in 2020, the audit had to be postponed but both sites remain on the list of RMI compliant refiners. The audit will take place as soon as the situation allows for it. As mentioned above the audit related to Sustainable Procurement Framework for Cobalt, which is aligned with OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas, has taken place. This audit covers the cobalt supply for Olen and Kokkola.

In 2020, Umicore performed the follow up of the mitigation actions defined as a result of the third-party audit that was performed in 2019 at one of its cobalt suppliers. No new third party audit could be conducted in 2020 due to the COVID-19 pandemic. We did a follow up with our suppliers in DRC on the measures that were put in place to guarantee safe working conditions with respect to COVID-19 pandemic control.

Umicore supported the development of the Cobalt Industry Responsible Assessment Framework (CIRAF) within the Cobalt Institute. The CIRAF is a management framework for risk assessment and mitigation aiming at ensuring responsible cobalt production and sourcing. As part of the CIRAF, risks regarding own operations and supply chain must be analyzed. Following the recommendations of the framework, Umicore performed a risk analysis of its 8 cobalt-related operations considering the risks identified by the CIRAF and the results of our own materiality analysis and of our internal Business Risk Assessment. The material risks for our operations are (1) Air-water-soil pollution & energy efficiency; (2) OHS and working conditions; (3) Conflict & financial crime; (4) Human rights abuses. Umicore has policies and measures in place covering these risk areas (see Management Approach). Key performance indicators are reported yearly (see Environmental and Social statements). With respect to "supply chain", Umicore's approach is aligned with the level 3 requirements of the CIRAF, moving from level 2 in 2019 as all the risks, including biodiversity and resettlement risks, are now covered.

The compliance report for 2020, including the CIRAF report, is available online.

[UMICORE.COM/SUSTAINABLE-COBALT](https://www.UMICORE.COM/SUSTAINABLE-COBALT)



Umicore continued its engagement with the Global Battery Alliance and supported the transition to an independent entity. Via its engagement in the Cobalt Action Partnership, Umicore supports a coordinated approach for local interventions in mining communities in the Democratic Republic of Congo.

Umicore participated in the Battery Passport project of the Global Battery Alliance, which aims to deliver a digital sustainability record for batteries. Together with many stakeholders of the battery value chain, Umicore supported the development of KPIs to represent the sustainability of the battery supply chain (including environment and human rights).

In 2018 Umicore implemented, besides its continued engagement in sustainable cobalt sourcing, due diligence in the supply of the other raw materials for batteries, i.e. nickel, manganese and lithium. The approach is directly inspired by the experience with cobalt and follows the basic steps of the Sustainable Procurement Framework for Cobalt. Specific mitigation actions have been defined for these metals depending on the identified risk.

## 2.2 GOLD AND SILVER

In 2020, Umicore continued to ensure that operations with a production of gold are certified as conflict-free. Umicore operations in Hoboken, and Pforzheim are certified as conflict-free smelters for gold by the London Bullion Market Association (LBMA). The LBMA also provides certification for responsible silver and the sites of Hoboken, Pforzheim and Bangkok are accredited refiners by the LBMA. The Jewelry & Industrial Metals operations in Pforzheim, Vienna and Bangkok are certified as part of the Responsible Jewelry Council's (RJC) Chain of Custody program for gold.

## 2.3 PLATINUM, PALLADIUM & RHODIUM

Since 2020, the LBMA audit for compliance against the Responsible Platinum and Palladium Guidance is mandatory for the London Platinum and Palladium Market (LPPM) accredited producers of platinum and palladium plates and ingots. As there is currently no official due diligence certification scheme for platinum and palladium sponge, UPMR went for these precious metals for a voluntary audit based on the requirements of the LBMA responsible sourcing program. The Jewelry & Industrial Metals operations in Pforzheim, Vienna and Bangkok are certified as part of the Responsible Jewelry Council's (RJC) Chain of Custody program for recycled platinum, palladium and/or rhodium.

## V3 INDIRECT PROCUREMENT

While the metal-bearing raw materials are purchased directly by the business units (direct procurement, see note V2 for specific sustainable supply related actions), Umicore's worldwide purchasing and transportation teams take care of the energy and other goods and services which are referred to as indirect procurement. In 2020, though indirect procurement spend remained stable compared to the

previous year, it was down to roughly 5% of the total spend. Half of indirect procurement spend is handled by the Procurement & Transportation teams in Belgium and Germany.

### 3.1 SCOPE

The indicators presented are based on 2020 data from our Procurement & Transportation teams in Belgium and Germany and Poland. EcoVadis, a well-known collaborative platform providing Supplier Sustainability Ratings, is also used by the local procurement team in Brazil.

### 3.2 ASSESSMENT OF SUPPLIERS

Since 2017, a quick scan based on criteria such as size, geographical location and type of product or service provided is systematically used for the assessment of new suppliers. This tool determines the need for an EcoVadis assessment. This tool was first implemented by the teams in Belgium and Germany, and in 2020 it was also used by the team in Poland. In 2020, 484 quick scans have been initiated. The goal is to further roll-out to more teams worldwide in the future.

Sustainability performance of specific suppliers is assessed by EcoVadis.

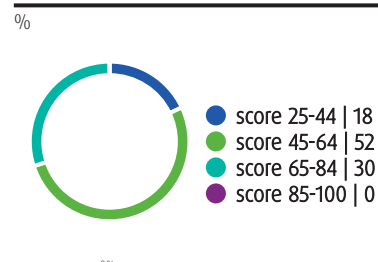
101 assessment scores were made available to the teams in 2020, including the requests from the Procurement & Transportation teams in Brazil. A total of 417 scores have been received since the start of our collaboration with EcoVadis. This represents the number of unique suppliers that have been assessed and does not consider the regular re-assessment of a supplier.

### 3.3 AVERAGE SCORE OF SUPPLIERS BY TOPIC IN 2020

82% of the assessed suppliers in 2020 reached a score of 45 or higher, suppliers "engaged in CSR" (Corporate Social Responsibility). None of the scores received in 2020 indicates a "high risk".

Suppliers' score in Ecovadis assessment	
1-24: high sustainability risk	0%
25-44: some basic steps made on sustainability issues	18%
45-64: appropriate sustainability management system	52%
65-84: advanced practices on sustainability	30%
85-100: outstanding sustainability management systems	0%

## SUPPLIERS' SCORE IN ECOVADIS ASSESSMENT



## SUPPLIERS' SCORE IN ECOVADIS ASSESSMENT

	Group
Environmental	58.9
Labor and Human Rights	58.8
Fair business practices	52.0
Suppliers	50.1
<b>Overall</b>	<b>56.6</b>

The overall score is a weighted average of the 4 theme scores.

More information on Umicore's relationship with suppliers can be found in the [Stakeholder Engagement](#)(p. 16) and in the [Value Chain and Society performance review](#)(p. 39).

## V4 PRODUCTS AND SERVICES

### 4.1 ECOVADIS CSR RATING

The Umicore Group was re-evaluated by EcoVadis and was awarded its first Platinum Medal in Corporate Social Responsibility (CSR), with a score of 73/100. This result includes our company among the top 1% performers evaluated by EcoVadis.

To see Umicore's EcoVadis CSR scorecard, see: [ECOVADIS-SCORECARD-2020.PDF](#)

The 2020 rating is an improvement on Umicore's previous Gold rating (top 5% of peers), demonstrating Umicore's continued commitment and efforts for an improved performance in all four sustainability themes (environment, labor and human rights, ethics and sustainability procurement). Umicore has been assessed by EcoVadis since 2013.

### 4.2 RESOURCE EFFICIENCY

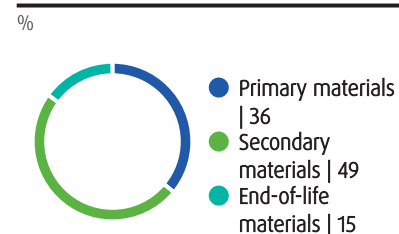
**Primary raw materials:** are materials that have a direct relation to their first lifetime hereby excluding streams of by-products

**Secondary raw materials:** are by-products of primary material streams

**End-of-life materials:** are materials that have ended at least a first life cycle and will be re-processed through recycling leading to a second, third... life of the substance

Incoming materials are regarded as primary by default if their origin is unknown. The collected data are expressed in terms of total tonnage of incoming material.

### RESOURCE EFFICIENCY



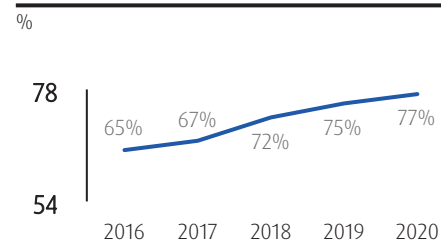
In 2020, 64% of the materials were from end-of-life or secondary origin while 36% were of primary origin, respectively, compared to 60% and 40% in 2019. This ratio results from the combined effect of the COVID-19 on the global automotive industry and higher processed volumes in Recycling.

### 4.3 PRODUCTS AND SERVICES CONTRIBUTING TO SPECIFIC SUSTAINABILITY ASPECTS

Our primary focus in terms of sustainable products and services is to leverage activities that provide solutions to the megatrends of clean mobility and resource scarcity. For more information, please refer to [Value chain and society](#)(p. 39).

We developed an indicator to underline our focus on clean mobility and recycling.

## REVENUES FROM CLEAN MOBILITY AND RECYCLING



Business units continue to develop specific solutions for sustainability aspects of our products and their applications in close relationship with customers. Typical subjects dealt with in such developments are the reduction of risks related to the use of products, reduction of the hazard of products or a higher material efficiency in the delivery or the use of our products.

### 4.4 MANAGEMENT OF PRODUCT REGULATION

Worldwide, Umicore ensures regulatory compliance for the products it puts on the market. Changes to existing product related legislation as well as the introduction of new legislation, might impact our business. In terms of the REACH legislation and the newly proposed concepts such as the Chemical Strategy on Sustainability in the EU, Umicore closely monitors all changes in the regulation, in interpretation as well as guidance documents that might affect its REACH implementation strategy. Umicore is actively involved in industry association working groups to ensure a consistent approach is followed and the metal specifics are understood by the regulators and the companies.

Umicore actively supports the engagement of the metals sector with ECHA in the Metals/inorganics sectorial approach (MISA).

Umicore engaged with the cobalt industry in managing the EU cobalt metal harmonized classification and continues to be engaged in the Annex XV proposal on the restriction of 5 cobalt salts. This process has no final outcome yet and continues into 2021.

In 2020, we submitted 27 additional substances for registration under REACH due to new business developments.

As part of regular maintenance, we updated 76 REACH dossiers among others to change the tonnage band, to reply to ECHA requests and to include new information.

In Korea, Umicore is actively involved in preparation for the first Korea REACH registration deadline end of 2021 including Lead Registrant roles. Umicore has submitted 2 registrations in Korea in 2020 for priority chemical substances.

Umicore prepared for arising international regulations like for Turkey and Russia by submitting pre-registrations/notifications. Umicore is also preparing for compliance with UK-REACH.

## V5 DONATIONS

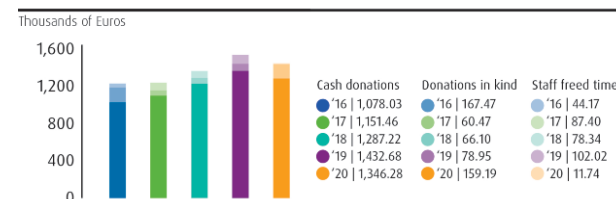
### SCOPE

The indicators presented are based on data from fully consolidated companies. The historical numbers (2016 and before) were not restated.

## GROUP DATA

	unit	2016	2017	2018	2019	2020
Cash donations	€ thousand	1,078.03	1,151.46	1,287.22	1,432.68	1,346.28
Donations in kind	€ thousand	167.47	60.47	66.10	78.95	159.19
Staff freed time	€ thousand	44.17	87.40	78.34	102.02	11.74
Total donations	€ thousand	1,289.68	1,299.34	1,431.66	1,613.65	1,517.21

### DONATIONS



Donations are subdivided into cash donations, donations in kind and staff time.

Each business unit is expected to allocate an annual budget that provides sufficient donations and sponsorship support to each site's community engagement program. By way of guidance, this budget should equal to an amount corresponding to one third of 1% of the business unit's average annual consolidated adjusted EBIT (i.e. excluding associates) for the 3 previous years. Most of the donations from the business units go to charity events close to their sites, in support of the local community.

At Group level, the budget is set at the discretion of the CEO and the donations are coordinated and managed by a Group Donations Committee reporting to the CEO. Group donations focus on projects with an international scope with priority given to initiatives that have a clear link with sustainable development and with an educational component.

## REGIONAL DATA

	unit	Europe	North America	South America	Asia-Pacific	Africa	Umicore Group
Total donations	€ thousand	1,215.05	86.34	92.19	87.50	36.13	1,517.21

## BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Corporate	Umicore Group
Total donations	€ thousand	202.57	244.81	297.27	772.56	1,517.21

In 2020, the Group donations included a substantial contribution to the Fund for the Prevention of Child Labour in Mining Communities – A Global Battery Alliance Collaboration. Other Group donations in 2020 included donations to UNICEF educational projects in Madagascar and in India, projects coordinated by Entrepreneurs for Entrepreneurs in Mali, Ecuador and Bolivia and support for student sustainable mobility projects.

In 2020, Umicore contributed a total of € 1.5 million in donations. This was slightly below the level of donations in 2019, due to a reduced level of local community fundraising activities in the context of the COVID-19 pandemic. This was also the case for the decrease in staff freed time with citizens being asked to stay at home. Donations in kind, however, increased, as Umicore donated ventilator machines to hospitals and supported hospitals, care homes and home nurses with surgical masks and cleaning material in their fight against COVID-19, as well as food baskets for local communities.

# Environmental statements

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# ENVIRONMENTAL KEY FIGURES

	unit	notes	2016	2017	2018	2019	2020
Metal emissions to water (load)	kg	E2	3,738	1,437	1,861	2,052	2,695
Metal emissions to water (impact units)		E2	339,001	125,688	144,657	174,725	296,432
Metal emissions to air (load)	kg	E2	1,761	1,829	1,564	864	984
Metal emissions to air (impact units)		E2	86,098	84,463	88,044	52,492	57,696
SOx emissions	tonne	E2	892	661	657	531	389
NOx emissions	tonne	E2	365	320	304	280	239
CO2e emissions (scope1+2) - Market based	tonne	E3	662,059	633,704	767,702	791,896	732,543
CO2e emissions (scope1+2) - Location based <sup>1</sup>	tonne	E3	735,065	663,307	785,789	815,175	747,964
Energy consumption	terajoules	E4	6,737	6,532	7,458	7,476	7,591
Renewable energy	%	E4	-	-	-	14	15
Water use	thousand m3	E5	4,851	4,755	5,885	6,208	7,813
Total waste produced	tonne	E7	77,625	72,804	78,778	68,317	99,434
Hazardous waste	tonne	E7	59,437	55,442	58,759	47,589	78,055
of which recycled	%	E7	3.8	4.3	5.3	7.9	5.0
Non hazardous waste	tonne	E7	18,188	17,373	20,018	20,728	21,379
of which recycled	%	E7	57.8	58.2	62.2	59.4	64.7
Compliance excess rate	%	E9	0.95	0.10	0.14	0.10	0.15
Environmental complaints	N°	E9	19	34	29	33	80
Sites ISO 14001 certified	%	E9	88	92	91	95	96

<sup>1</sup> CO2e emissions' data for 2015 is an aggregation of market-based and location-based scope 2 emissions. A direct comparison to 2016-2020 data is not possible. If such comparison were to be made, the most meaningful approximation is to use the market-based 2016-2020 figures (see section E3 for details).

Data for 2015 includes the divested business unit Zinc Chemicals, while data for 2016-2020 does not. Data for 2016 and previous years includes the divested business unit Building Products, while data for 2017-2020 does not.

## E1 SCOPE OF ENVIRONMENTAL STATEMENTS

The environmental key figures include data from consolidated industrial sites where Umicore has operational control. The following sites are no longer reported compared to 2019: Beijing (China; Electro-Optic Materials) and Rheinfelden (Germany; Automotive Catalysts). The following sites were added to the environmental reporting scope in 2020: Songdo (South Korea; Precious Metals Chemistry) and Kokkola (Finland; Rechargeable Battery Materials). As in 2019, the total number of consolidated industrial sites that report environmental data in 2020 is 55.

Within the scope of Umicore's reporting framework, most of the sites report their environmental data at the end of the third quarter together with a forecast for the fourth quarter. In January, the forecasted values are checked by the sites for significant deviations and, if needed, corrected. Particular emphasis was put on this data check during 2020 due to the potential impact that COVID-19 may have had on the production rates across the year. The 7 sites with the largest environmental impact for 2020 are: Hanau (Germany; Catalysis, Recycling), Olen (Belgium; Energy & Surface Technologies, Corporate R&D), Hoboken (Belgium; Recycling), Jiangmen (China; Energy & Surface Technologies), Cheonan Site 1, Cheonan Site 2/3 (both Korea; Energy & Surface Technologies), and Kokkola (Finland; Energy & Surface Technologies). With the exception of Kokkola, these sites report their full year figures in 2020. The Kokkola site will also report full year data from 2021 onwards. A sensitivity analysis, undertaken for the 2020 data on energy consumption data, indicates that the potential deviation of the Group environmental performance would be less than 2% in case of a 20% error in the forecasted data.

Please note that due to improved analytical and reporting methods, some of the data published in the 2019 annual report has been restated in the 2020 report. Unless mentioned otherwise, environmental key performance indicators (KPIs) for 2015 include the business unit Zinc Chemicals that was divested during 2016, while 2016-2020 KPIs do not include Zinc Chemicals. Likewise, environmental KPIs for 2015-2016 include the business unit Building Products that was divested during 2017, while 2017-2020 KPIs do not include Building Products.

## E2 EMISSIONS TO WATER AND AIR

Umicore's Vision 2015 achievements of reducing our metal emissions to water and air from point sources in terms of impact by 26% and 37%, respectively, marked a great step towards sustainable operations. We consider the emission levels achieved in 2015 as our frame of reference in the context of sustainable operations that include the management of the emissions to water and air.

The aim for Horizon 2020 was to build on the Vision 2015 achievements by reducing the impact of metal emissions while considering growing volumes of production. In practice, this means that we aimed to at

least maintain the level of metals emitted to water and air in terms of impact that we achieved as part of Vision 2015.

Metal emissions to water are defined as the total amount of metals emitted after treatment to surface water from effluent(s) expressed in kg/year. If sites make use of an external wastewater treatment plant, the efficiency of that treatment is considered if known to the site.

Metal emissions to air are defined as the total amount of metals emitted to air in solid fraction by all point sources expressed in kg/year. For mercury and arsenic, additional vapor/fume fractions are counted as well.

For each of the metals emitted to water and air, an impact factor is applied to account for the different toxicity and ecotoxicity levels of the various metals when they are emitted to the environment. The higher the impact factor, the higher the toxicity is to the receiving water body (for water emissions) or to human health (for air emissions).

The impact factors for water emissions are based upon scientific data generated ("predicted no effect concentrations" or PNECs) for the REACH regulation. An impact factor of 1 was attributed to the antimony PNEC of 113 µg/l. The impact factors for emissions to air are based upon the occupational exposure limits (OEL) (reference: American Conference of Industrial and Governmental Hygienists, 2011). An impact factor of 1 was attributed to the zinc (oxide) OEL of 2 mg/m<sup>3</sup>. Subsequently, an impact factor for all relevant metals was calculated based upon these references. The metal impact to air and to water is expressed as "impact units/year".

We identified the sites that contribute at least 95% in terms of load (for SO<sub>x</sub> and NO<sub>x</sub>) or impact units (for metals emissions to water and air) of the total 2015 Group figures (excluding the divested business unit Zinc Chemicals). For emissions to water and air, data collection for 2020 was restricted to the identified material sites (10 or fewer). All other sites were requested to only submit data in case of significant upward deviations from the 2015 baseline for the site.

The improvement on 2015 levels of metal emissions to water and air is measured by comparing emissions of the current reporting year (i.e., 2020) with those of the reference year 2015 and using the same scope of activities as 2015 for the material sites.

To calculate the change in metal emissions to water and air in comparison with the reference year 2015, a baseline has been established for each site in scope. The baseline is established by multiplying the actual activity level of the current reporting year (i.e., 2020) by the 2015 emission intensity (see example below). The baseline 2015 is then calculated by adding up all site-level baselines for the sites in scope. Examples

of activity parameters at sites are: tonnes produced per year, machine hours per year, tonnes of input material in recycling process per year.

#### Example

In 2015, site A produced 20 t of product X and emitted 5 kg of metal Y (impact factor of Y = 8 impact units/kg) to air, resulting in a metal emissions intensity of 2 impact units/t of product X. In 2020, site A produced 22 t of product X and emitted 5 kg of metal Y, resulting in a metal emissions intensity of 1.8 impact units/ton of product X.

The 2015 baseline reported in 2020 is then: activity level of 2020 (22 t) x 2015 emissions' intensity (2 impact units/t) = 44 impact units.

Therefore, the measured 5 kg – equivalent to 40 impact units – emitted in 2020 represents a reduction of 10% compared to what it would have been under 2015 operating conditions.

The 2015 baseline is recalculated yearly (2016-2020). It is defined as the metal emissions that would have been expected with the activity volumes of the reporting year (i.e., 2020), but with the metal emissions intensity of the reference year 2015. The performance for each year is expressed as a percentage in comparison to the calculated 2015 Group baseline applicable to each year.

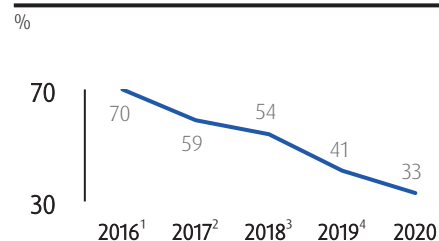
The calculation of metal emissions to water and air covers fully consolidated operations and activities that are part of the Group during the reporting year (2016-2020) and that were also part of the Group in 2015. Performance is reported only for the total of the material sites for each KPI.

SO<sub>x</sub> and NO<sub>x</sub> emissions are expressed in absolute numbers in tonnes/year.

### 2.1 GROUP DATA – EMISSION SCOPE METAL EMISSIONS TO AIR AND WATER

	unit	baseline 2015 in relation to 2020	2016	2017	2018	2019	2020
Metal emissions to water	impact units	352,638	339,001	125,688	131,723	152,105	143,788
Metal emissions to air	impact units	121,392	86,098	84,463	87,664	51,541	40,626

## METAL EMISSION REDUCTION PERFORMANCE (TO AIR)



- 1 Baseline 2015 in relation to 2016 was 123,831, leading to a reduction of 30% in 2016 in comparison with 2015.
- 2 Baseline 2015 in relation to 2017 was 144,049, leading to a reduction of 41% in 2017 in comparison with 2015.
- 3 Baseline 2015 in relation to 2018 was 163,101, leading to a reduction of 46% in 2018 in comparison with 2015.
- 4 Baseline 2015 in relation to 2019 was 124,403, leading to a reduction of 59% in 2019 in comparison with 2015.

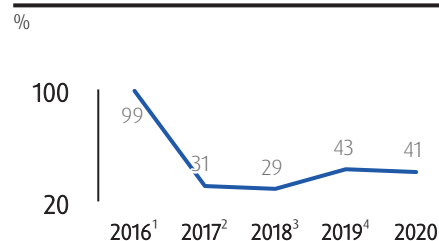
## 2.2 METAL EMISSIONS TO WATER

The metal emissions to water in 2020, using the defined scope, resulted in 143,788 impact units. Metal emissions to water in 2015, using the defined scope, resulted in 290,714 impact units. To assess progress on our commitment, this 2015 metal emissions level normalized for 2020 activity levels was 352,638 impact units. In 2020, we have therefore achieved a 59% reduction of metal emissions to water in terms of impact for the defined scope compared to 2015.

This evolution between 2015 and 2020 can be largely attributed to our Hoboken plant (Belgium, Recycling), where the increased efficiency of the wastewater treatment plant at the site, due to investments in improvement projects over the last years, has paid off. In addition, some efficiency improvements and scale-effects – after further capacity increase of precursor production at our Cheonan Site 2/3 (Korea, Energy & Surface Technologies) – have contributed to the decrease of the emission intensity in terms of impact by metals emissions to water.

In terms of total absolute load and impact (not activity-corrected) for the Group in comparison with 2019 levels, 2020 metal emissions to water have seen a marked increase by 31% and 70%, respectively. This is for the most part due to the addition of the site in Kokkola (Finland; Rechargeable Battery Materials). While the site is well within their legal discharge limits, the nature of the industrial processes and throughput of water at the site leads to a notable increase of the absolute metal load and impact for the Umicore Group. As this is the first year of reporting of the Kokkola site under Umicore, the site's data on efficiency of wastewater treatment and on metal load effectively discharged to the environment is currently limited. Therefore, a very conservative approach was chosen, leading to an overestimation of

## METAL EMISSION REDUCTION PERFORMANCE (TO WATER)



- 1 Baseline 2015 in relation to 2016 was 343,649, leading to a reduction of 1% in 2016 in comparison with 2015.
- 2 Baseline 2015 in relation to 2017 was 409,691, leading to a reduction of 69% in 2017 in comparison with 2015.
- 3 Baseline 2015 in relation to 2018 was 453,075, leading to a reduction of 71% in 2018 in comparison with 2015.
- 4 Baseline 2015 in relation to 2019 was 356,940, leading to a reduction of 57% in 2019 in comparison with 2015.

the metal load and impact from the site in 2020. Efforts are underway to improve the underlying data and arrive at a more realistic calculation of the metal emissions to water at the site, which is expected to yield lower metal loads in 2021 and thereafter for the Kokkola site.

## 2.3 METAL EMISSIONS TO AIR

The metal emissions to air in 2020, using the defined scope, resulted in 40,626 impact units. Metal emissions to air in 2015, using the defined scope, resulted in 117,918 impact units. To assess progress on our commitment, this 2015 metal emissions' level normalized for 2020 activity was 121,392 impact units. In 2020, we have therefore achieved a 67% reduction of metal emissions to air in terms of impact for the defined scope.

The reductions are observed across many sites in scope to a varying degree and can be ascribed for the most part to further efforts that improved air filter efficiency and to improvements in overall process efficiency.

### 2.3.1 LEAD EMISSIONS AT HOBOKEN (BELGIUM, RECYCLING)

In 2015, infrastructure works at the roof of the lead refinery led to increased lead deposition in the surrounding residential area of Moretusburg. Consequently, the biological monitoring results showed an increased number of children with levels of lead in blood above the recommended reference level of 5 microgram/dl blood (Center for Disease Control and Prevention, USA). This biological monitoring campaign is conducted twice a year by the local authorities.

While during the 2020 spring blood sampling campaign, the average lead levels among children in the neighborhood rose to 6.01 microgram/dl blood, this average again decreased during the fall campaign to 4.12 microgram/dl blood. Comparing the fall biological monitoring campaigns, in 2020 26% of the children still had levels of lead in blood above the reference value of 5 µg/dl, compared to 18% in 2019. The site continues its emission reduction action plan to further reduce the number of children who show levels of lead in blood above the reference value in close collaboration with the local and regional authorities.

## 2.4 GROUP DATA – OTHER EMISSIONS

	unit	2016	2017	2018	2019	2020
SO <sub>x</sub> emissions	tonne	892	661	657	531	389
NO <sub>x</sub> emissions	tonne	365	320	304	280	239

The SO<sub>x</sub> emissions for the Group reduced by 27% from 531 t in 2019 to 389 t in 2020, mainly due to improvements and changes in process setup at Hoboken (Belgium, Recycling). The NO<sub>x</sub> emissions decreased from 280 t in 2019 to 239 t in 2020, a 15% reduction.



## E3 GREENHOUSE GASES

The introduction of our energy efficiency and carbon footprint policy in 2011 guided us to a 26% reduction in CO<sub>2</sub> equivalent (CO<sub>2</sub>e) emissions within the defined scope in Vision 2015 and to permanent attention and awareness of energy efficiency at the sites and in the business units' management processes.

Under Horizon 2020, Umicore's improvement focus is on energy efficiency. The efforts to increase energy efficiency are expected to contribute to further reducing our carbon footprint.

Umicore reports its absolute CO<sub>2</sub>e emissions as per the scope outlined in E1. The absolute CO<sub>2</sub>e emission volumes are calculated using the Greenhouse Gas Protocol definition and reporting methodology for scope 1 and 2 (WBCSD and WRI 2004 and amendment for scope 2 of 2015). Scope 2 for Umicore includes not only purchased electricity but also steam and compressed air purchased from third parties (e.g., from industrial parks). CO<sub>2</sub>e includes the greenhouse gases CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O for scope 1 and major process emissions. Other greenhouse gases are not relevant in Umicore's operations. The scope 2 emissions take only CO<sub>2</sub> into account.

The calculation of scope 2 emissions for each site is done in 2 ways: once using market-based CO<sub>2</sub> emission factors and once using location-based CO<sub>2</sub> emission factors. The market-based emission factors allow calculating the CO<sub>2</sub> emissions based on the specific contracts that sites have in place with their energy suppliers, considering the relevant energy mix for these contracts (including green energy attributes, where applicable). The location-based CO<sub>2</sub> emission factors facilitate calculating the CO<sub>2</sub> emissions based on the residual energy mix in a country/region (where this data is available), thus explicitly excluding green energy attributes that are sold by the power producers in dedicated supply contracts. The total CO<sub>2</sub> emissions for the Group are then presented as 2 separate values based on this differentiation and the metrics are abbreviated as: CO<sub>2</sub>e market-based and CO<sub>2</sub>e location-based.

The WBCSD Chemical Sector Working Group on GHG Measurement and Reporting established additional guidance to cope with observed anomalies in GHG reporting. Umicore has implemented these guidelines already since the 2012 reporting. The publication of the sector guidelines can be found on their website.

### 3.1 GROUP DATA

	unit	2016	2017	2018	2019	2020
CO <sub>2</sub> e emissions (scope1+2) - Market based	tonne	662,059	633,704	767,702	791,896	732,543
CO <sub>2</sub> e emissions (scope1+2) - Location based	tonne	735,065	663,307	785,789	815,175	747,964

Total CO<sub>2</sub>e market-based emissions in 2020 were 732,543 t. Total CO<sub>2</sub>e location-based emissions were 747,964 t. The difference between these 2 figures, 15,421, is due to specific energy contracts with a favorable energy mix that our sites have in place, which result in a lower carbon footprint than the residual energy mix for the country/region that the site is located in.

Total CO<sub>2</sub>e market-based emissions in 2019 were 791,896 t, and total CO<sub>2</sub>e location-based emissions in 2019 were 815,175 t.

For market-based CO<sub>2</sub>e emissions, the 2020 emission levels have decreased by 7% in comparison with 2019. This can be attributed to a large extent to the installation of a nitric acid plant at Hoboken (Belgium; Precious Metals Refining), which reduces the direct process emissions of N<sub>2</sub>O. In addition, lower activity levels in the business unit Rechargeable Battery Materials also resulted in reduced CO<sub>2</sub> emissions. Changes to process setup and switching to green energy contracts at several sites have also contributed to this trend. Compared with 2015, we observe an increase of 3% in total market-based CO<sub>2</sub>e emissions, which is due to a complex interplay of many factors over this 5-year period, among which the acquisition and setup of new sites, divestiture of entire business units, changes to process setup and production capacity and fluctuation in CO<sub>2</sub> emission factors for acquired energy.

### 3.2 BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Umicore Group
CO <sub>2</sub> e emissions (scope1+2) - Market based	tonne	133,127	323,829	274,973	732,543
CO <sub>2</sub> e emissions (scope1+2) - Location based	tonne	151,360	349,276	246,714	747,964

## E4 ENERGY

Umicore is committed under Horizon 2020 to an even more efficient use of energy in its operations. In practice, this means that we aim to further increase the energy efficiency level that we achieved as part of Vision 2015.

The WBCSD Chemical Sector Working Group on GHG Measurement and Reporting established additional guidance to cope with observed anomalies in GHG and energy reporting. Umicore has implemented these guidelines already since the 2012 reporting. Publication of the sector guidelines can be found on the WBCSD website.

In the scope of Horizon 2020, a greater emphasis is on those sites that are contributing the most to Umicore's total energy consumption, and certain parameters, such as activity indicators, have been

thoroughly reviewed for those sites and updated where required. Monitoring and reporting of the energy consumption continue to be done at all sites. The larger contributors are additionally encouraged and required to report on their energy efficiency projects.

An analysis of the contributions of the sites to the energy consumption at Group level identified 26 sites that contributed more than 95% to the 2020 total.

#### 4.1 GROUP DATA – IN THE CONTEXT OF THE ENERGY EFFICIENCY OBJECTIVE

The aim of improving on 2015 levels of energy efficiency is measured by way of comparing the energy consumption of the current reporting year (i.e., 2020) with the energy consumption of the reference year 2015 and using the same scope of activities as 2015.

To calculate the change in energy consumption in comparison with the reference year 2015, a baseline has been established for each site in scope. The baseline is established by multiplying the actual activity level of the current reporting year (i.e., 2020) by the 2015 energy intensity (see example below). The baseline 2015 is then calculated by adding up all site-level baselines for the sites in scope. Examples of activity parameters at sites are: tonnes produced per year, machine hours per year, tonnes of input material in recycling process per year.

##### Example

In 2015, site A produced 200 t of product X and consumed 80,000 GJ, resulting in an energy intensity of 400 GJ/t of product X. In 2020, site A produced 220 t of product X and consumed 80,000 GJ, resulting in an energy intensity of 364 GJ/t of product X.

The 2015 baseline reported in 2020 is then: activity level of 2020 (220 t) x 2015 energy intensity (400 GJ/t) = 88,000 GJ.

Therefore, the 80,000 GJ consumed in 2020 represents an improvement of 10% compared to what it would have been under 2015 operating conditions.

The baseline 2015 is recalculated yearly (2016-2020). It is defined as the energy consumption that would have been expected with the activity volumes of the reporting year (i.e. 2020), but with the energy intensity of the reference year 2015. The performance for each year is expressed as a percentage in comparison to the calculated 2015 Group baseline applicable to each year.

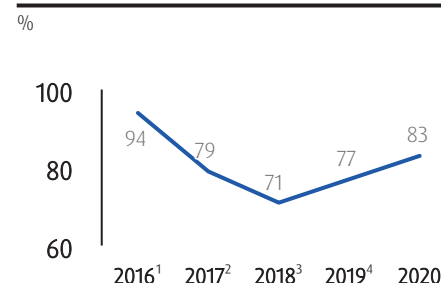
The calculation of this KPI covers fully consolidated operations and activities that are part of the Group during the reporting year (2016-2020) and that were also part of the Group in 2015. Therefore, the sites of the former business units Zinc Chemicals and Building Products and a few other individual sites, none of which are with Umicore anymore, are not in the reporting scope of this KPI. Likewise, several sites that

joined Umicore in 2016-2020 are therefore also not included in the reporting scope for this KPI. The energy consumption data also include our corporate headquarters in Brussels (Belgium).

#### 4.2 ENERGY EFFICIENCY OBJECTIVE

	unit	baseline 2015 in relation to 2020	2016	2017	2018	2019	2020
Energy consumption	terajoules	6,900	6,241	6,082	6,183	6,138	5,697

#### NORMALISED ENERGY CONSUMPTION



1 Baseline 2015 in relation to 2016 was 6,664 TJ, leading to a reduction of 6% in 2016 in comparison with 2015.

2 Baseline 2015 in relation to 2017 was 7,720 TJ, leading to a reduction of 21% in 2017 in comparison with 2015.

3 Baseline 2015 in relation to 2018 was 8,692 TJ, leading to a reduction of 29% in 2018 in comparison with 2015.

4 Baseline 2015 in relation to 2019 was 7,946 TJ, leading to a reduction of 23% in 2019 in comparison with 2015.

The energy consumption in 2020, using the defined scope, was 5,697 TJ. The energy consumption in 2015, using the defined scope, was 5,487 TJ. To assess progress on our commitment, this 2015 energy consumption level normalized for 2020 activity was 6,900 TJ. This means that for equivalent production levels, we consumed 17% less energy. In other words, the energy efficiency has improved by 17% in 2020 compared to the reference year 2015.

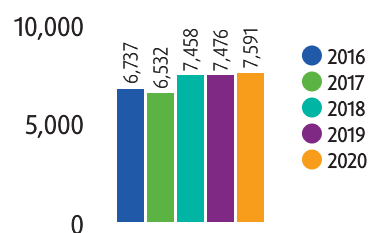
This improvement is mainly due to scale effects in connection with the ongoing capacity increase at our Rechargeable Battery Materials' site in Korea. Further efficiency improvements and consolidations at some other sites also contributed to the overall decrease in energy intensity.

Energy efficiency projects have been implemented at the most important sites in line with foregoing sustainable development objectives since 2006. In 2020, 26 sites represented more than 95% of the Group's energy consumption. At 15 of these sites, 38 energy efficiency projects have been reported as being implemented during 2020 and contributed significant energy savings.

#### 4.3 ABSOLUTE ENERGY CONSUMPTION

##### ENERGY CONSUMPTION (ABSOLUTE)

terajoules



Total energy consumption in 2020 was 7,591 TJ compared with 7,476 TJ in 2019, a slight increase of 2%. Various changes in production capacity, activity levels and process setup have led to a net balancing of increasing and decreasing energy consumption trends at several sites. Compared with 2015, we observe a decrease of 2% in total energy consumption, which is due to a complex interplay of many factors over this 5-year period, among which the acquisition and setup of new sites, divestiture of entire business units, and changes to process setup and production capacity.

Indirect energy consumption by primary energy source (purchased electricity, steam and compressed air) for production sites and office buildings in 2020 was 3,916 TJ. Direct energy consumption by primary energy source (fuel, gas oil, natural gas, LPG, coal and cokes) was 3,675 TJ.

#### 4.4 BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Umicore Group
Energy consumption	terajoules	1,306	3,831	2,446	7,591

#### 4.5 RENEWABLE ENERGY

As part of Umicore's drive to reduce our environmental footprint in the light of continuously striving for more sustainable operations, Umicore is tracking the contribution of renewable energy sources in

purchased energy. While some indicators for renewable energy have been used in previous years for internal evaluation, 2019 marked the first year in which we have systematically obtained information from our sites on the percentage of renewable energy in the energy mix used for purchased electricity, based on the particular purchase agreement in place at each reporting entity.

The definition of renewable energy as given in the Greenhouse Gas Protocol Scope 2 Guidance (2015 amendment) has guided us in defining the scope of this indicator. Only the following energy sources are considered in scope for this KPI: wind energy, solar energy, energy from biomass (including bio- and other naturally produced gas), hydropower (including marine hydro) and geothermal energy.

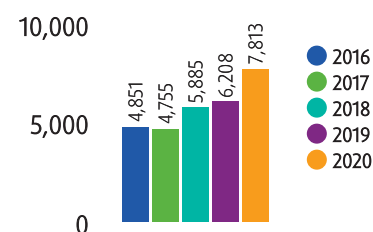
In 2020, the share of renewable energies for purchased electricity was 15%, up from 14% in 2019. We will track and report on this KPI in the coming years.

### E5 WATER USE

#### 5.1 GROUP DATA

##### WATER USE

Thousand m<sup>3</sup>



Water use is defined as the total volume of water expressed in thousand m<sup>3</sup>/year from domestic water supply, groundwater wells, surface water and rainwater. Groundwater extraction for remediation purposes and cooling water returned to its original water body are not counted.

The total water use for the Group increased from 6,208 thousand m<sup>3</sup> in 2019 to 7,813 thousand m<sup>3</sup> in 2020, an increase of 26%. The increase in water use is mainly due to the addition of the site in Kokkola (Finland; Rechargeable Battery Materials).

## 5.2 BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Umicore Group
Water use	thousand m <sup>3</sup>	561	5,565	1,686	7,813

## E6 WASTE

## 6.1 GROUP DATA

## HAZARDOUS WASTE

tonnes



Waste is defined as the total volume of generated waste expressed in tonnes/year.

The waste recycling rate is the ratio of the waste recovered by third parties (including waste recovered as energy through incineration) and the total waste.

The distinction between hazardous and non-hazardous waste is made based on the local regulation for the region where the reporting entity is located.

In 2020, a total of 99,434 tonnes of waste were generated compared to 68,317 tonnes in 2019, an increase of 46%. This increase is due to the addition of the site in Kokkola (Finland; Rechargeable Battery Materials), where the industrial process generates significant amounts of process residue that is classified and disposed of as hazardous waste.

The total volume of hazardous waste increased from 47,589 tonnes in 2019 to 78,055 tonnes in 2020, an increase of 64%, due to the abovementioned addition of the Kokkola site. The recycling rate of hazardous waste has decreased from 8% in 2019 to 5% in 2020.

The total volume of non-hazardous waste slightly increased from 20,728 tonnes in 2019 to 21,379 tonnes in 2020, an increase of 3%. The recycling rate of non-hazardous waste has increased from 59% in 2019 to 65% in 2020.

## 6.2 BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Umicore Group
Total waste produced	tonne	6,332	58,427	34,675	99,434
Hazardous waste	tonne	3,396	47,263	27,396	78,055
of which recycled	%	21.66%	1.95%	8.10%	4.97%
Non hazardous waste	tonne	2,935	11,164	7,280	21,379
of which recycled	%	50.67%	48.60%	95.10%	64.72%

## E7 HISTORICAL POLLUTION

The history of Umicore goes back more than 200 years. It all started with the coming together of a number of mining and smelting companies, which gradually evolved into the materials technology and recycling company Umicore is today. In the mid-1990s, Umicore started a process of divesting its remaining mining rights as part of its strategic reorientation towards added-value materials and recycling.

Umicore's predecessor companies operated within the boundaries of national mining legislation and in the context of the environmental standards valid at the time these mines were operational. The closure of the mines and the restitution of mining concessions to the relevant state authorities has consistently been carried out in collaboration with the competent authorities and local stakeholders. This process takes into consideration the specific circumstances of each site. Regarding the downstream industrial smelting and refining installations, remediation projects are developed in close consultation with other stakeholders to reduce any risks to an acceptable level as defined by the authorities.

Active participation in the management and remediation of risks that have resulted from historical operations is an integral part of the Umicore Way. Umicore's proactive program for assessing and remediating, where necessary, soil and groundwater contamination has made significant progress. The following section illustrates the main ongoing programs and the progress made during 2020. Due to the corona pandemic, however, several projects have incurred serious delays.

## 7.1 BELGIUM

The mining sites in Belgium laid the foundation of our oldest predecessor company, Vieille Montagne. The mining concession of the same name was granted by the Emperor Napoleon Bonaparte in 1805 and 5

more concessions were added over time, all located in eastern Wallonia. The mining activities in Belgium ceased in the 1950s and extensive rehabilitation work to secure the site was carried out at all concessions in close consultation with the competent authorities. Four concessions were officially transferred back to the Government, the retrocession of the others is being processed.

In addition, over a century of non-ferrous metals production in Hoboken, Olen, Balen and Overpelt impacted soil and groundwater on the industrial sites and on neighboring lands. In November 1997, Umicore concluded a voluntary agreement with the Flemish Region of Belgium to deal with this historical contamination. On 23 April 2004, Umicore signed an addendum to the 1997 Covenant with the regional waste authorities (OVAM) and the Regional Minister of the Environment in the Flemish Region of Belgium, in which Umicore committed to spent € 62 million over 15 years for historical pollution remediation on four sites, two of which – Balen and Overpelt – now belong to Nyrstar, a business that was divested by Umicore in 2007. In addition, OVAM and Umicore joined forces to remediate historic pollution in the additional areas surrounding the industrial sites, defined as a 9km perimeter, over 10 years. Both parties contributed €15 million to a new fund for the remediation work. In 2014, OVAM and Umicore agreed to extend the program an additional 5 years. The covenant came to an end in 2019, but the remedial efforts at the Umicore sites will continue as long as is necessary.

In Hoboken, what began as a lead and silver refining operation in 1887 grew to a large industrial plant extracting precious metals from waste. Over the years, Umicore has replaced heavily contaminated topsoil and remediated the historical contamination in the adjacent residential area. In 2017, an agreement was reached with the local authorities to extend the on-site storage facility, so that on-site topsoil remediation work can restart in 2021. A new groundwater remediation system is planned for 2021. The actions in Hoboken suffered from delays due to the corona pandemic.

In Olen, the pollution in and around the site is the result of historical production activities of mainly copper and cobalt. As soon as the Covenant was signed, the remediation work on the Olen site began. An on-site groundwater remediation program started in 2007 is ongoing. In 2020, contaminated soil and buried waste were further excavated at various locations where infrastructure work was needed.

Between 1922 and 1980, radium and uranium were also produced in Olen. The radium produced for cancer treatment purposes at this site was offered to Nobel laureate Marie Curie for her first experiments with radioactive material. The radium production plant was demolished during the 1970s and the radium production waste was confined to an aboveground storage facility, as was the norm at the time. Early 2020, the Federal Agency for Nuclear Control issued guiding principles for the permanent remediation and storage of the legacy radioactive material related to Umicore's Olen site in Belgium. Joint working Groups have been established, including governmental agencies such as NIRAS/ONDRAF, OVAM, FANC and Umicore to elaborate a roadmap describing the different steps that need to be taken to reach a permanent storage solution. This exercise will include an update of the estimated future remediation

and storage costs and the dedicated environmental provisions once the technical aspects will have been determined. Developing and implementing this detailed roadmap is currently expected to take several years. Umicore will in the meantime continue the monitoring works to guarantee that no risks are emanating from those remnants, neither for the workers on site, nor for the surrounding population.

## 7.2 FRANCE

Umicore's predecessor companies operated mines in France since the mid-1800s. The last remaining mining activities were terminated in the late 1960s to early 1970s, and extensive rehabilitation works were carried out at the former mining sites, all located in the south of France, during the 1990s. All former mining concessions in France have been returned to the French government, the last being confirmed by ministerial decree in 2005.

Mining activity in Saint-Félix-de-Pallières began in the 19th century to exploit a subsoil rich in zinc and zinc-derived metals. The former mining concession was closed in 1971 and was secured in full compliance with the applicable legislation. The concession was waived in 2004 after the French authorities acknowledged that all the measures prescribed had been complied with. Despite ending its mining activity, Umicore has never left the area and regularly monitors the state of a landfill containing flotation residues and which is still Umicore's property. To guarantee safe and stable conditions of the landfill on a long-term basis, Umicore has started extensive refurbishment works in 2020, be it with a serious delay due to the corona pandemic. In recent years, more attention has been focused by certain stakeholder groups on the potential health effects linked to the former mining activities. Despite having complied with all the requirements of the administration at the time of the termination of the mining activities, Umicore received in 2018 official injunctions to tackle 3 other areas at Saint-Félix, which are not under the ownership of Umicore. Although Umicore appealed against the notices, at the end of November 2019 it presented a feasibility study to address the 3 areas, as requested. At the end of 2020, the Administrative Tribunal in Nîmes annulled all the injunctions on the basis that Umicore complied with all the legal requirements at the time of the transfer of the mining concessions. The tribunal added that all responsibilities are now with the State..

In Viviez, the pollution in and around the site is the result of historical production activities related to zinc production started in 1855. Umicore invested € 40 million in completing a large-scale remediation program from 2011 to the end of 2016 and has transferred the post-remedial obligations to a third party. Although soil contamination results from various sources, Umicore, together with other partners, joined a voluntary program in 2017 to address the soil contamination identified in the private gardens around the Viviez site. Data collection was performed in 2017 and 2018 and appropriate measures have been defined by a dedicated expert panel, put in place by the competent authorities. Umicore is currently preparing the works that will be executed in 2021.

### 7.3 USA

In 1980, Umicore's predecessor company acquired an abandoned silver-gold mine at Platoro in the Rocky Mountains in Colorado. Subsequent exploration drillings were unsuccessful and any attempts to further exploit the mine were stopped.

Remedial work started in the 1990s, consisting of capping and landscaping waste rock piles and installing a water treatment plant to capture and treat the acid mine drainage that continuously flows out of the mine. The mining site is in a nature recreation area. Umicore continues to manage the site and treat drainage water to meet the stringent environmental requirements. Umicore built a new modern waste water treatment facility in 2018 to further decrease the metal concentration in the discharge and decrease the volume of solid waste produced. Umicore/Union Gold received in 2019 a proposal for a new effluent permit, including very stringent limits for arsenic, to be attained in 2024. Union Gold took immediate action to contest the proposal arguing that reaching such limits is not technically feasible. The competent authorities accepted the arguments and recommended to apply for a less stringent permit modification. At the same time, Union Gold tested extra polishing steps in the waste water treatment plant in preparation to the application of a permit variance by 2023.

From 1980 to 2010, Umicore operated a cobalt-producing facility in Maxton, North Carolina. After the closing and the demolition of the Maxton plant, soil and groundwater contamination was identified. Umicore entered a voluntary remediation program with the authorities to fully address the issue by 2033. A comprehensive groundwater remediation through pump and treat has been put in place and is showing its effectiveness to reach the forecasted end date.

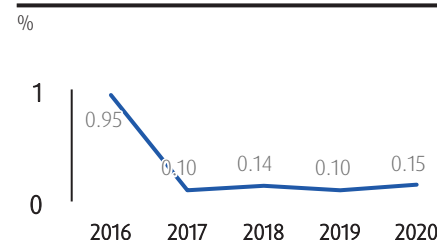
### 7.4 BRAZIL

Umicore acquired industrial units in the cities of Americana (SP), Guarulhos (SP) and Manaus (AM) in Brazil in 2003. During an environmental assessment that was performed following the acquisition, groundwater pollution was detected at the Guarulhos site. This historical pollution dates from before Umicore's purchase of the operations. Umicore took immediate measures to stop the spreading of this contamination to the neighboring areas by installing a hydraulic barrier that has been in full operation since 2011. Targeted extraction systems were put in place on site to speed up the remediation. The closure of the industrial activities from the Guarulhos site to Americana and the partial demolition of the buildings in 2021, will allow to tackle the core of the contamination even better. Due to the corona pandemic, the move to Americana was delayed, which in turn also delayed the demolition of the building in Guarulhos and the speed up of the groundwater remediation.

## E8 REGULATORY COMPLIANCE AND MANAGEMENT SYSTEM

### 8.1 GROUP DATA

#### COMPLIANCE EXCESS RATE



The compliance excess rate is the ratio between the total number of excess results and the total number of compliance measurements. An excess result is a monitoring result that violates a limit value defined in a permit, regulation or other relevant regulatory standard.

The total number of measurements is the total number of environmental impact measurements as required by the operational permit, environmental permit, or comparable standard in the region where the reporting entity is operating. The total number means the number of measurement events multiplied by the number of parameters per measurement event.

In 2020, some 54,000 environmental measurements were carried out at all of Umicore's industrial sites, compared to some 49,000 the year before.

The number of measurements that did not meet the regulatory or permit requirements is very low at 0.15% for the Group, compared to 0.13% in 2019.

Of the 55 consolidated industrial sites, 53 have put in place an environmental management system certified against ISO 14001. One of the remaining 2 sites is an acquisition that joined Umicore reporting in 2018, and the sites is planning the implementation of an environmental management system during 2021. The other site was closed down during the course of 2020 and did not undergo recertification during the last months before shutdown. All major sites with significant environmental impacts are certified against the ISO 14001 management system.

In total, 80 environmental complaints were received in 2020, the large majority of which was related to noise and odor. 44 of the complaints are ongoing.

# Social statements

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# SOCIAL KEY FIGURES

	unit	Notes	2016	2017	2018	2019	2020
Workforce (fully consolidated companies)	N°	S2	9,921	9,769	10,420	11,152	10,859
Temporary contracts	% of workforce	S2	3.45	3.86	3.13	3.31	3.19
Women amongst all employees	% of workforce	S2	21.6	21.92	21.30	20.88	21.68
Women amongst all managers	% of workforce	S2	22.11	22.37	22.98	23.13	23.06
Women amongst senior management	% of workforce	S2	9.09	6.77	9.70	10.96	10.74
Women in 'business operations' management functions	%	S2	14.27	15.55	15.08	14.90	14.43
Non-European representation in senior management functions	%	S2	16.67	18.05	17.91	18.49	20.13
Average training hours per employee	hours/employee	S3	41.49	45.33	43.10	48.73	36.33
Employees having a yearly appraisal	% of workforce	S3	96.03	98.29	96.15	94.00	93.42
Voluntary leavers - ratio	% of workforce	S3	4.10	5.03	7.18	5.99	4.20
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	S4	69.41	65.41	64.49	65.60	66.38
Exposure ratio 'all biomarkers aggregated' <sup>1</sup>	%	S7	3.2	2.7	2.8	1.8	1.6
Number of occupational linked diseases	N°	S7	12	11	12	18	6
People with platinum sensitisation	N°	S7	1	1	3	1	1
Fatal accidents	N°	S8	1	0	1	0	1
Lost Time Accidents (LTA)	N°	S8	59	51	61	90	49
Lost Time Accidents (LTA) for sub-contractors	N°	S8	15	22	21	25	17
LTA frequency rate	LTA/million hours worked	S8	3.3	3.0	3.4	4.6	2.5
LTA severity rate	lost days/thousand hours worked	S8	0.6	0.1	0.1	0.2	0.5

<sup>1</sup> Ratio between the number of monitoring results exceeding the Umicore target value, defined for relevant hazardous substances, and the total number of monitoring results.

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## S1 SCOPE OF SOCIAL STATEMENTS

In total, 86 consolidated sites are included in the HR related notes of the social reporting (S2 to S5). This is a decrease of 4 sites from 2019 and attributed to 4 site closures: Beijing (TFP), Wickliffe, Bagnolet which relocated to active site Paris and Brentwood which relocated to active site Hertford. The sites report full year data for the social indicators. The indicators presented are based on data from fully consolidated companies.



## S2 WORKFORCE

### GROUP DATA

	unit	2016	2017	2018	2019	2020
Workforce (fully consolidated companies)	N°	9,921	9,769	10,420	11,152	10,859
Workforce from associated companies	N°	3,196	3,360	3,180	2,976	2,460
Employees men	N°	7,778	7,628	8,201	8,823	8,505
Employees women	N°	2,143	2,141	2,219	2,329	2,354
Full-time equivalent	N°	9,716	9,574	10,224	10,956	10,576
Employees < 30 years	N°	1,620	1,697	1,980	2,141	1,893
Employees between 30 and 50 years	N°	5,605	5,504	5,939	6,363	6,339
Employees > 50 years	N°	2,696	2,568	2,501	2,648	2,627
Temporary contracts	% of workforce	3.45	3.86	3.13	3.31	3.19
Women amongst all employees	% of workforce	21.60	21.92	21.30	20.88	21.68
Women amongst all managers	% of workforce	22.11	22.37	22.98	23.13	23.06
Women amongst senior management	% of workforce	9.09	6.77	9.70	10.96	10.74
Women in 'business operations' management functions	%	14.27	15.55	15.08	14.90	14.43
Non-European representation in senior management functions	%	16.67	18.05	17.91	18.49	20.13

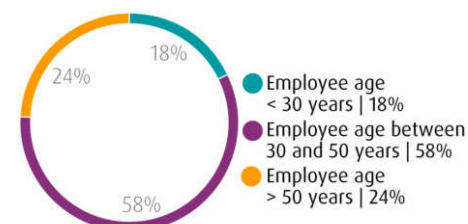
**Workforce:** Number of employees on Umicore payroll at the end of the period in fully consolidated companies. The number includes part-time and temporary employees but excludes employees with a dormant contract, employees on long-term illness and sub-contracted employees.

**Temporary contract:** Umicore employees with a temporary contract, included in the workforce of fully consolidated companies.

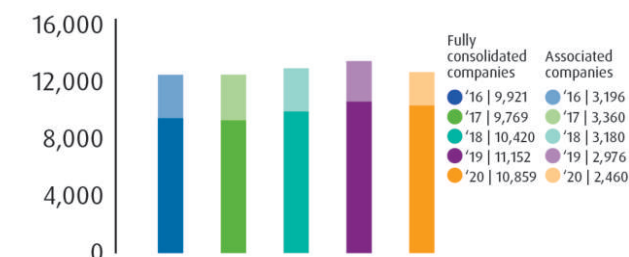
**Full time equivalent:** The FTE of a worker is calculated by dividing the actual working regime, hours, shifts by the regime, hours, shifts of a full-time worker at the end of the period in fully consolidated companies.

This applies to all hourly paid, monthly paid, managers and interns on Umicore's payroll at the end of the reported semester including part-time and temporary employees but excludes employees with a dormant contract (career interruption, parental leave, etc.), employees on long-term illness (country specific length of continuous absence) and early retirees.

### WORKFORCE AGE SPLIT



### TOTAL WORKFORCE



### TOTAL WORKFORCE

The total workforce decreased by 809 employees to a total of 13,319. For the fully consolidated companies, the workforce decreased by 293 people to 10,859, mainly due to a decrease in the Asia-Pacific and North American regions.

Amongst the associated companies there was a decrease of 516 employees, mainly due to the reductions in personnel at sites in Germany, Ireland, South Africa and United Kingdom in Element Six.

The FTE of 10,576 (consolidated) comes very close to the reported headcount of 10,859, illustrating that most of Umicore employees are working on a full-time basis.

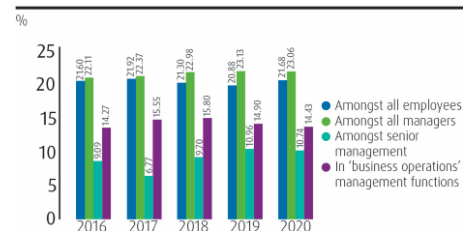
## TEMPORARY CONTRACTS

Temporary contracts as a percentage of the workforce of fully consolidated companies decreased slightly to 3.19% in 2020.

## GENDER SPLIT

The percentage of women was 21.68% as a proportion of the workforce of fully consolidated companies. It has increased slightly from 2019.

WOMEN AT UMICORE



## GENDER SPLIT – SENIOR MANAGERS

While the total percentage of women employees has remained rather stable compared to 2016, the percentage of women managers has shown an increase from 22.11% in 2016 to 23.06% in 2020. The percentage of women in senior management dropped slightly from 2019. Overall, in the last five years the percentage increased from 9.09% in 2016 to 10.74% in 2020. While we did not achieve the ambition to reach 15% of women in senior management functions by end of 2020, increasing the number of women in senior management remains a target for the next coming years.

## WOMEN IN “BUSINESS OPERATIONS” MANAGEMENT FUNCTIONS

To monitor career development, we have defined the notion of “business operations” management functions, referring to those in the fields of operations, sales and general management. These are functions that present a pipeline of talent to senior management. Within the senior management group, the business operation functions represent 52% of the group in 2020.

We have monitored the share of women managers in “business operations” functions since 2016. In 2020, the share of women within this management group employed in business operations functions decreased slightly to 14.43% compared to 14.9% in 2019. Overall, compared to 14.27% in 2016 it has slightly increased.

## NON-EUROPEAN REPRESENTATION IN SENIOR MANAGEMENT FUNCTIONS

Since 2016 we have also monitored the share of non-European representation in senior management functions, as an indicator for diversity. In 2020, this share increased to 20.13%, from 2019 at 18.49%. Over the last five years, the percentage has shown a steady increase from 16.67% in 2016 to 20.13% in 2020.

## REGIONAL DATA

	unit	Europe	North America	South America	Asia-Pacific	Africa	Umicore Group
Total workforce	N°	6,980	704	964	4,049	622	13,319
Workforce (fully consolidated companies)	N°	6,102	692	607	3,223	235	10,859
Workforce from associated companies	N°	878	12	357	826	387	2,460
Employees men	N°	4,808	529	454	2,567	147	8,505
Employees women	N°	1,294	163	153	656	88	2,354
Full-time equivalent	N°	5,828.05	686.33	607.00	3,219.50	235.00	10,576
Temporary contracts	% of workforce	3.98	2.46	2.14	2.26	0.00	3.19

## BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Corporate	Umicore Group
Total workforce	N°	3,073	4,488	2,769	2,989	13,319
Workforce (fully consolidated companies)	N°	3,073	3,761	2,769	1,256	10,859
Workforce from associated companies	N°		727		1,733	2,460
Employees men	N°	2,428	3,002	2,321	754	8,505
Employees women	N°	645	759	448	502	2,354
Full-time equivalent	N°	3,042.44	3,758.97	2,707.67	1,066.80	10,576
Temporary contracts	% of workforce	5.79	2.29	2.06	1.99	3.19

## GENERAL OVERVIEW OF SITES AND EMPLOYEES

	Production sites	R&D   Technical centres	Other sites	Employees
<b>Europe</b>				
Austria	1	-	-	142
Belgium	3	1	1	3,196
Denmark	1	1	-	115
Finland	1	1	-	266
France	3	-	1	257
Germany	4 (1)	3	1	1692 (331)
Ireland	(1)	-	-	(405)
Italy	-	-	2	38
Liechtenstein	1	1	-	77
Luxemburg	-	-	1	10
Netherlands	-	-	1	8
Poland	2	-	1	201
Portugal	-	-	1	6
Russia	-	-	1	6
Spain	-	-	1	5
Sweden	1	-	(1)	39 (1)
United Kingdom	1	(1)	2 (1)	44 (141)
<b>ASIA-PACIFIC</b>				
Australia	-	-	1	7
China	4 (3)	1	5 (1)	1499 (813)
India	1	-	2	88
Japan	2	3	2 (1)	181 (9)
Philippines	1	-	-	89
South Korea	3	2	1	1,170
Taiwan	-	-	2	26
Thailand	2	-	1	163
United Arab Emirates	-	-	(1)	(4)
<b>NORTH AMERICA</b>				
Canada	3	-	-	253
Mexico	-	-	1	1
United States	7	1	3 (1)	438 (12)
<b>SOUTH AMERICA</b>				
Argentina	1	-	-	67
Brazil	4	1	-	540
Peru	(1)	-	-	(357)
<b>AFRICA</b>				
South Africa	1 (1)	-	1	235 (387)
<b>TOTAL</b>	<b>47 (7)</b>	<b>15 (1)</b>	<b>32 (6)</b>	<b>10,859 (2,460)</b>

Figures in brackets denotes "of which associates and joint venture companies". Where a site has both production facilities and offices (e.g. Hanau, Germany), it is classified as a production site only. Some of our production sites and R&D/technical centers are located on the same site but are counted separately.

## S3 PEOPLE ENGAGEMENT

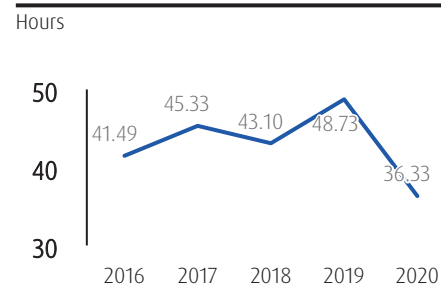
## GROUP DATA

	unit	2016	2017	2018	2019	2020
Employees having a yearly appraisal	% of workforce	96.03	98.39	96.15	94.00	93.42
Average number of training hours per employee	hours/employee	41.49	45.33	43.10	48.73	36.33
Average number of training hours per employee – Men	hours/employee	42.38	46.53	44.68	48.26	37.11
Average number of training hours per employee – Women	hours/employee	38.28	41.01	37.29	50.48	33.49
Average number of training hours per employee – Managers	hours/employee	41.03	38.54	37.59	43.01	26.98
Average number of training hours per employee – Other employee categories	hours/employee	41.52	46.44	42.94	49.51	38.62
Voluntary leavers ratio	% of workforce	4.10	5.03	7.18	5.99	4.2
Voluntary leavers men	N°	309	404	619	521	372
Voluntary leavers women	N°	97	70	110	126	86

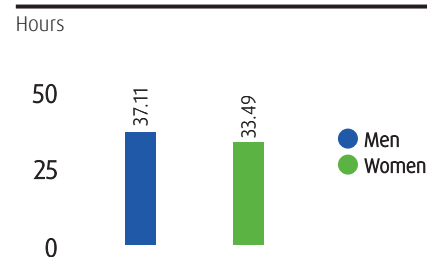
**Training hours:** Average number of training hours per employee, including all types of training (formal, training on the job, E-learning, etc.) in which the Company provides support, and which are relevant to the business unit or the Company. The total number of training hours is divided by the total workforce of fully consolidated companies.

**Voluntary leavers:** Number of employees leaving the Company of their own will (excluding retirement and the expiry of a fixed-term contract). This figure is related to the workforce from fully consolidated companies.

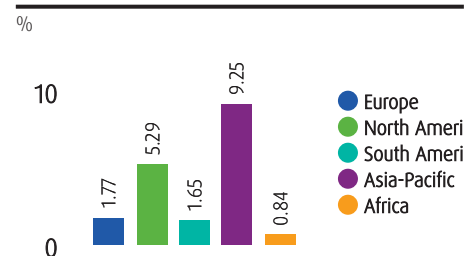
### AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE



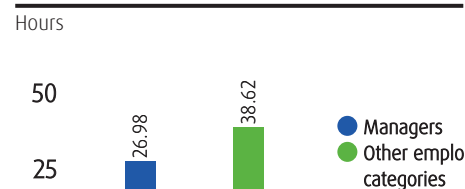
### AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE – GENDER SPLIT



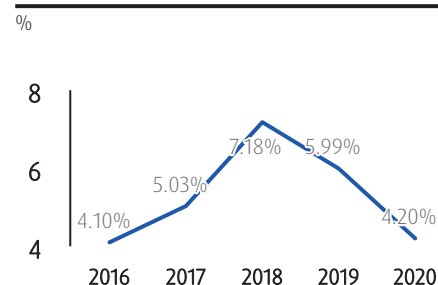
### VOLUNTARY LEAVERS RATIO, BY REGION



### AVERAGE NUMBER OF TRAINING HOURS PER EMPLOYEE CATEGORY



### VOLUNTARY LEAVERS RATIO



### REGIONAL DATA

	unit	Europe	North America	South America	Asia-Pacific	Africa	Umicore Group
Average number of training hours per employee	hours/employee	28.94	24.20	95.80	43.26	14.83	36.33
Employees having a yearly appraisal	% of workforce	91.71	94.42	100.00	94.80	98.74	93.42
Voluntary leavers ratio	% of workforce	1.77	5.29	1.65	9.25	0.84	4.20

### BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Corporate	Umicore Group
Average number of training hours per employee	hours/employee	32.73	40.11	38.45	28.32	36.33
Employees having a yearly appraisal	% of workforce	97.84	92.43	89.10	95.40	93.42
Voluntary leavers ratio	% of workforce	4.22	6.72	1.73	1.76	4.20

### TRAINING HOURS

In 2020, the average training hours per employee decreased to 36.33 hours from the previous year. Globally, training hours were primarily impacted by COVID-19. Where possible, trainings were organised differently: in smaller groups respecting social distancing and online trainings. A part of the trainings were postponed or cancelled. In all regions training hours dropped, except for region South America where it increased in Brazil. This was mainly due to a high number of “on the job” training hours for employees who were hired, changed jobs or took on additional responsibilities in some sites. The amount of “on the job” hours differentiated based on job role, complexity of processes and tasks. The training hours for “on the job learning” are not consistently captured or registered in all sites.

Data shows that managers training hours (26.98 hours) are lower than for other employees (38.62 hours).

### YEARLY APPRAISAL

In 2020, 93.42% of all employees from fully consolidated companies had an appraisal interview to discuss their development at least once a year.

## VOLUNTARY LEAVERS

In 2020 the voluntary leavers rate decreased to 4.20% from 5.99% in 2019. Although the rate dropped for all regions, still significant regional differences can be observed with Asia Pacific reporting the highest voluntary leaver rate (9.25%) and Africa (0.84%) the lowest. The high voluntary leaver rate in Asia Pacific is not unique to Umicore and can be explained by a highly competitive and fluid labor market.

## VOLUNTARY LEAVERS – GENDER

Of the 4.2% of voluntary leavers worldwide, 18.78% were women, down from 19.47% in 2019.

## S4 EMPLOYEE RELATIONS

### GROUP DATA

	unit	2016	2017	2018	2019	2020
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	69.41	65.41	64.49	65.60	66.38

### REGIONAL DATA

	unit	Europe	North America	South America	Asia-Pacific	Africa	Umicore Group
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	86.14	3.32	90.61	40.18	35.74	66.38

### BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Corporate	Umicore Group
Employees represented by union or Collective Labour Agreement (CLA)	% of workforce	48.29	61.18	87.69	79.22	66.38

## UNION AND COLLECTIVE LABOR AGREEMENT

In total, 66.38% of Umicore employees belong to a trade union organization and/or the level of their wages are negotiated through a collective bargaining agreement. On a regional basis, there are significant differences in union representation, with the highest representation in South America and Europe and the lowest in North America.

## SUSTAINABLE DEVELOPMENT AGREEMENT

In 2007, Umicore signed a Sustainable Development Agreement with the International union IndustriALL, which was renewed for 4 years in 2015 and in 2019. In this agreement, Umicore commits to a number of principles including: the banning of child labour and forced labour, recognizing the right to its employees to organize themselves and to participate in collective bargaining.

All sites are screened internally each year. This screening showed that none of Umicore's sites demonstrated a particular risk of infringement in any of the principles of the agreement.

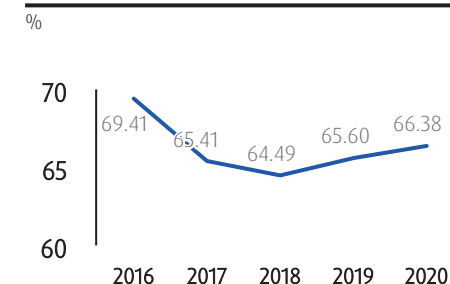
## S5 CODE OF CONDUCT

Umicore has a systematic Group-wide internal reporting on Code of Conduct issues since 2011. In 2020 a total of 35 cases were reported, involving a total of 45 employees. The type of action taken varies from a warning letter to dismissal.

## S6 APPROACH TO HEALTH & SAFETY

The Group EHS Guidance Note (hereafter 'EHS Guidance Note') is Umicore's central EHS management system. It describes the groupwide environmental, health and safety requirements and expectations. It is based upon 'The Umicore Way' and provides a framework for the business units and sites to putting it into effect. The structure of the guidance note is consistent with the ISO 14001 and OHSAS 18001 management systems and explicitly references those frameworks. The EHS Guidance Note is a basis for the Corporate EHS audit program which focuses both on compliance with the guidance note and compliance with relevant local environmental, health and safety laws and regulations. The business units (BUs) and sites develop a clear action plan on the identified areas for improvement and Corporate EHS follows-up on this action plan to ensure proper progress and timely completion.

## EMPLOYEES REPRESENTED BY UNION OR COLLECTIVE LABOUR AGREEMENT (CLA)



As stipulated in the EHS Guidance Note, and in line with Umicore's decentralized organization:

- Umicore's BUs and sites are responsible for **translating the EHS Guidance Note into their own EHS management systems and procedures while respecting the requirements and expectations defined in the EHS Guidance Note.**
- Umicore's BUs and sites are responsible for identifying risks and impacts of their activities, in normal operational conditions and potential emergencies. These assessments include potential for occupationally-linked health symptoms and diseases, hazards, injuries due to accidents, and toxicity or ecotoxicity of chemical substances. Each site must have a process in place to evaluate and document those aspects and impacts of their operations which are linked to both the workplace and the environment, including the operations of contractors working on Umicore sites.
- Umicore Corporate EHS staff, in consultation with the BUs and sites, advise on company-specific EHS standards including biological target values, safety and occupational exposure targets.
- Each BU and site develops a safety policy in line with the Group Safety Policy. The health and safety management system must ensure that employees, contractors and visitors are protected against harmful effects of working with chemicals, processes or machinery. The system includes: workplace assessments of potential hazards; operating procedures for employees and contractors; training programs on the hazards of chemicals, processes, and on prevention and safety; hazard communication for employees and contractors related to exposure potentials, control systems, emergency situations and specific health risks ; the need for personal protective equipment; ergonomics; storage, loading and unloading of hazardous products; machine-guarding programs to protect workers from exposure to moving parts; electrical safety; work permits and a lock out – tag out programs to protect employees or contractors working around equipment during repair or maintenance activities; etc.
- Umicore has a risk competency practice in place at the sites designed to empower workers to evaluate the hazards and risk at the workplace and feedback to their supervisor. Workers, in coordination with the supervisor, can suggest risk management options which can include stopping a job, having it re-evaluated and adding new measures prior to resuming the job if necessary.
- All sites must have a written occupational hygiene and occupational health programs. Sites are encouraged to implement specific preventative programs, for example around smoking cessation or avoiding workplace risks resulting from use of drugs and alcohol, and must provide access to occupational health services via a licensed occupational physician or another occupational health organization.
- All new employees follow a Group health and safety induction training during the initial phase of their employment. Specific training plans are developed for new and temporary employees (including managers and contractor employees).
- Each accident, incident and significant near miss must be investigated and control measures taken to prevent reoccurrence. Additionally, the investigation needs to include where and why the EHS management system failed and to record recommended appropriate measures. Contractors are

required to investigate accidents and incidents on Umicore premises, where not addressed by the Umicore site. The Group Safety Policy includes an incident investigation in a 'no-blame atmosphere'.

Umicore has also committed to worker health and safety in the context of the IndustriALL Global Framework Agreement. To view Umicore's IndustriALL Global Framework Agreement, visit:

 [umicore.com/industriALL](https://umicore.com/industriALL)

## S7 OCCUPATIONAL HEALTH

All consolidated industrial sites where Umicore has operational control, are included in the scope of the occupational health reporting. In 2020, following Umicore's internal reporting procedure 56 sites were required to report their occupational health data.

The information in this note only relates to Umicore employees. Data on subcontractors' occupational health are not included. Additional information on Umicore's approach to occupational health can be found in the corresponding section of [Management Approach\(p. 72\)](#) and in above note S6.

## GROUP DATA

	unit	2016	2017	2018	2019	2020
Exposure ratio 'all biomarkers aggregated' <sup>1</sup>	%	3.2	2.7	2.8	1.8	1.6
Exposure ratio lead (blood) <sup>2</sup>	%	0.5	0.5	2.0	0.9	0.6
Exposure ratio arsenic (urine) 2	%	2.0	1.0	1.2	0.8	0.8
Exposure ratio cobalt (urine) 2	%	9.0	6.0	5.0	3.4	2.7
Exposure ratio cadmium (urine) 2	%	1.4	0.7	0.5	0.2	0.2
Exposure ratio nickel (urine) 2	%	2.0	1.4	2.6	1.8	2.0
Exposure ratio indium (blood) 2	%	11.3	14.2	2.8	1.9	1.6
People with platinum salts sensitisation	N°	1	1	3	1	1
People with noise induced hearing loss	N°	4	0	0	5	3
People with contact dermatitis	N°	0	2	3	4	0
People with occupational asthma other than Pt-salts	N°	0	0	0	0	1
People with musculo-skeletal ailments	N°	7	8	6	8	1

1 Ratio between the number of monitoring results exceeding the Umicore target value, defined for relevant hazardous substances, and the total number of monitoring results.

2 The exposure ratio of a specific metal is defined as the ratio between the number of employees with a biological monitoring result exceeding the Umicore target value for that specific metal and the total number of employees exposed to that metal. The Umicore target values are based upon recent peer reviewed scientific data and regularly re-evaluated in the context of new evidence.

By 2020, it was Umicore's objective to have no exceedance for the biomarkers of exposure for the metals listed below. The following target values have been defined:

- **Cadmium:** 2 micrograms per gram of creatinine in urine
- **Lead:** 30 micrograms per 100 ml of blood
- **Cobalt:** 15 micrograms per gram of creatinine
- **Indium:** 1 microgram per liter of plasma
- **Arsenic and nickel:** 30 micrograms per gram of creatinine in urine
- **Platinum salts:** no new cases of platinum salt sensitization

The number of occupational diseases is the number of employees with a newly diagnosed occupational disease or occupationally linked symptoms during the reporting year.

While the COVID-19 pandemic has delayed some biological monitoring campaigns in the 1<sup>st</sup> half year, by the end of 2020, all employees were submitted to a full program as required by Umicore's internal health guidance notes.

In 2020, a total of 7406 biological sampling procedures took place from employees with an occupational exposure to at least one of the metals mentioned above (platinum salts excluded). 122 readings showed a result in excess of the internal target value. This brings the total excess rate to 1.6%, comparable to the 1.8% excess rate of 2019. All occupationally exposed employees are regularly monitored by an occupational health physician in line with regulatory requirements and Umicore occupational health guidance.

## LEAD

Occupational lead exposure represents a potential health risk, mainly in the business group Recycling. In total, 8 of the 1,385 occupationally exposed employees exceeded the target value of 30µg/100ml, decreasing as such the excess rate for lead exposure to 0.6% compared to 0.9% in 2019.

The decrease in excess readings is the result of continued improved workplace hygiene measures at the lead refinery at the Hoboken site (Belgium, Recycling). The site improved its ventilation systems, while instructions and training resulted in better compliance with personal protective equipment requirements.

## ARSENIC

Occupational exposure to arsenic is possible in the business groups Energy & Surface Technologies and Recycling. In total, 8 employees or 0.8% of the 967 occupationally exposed workers had an excess reading during 2020, the same excess rate as in 2019.

All workers occupationally exposed to arsenic are submitted to a medical surveillance program to closely monitor their health condition.

## COBALT

In total, 2,034 employees are occupationally exposed to cobalt, mainly in the business group Energy & Surface Technologies. The number of employees exceeding the target value was further reduced to 55, resulting in an excess rate of 2.7%, down from 3.4% in 2019.

In the business unit Rechargeable Battery Materials we noticed an excess rate of 1.2% in 2020, the same number as in 2019.

The excess readings in the business unit Cobalt & Specialty Materials decreased from 11.1% in 2019 to 10.5% in 2020.

The sites in Cheonan (Korea, Rechargeable Battery Materials) and Jiangmen (China, Rechargeable Battery Materials) continued and maintained their comprehensive 'zero dust' management plan. In the last quarter of 2020, the site in Cheonan achieved a zero-excess rate during the biological monitoring campaign. This 'zero dust' program focuses on equipment improvements and workers' behavior. Concrete actions include awareness programs, regular industrial hygiene campaigns, excellent housekeeping and improved maintenance of critical equipment.

The business unit Cobalt & Specialty Materials continues to further develop their dust reduction program with focus on technical improvements, encapsulation of equipment, enhanced ventilation systems and strict application of personal protective equipment procedures including respiratory mask fit testing for each exposed employee. While over the past years progress has been made, the sites in Olen (Belgium, Energy & Surface Technologies), Fort Saskatchewan (Canada, Energy & Surface Technologies) and Grenoble (France, Energy & Surface Technologies) continue to report the highest excess rates.

For workers exposed to cobalt, both business units Cobalt & Specialty Materials and Rechargeable Battery Materials have implemented Umicore's occupational health guidance for cobalt, including biological monitoring and medical surveillance. For the site in Jiangmen (China, Energy & Surface Technologies), the medical staff of the new occupational health center has been set up and implemented a cobalt health and hygiene program in line with Umicore's internal guidelines and compliant with Chinese regulatory requirements.

## CADMIUM

Occupational exposure to cadmium represents a potential health risk in the business groups Energy & Surface Technologies and Recycling. Cadmium in urine is an excellent biomarker for lifetime exposure. In 2020, a total of 449 employees had an occupational exposure to cadmium.

Only 1 employee recorded a cadmium in urine reading in excess of the target value. This resulted in an excess rate of 0.2%, the same as in 2019.

## NICKEL

The business groups Energy & Surface Technologies and Recycling have occupational exposure to nickel. In 2020, a total of 2,380 employees were exposed to nickel. In 2020, 47 of the exposed workers exceeded the target level resulting in an excess level of 2.0% compared to 1.8% in 2019.

In the business unit Rechargeable Battery Materials, we noticed an increase in excess readings from 0.9 in 2019 to 2.4% in 2020, mainly related to an increased exposure at the site in Jiangmen (China, Energy &

Surface Technologies). Increased production volumes and a reduced compliance with the site's personal protective equipment policy contributed to the increased number of excess readings. The site intensifies its training programs for newcomers and continues to invest in technical improvements.

The excess readings in the business unit Cobalt & Specialty Materials significantly decreased from 12.2% in 2019 down to 5.5 % in 2020. While the closure of the site in Wickliffe (USA, Energy & Surface Technologies) significantly contributed to this reduction, the dust management programs at the sites in Subic (Philippines, Energy & Surface Technologies) further strengthened this trend.

For workers exposed to nickel, both business units Cobalt & Specialty Materials and Rechargeable Battery Materials have implemented Umicore's occupational health guidance for nickel, including biological monitoring and medical surveillance. For the site in Jiangmen (China, Energy & Surface Technologies), the medical staff of the new occupational health center has been set up and implemented a nickel health and hygiene program in line with Umicore's internal guidelines and compliant with Chinese regulatory requirements.

## INDIUM

The business group Energy & Surface Technologies has exposure to indium. Indium in plasma is an excellent biomarker for lifetime exposure.

In 2020, 191 employees were exposed to indium. 3 employees had an excess reading for indium in plasma, at the site in Balzers (Liechtenstein, Energy & Surface Technologies) resulting in an excess rate of 1.6% compared to 1.9% in 2019. All these workers had a current or former exposure at the bonding workplace. The working conditions at this workplace have been improved and an extensive medical surveillance program, in line with Umicore occupational health guidelines, has been implemented.

## PLATINUM SALTS

The business groups Catalysis and Recycling have workplaces with exposure to platinum salts.

In 2020, we had 1 newly diagnosed employee with a platinum salt sensitization at the site in Hoboken (Belgium, Recycling). The worker has been removed from the workplace. All workers exposed to platinum salts are being monitored through an occupational health program, following a Umicore health guideline and are being regularly checked for platinum salt sensitization.

## OTHER OCCUPATIONAL RELATED DISEASES

In 2020, 1 employee developed a musculoskeletal disorder due to his occupation. 3 employees developed a noise-induced hearing loss. All people concerned are being followed-up by an occupational health physician.



Over the past years, Umicore has been confronted with several burn-out cases that led to long-term sickness with impact on both the individual and the organization. The Umicore sites in Belgium continue their program consisting of primary prevention of burn-out combined with early recognition of symptoms and case management support. Concrete actions included awareness campaigns via leaflets, e-learning, workshops, training for supervisors and managers and individual coaching in case of burn-out symptoms. Similar programs have been implemented at Umicore sites in other countries such as Germany.

During the lock-down periods following the pandemic, many office employees had to work from their home office for longer periods. Many sites took measures to ensure the wellbeing of their employees. These measures included regular virtual contacts among team members, leaflets on the company's intranet with tips and tricks to organize your home-working, online social events etc.

## S8 OCCUPATIONAL SAFETY

In 2020, 92 consolidated sites, of which 58 are industrial sites, are included in the safety reporting. This number also includes commercial offices.

Additional information on Umicore's approach to safety can be retrieved in the corresponding section of [Management Approach](#) (p. 72) and in above note S6.

The Umicore information in this note only relates to Umicore employees. Data on subcontractors' occupational safety are being reported separately. Umicore strives towards an accident-free workplace.

## GROUP DATA

	unit	2016	2017	2018	2019	2020
Fatal accidents	N°	1	0	0	0	1
Fatal accidents sub-contractors	N°	0	0	1	0	0
Lost Time Accidents (LTA)	N°	59	51	61	90	49
Lost Time Accidents (LTA) sub-contractors	N°	15	22	21	25	17
LTA frequency rate		3.34	3.01	3.36	4.6	2.5
Calendar days lost	N°	9,848	1,590	1,830	3,893	9,176
LTA severity rate		0.56	0.09	0.10	0.2	0.5
Recordable Injuries (RI)	N°	127	138	158	158	119
Recordable Injuries frequency rate		6.78	8.15	8.70	8.07	6.13
Ratio N° of sites with no LTA / total N° of sites reporting	%	84	84	84	83	83
Sites OHSAS 18001 / ISO 45001 certified	%	41.7	51.0	51.9	52.6	54.4

**Umicore employee:** a person belonging to Umicore's total workforce. A Umicore employee can be a full-time, part-time or temporary employee

**Sub-contractor:** a person not belonging to Umicore's total workforce, providing services to Umicore in one of its premises under terms specified in a contract

**Fatal accident:** a work-related accident with fatal outcome

**Lost time accident (LTA):** a work-related injury resulting in more than one shift being lost from work

**Recordable injury (RI):** a work-related injury resulting in more than one first aid treatment or in a modified working program but excluding lost time accidents

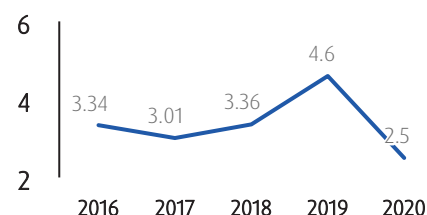
**Frequency rate:** number of lost time accidents per million hours worked

**Severity rate:** number of lost calendar days due to a lost time accident per thousand hours worked. Accidents to and from work are not part of the scope of the safety data

## SEVERITY RATE



## FREQUENCY RATE



## REGIONAL DATA

	unit	Europe	North America	South America	Asia-Pacific	Africa	Umicore Group
Lost Time Accidents (LTA)	N°	38	4	1	6	0	49

## BUSINESS GROUP DATA

	unit	Catalysis	Energy & Surface Technologies	Recycling	Corporate	Umicore Group
Fatal accidents	N°	0	1	0	0	1
Lost Time Accidents (LTA)	N°	7	8	34	0	49
Calendar days lost	N°	82	7,768	1,326	0	9,176

A sensitivity analysis of the safety numbers demonstrated that the lockdown periods did not change in a significant way the number of hours exposed, an indicator used to calculate both the Group's frequency and severity rates.

In 2020, 49 lost time accidents have been recorded, down from 90 in 2019. This resulted in a frequency rate of 2.52, down from 4.62 in 2019.

Any satisfaction we might have derived from the reduced number of lost time accidents is wiped out by the fatal accident at the site in Subic (Philippines, Energy & Surface Materials). An employee got seriously injured during the operation of a forklift truck. He was transferred to the hospital for emergency surgery but a week later succumbed to his injuries. Immediate actions were taken to prevent this type of forklift handling and a global safety alert has been sent to all business units with clear instructions and deadlines

for the implementation of a detailed improvement plan on powered forklift trucks, stationary machinery and equipment.

In total 9,176 calendar days were lost due to lost time accidents including the 7,500 default days lost following the fatal accident. This resulted in a severity rate of 0.47, more than a doubling compared to 2019.

There were 119 reported recordable injuries, down from 158 in 2019. The RI frequency rate for 2020 was 6.13 compared to 8.07 in 2019. 17 lost time accidents were registered for contractors compared to 25 in 2019.

During 2020, 83% of the reporting sites that were operational throughout the year operated without a lost time accident. 54.4% of the sites were certified using the occupational health and safety management system OHSAS 18001 or ISO 45001.

38 lost time accidents, or 77% of lost time accidents, occurred in Europe. Of these, 28 lost time accidents occurred at Belgian sites and 6 at German sites. The Asia-Pacific sites accounted for 6 accidents. 4 lost time accidents happened in North American sites and 1 in a South American site.

Umicore counted only 14 lost time accidents during the 1<sup>st</sup> half year (1<sup>st</sup> of January through the 30<sup>th</sup> of June). We believe that the COVID-19 pandemic may have led to an increased scrutiny of the workplace conditions by all employees to protect themselves and their fellow co-workers of getting infected at the workplace. In addition, a consistent and a more coaching communication style on the health and hygiene measures to be taken by the sites may also have contributed to an increased risk awareness.

In 2020, the business group Catalysis recorded 7 lost time accidents compared to 11 in 2019. Following a safety culture survey at the end of 2019 the business unit Automotive Catalysts has implemented additional safety behavioral actions including risk competency projects in several of its sites. All Automotive Catalysts production plants are required to be certified against the ISO 45001 or OHSAS 18001 management system. At year-end, the site Tsukuba (Japan) recorded more than 10 years without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site. The sites in Port Elizabeth (South-Africa), Himeji (Japan) and Rayong (Thailand), had operated over 5 years without lost time accident or recordable injury to Umicore staff and no lost time accident to contractors on site. The sites in Auburn Hills (USA), Karlskoga (Sweden), Shirwal (India) and Tokoname had operated more than 3 years without a lost time accident or recordable injury to Umicore staff and no lost time accident to contractors.

The business group Energy & Surface Technologies recorded 8 lost time accidents, down from 14 in 2019. The sites further deployed their safety actions around 3 main pillars: 'men', 'machines' and 'methods'. At

year end, the sites in Dundee (UK) and Tsukuba (Japan) have been recognized for their excellent and sustained safety performance, recording over 10 years without any lost time accident or recordable injury to Umicore staff and no lost time accident to contractors. Balzers (Liechtenstein) operated more than 5 years without any lost time accident or recordable injury to Umicore staff and no lost time accidents to contractors. The site in Manaus (Brazil), Hsinchu Hsien (Taiwan), La Vergne and Quapaw (USA) operated more than 3 years without any lost time accident or recordable injury to Umicore staff and no lost time accidents to contractors.

The business group Recycling had 34 lost time accidents compared to 62 in 2019. The site in Hoboken (Belgium, Recycling) reported 27 lost time accidents compared to 57 in 2019. The site has continued the implementation of its 'Safety @ Precious Metals Refining' action plan under the leadership of a senior management steering committee. During 2020, the site has among other measures intensified its safety observation tours by all managers and supervisors. At year end, the site in Markham (Canada) and the UMS site in Bangkok (Thailand) operated 3 years without any lost time accident or recordable injury to Umicore staff and no lost time accident to contractors.

There were no lost time accidents in general services and corporate offices, including Corporate Research & Development.

Umicore is reviewing its global safety strategy and actions under the leadership of a newly hired Group Safety Director.

## S9 PROCESS SAFETY

In 2020, the Umicore Group process safety activities focused on executing process risk assessment studies to ensure that all our processes are being operated in the acceptable risk zone. At year end, over 70% of the production processes had received specific process hazard and risk assessments compliant with Umicore standards, compared to 60% in 2019. A detailed timeline has been reviewed for completion of the remaining studies in the coming years, giving priority to the processes with high risk profiles.

Due to COVID-19 travel and meeting restrictions in 2020, an alternative audit program of remote process safety compliance audits and quality review of process risk assessments was established.

Umicore continued its process safety training program in 2020 with online HAZOP leader training sessions and hydrogen safety webinars.

Following a major fire incident at the Hoboken production site, a fire investment plan is established in collaboration with independent fire risk experts and the fire insurance company. The site intensified fire inspections and emergency response planning in close collaboration with the local authorities.