VIOHALCO

Creating sustainable growth

ANNUAL REPORT 2022



VIOHALCO



Viohalco S.A. ("Viohalco", "the Company" or "the Holding") prepares and discloses consolidated financial statements in the ESEF format in French and in English. The Company is listed on Euronext Brussels, where its official reporting language is French and on Athens Stock Exchange (Athex), where its official reporting language is English. Additionally, the Company makes available in pdf format its consolidated financial statements in French, English and Greek. The consolidated financial statements prepared in the ESEF format by the Company in French and English are both "official ESEF versions" of the annual consolidated financial statements that discharge the Company from the obligations included in the Transparency Directive. The consolidated financial statements made available in pdf format on the website of the Company, as well as consolidated financial statements prepared in ESEF format in another language than French or English are therefore considered as non-official versions and translations. The official ESEF versions prevail over all non-official and translated versions. The official ESEF versions of the annual consolidated financial statements of the Company are available on the Company's website.



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A. Viohalco

Sales across the globe



Commercial network in

21 countries

Products distributed in

103 countries

Viohalco S.A.

is listed on Euronext Brussels (VIO) and the Athens Stock Exchange (VIO).



Viohalco S.A. ('Viohalco') is the Belgium-based holding company of leading metal processing companies, which sustainably manufacture aluminium, copper, cables, steel and steel pipes products.

Viohalco companies supply high-quality, innovative products to a diverse range of markets, including building and construction, packaging (rigid, semi-rigid and flexible), transportation (automotive, shipbuilding and rail), energy and power networks (offshore energy, utilities and power grids, renewable energy, gas and liquid fuels), heating, ventilation, air conditioning and refrigeration ('HVAC&R'), water supply, telecommu- nications and printing, along with various industrial applications.

Viohalco's dedicated research, development and innovation ('R&D&I') and technology segment focuses on product innovation, industrial research, technological development, engineering applications and ERP application services, to ensure its companies maintain superior product and service quality.

Viohalco is also active in the real estate sector, predominantly in Greece, mainly through a leading Real Estate Investment Company ('REIC'). Companies in the real estate segment also provide a wide range of additional real estate, property and facility management services to Viohalco subsidiaries.

Production facilities across Greece, Bulgaria, the United Kingdom, Romania, North Macedonia and participations in production facilities in Turkey, Russia and the Netherlands are supported by a strong marketing and sales network. This comprises commercial subsidiaries, agents and distributors, which enable Viohalco companies to provide comprehensive customer support on a global scale.

Across all segments, Viohalco companies offer products and services that closely align with current global sustainability trends. This reflects their ability to meet the evolving needs and commitments of customers, and their commitment as responsible corporate citizens to operate in a sustainable manner.

Such trends include a growing commitment to a low carbon, circular economy, reflected in rising demand for easily recyclable products, with high recycled content; a clear transition from fossil-fuel consumption to climate neutrality, through the use of renewable energy sources; sustainable urbanisation reflected in the rise of energy-efficient buildings and e-mobility; and ongoing technological advancements.

A significant portion of Viohalco companies' products and solutions cater directly to these trends. These include recyclable aluminium packaging made from secondary raw materials, lightweight and energy- efficient aluminium products, copper products with high recycled content for use in energy efficiency and digital applications, circular construction steel products, cables to facilitate the deployment of renewable energy, steel pipes to support the energy transition, and the development of more environment-friendly buildings, among others.

ElvalHalcor S.A.

a subsidiary of Viohalco, is listed on the Athens Stock Exchange (ELHA).

Cenergy Holdings S.A.

a subsidiary of Viohalco, is listed on Euronext Brussels and the Athens Stock Exchange (CENER).

B. Message from the President of the Board of Directors

In 2022, Viohalco companies performed strongly, capitalising on healthy demand driven by global sustainability megatrends, despite continued macroeconomic challenges. More specifically, Viohalco generated consolidated revenue for the year of EUR 6,986 million, compared to EUR 5,375 million in 2021. Consolidated adjusted EBITDA (a-EBITDA) amounted to EUR 649 million, an increase from EUR 426 million in 2021, while consolidated profit before income tax reached EUR 375 million, compared to EUR 276 million in 2021. Consolidated net profit after income tax and minority interests amounted to EUR 266 million (2021: EUR 195 million).

The aluminium segment grew strongly, driven by excellent operational performance and growing efficiency. With enhanced production capacity, Elval and Symetal were able to fully leverage the strong demand for recyclable product solutions. Bridgnorth Aluminium grew its sales and profitability, while Etem Gestamp took further steps towards becoming a high-profile automotive partner. Looking ahead, the strength of the product portfolio and customer-centric approach will be a key strength as the aluminium segment's companies continue to capitalise on opportunities across their markets.

Strong demand in the first half of the year drove profitability of the copper segment. Rising inflation and interest rates caused uncertainty during the second half mainly impacting copper tubes and copper alloy extruded products. However, conditions remained more positive for copper and alloy rolled and copper extruded products which drove overall growth for the segment. The outlook remains positive due to the proactive shift to value-added products and initiatives implemented to deliver product and capacity optimization.

New contract wins and volume growth, underpinned by production efficiencies and smooth execution of complex projects, enabled the cables segment to maintain its positive momentum. 2022 saw the delivery of a number of important projects. Hellenic Cables continued to tender throughout the year and was awarded several new contracts, helping to further strengthen the company's position in existing markets, as well as to facilitate expansion into new markets. With the continued electrification in Europe, increasing investment in grid connections and secured projects, the outlook for the cables segment remains positive.

The steel pipes segment recorded a strong performance as the recovery of the gas fuel transportation market led to a re-start of previously postponed projects. Tender activity subsequently increased and Corinth Pipeworks was awarded new projects and built a strong order backlog, making the company well positioned to thrive in 2023.

The steel segment maintained its leading market position in the construction sector in its key markets. Despite the decline in steel prices during the second half, performance remained positive, driven by investments in process efficiency and product quality, an increase in volumes and expansion into new markets. In 2023, steel segment companies will focus on enhancing their competitiveness and efficiency, whilst cementing their ability to adapt to further changes in their environment.

The continued recovery of commercial real estate is reflected in the revenue growth of the real estate segment, which leveraged growing demand for high quality, sustainable buildings. Noval Property acquired 21 new assets in 2022, many of which will be redeveloped into modern, sustainable assets. This follows on from the launch of the company's first Green Bond in 2021 and is in line with the strategy to pursue environmentally accredited investments and sustainable property developments.

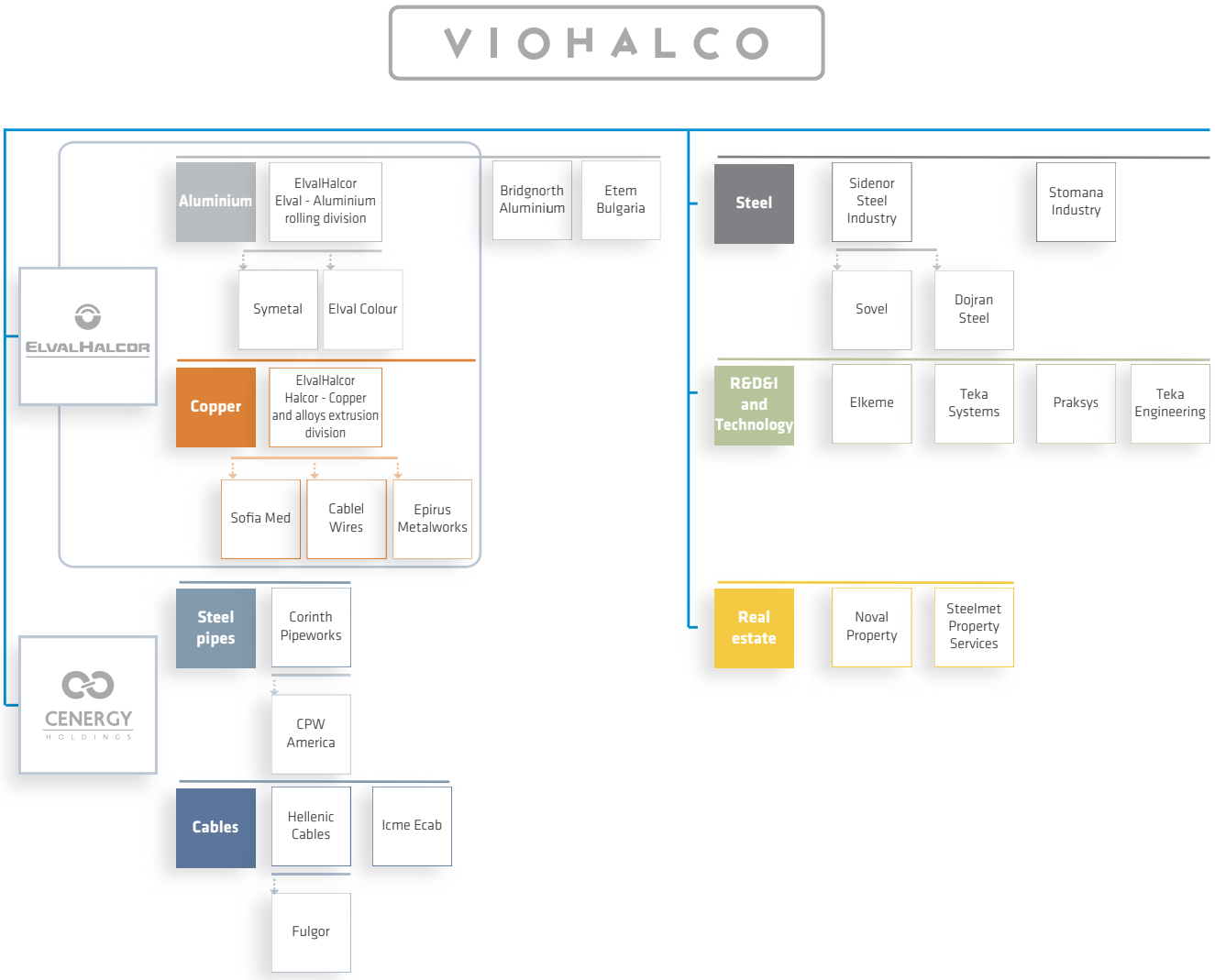
Following last year's launch of a comprehensive roadmap to address all environmental, social and governance risks and opportunities in a systematic and thorough manner, Viohalco companies completed all planned initiatives for 2022, making significant progress on all fronts.

As we move into 2023, the market environment is likely to remain volatile due to persistent geopolitical tensions, high interest rates, and economic uncertainty. Against this backdrop, our focus remains on the successful delivery of our strategic objectives, leveraging our investment programme in state-of-the-art machinery and the expertise and dedication of our people. our diversified business model and product portfolio remain well positioned to benefit from global sustainability megatrends, such as growing consumer demand in high recycled content packaging solutions, along with energy transition and electrification towards a climate neutral future. With these factors in mind, we are optimistic about the outlook for Viohalco companies.

Nikolaos Stassinopoulos
President of the Board of Directors

C. Business segments

Viohalco operates under the following organizational structure which comprises seven business segments.



Aluminium

The aluminium segment operates through its aluminium rolling division ('Elval') and the subsidiaries Symetal S.A. ('Symetal'), Elval Colour S.A. ('Elval Colour'), Vepal S.A. ('Vepal'), Bridgnorth Aluminium Ltd ('Bridgnorth Aluminium'), Etem Bulgaria S.A. ('Etem Bulgaria') and Etem S.A. ('Etem').

The segment focuses on advanced metallurgy, rolling and extrusion expertise to introduce tailor-made, aluminium products able to provide long-term value.

The flat rolled and extruded aluminium products and solutions serve a wide range of high-end markets including packaging, transportation, building and construction, HVAC&R, printing, energy, industrial and engineering applications.

Copper

Through its copper and alloys extrusion division ('Halcor'), and the copper segment's subsidiaries Sofia Med S.A. ('Sofia Med'), Epirus Metalworks S.A. ('Epirus Metalworks'), Cablel Wires S.A. ('Cablel Wires') and the NedZink BV and HC Isitma joint ventures), it manufactures a range of copper, brass and high-performance copper alloys products, as well as titanium zinc products. The copper and alloys extrusion division has a long history and strong track record of developing products that strengthen its global commercial reach.

Halcor and the copper segment subsidiaries provide innovative and value-adding solutions. Major product categories include copper tubes and rolled and extruded copper alloy products for a wide range of applications, including plumbing, HVAC&R, renewable energy, construction, engineering, automotive and industrial products, fish farming, all types of coin blanks and enamelled wires.

Cables

Viohalco's cables segment comprises three companies: Hellenic Cables S.A. Hellenic Cables Industry ('Hellenic Cables'), its Greece-based subsidiary Fulgor S.A. ('Fulgor'), and Romania-based Icme Ecab S.A. ('Icme Ecab'), hereafter collectively referred to as 'Hellenic Cables companies'.

The Hellenic Cables companies manufacture land and submarine power cables, telecommunication cables and compounds. Combined, they are the largest cable producer in Greece and Southeastern Europe, exporting to over 50 countries. A key advantage of the Hellenic Cables companies is their ability to provide turnkey solutions to customers.

Steel pipes

With a manufacturing plant in Greece and extensive expertise in delivering complex projects on a global scale, Corinth Pipeworks S.A. ('Corinth Pipeworks') is a supplier of choice of steel pipes and hollow sections to the energy and construction industries.

Corinth Pipeworks' three main product categories are:

- steel pipes for onshore/offshore pipelines for gas and liquid fuel, CO_2 and hydrogen transportation, which are manufactured in either Corinth Pipeworks' high frequency induction welding unit ('HFW'), the helically-submerged arc welding unit ('HSAW'), or the longitudinal submerged arc welding unit ('LSAW/JCOE');
- casing steel pipes used in exploratory drillings ('OCTG');
- hollow structural sections used in the construction sector.

Corinth Pipeworks has extensive experience and a strong track record of implementing complex projects for the energy sector worldwide, both onshore and offshore. The company is an approved supplier to major oil and gas companies and to engineering, procurement and construction ("EPC") contractors.

The Company is ready for the energy shift and is committed in making a positive contribution to the energy transition and to tackle climate change, through new technological solutions that allow the increasing use of renewable sources in the energy mix and through the development of innovative products and the reduction of the carbon footprint of the company's production activities.

Steel

Sidenor Steel Industry S.A. ('Sidenor Steel Industry'), Stomana Industry S.A. ('Stomana Industry') and their subsidiaries are leading producers of steel products in Southeastern Europe.

The steel segment companies have significant expertise and

more than 70 years of experience in the manufacture and distribution of steel products, along with an extensive product portfolio which includes long, flat and downstream steel products.

The steel segment companies produce a range of value-added products and solutions for industries, including building and construction, mechanical engineering, shipbuilding, road and rail, automotive, as well as mining and tunneling applications.

To achieve the optimum balance between operational, commercial flexibility and productivity, the steel segment has adopted the following operational structure:

- mini-mills;
- downstream operations for steel product processing;
- sales and distribution.

Real estate

Viohalco, through its leading Real Estate Investment Company ('REIC'), Noval Property, creates value by investing in and commercially developing office, logistics, retail, hospitality and residential buildings, mainly in Greece, while also providing a wide range of real estate services to its subsidiaries through Steelmet Property Services S.A.

In October 2019, Noval Property was established as a Real Estate Investment Company ('REIC') and an internally managed Alternative Investment Fund, following the award of the necessary licenses by the Hellenic Capital Markets Commission. It is the second largest Greek REIC. In December 2021, Noval Property successfully issued a Green Bond of EUR 120 million listed on the Category of Fixed Income Securities Market of the Athens Stock Exchange.

Noval Property's portfolio is diversified and comprises 62 high quality properties (1 through a participation in a real estate company), mainly located in Greece and selectively, in Bulgaria. It comprises office buildings, shopping centres, logistics, residential assets and hotels, with a total built-up area of c. 465.000 sq.m.

Steelmet Property Services supports Viohalco and its subsidiary companies by providing a wide range of centralised real estate, property and facility management services.

R&D&I and Technology

Viohalco's portfolio includes dedicated research, development and innovation ('R&D&I') companies and centres within its subsidiaries. These centres support sustainable growth through the development of innovative and high value-added products, efficient solutions for the optimization of industrial and business processes and the research into the environmental performance of their manufacturing plants.

Notes:

- *Cenergy Holdings S.A. ('Cenergy Holdings') was founded in 2016, following a cross-border merger by absorption of Corinth Pipeworks Holdings S.A. and Hellenic Cables S.A. Holdings Société Anonyme. Cenergy Holdings is listed on Euronext Brussels and the Athens Stock Exchange.*
- *In December 2017, the merger by absorption of Elval by Halcor was concluded, while the latter was renamed to ElvalHalcor Hellenic Copper and Aluminium Industry S.A. ('ElvalHalcor'). ElvalHalcor is listed on the Athens Stock Exchange.*



D. Financial highlights 2022

Viohalco companies have clearly articulated growth strategies. Despite operating in different market segments, they share common strategic goals which aim to:

- optimise production capacity and product offering through continuous innovation;
- increase penetration of existing and new markets;
- maintain a customer-oriented approach for marketing and product development;
- drive operating efficiencies by optimising asset utilisation and cost control; and
- operate in a sustainable and responsible manner.

Operational highlights

Strong demand for Viohalco companies' products driven by global sustainability megatrends.

Growth in profitability margins despite challenging macroeconomic backdrop.

All Viohalco segments seized market opportunities and delivered increased operating profitability.

Investment in process efficiency, capacity expansion, high product quality and new technologies to reinforce competitive positioning and expand into new markets.

Award of new contracts and successful delivery of existing, with substantial order backlog in the cables and steel pipes segments at year-end.

Growth of the real estate portfolio through acquisitions and redevelopment of existing assets with a continued focus on sustainability.

Consolidated revenue

grew up 30% year-on year to EUR 7 billion (2021: EUR 5.4 billion), driven by increased sales prices.

Consolidated EBITDA

up by 26% to EUR 646 million.

Consolidated operating profitability (adjusted EBITDA)

posted a 52% increase amounting to EUR 649 million (2021: EUR 426 million), mainly attributable to the revenue growth and increased profitability margins.



Consolidated profit before income tax

amounted to EUR 375 million, compared to EUR 276 million in 2021.

Consolidated net profit after income tax and minority interests

amounted to EUR 266 million (2021: EUR 195 million).

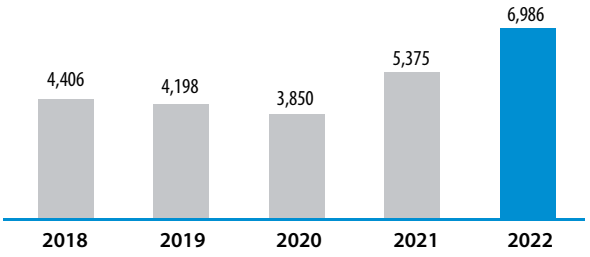
Dividend

Proposed gross dividend of EUR 0.12 per share.

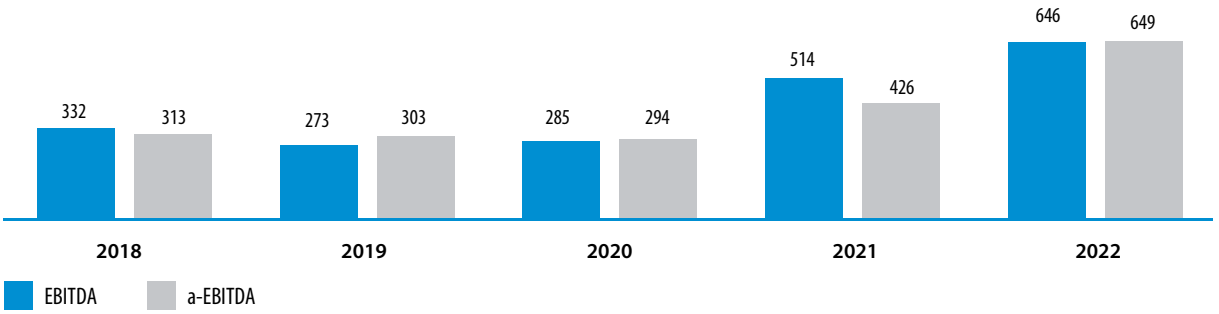
Overview

In 2022, Viohalco companies delivered a strong performance and growth across all regions and sectors, leveraging state-of-the-art production facilities and product portfolios, while capitalising on robust demand driven by global sustainability megatrends. 2022 began very positively, with strong levels of demand and a positive market environment. The latter half of the year saw a more challenging operating environment, brought on by macroeconomic uncertainty. Nevertheless, Viohalco continued to invest in its operations to deliver a robust performance. Throughout the year, Viohalco companies maintained its strong focus on the occupational health and safety of their employees, committed on delivering against their broader social and environmental objectives.

Consolidated revenue (EUR million)



Consolidated EBITDA & a-EBITDA (EUR million)



Viohalco's financial reporting splits into two divisions, based on their distinct business characteristics and performance metrics.

The industrial division, including aluminium, copper, cables, steel pipes, steel, R&D&I and technology segments, and the real estate division comprising of Viohalco's property investments and real estate related entities.

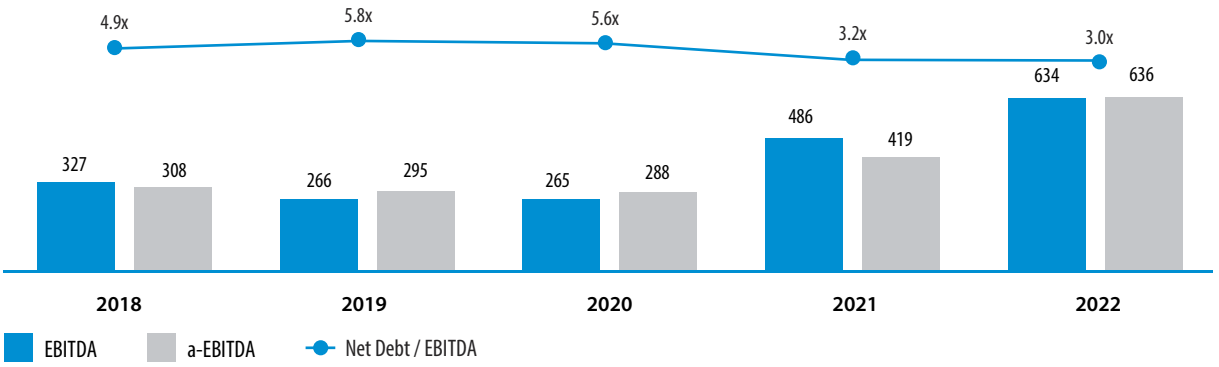
Industrial division	Real estate division
Aluminium | Copper | Cables | Steel pipes | Steel	

Industrial division

Key highlights

€ 7 bil.	€ 636 mil.	€ 377 mil.	€ 317 mil.	3.0
Revenue (2021: € 5.4 bil.)	a-EBITDA (2021: € 419 mil.)	Profit before tax (2021: € 261 mil.)	CAPEX 2022	Net Debt/ EBITDA

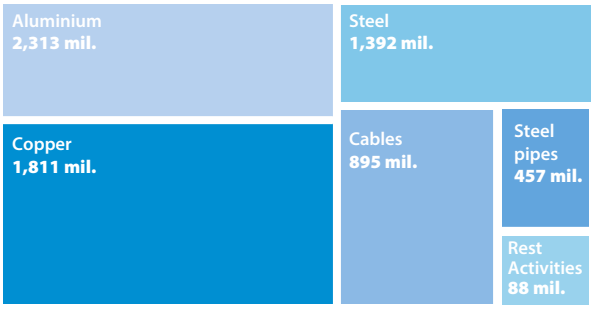
Industrial division (EUR million)



Key financials

Amounts (EUR million)	2022	2021
Revenue	**6,955,326**	**5,355,846**
Gross profit	760,340	587,091
EBITDA	**633,661**	**486,365**
a-EBITDA	**635,983**	**419,399**
EBIT	**493,826**	**355,253**
a-EBIT	496,148	288,287
Net finance cost	-115,988	-92,430
Profit before tax	**376,752**	**260,637**
Property, plant and equipment (PP&E)	2,230,385	2,088,514
Net Debt	1,922,988	1,568,963
Capex	316,866	254,017

Revenue per segment



The **revenue** of the industrial division amounted to EUR 6,955 million, and the profit before tax to EUR 377 million showing an increase compared to 2021, that is mainly attributed to the increased sales prices. The **operating profitability (a-EBITDA)** of the industrial division posted an increase of 52%, due to revenue growth and increased profitability margins, while EBITDA increased by 30% compared to 2021.

Viohalco's industrial division is composed by the following segments: aluminium, copper, cables, steel pipes and steel.

- In the **aluminium segment**, Elval (the aluminium rolling division of ElvalHalcor) and Symetal recorded strong financial performance in 2022, with consistent growth throughout the year, despite the geopolitical and economic challenges. Their agile, yet resilient, business model, enabled the companies to respond effectively to the challenging market environment and deliver a diversified product portfolio of superior quality. Leveraging investments of state-of-the-art technology, along with aluminium's numerous rolling possibilities, Elval and Symetal, are well-positioned to secure further growth, boost market shares and enable the transition to a low-carbon, aluminium-centric, circular economy. Etem Gestamp successfully navigated challenging market conditions and continued its investment programme to transform the business into a high-profile automotive business partner. Bridgnorth Aluminium delivered increased profitability as a result of successful pass-through of increased input costs.

- The **copper segment** started the year with robust demand, which allowed for price increases in most product categories and the successful pass-through of increased energy costs. The market outlook changed in the second half of the year, as a consequence of interest rate rises and their effect on global economic growth, which led to a large number of customers destocking. This mainly affected the quantities of copper tubes and copper alloy extruded products sold, while market conditions remained much more favourable for copper and alloy rolled and copper extruded products, which continued their growth. The strong sustainability megatrends related with the whole segment, with energy transition and related products requiring copper and its alloys in many forms and shapes, ensures the future growth of the segment.

- In the **cables segment**, the highlights for the year included the high utilization of all production lines, the record-high backlog of EUR 1.35 billion achieved by the end of the year and the successful execution of high-profile projects, which led to growth in revenue and profitability. To meet the growing demand for offshore cables, the segment invested heavily in improving infrastructure and de-bottlenecking production. Going into 2023, the segment has announced a significant investment programme of c. EUR 80 million over a two-year horizon in order to expand production capacity and leverage the proven potential of the offshore wind market and transition to a low-carbon economy. This investment will sizably expand the subsea cables plant in Corinth, Greece, double production capacity, provide additional storage space and extensively upgrade the plant's port facilities.

- For the **steel pipes segment**, 2022 was a turnaround year. Revenue doubled and profitability was restored as a result of a strong fourth quarter, following a two-year period of unprecedented disruption in the energy markets. As a result of this and of all the strategic initiatives taken during the previous years, Corinth Pipeworks has improved its competitive position as a Tier 1 pipe manufacturer and leader in energy transition technologies, such as hydrogen and CCS pipelines. The significant recovery of the energy market and a series of high-profile new contracts resulted in a historical high backlog of EUR 670 million by the end of the year.

- The **steel segment** in 2022 maintained its leading market position in Greece, the Balkans and Cyprus, primarily in the construction sector. This, combined with the completion of investments to improve process efficiency and product quality, along with expansion into new markets, resulted in enhanced pricing power and profit margins in all product categories, particularly during the first half of the year. During the second half of the year, a significant decrease in the price of steel moderated price levels and margins. Sales volumes of wire rod increased significantly, while hot-rolled plates with low carbon footprint succeeded in entering five new European markets. Moreover, the investment programme in the special steels (SBQ) production process was concluded, facilitating market expansion for this product.

Real estate division

Key highlights

€ 30 mil.	€ 12.9 mil.	465.000 sqm	96%	€ 40 mil.
Revenue (2021: € 18.7 mil.)	a-EBITDA (2021: € 6.6 mil.)	GBA*	Occupancy rate**	Capex

** Referring to the portfolio of real estate assets of Noval Property.*
*** Referring to the income producing portfolio of Noval Property.*

- In the **real estate division**, Noval Property strengthened its investment portfolio through both active asset management and portfolio expansion. Twenty-one new real estate assets were added to the portfolio during the period, all located in Greece, 3 through acquisition and 18 through share capital increase via in-kind contribution. Following on from the successful issue of a EUR 120 million Green Bond (listed on Athens Stock Exchange) in December 2021, the company continued the development of its captive portfolio, including construction works on several properties, such as office buildings and logistics assets. It should be noted that Viohalco applies the historical cost in investment property, while certain real estate division subsidiaries (such as Noval Property) follow the fair value model. Noval Property 2022 earnings before taxes, based on fair value model, amounted to profits of EUR 25,3 million, while GAV as of 31.12.2022 (including long term leases) amounted to EUR 497.8 million and NAV stood at EUR 365.9 million.

Finally, it is important to note that following the announcement last year of a comprehensive roadmap to address all environmental, social and governance risks and opportunities in a systematic and thorough manner, Viohalco companies continued their effort and completed all initiatives for 2022 as planned, making significant progress on all fronts. The established framework for monitoring ESG matters and integrating them into our business strategy was embraced by all subsidiaries as a high priority. For 2023, the Viohalco companies will continue these efforts with a focus on the three key areas; energy efficiency, improving their occupational health and safety programmes and progressing the Responsible Sourcing Initiative.

Financial overview

Condensed consolidated statement of profit or loss

Amounts (EUR thousands)	2022	2021
Revenue	**6,985,735**	**5,374,512**
Gross profit	771,784	590,645
EBITDA	**646,363**	**514,285**
a-EBITDA	**648,897**	**426,017**
EBIT	**497,250**	**374,396**
a-EBIT	499,783	286,128
Net finance cost	-121,320	-95,882
Profit before tax	**374,564**	**275,984**
Profit for the period	302,389	219,989
Profit attributable to owners	266,133	194,994

In a challenging environment throughout 2022, with geopolitical turbulence, highly volatile metal prices, inflationary pressures, rising interest rates and energy prices and supply chain disruptions, Viohalco's **consolidated revenue** amounted at EUR 6,986 million, up 30% compared to 2021 (EUR 5,375 million), reflecting an increase in sales prices.

Consolidated a-EBITDA increased by 52% to EUR 649 million for 2022 (2021: EUR 426 million), mainly attributable to the revenue growth and increased profit margins; **consolidated EBITDA** up by 26% to EUR 646 million.

Net finance cost increased to EUR 121.3 million (2021: EUR 95.9 million), reflecting the interest rates increase.

Consolidated profit before income tax for the period amounted to EUR 375 million, compared to EUR 276 million in 2021.

Consolidated net profit after income tax and minority interests amounted to EUR 266 million (2021: EUR 195 million); earnings per share amounted to EUR 1.03 (2021: EUR 0.75).

Condensed consolidated statement of financial position

Amounts (EUR thousands)	2022	2021
Fixed and intangible assets	2,625,715	2,446,354
Other non-current assets	100,709	74,450
Non-current assets	**2,726,424**	**2,520,805**
Inventory	1,914,098	1,469,840
Trade and other receivables (incl. contract assets)	874,921	724,907
Cash and cash equivalents	412,644	503,267
Other current assets	102,109	19,602
Current assets	**3,303,772**	**2,717,616**
Total assets	**6,030,196**	**5,238,420**
Equity	**1,955,895**	**1,655,594**
Loans and borrowings	1,471,299	1,294,093
Other non-current liabilities	219,685	222,987
Non-current liabilities	**1,690,985**	**1,517,080**
Loans and borrowings	958,166	848,145
Trade and other payables (incl. contract liabilities)	1,304,828	1,145,287
Other current liabilities	120,322	72,314
Current liabilities	**2,383,316**	**2,065,746**
Total equity and liabilities	**6,030,196**	**5,238,420**

Capital expenditure for the period amounted to EUR 357 million (2021: EUR 266 million), mainly attributable to the following investments:

- **aluminium segment** investment programme that includes the expansion of the new cold rolling mill, the automated lacquering line and new infrastructures;
- **copper segment** expenditures mainly relate to operational investments and press revamping;
- the submarine **cables** production capacity increase in the Corinth plant, improvements in Corinth port and acquisition of properties;
- operational improvements in Thisvi **steel pipes segment** plant;
- infrastructure improvements in **steel segment**;
- the development of existing portfolio and the acquisition of new properties in the **real estate division**.

Working capital increased by 47%, or EUR 469 million, mainly due to inflated metal prices and disruptions in the supply chain during the year.

Net debt increased to EUR 2,057 million (31 December 2021: EUR 1,684 million) before IFRS 16 adjustment, mainly attributable to the increase in working capital. After adjusting for IFRS 16, net debt amounted to EUR 2,036 (31 December 2021: EUR 1,664 million).

Segmental performance

Amounts (EUR thousands)	Aluminium		Copper		Cables		Steel pipes		Steel		Other		Total industrial division		Real estate division		Total consolidated	
Year	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**
Revenue	2,313	1,678	1,811	1,564	895	757	457	225	1,392	1,068	88	64	**6,955**	**5,356**	30	19	**6,986**	**5,375**
EBITDA	271	138	81	94	107	84	25	1	144	160	6	9	**634**	**486**	13	28	**646**	**514**
a-EBITDA	223	123	75	60	110	90	25	14	196	124	7	9	**636**	**419**	13	7	**649**	**426**
EBIT	211	79	63	78	89	68	16	-8	113	135	1	4	**494**	**355**	3	19	**497**	**374**
EBT	179	60	40	59	64	46	8	-15	88	109	-1	3	**377**	**261**	-2	15	**375**	**276**

** Apart from Noval Property, the real estate division of Viohalco includes other entities that relate to real estate operations. It should be noted that Viohalco applies the historical cost model in investment property, while certain real estate division subsidiaries (such as Noval Property) follow the fair value model. Noval Property 2022 earnings before taxes, based on fair value model, amounted to profits of EUR 25.3 million.*



Outlook

The global macroeconomic uncertainty continues into 2023 and inflationary pressure, increased financing costs and energy prices will continue to be challenging.

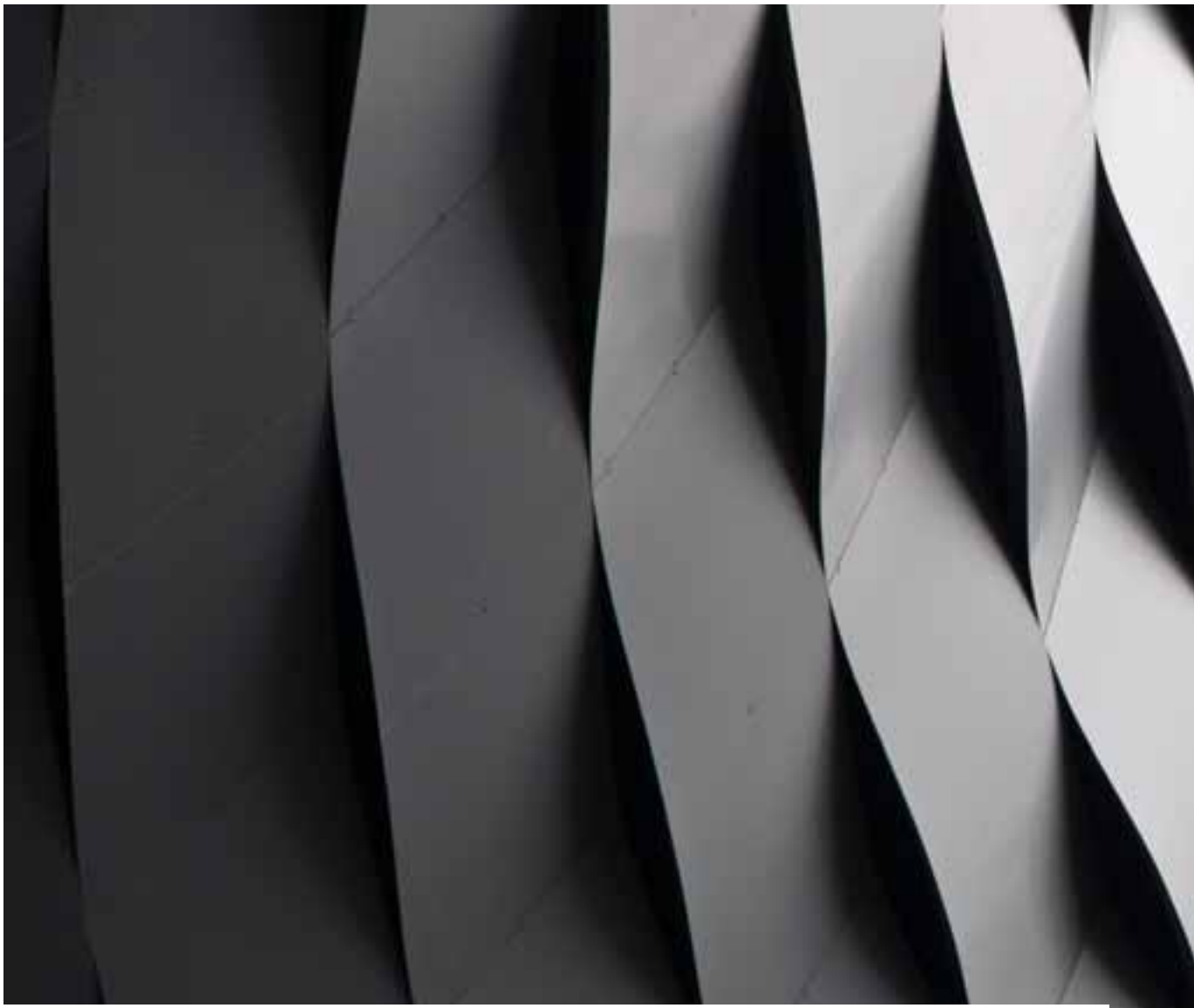
Viohalco companies remain well positioned despite the challenges, through prudent investment policies and conservative working capital management. At the same time, they remain well positioned to leverage opportunities across their core markets owing to their diversified business model and a product portfolio that is fully aligned with global sustainability megatrends. The companies remain focused on further optimization of their production capacities, disciplined growth into new product and market segments, along with efficient utilization of their resources.

Regarding corporate transactions, on December 27th, 2022, the final documents were signed for the Strategic Cooperation Agreement, concerning the merger with absorption of Etem by Cosmos Aluminium. As a result of this transformation, Elvalhalcor, at the time of the merger, will hold a minority stake of 15% in the share capital of Cosmos Aluminium, while the existing shareholders of Cosmos Aluminium will hold, in total, a stake of 85% in share capital of Cosmos Aluminium. The completion of the Merger process will take place in 2023 and is subject to the receipt of the required, in accordance with the Law, approvals from the General Meetings of the shareholders of Etem and Cosmos Aluminium, as well as subject to the receipt, in accordance with the Law, of the necessary approvals from the competent authorities.



E. Business segments' review

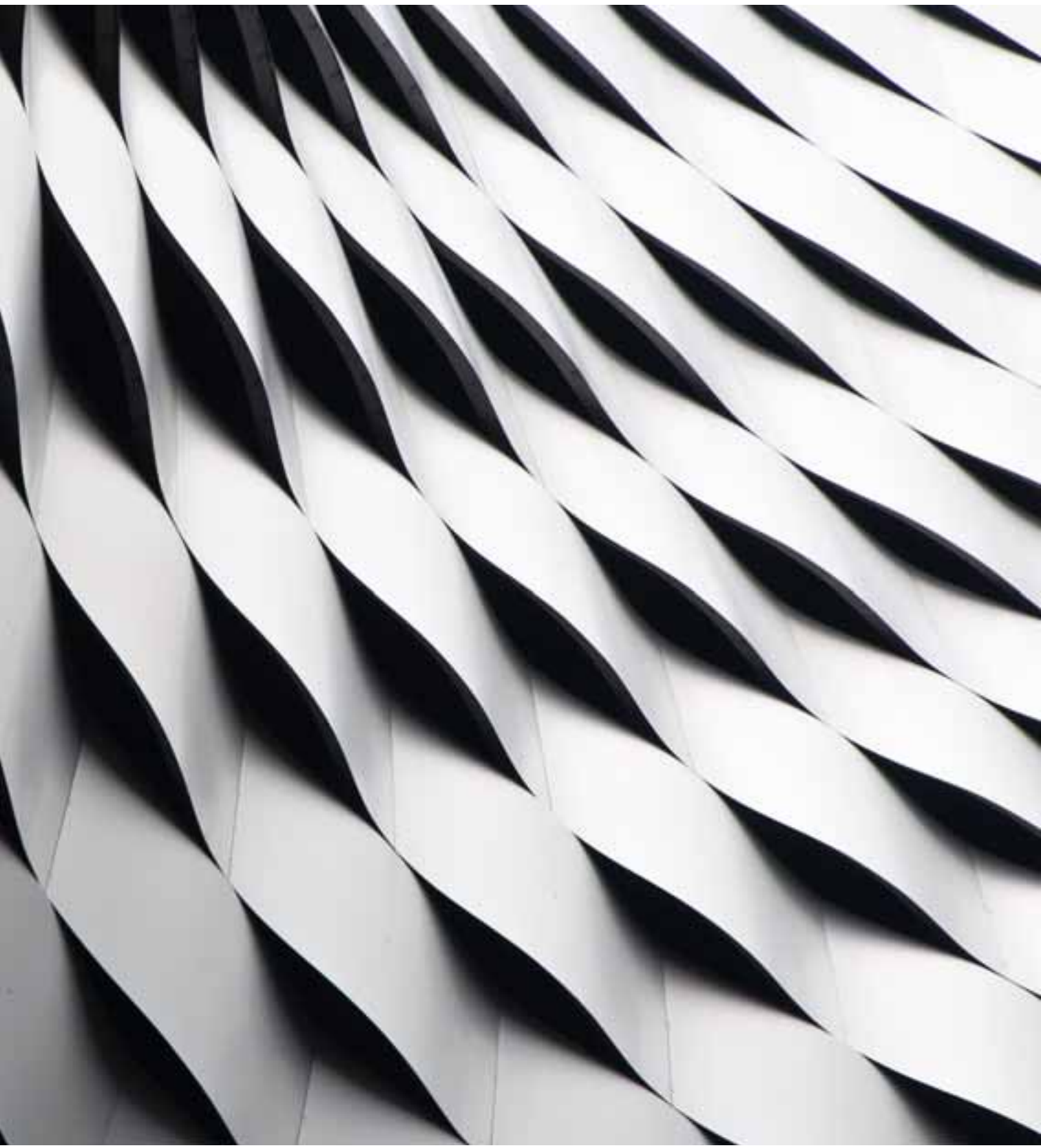
Aluminium

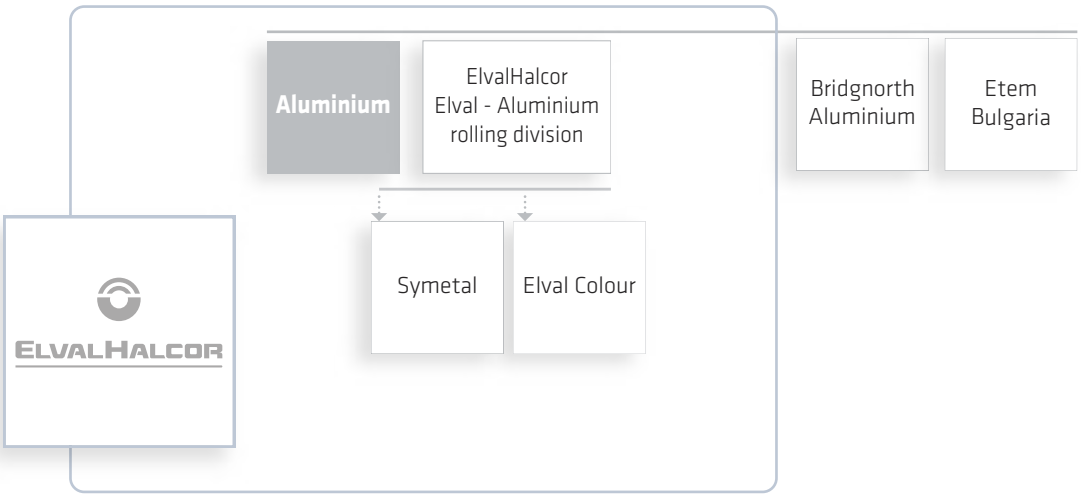


Revenue
(EUR thousands)
2022:
2,312,598
2021: 1,677,918

EBITDA
(EUR thousands)
2022:
270,908
2021: 138,327

a-EBITDA
(EUR thousands)
2022:
223,126
2021: 122,508







Activities

Viohalco's aluminium segment manufactures a variety of aluminium rolled and extruded products for diverse markets and applications, through its aluminium rolling division ('Elval'), and its subsidiaries Symetal, Elval Colour, Vepal, Bridgnorth Aluminium and Etem Bulgaria.

The aluminium segment offers rolled products and solutions for:

- Packaging (rigid and flexible packaging solutions, beverage and food cans, closures, household products, pharmaceutical and aseptic packaging foil);
- Transportation (automotive, marine, road and rail industries, as well as the HVAC&R sector);
- Construction (mill finish and coated aluminium sheets and coils for the entire building envelope, such as etalbond® aluminium composite panel, orofe® and Ydoral® coated coils, sheets and strips for roofing applications and rain gutters);
- Industrial applications (aluminium sheets, coils and circles for general engineering, renewable energy and household applications);
- Lithographic coils used as a substrate in the manufacture of printing plates;
- Extruded products;
- Architectural systems (dynamic building facades, curtain wall systems, interior applications, corporate ID applications, sun shading systems, rolling shutters, ventilated façades systems and security systems)
- Industrial aluminium applications (aluminium profiles and processed hard alloy bars for industrial use, general engineering applications, building applications, energy applications and transportation);
- Automotive applications (flat rolled aluminium for non-structural parts, components and HVAC&R applications, extruded aluminium profiles and parts that have undergone special tooling and machining and are used in car chassis, suspension systems and doors and decorative aluminium profiles for roof railings, aluminium composite panels for special automotive applications).



Production facilities

Viohalco's aluminium companies operate the following state-of-the-art production facilities:

Plant	Production focus	Annual production capacity	Quality and management systems certifications
Elval rolling plant (Oinofyta, Greece)	• The aluminium segment's main production facility • Flat rolled aluminium products for contemporary applications in packaging, building and construction, sea, road and rail transportation, automotive, industrial, energy, cookware and HVAC&R markets	375,000 tons	ISO 9001:2015, IATF 16949:2016, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ASI Performance Standard, ASI Chain of Custody Standard AS9100D, ISO 27001:2013 Certified for the design, production and sale of aluminium rolled /mill finish painted products, and the manufacture of aluminium rolled products for the automotive industry and aviation industry. Certified plant for responsible production, sourcing and stewardship of aluminium. Certified products, manufactured from material sourced and processed within responsible supply chains, Certified by all major classification societies as an approved manufacturer for shipbuilding products (ABS, BV, DNV.GL, KR, LRS, RINA and NK).
Anoxal (Agios Thomas, Greece)	• Recycling and casting aluminium • Manufacturing billets and slabs	50,500 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2015
Vepal (Thiva, Greece)	• Aluminium products for the construction, food and automotive industries	40,500 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
Elval Colour (Agios Thomas, Greece)	• Extensive range of coated aluminium products and aluminium composite panels for facades. • A series of advanced performance products that are dedicated to the improvement of the environmental efficacy on buildings, increase in the durability of building facades and roofing while resulting in the reduction of their impact on the environment.		ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 14064:2018
Symetal foil rolling plant (Oinofyta - Viotia, Greece)	• Plain aluminium foil in various gauges and alloys for a range of usages, including flexible and pharmaceutical packaging, food containers, household batteries and technical applications	52,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 50001:2018, ISO 45001:2018, ASI Performance Standard
Symetal foil converting plant (Mandra - Attica, Greece)	• Conversion of aluminium foil into packaging applications • Aluminium foil coating and/or paper lamination for products used in food, pharmaceutical and tobacco industries • Lacquer production (lacquer is an important auxiliary material for the aluminium foil converting plant)	27,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 50001:2018, ISO 45001:2018, ISO 15378:2017, ISO 22000:2018, FSSC 22000 (V5.1), FDA/IMS Certificate, FSC® Chain of Custody Certification (FSC-STD-40-004 V3-1), ASI Performance Standard Registered under the European Commission Eco-Management and Audit Scheme ('EMAS') for environmental management.
Viomal (Nea Artaki - Evia, Greece)	• Aluminium rolling shutters for windows and garage doors • Fly screen systems • Pleated net production	30 M meters	ISO 9001:2015, ISO 14001:2015
Bridgnorth Aluminium (Bridgnorth, UK)	• Flat rolled aluminium products for contemporary applications in printing, packaging, building and construction, road transportation, automotive, industrial, and energy markets	127,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ASI performance standard (v2 2017)
Etem – Gestamp Bulgaria (Sofia, Bulgaria)	• Profiles for industrial application in the transportation, automotive, shipbuilding, electronic and photovoltaic industries	30,000 tons	Accredited TIER 2 and TIER 1 automotive supplier. Certified for the production of crash-relevant aluminium profiles. IATF 16949:2016, ISO 9001:2015, ISO 14001:2015, ISO 45001 :2018, QUALICOAT, EN 15088 :2005

Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**2,312,598**	**1,677,918**
Gross profit	291,031	147,873
Gross profit (%)	12.6%	8.8%
EBITDA	**270,908**	**138,327**
EBITDA (%)	11.7%	8.2%
a-EBITDA	**223,126**	**122,508**
a- EBITDA (%)	9.6%	7.3%
EBIT	**210,998**	**79,234**
EBIT (%)	9.1%	4.7%
a-EBIT	163,216	63,415
a-EBIT (%)	7.1%	3.8%
Profit before tax	**178,602**	**59,556**

-All percentages are vs. revenue

2022 Financial performance

In 2022, the **revenue** of the aluminium segment increased by 38% to EUR 2,313 million vs EUR 1,678 million in 2021, while **profit before income tax** amounted to EUR 179 million (2021: EUR 60 million), demonstrating the strength of its product portfolio, which drove upwards both sales volumes and profits.

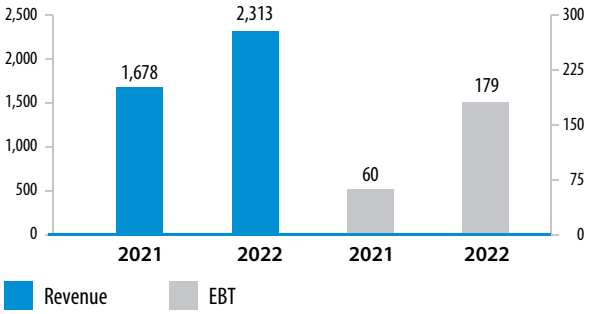
The aluminium rolling segment of ElvalHalcor remained well positioned across all markets, despite the volatile market conditions and achieved a significant increase in sales volumes of 8% versus 2021 (2022: 392k tons; 2021: 362k tons).

The sector's strong financial performance was supported by the successful execution of the investment plan, the commissioning of the 6-high cold rolling mill, the commencement of operations of the new lacquering line at the Oinofyta rolling plant, along with the start of operation of the new lacquering line in the Mandra plant. The advanced operational performance, combined with the capacity utilization of the latest investments, allowed the sector to successfully capture market opportunities across the world in high-end market segments, mainly in packaging, transportation and HVAC&R markets.

At Bridgnorth Aluminium, profitability increased compared to the previous year due to successful pass-through of increased input costs. The company continued its efforts to develop its product range and further increased its deliveries especially in the rigid packaging and building and construction markets, offsetting reduced deliveries to the lithographic market. Looking ahead, a major customer in the lithographic market will cease production in Europe during 2023, but the company is focused on expanding the product range and securing new contracts to recover demand.

Etem Gestamp had a challenging 2022, due to increased costs and reduced demand. The year started strongly

Aluminium (EUR million)



with robust demand for industrial application extrusion products and a positive outlook for the automotive business, however conditions deteriorated due to the uncertain macro environment. The company leveraged its diversified client portfolio, effective inventory management and production efficiencies to successfully navigate this environment and continued its investment programme to transform into a high-profile automotive business partner. With a significant order backlog and implementation of new value-adding processes and prototyping, the outlook for 2023 is promising.

Outlook

The aluminium segment remains focused on the continuous improvement of products, services and processes, with the aim of strengthening its presence worldwide and capitalizing on the state-of-the-art capacity expansions to deliver robust performance, amid challenging market conditions. Looking ahead, despite geopolitical instability, supply chain and inflationary challenges, the companies expect long-term demand for lightweight, energy efficient and recyclable aluminium solutions to remain strong, driven by global sustainability megatrends, such as climate change initiatives and consumers' increased focus on the environment. Elval's objective is to prioritize operations based on its customer-centric model, ensuring that it remains the preferred provider of custom-made and reliable flat rolled solutions, consistently contributing to the aluminium value chain of its global customers and partners. As for Symetal, it remains focused on the flexible packaging market and on increasing the sales of lacquered products once the installation of a new slitter rewinder has been completed. Elval Colour will continue to invest in the improvement of its products and the production process, as well as in research and development, with the aim of building a leading market share in architectural building applications and display.

Further information on the companies are available on their corporate websites:

About Elval: www.elval.com
About Symetal: www.symetal.gr
About Bridgnorth Aluminium: www.bridgnorthaluminium.co.uk
About Elval Colour: www.elval-colour.com
About Viomal: www.viomal.com


207
209

Copper

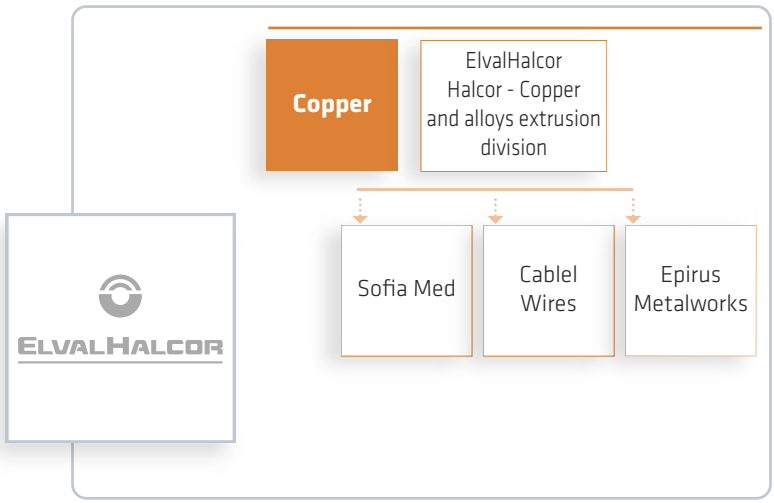


Revenue
(EUR thousands)
2022:
1,811,050
2021: 1,563,775

EBITDA
(EUR thousands)
2022:
81,023
2021: 94,338

a-EBITDA
(EUR thousands)
2022:
74,974
2021: 60,465







Activities

The copper segment companies manufacture a wide range of copper, brass and high-performance copper alloys products, as well as titanium zinc products. The segment comprises a copper and alloys extrusion division ('Halcor'), and its subsidiaries Sofia Med S.A., Epirus Metalworks S.A., Cablel Wires S.A., and the NedZink BV and HC Isitma joint ventures.

Halcor offers a diverse product range including copper and copper alloy rods and tubes, along with extruded and rolled products. It continuously seeks to grow its network and market share, both in Europe and the rest of the world, via its subsidiaries and commercial partners, and by entering new markets, investing in innovative sustainable technologies, and delivering high added-value products and solutions.

The main product categories of Halcor and the copper segment are:

- Copper tubes: Talos®, Talos® Ecutherm, Cusmart®, Talos® Plastic Coated, Talos® Gas, Talos® Med, Talos® ACR, Talos® ACR Inner Grooved, Talos® ACR Ecutherm™, Talos® ACR Ecutherm II, Talos® Geotherm, Talos® Ecutherm Solar, Talos® Solar Plus, Talos® ACR Linesets, Talos® Form, Talos® Sprinkler, Talos® XS, Talos® Plated, Talos® S80 and Talos® S60.
- Rolled products: strips of all shapes (including hot dip tinned surface), roofing strips and sheets DOMA®, foil, sheets, circles and plates in all alloys as copper, brass and special high-performance alloys.
- Extruded products: copper bus bars, rods, wires, profiles, fabricated parts with tin and silver surface coating options (electroplating), copper alloy rods and tubes, sections and wires, and UR30® copper alloy wire and net cages for aquaculture and fish farming.
- Coin blanks: monochrome coin blanks, outer rings for bi- colour blanks, inner blanks for bi-colour blanks, electroplated bi-colour coin blanks and assembled bi-colour coin blanks in a wide range of colors and material combinations.
- Rolled titanium zinc products: coils, strips, sheets, accessories.
- Enamelled wires: round and rectangular copper wires, round aluminium wires, copper welding wires.



Production facilities

The copper segment's industrial base comprises the following manufacturing facilities:

Plant	Production focus	Annual production capacity	Quality and management systems certifications
Halcor foundry (Oinofyta, Greece)	• Copper and copper alloys (brass) semi-finished products in billet and slab form.	235,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 46001:2019
Halcor copper tubes (Oinofyta, Greece)	Copper tubes for: • HVAC&R applications including heating, ventilation, air-conditioning, refrigeration, heat exchangers, heat pump systems and fittings. • Building installations including plumbing, heating, floor heating and cooling, natural and interior gas networks, HVAC&R, solar system application, industrial networks and fittings. • HVAC&R applications including heating, ventilation, air-conditioning, refrigeration, heat exchangers, heat pump systems and fittings. • Renewable energy applications including solar panels, solar system networks, geothermal heating and cooling. • Industrial applications including heating, ventilation, air-conditioning, refrigeration, heat exchangers, electrical and mechanical engineering.	80,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 46001:2019
Halcor extrusion for brass and copper alloy products (Oinofyta, Greece)	• Solid and hollow copper alloy rods and sections • Copper alloy wire and bars • Seamless and welded copper alloy tubes of different cross-sections • Copper alloy wire cage nets for farming aquaculture	40,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 46001:2019 Products comply with several quality specifications (EN, DIN, BS, ASTM, JIS)
Sofia Med copper and copper alloys processing plant (Sofia, Bulgaria)	• Copper, brass, high performance rolled products • Copper bus bars • Rod profiles • Wires • Additional capabilities for tintin and silver plating	145,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 26000:2010, ISO 50001:2011, IATF 16949:2016
Cablel Wires enameled wires plant (Livadia, Greece)	• Copper and aluminium enamelled wires (round and rectangular)	Additional capabilities for tin and silver plating	ISO 9001 :2015, ISO 14001 :2015, ISO 45001:2018, IATF 16949:2016, ISO 50001:2018
Epirus Metalworks (Epirus, Greece)	• All types of coin blanks • Rings for bi-color coins	6,000 tons	ISO 9001:2015, ISO 14001:2015
HC Isitma (Gebze, Turkey)	• Pre-insulated copper tubes • Corrugated A/C drain hoses	10,000,000 m.	
NedZink (Budel-Dorplein, the Netherlands)	• Titan zinc coils, sheets, strips, gutters and other accessories for roofing	36,000 tons	NEN-EN-ISO 9001:2015

Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**1,811,050**	**1,563,775**
Gross profit	125,564	125,054
Gross profit (%)	6.9%	8.0%
EBITDA	**81,023**	**94,338**
EBITDA (%)	4.5%	6.0%
a-EBITDA	**74,974**	**60,465**
a- EBITDA (%)	4.1%	3.9%
EBIT	**63,439**	**77,672**
EBIT (%)	3.5%	5.0%
a-EBIT	57,389	43,800
a-EBIT (%)	3.2%	2.8%
Profit before tax	**39,637**	**58,979**

-All percentages are vs. revenue

2022 Financial performance

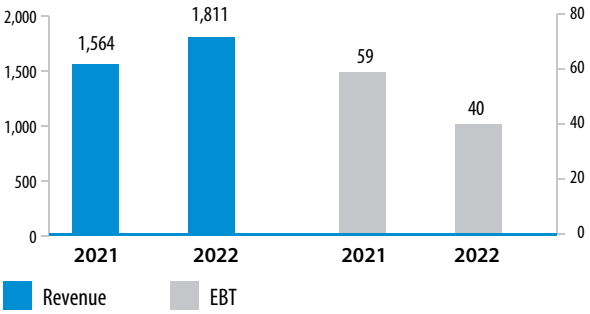
The copper segment **revenue** stood at EUR 1,811 million versus EUR 1,564 million in 2021, while **profit before income tax** amounted to EUR 40 million (2021: EUR 59 million). Profit before tax was mainly affected by the revised assessments considering the current market conditions, recording an impairment loss of EUR 9.2 million for the related company NedZink S.A.

Strong demand across most markets at the start of the year slowed in the second half, as a result of the aforementioned unfavourable market conditions. This mainly affected copper tubes and copper alloy extruded products, with sales declining in the second half. On the other hand, the market conditions and positioning of Sofia Med enabled continued growth in sales throughout the year for extruded copper products, and a full order book for rolled copper and alloy products. The slight decline in the sales volumes of the latter was partly driven by an intentional shift to higher value-added products. As for the smaller part of the segment, enamelled wires, the challenging market conditions resulted in a significant drop in sales volume.

During the year, a significant upgrade of the extrusion press of the tubes in Oinofyta mill took place, resulting in



Copper (EUR million)



increased inventories. The upgrade was successfully completed at the beginning of November, and inventory levels declined by the end of the year. While overall quantities were lower and scrap availability and pricing deteriorated during the year, the segment maintained strong profitability in its main product portfolio, as it was effectively able to pass on cost increases. As a result of the trend in metal prices, accounting profits from metal were EUR 17.7 million higher than in 2021. It should be noted that the average price of copper stood at 8,334 EUR/t compared with 7,881 EUR/t in 2021.

Outlook

In 2023, market conditions in the copper segment are expected to remain subdued, given ongoing uncertainty regarding interest rates, energy costs, and their effects on global economic growth. The companies of the copper segment are confident for their ability to maintain steady sales volumes and to grow product lines in key areas of strength. Namely, Sofia Med is on track to increase capacity in high value-added products with targeted investments. In addition, several process optimization initiatives are beginning to bear fruit which will support performance in 2023.

Further information on the companies are available on their websites:
About Halcor: www.halcor.com
About Sofia Med: www.sofiamed.com
About Cablel Wires: www.cablelwires.com
About Epirus Metalworks: www.epirusmetalworks.com
About NedZink: www.nedzink.com



Aluminium products











Copper products



ElvalHalcor S.A.



Formed in December 2017, through the merger of Elval, a leading European aluminium rolling company, and Halcor, the largest copper tubes producer in Europe, ElvalHalcor Hellenic Copper and Aluminium industry S.A. ('ElvalHalcor') is a leading global industrial manufacturer of aluminium and copper products.

As a combined entity, ElvalHalcor leverages synergies in innovation, technology, R&D&I, procurement, marketing, infrastructure and sustainability to produce high-quality, value added solutions for customers globally. ElvalHalcor's success is driven by its customer-focused philosophy, commercial export efforts and continuous innovation achieved through ongoing investment in R&D&I.

The company has over 80 years of experience, a strong production base across 16 industrial units, a market presence in over 90 countries, and highly experienced specialist personnel.

ElvalHalcor is a key player in the non-ferrous metals industry. It effectively navigates the challenges of the evolving business environment, whilst generating value for its stakeholders through sustainable growth and development.



ElvalHalcor is active in several dynamic and growing markets, including:

- Packaging
- road, sea and rail transportation
- automotive
- road, sea and rail transportation
- heating, ventilation, air conditioning and refrigeration ('HVAC&R')
- building and construction
- renewable energy
- shipbuilding
- energy and power networks
- electronics and electrical
- water supply; and
- industrial and engineering applications.

ElvalHalcor is listed on the Athens Stock Exchange (ELHA).

Further information on ElvalHalcor is available on the website: www.elvalhalcor.com

Cables



Revenue
(EUR thousands)

2022:

895,367

2021: 757,170

EBITDA
(EUR thousands)

2022:

106,831

2021: 84,287

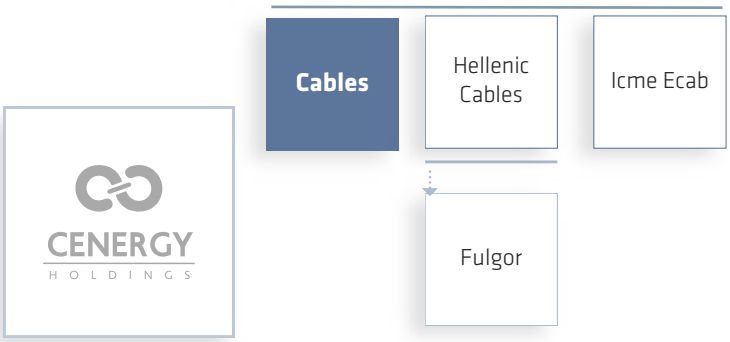
a-EBITDA
(EUR thousands)

2022:

109,611

2021: 89,623







Activities

The cables segment comprises three companies: Hellenic Cables S.A., Greece-based Hellenic Cables Industry ('Hellenic Cables') and its subsidiary Fulgor S.A. ('Fulgor'), and Romania-based Icme Ecab S.A. ('Icme Ecab'). Hereafter collectively referred to as the 'Hellenic Cables companies'.

The Hellenic Cables companies are approved suppliers to some of the largest international electricity network operators and have one of the biggest and most advanced submarine cable plants in the world. They offer a variety of products including underground and submarine power cables (low, high and extra high voltage), telecommunications cables, enameled wires, copper wires and compounds.

Over the past decade, the Hellenic Cables companies have collectively established themselves as the largest producer of cables in Greece and Southeastern Europe. They have a strong international focus, exporting to more than 50 countries worldwide.

Their key product categories are as follows:

- Power cables: low, medium, high and extra high voltage submarine and land cables, umbilical cables, subsea flexible pipes, control cables, cables for industrial applications and external installations, fire-retardant, fire-resistant and halogen-free cables, marine cables, copper and aluminium conductors, ACSR and ACSS/TW conductors;
- Telecommunications cables: conventional telephone cables, telephone exchange and data transmission cables (LAN), fibre-optic (single-mode and multi-mode), submarine cables, and signaling cables;
- Plastic and rubber compounds: PVC-based plastic compounds, low smoke halogen free polyolefin-based plastic compounds and rubber compounds.

The Hellenic Cables companies have an established Project Management Office ('PMO') and, where appropriate, use their own specialised assets, trained personnel, and experienced subcontractors to offer complete turnkey projects in Greece and internationally. The cable companies' capabilities include the following:

- System design and engineering;
- Cable route survey;
- Design and manufacture of suitable underground and submarine cable types;
- Loading and transportation of cables to the project site;
- Installation of cables (with the use of specialised cable



laying vessels for submarine cables);
- Protection of cables along cable routes;
- Supply and installation of repair joints, transition joints and cable terminations;
- Supply and installation of terminal equipment;
- System testing and commissioning;
- Project management;
- Training of customer personnel in system operations;
- Provision of maintenance and repair solutions.

Hellenic Cables and its subsidiary, Fulgor, were recently awarded several high-profile projects by major utilities companies across Europe. This is testament to the leading positions that the Hellenic Cables companies have established in both the submarine cable manufacturing sector and the wider global offshore energy industry.

Production facilities

The cables segment's production base comprises five plants:

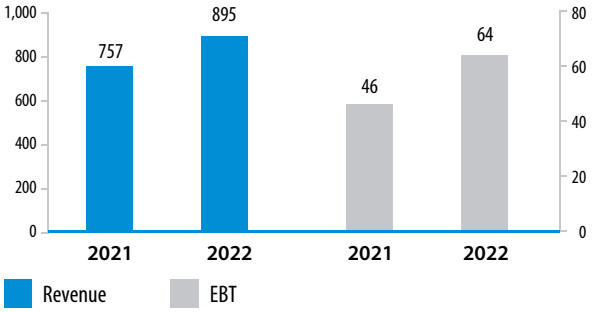
Plant	Production focus	Annual production capacity	Quality and management systems certifications
Hellenic Cables power and optical fibres cable plant (Thiva, Greece)	• Low voltage ('LV') power cables • Medium voltage ('MV') power cables • High voltage ('HV') power cables • Extra high voltage ('EHV') power cables up to 500 kV • Fibre optic cables	60,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 22301:2019, ISO 27001:2013, ISO 14064-1:2018, Authorised Economic Operator (AEO), Safety Culture Ladder-Step 4, VCA/SCC, Petrochemicals 2017/6.0
Hellenic Cables submarine cable plant and port (Corinth, Greece)	• MV submarine power cables • HV submarine power cables • Fiber optic submarine cables • LV, MV and HV power cables • Copper and aluminium wire rods	50,000 tons of cables 120,000 tons of 8mm diameter copper wire rod	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 22301:2019, ISO 27001:2013, ISO 14064-1:2018 Authorised Economic Operator (AEO), Safety Culture Ladder-Step 4, VCA/SCC, Petrochemicals 2017/6.0
Icme Ecab power and telecom cables plant (Bucharest, Romania	• Cables for indoor installations, energy, control, industrial and external applications, • LV and MV power cables • Fire-retardant, fire-resistant and halogen-free cables • Mine cables • Marine and special-requirement cables • Telecommunication cables (including signaling, remote control and data transmission) • Copper and aluminium conductors • Plastic and rubber compounds	50,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 14064-1:2018
Hellenic Cables plastic and rubber compounds plant (Oinofyta, Greece)	• PVC and rubber compounds	24,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, ISO 27001:2013 Authorised Economic Operator (AEO)
Lesco Ltd wooden packaging products plant (Blagoevgrad, Bulgaria)	• Wooden reels and pallets	16,500 tons	

Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**895,367**	**757,170**
Gross profit	119,816	94,442
Gross profit (%)	13.4%	12.5%
EBITDA	**106,831**	**84,287**
EBITDA (%)	11.9%	11.1%
a-EBITDA	**109,611**	**89,623**
a- EBITDA (%)	12.2%	11.8%
EBIT	**89,049**	**67,629**
EBIT (%)	9.9%	8.9%
a-EBIT	91,829	72,964
a-EBIT (%)	10.3%	9.6%
Profit before tax	**63,529**	**45,754**

-All percentages are vs. revenue

Cables (EUR million)



2022 Financial performance

Revenue for the cables segment reached EUR 895 million (2021: EUR 757 million), driven by the growth in the cables products' business and steady revenue streams from projects business. **Profit before income tax** amounted to EUR 64 million (2021: EUR 46 million).

Throughout 2022, the segment saw increased demand for cables products in all its main geographical regions, driving an increase in sales volumes and profit margins. This increased demand, combined with an improved sales mix, a full production schedule and consistently high margins from projects delivered a high profitability.

A number of projects were successfully delivered, fully or partially, throughout 2022 including the production and the installation of the 83 km-long submarine cable for the electrical interconnection between Naxos, Santorini and Thirasia islands in Greece, the first batches of inter-array cables for the Doggerbank A & B offshore wind farms in the UK



and the 70 km order of inter-array cables for Vesterhav Nord / Syd offshore wind farms in Denmark. Driven by the above, the cables segment surpassed EUR 100 million of a-EBITDA for the first time of its history.

At the same time, Hellenic Cables continued its tendering activity and was awarded several new projects in the offshore wind and interconnections markets, such as the turnkey projects of the Lavrio - Serifos / Serifos - Milos interconnection and Zakynthos - Kilini interconnection in Greece, the award of 105 km submarine export cables contract for Ostwind 3 in Germany, the supply of 360 km inter-array cables for Sofia offshore wind farm in the UK and 140 km inter-array cables for the Hai Long Offshore Wind in Taiwan, the first award in the Asian market. As a result of the above, the order backlog for the segment reached EUR 1.35 billion by the end of the year.

Capital expenditure for the cables segment in 2022 amounted to EUR 70.9 million and mainly concerned selective investments to increase the production capacity for submarine cables and improvements in the port in Corinth plant, the acquisition of a neighbouring property to the Corinth plant, which will be used for the expansion scheduled for execution from 2023 onwards, the acquisition of an industrial site in Thiva, Viotia, Central Greece and initial expenses related to the construction of a submarine cables factory in the USA.

Outlook

Looking into 2023, high levels of demand, along with a set of secured project orders and high-capacity utilisation in all plants will keep the positive performance momentum in the products business. The shift to electrification in Europe and the increasing demand for grid connections are expected to further fuel the order book for land cables. To meet this demand, Hellenic Cables has acquired an industrial area near its factory in Thiva, Greece to operate both as an expanded production site for its low voltage land and telecom cables, as well as a warehouse for raw materials and semi-finished goods.

The projects business unit has secured several new contracts in recent months. Hellenic Cables has initiated a major investment project which aims to strengthen further its role as a key enabler of the green energy transition. These investments will enable the company to execute a record high order backlog and serve the increasing demand, as well as the greater expectations of customers and stakeholders. Last, and following previous announcements, the discussions with Ørsted regarding the partnership for the construction of a submarine inter array cables factory in Maryland, USA are continuing.

Further information on Hellenic Cables is available on the website: www.hellenic-cables.com



Steel Pipes

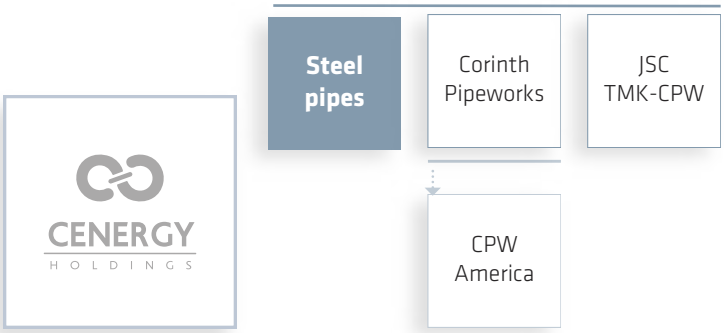


Revenue
(EUR thousands)
2022:
457,236
2021: 225,067

EBITDA
(EUR thousands)
2022:
24,788
2021: 555

a-EBITDA
(EUR thousands)
2022:
25,180
2021: 14,141







Activities

Corinth Pipeworks Pipe Industry S.A. ('Corinth Pipeworks') is a global supplier of high-quality steel pipes and hollow sections for the energy and construction sectors.

It is a subsidiary of Cenergy Holdings, which was formed through the cross-border merger of Corinth Pipeworks and Hellenic Cables. Corinth Pipeworks has extensive experience and a strong track record of implementing complex projects for the energy sector worldwide, both onshore and offshore.

Corinth Pipeworks' three main product categories are:

- Line pipes – manufactured either in the plant's high frequency induction welding unit (HFW), or the helically submerged arc welding unit (HSAW) and the longitudinal submerged arc welding unit (LSAW/JCOE).
- Casing pipes – these high-frequency induction welded
- pipes (HFW) are used in oil and gas extraction drills; their product range was expanded by the installation of an LSAW mill in 2016.
- Hollow structural sections – used in the construction sector.

Services:

- Final site delivery;
- Storage;
- Sour service laboratory;
- Material and corrosion testing (via Corinth Pipeworks' accredited laboratory);
- Hydrogen testing lab;
- Pipe coating;
- Ultra-tight pipe tolerances for special applications;
- Fixed lengths;
- Double jointing;
- Pipe cutting services;
- Technical consultancy and materials selection.

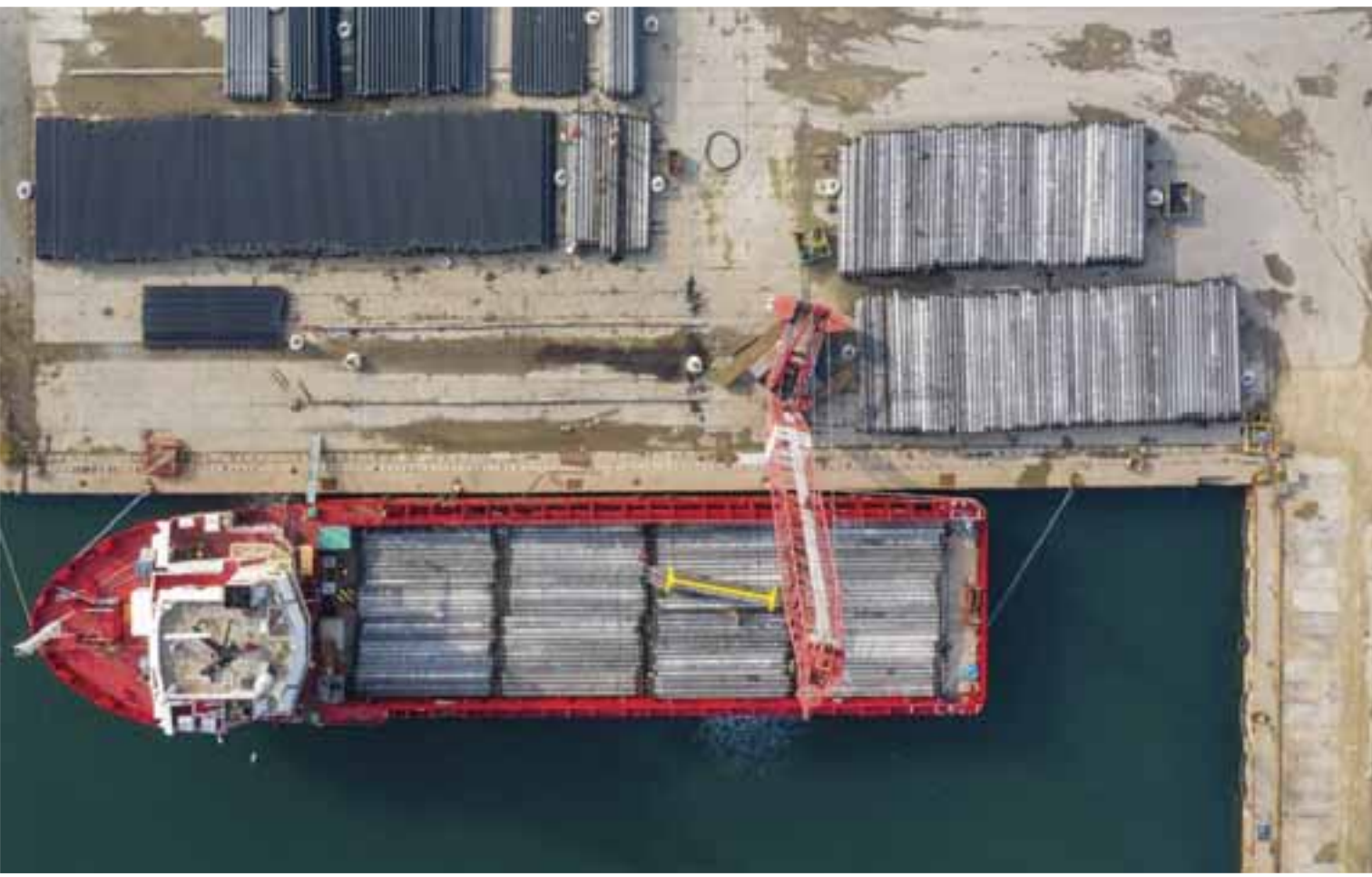
The Corinth Pipeworks plant has dedicated port facilities at Thisvi Port, just 1.5 km away, enabling the company to reduce raw material transportation costs, offer more competitive product pricing and facilitate faster delivery. The port includes cranes, forklifts, and other machinery, in line with the provisions of the International Ship and Port Facility Security Code.

CPW America is based in Houston, USA and aims to promote Corinth Pipeworks' products and provide customer service to the Group's customers, as well as to customers of other Viohalco companies located in North and South America.

Production facilities

The steel pipes segment operates the following production plant:

Plant	Production focus	Annual production capacity	Quality and management systems certifications
Corinth Pipeworks plant and port (Thisvi, Greece)	• Welded pipes for gas and liquid fuel, hydrogen and CO_2 (CCS) transportation • Hollow structural sections for the construction industry • Concrete weight coating (enabling the supply of a complete offshore pipeline package in one location)	925,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, API Q1, API-5CT-0509, API-5L-0396, ISO 3834-2, AD 2000- Merkblatt W0 & HP0, PED 2014/68/EU,EN 10219-1:2006, ISO 17025:2017, ZETOM EN ISO 3183:2019, ASME B31.12

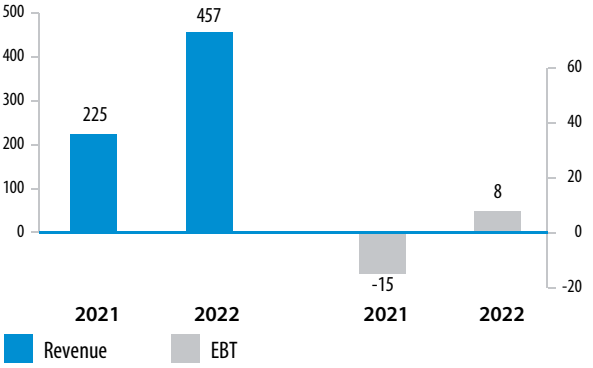


Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**457,236**	**225,067**
Gross profit	30,021	15,157
Gross profit (%)	6.6%	6.7%
EBITDA	**24,788**	**555**
EBITDA (%)	5.4%	0.2%
a-EBITDA	**25,180**	**14,141**
a- EBITDA (%)	5.5%	6.3%
EBIT	**15,654**	**-8,305**
EBIT (%)	3.4%	-3.7%
a-EBIT	16,046	5,280
a-EBIT (%)	3.5%	2.3%
Profit before tax	**8,140**	**-15,407**

-All percentages are vs. revenue

Steel pipes (EUR million)



2022 Financial performance

In the steel pipes segment, **revenue** doubled from the previous year to EUR 457 million versus EUR 225 million in the prior year, while **profit before income tax** amounted to EUR 8 million (2021: loss of EUR 15 million).

Throughout 2022, the gas fuel transportation market improved due to higher energy prices and the need for increased energy security issue faced by many European countries caused by the geopolitical turbulence in Ukraine. Demand growth resulted in many pipeline projects which had been previously postponed, to be revived and completed.

As a result of the new project awards, the current order backlog has reached the highest level since 2018 exceeding EUR 670 million.

In this environment, Corinth Pipeworks consolidated its market position and is considered a Tier1 pipe manufacturer and a leader in new energy transition technologies such as hydrogen and carbon capture and storage (CCS) pipelines. During 2022, the company successfully executed a number of pipeline projects and was awarded significant new contracts.

It is worth noting the awards below:

- Contract for 201 km of desalinated water pipeline by Collahuasi in Chile.
- Award by DESFA for 163 km of pipeline in West Macedonia, Greece, certified to transport up to 100% hydrogen.
- Award by Jemena in Australia for 13km of hydrogen certified pipes.
- New contract by Saipem S.p.A for 28 km of pipeline for the Alexandroupolis Floating Storage and Regasification Unit (FSRU) in northern Greece, operated by Gastrade.
- New award by Total Energies of 40 km pipeline for the Fenix offshore gas field in Argentina.

In addition, the company was also awarded contracts in Italy, the Mediterranean region, North & Norwegian Sea as well as Australia, South Africa and USA.

During the year, Corinth Pipeworks continued its extensive R&D program in hydrogen transportation, CCS technologies and potential opportunities in the offshore wind sector. This is the result of its strategy focused on innovation, which also includes a process digitalization roadmap, energy company qualifications and geographical diversification, to build a stronger competitive advantage.

Outlook

Looking ahead, Corinth Pipeworks expects that natural gas shall maintain its important position in the energy mix, in line with the energy transition pillars. As market conditions improve, so does the order backlog, and these market dynamics provide a positive outlook for Viohalco's steel pipes segment.

Further information on Corinth Pipeworks is available on its corporate website: www.cpw.gr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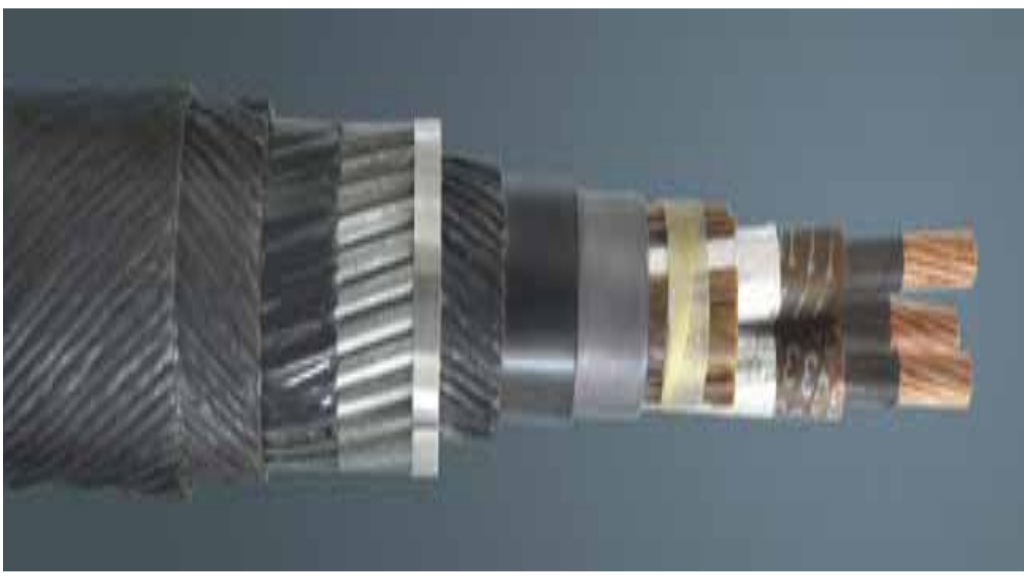
Cable products

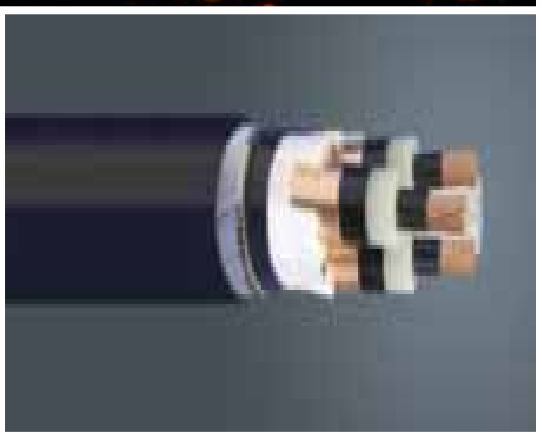














Steel pipe products









Cenergy Holdings S.A.



Cenergy Holdings S.A. ('Cenergy Holdings') is a Belgium-based holding company which invests in industrial companies at the forefront of high growth sectors, such as energy transfer, renewables and data transmission.

Cenergy Holdings' portfolio comprises two business segments:

- Hellenic Cables, its subsidiaries and Icme Ecab constitute the Hellenic Cables companies. Collectively, the Hellenic Cables companies are among the largest cable producers in Europe. Hellenic Cables companies manufacture mainly power, telecommunication and submarine cables.
- Corinth Pipeworks is one of the world's leading manufacturers of steel pipes and hollow sections for the energy and construction sectors.

Both entities have state-of-the-art production facilities and offer a diverse range of products to a variety of markets.



The companies in Cenergy Holdings' portfolio:

- have a long history of implementing large-scale projects in more than 70 countries;
- have served major customers worldwide for almost 70 years;
- operate five production units and four supporting facilities in four countries; and
- provide value add products for niche markets.

Cenergy Holdings is listed on the Euronext Brussels and the Athens Stock Exchange (CENER).

Further information on Cenergy Holdings is available on its corporate website: www.cenergyholdings.com

Steel



Revenue
(EUR thousands)

2022:

1,391,507

2021: 1,067,782

EBITDA
(EUR thousands)

2022:

144,016

2021: 160,316

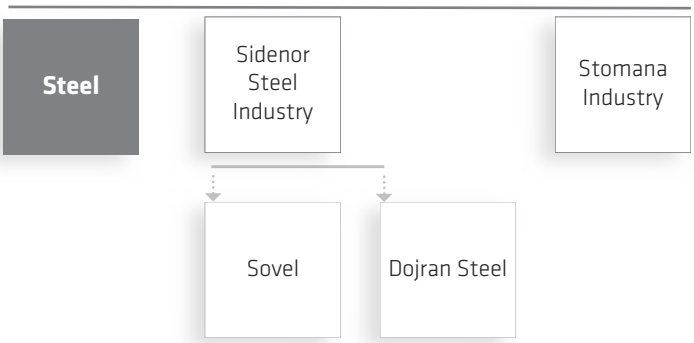
a-EBITDA
(EUR thousands)

2022:

196,479

2021: 123,654







Activities

Sidenor Steel Industry S.A. ('Sidenor Steel Industry'), Stomana Industry S.A. ('Stomana Industry') and their subsidiaries are leading producers of steel products and the largest steel recyclers in Southeastern Europe. The companies have more than 70 years of manufacturing experience and expertise in steel production and distribution, and an extensive product portfolio which includes long, flat, and downstream steel products.

Sidenor and Stomana Industry offer their customers the Environmental Product Declaration (EPD) for certain products, reflecting their commitment to operating responsibly and to reducing their environmental footprint in Europe.

The steel segment companies offer a broad range of value-added products and solutions for building and construction (including buildings, roadworks, metro stations, bridges, shopping malls and hydroelectric dam projects), mechanical engineering, shipbuilding, road and rail, the automotive industry, mining and tunneling applications.

The product family is structured as follows:

- SD integrated reinforcing system: SD concrete reinforcing steel, SD stirrup reinforcing mesh, Sidefit special mesh, SD wire mesh, Sidefor and Sidefor Plus prefabricated stirrup cages, Inomix steel fibres and lattice girders;
- Wire rods for cold drawing and mesh applications;
- Special bar quality steels (SBQ);
- Steel plates;
- Merchant bars: hot-rolled square bars, hot-rolled flat bars, hot-rolled round bars and hot-rolled equal angle bars;
- Grinding balls;
- Welding products and electrodes;
- Wire products;
- Flat wire for electric cables reinforcement;
- Tubular products: tubes of pre-galvanized steel and cold and hot rolled steel in round, square and rectangular profiles.

In order to achieve the optimum balance between operational and commercial flexibility and productivity, the steel segment has adopted the following operational structure:

- Mini-mills;
- Downstream operations for steel product processing;
- Sales and distribution.



Production facilities

Steel segment operates six steel manufacturing facilities:

Plant	Production focus	Annual production capacity	Quality and management systems certifications
Sidenor Steel Industry (Thessaloniki, Greece)	• Wire rod • SD concrete reinforcing steel (bars and coils) • Casted billets • Merchant bars	Meltshop: 800,000 tons Long products rolling mill: 800,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2018, SustSteel Products certified according to EN, DIN, ELOT, SR, SRPS, BDS, MKC standards
Sovel plant and exclusive use of port facilities (Almyros, Greece)	• Billets • SD concrete reinforcing steel • SD spooled coils • SD wire mesh • SD stirrup reinforcing mesh • Sidefit special mesh • Sidefor and Sidefor Plus prefabricated stirrup cages	Meltshop: 1,350,000 tons Long products rolling mill: 1,200,000 tons Compact mill 350,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, ISO 50001:2011, SustSteel Products certified according to EN, BS, DIN, ELOT, SR, SRPS, BDS, HRN, MKC standards EPD (Environmental Product Declaration)
Stomana Industry (Pernik, Bulgaria) & the Port Svishtov West (Bulgaria)	• Hot rolled quarto plates • Special bar quality steels (SBQ) • SD concrete reinforcing steel • Steel balls • Continuous cast semi-products (billets, blooms and slabs) • Welded hollow sections	Meltshop: 1,400,000 tons Long products rolling mill: 1,000,000 tons Plate products rolling mill: 400,000 tons Welded Hollow sections mill: 45,000 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018, SustSteel Products meet requirements of EN, DIN, ISO, ASTM, BDC, MKS, Lloyd's Register, DNV, RINA, ABS, MKC, BV standards. Regulation 305/2011. Directive No.2014/68. AD2000. UK Regulation (EU Exit) 2020 No.1359. EPD (Environmental Product Declaration)
Erlikon (Thessaloniki, Greece)	• Welding electrodes • Copper-plated wires • Galvanized wires • Galvanized steel wire armor for power cables, including submarine power cables (round and flat) • Galvanized mesh in rolls and sheets • Black hard and annealed wires • Concrete reinforcing steel fibres	Electrodes: 4,000 tons Copper-plated wires: 3,000 tons Galvanized wires: 32,000 tons Drawning machines: 40,000 tons Steel Fibres: 1,300 tons	ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Products meets the requirements of BS, EN, DIN, ASTM, AWS, LRS, GL, ABS, BV, DNV
Dojran Steel (Nikolic, North Macedonia)	• Merchant bars • SD concrete reinforcing steel • Wire mesh • Double-twist hexagonal mesh (serasanetti) • Galvanized mesh in rolls and sheets • Galvanized concrete reinforcing mesh for offshore fuel pipes	Long products rolling mill: 200,000 tons Wire mesh production: 20,000 tons Lattice girders: 10,000 tons	ISO 9001:2015, ISO 14001: 2015, ISO 45001:2018, ISO 50001:2018 Products certified according to EN, DIN, SRPS, BDS standards
Domoplex Ltd (Limassol, Cyprus)	• Various types of mesh, made of welded wires or straight steel reinforcement bars	12,000 tons	ISO 9001:2015 The facility also maintains its own quality control laboratory on site

Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**1,391,507**	**1,067,782**
Gross profit	172,868	181,255
Gross profit (%)	12.4%	17.0%
EBITDA	**144,016**	**160,316**
EBITDA (%)	10.3%	15.0%
a-EBITDA	**196,479**	**123,654**
a- EBITDA (%)	14.1%	11.6%
EBIT	**113,462**	**134,716**
EBIT (%)	8.2%	12.6%
a-EBIT	165,925	98,054
a-EBIT (%)	11.9%	9.2%
Profit before tax	**87,554**	**108,943**

-All percentages are vs. revenue

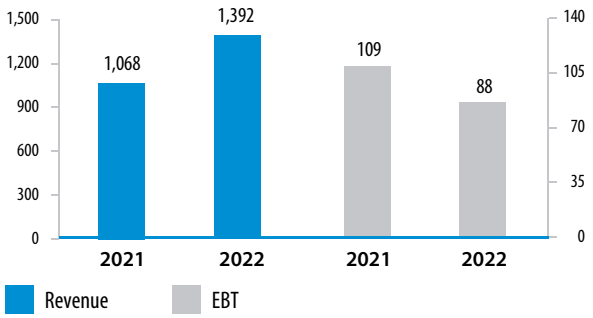
2022 Financial performance

In 2022, **revenue** for the steel segment amounted to EUR 1,392 million, versus EUR 1,068 million in 2021, while **profit before income tax** amounted to EUR 88 million (2021: EUR 109 million).

During the year, the steel segment maintained its leading market position in Greece, the Balkans and Cyprus. This, combined with the completion of investments to upgrade production processes and product quality, along with entry into new markets, led to increased prices and profit margins in all product categories. Wire rods saw a significant increase in sales volume, mainly in Western Europe, while sales of concrete reinforcing steel and mesh increased by 15% in Greece. Sales of merchant bars also increased, especially in Central Europe, while hot-rolled plates with low carbon footprints were successfully rolled out to five new European markets. Also worth noting was the start of a partnership with one of the largest repair yards in the Mediterranean, and the completion of the investment programmes in the production process of special steels (SBQ), which will enable this product to be commercialised in new markets. Despite the impact of the macro challenges, the steel segment maintained a steady supply of scrap, with no disruption to product delivery to customers and continuous high service levels.



Steel (EUR million)



2022 saw the implementation of significant investments and transformational programmes, which focused on production upgrades, product quality advancement, automation, and digital transformation. At Sidenor plant specific digital technologies for evaluating scrap quality and electric arc furnace processes optimization were implemented. At Stomana Industry, investment in the new rolling mill facilitated expansion of the special steels (SBQs) production range, and improved product quality. In addition to this, the company received the Environmental Product Declaration (EPD), for SD concrete reinforcing steel in the form of bars and for hot-rolled plates, special steels and grinding balls. At Dojran Steel, photovoltaic panels were installed on the roof of the plant in an attempt to decarbonize its indirect emissions by replacing carbon-intensive grid power with renewable energy.

Outlook

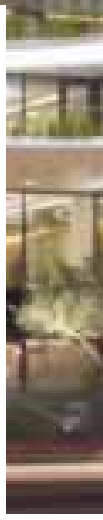
In 2023, the steel segment's companies will maintain their efforts to effectively adapt to ongoing market changes, further enhancing competitiveness and operational efficiency.

Further information on the steel segment is available on the Sidenor website: www.sidenor.gr



Real estate





Revenue
(EUR thousands)
2022:
30,409
2021: 18,667

EBITDA
(EUR thousands)
2022:
12,702
2021: 27,921

a-EBITDA
(EUR thousands)
2022:
12,914
2021: 6,618



Real estate

Noval Property

Steelmet Property Services



Activities

---Viohalco derives value from the real estate sector through its subsidiaries, by developing and managing large-scale commercial properties.

The segment mainly consists of Noval Property, a leading Real Estate Investment Company ('REIC') active in real estate development and investment, and Steelmet Property Services S.A., which provides a wide range of centralised real estate, property and facility management services.

Noval Property owns a diversified, high quality and resilient portfolio of real estate assets, including offices, hospitality properties, shopping centres, retail parks, logistics, and residential assets. With a highly marketable modern real estate portfolio characterized by significant geographical distribution, Noval Property is currently the second largest REIC in Greece.

Underpinned by a strong capital structure, Noval Property is implementing a strategic investment plan aimed at sustainable growth, by enhancing and enriching its balanced real estate portfolio with environmentally accredited buildings mainly in Greece.

In December 2021, Noval Property issued a Green Bond of EUR 120 million to finance the company's strategic investment plan. The Green Bond, which is the third green bond issued in the Greek capital market, is listed on the Athens Stock Exchange and is included in the recently introduced "ATHEX BONDS GREENet" section of the Athens Stock Exchange.

Properties

At the end of 2022, Noval Property's portfolio comprised 62 (1through a participation in a real estate company) properties. The main income generating properties within Noval Property's portfolio are the following:

Office	The Orbit office campus	115 Kifissias Avenue, Athens, Greece
Retail	River West Shopping Centre	96-98-100 Kifissou Avenue, Egaleo, Athens, Greece
Retail	IKEA Megastore	96-98-100 Kifissou Avenue, Egaleo, Athens, Greece
Hospitality	Wyndham Grand Athens Hotel 5*	Karaiskaki Square, Athens, Greece
Retail	Mare West Retail Park	Corinth, Greece
Retail	River West Open	1-3-5 Proodou Str., Egaleo, Athens Greece
Office	16 Himaras Str., office building	Maroussi, Athens, Greece
Office	33 Amarousiou Chalandriou Str., office building	Maroussi, Athens, Greece
Office	57 Ethinikis Antistaseos Str., office buildings	Chalandri, Athens, Greece
Office	Butterfly office building	26A Apostolopoulou Str., Chalandri, Athens, Greece



Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**30,409**	**18,667**
Gross profit	**11,445**	**3,555**
Gross profit (%)	37.6%	19.0%
EBITDA	**12,702**	**27,921**
EBITDA (%)	41.8%	149.6%
a-EBITDA	**12,914**	**6,618**
a- EBITDA (%)	42.5%	35.5%
EBIT	**3,424**	**19,144**
EBIT (%)	11.3%	103%
a-EBIT	3,636	-2,159
a-EBIT (%)	12.0%	-11.6%
Profit before tax	**-2,188**	**15,347**

-All percentages are vs. revenue

2022 Financial performance

Revenue for the real estate division amounted to EUR 30 million in 2022 (2021: EUR 19 million), while **loss before income tax** reached EUR 2 million (2021: profit EUR 15 million). It should be noted that Viohalco applies the historical cost in investment property, while Noval Property, the main Real Estate division subsidiary, follows the fair value model. Noval Property 2022 earnings before taxes, based on fair value model, amounted to profits of EUR 25.3 million.

As of 31st December 2022, Noval Property's diversified portfolio comprised 62 properties (one, indirectly, through a joint venture with a real estate fund), mainly in Greece and selectively in Bulgaria. The portfolio comprises offices, shopping centres, logistics, residential and hospitality assets, with a total built area of c. 465.000 sq.m.

Noval Property recorded a 17.7% year-on-year increase in the fair value of its investment portfolio to EUR 486.4 million (as per Investment Schedule as of 31 December 2022), despite difficult market conditions with high inflation and increasing interest rates stemming from the geopolitical instability in Europe.. This growth was achieved through new acquisitions, active and efficient asset management,



construction of captive development projects and maturing new development projects that followed the successful issue of a EUR 120 million Green Bond (listed on Athens Stock Exchange) in December 2021.

During H1 2022, Noval Property strengthened its investment portfolio through the acquisition of 18 new assets located in Greece, via a share capital increase by means of in-kind contribution.

In H2 2022, Noval Property acquired three additional properties in Marousi (Attika, Greece): an existing office building that is being renovated and environmentally upgraded, and two assets that will be developed into a modern, sustainable and smart office building, integrating the principles of bioclimatic design. Both projects aim to obtain LEED environmental certification.

Active and efficient asset management led not only to additional leases (mainly in relation to the River West Shopping Centre expansion), but also to the replacement of existing lease agreements with new leases at more favourable rental terms, reflecting the increased demand for high-quality, bioclimatic, green accredited and environmentally sustainable buildings.

Outlook

Looking ahead, Noval Property will continue to actively manage its real estate portfolio and to implement its captive pipeline. The company continues thus to dynamically develop its real estate portfolio, by investing, among other things, in the development of high quality, modern and environmentally certified office buildings, logistics, hotels, residences, retail complexes and mixed-use urban regeneration projects located in prime property areas. Furthermore, Noval Property will progress with the preparation of its planned listing on the Athens Stock Exchange.

Further information is available on the Noval Property website: www.noval-property.com



Steel products



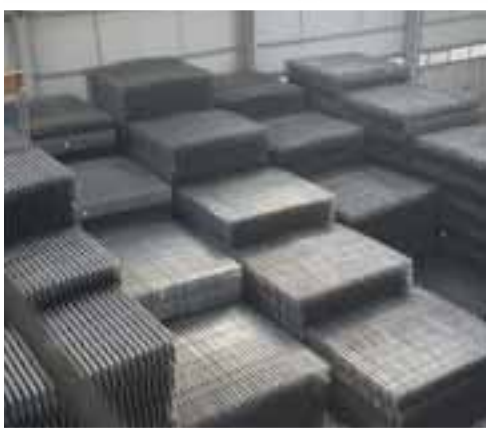












Real estate









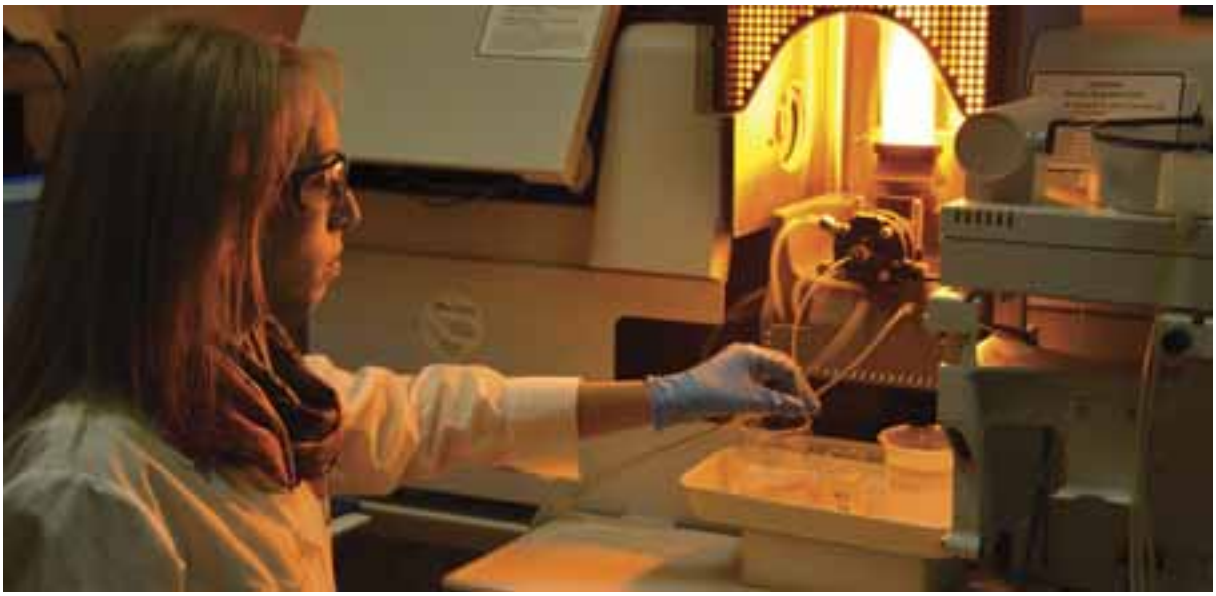




R&D&I and Technology







Activities

Viohalco's dedicated research, development and innovation ('R&D&I') companies and in-house production plant R&D&I departments focus on:

- developing new and high value added products;
- providing efficient solutions to optimize business and industrial processes;
- improving the efficiency and environmental performance of plants;
- developing innovative applications for industry, energy and environment (including pioneering solutions in the fields of ERP, CRM, BI, traceability and others).

The segment's activities are supported by three companies:

1. Elkeme Hellenic Research Centre for Metals S.A. ('Elkeme'). Elkeme focuses on applied industrial research and the technological development of the four major metals sectors (aluminium, copper, steel and zinc). Elkeme provides R&D&I services and technical solutions for new products, and also optimises existing products and production processes. Elkeme is certified according to ISO 9001:2015 and operates an ISO 17025:2017 accredited analytical chemistry laboratory.
2. Teka Systems S.A. ('Teka Systems') delivers engineering and construction projects for the steel, aluminium, copper, power and telecommunication cables industries, commissions industrial equipment, drives process automation through the integration of technologies in projects, and implements IT projects in ERP, CRM, BI and analytics, among others.
3. Praksys S.A. ('Praksys') develops, markets and oversees the implementation of new technologies in structural and concrete reinforcing steel. It has developed Synthesis™, a unique system for the industrial-scale prefabrication of reinforcing steel. Praksys has also developed a complete software package to accompany the technology, including components such as product design, machine operation control, e-ordering, production planning and logistics.

The R&D&I work of the Viohalco companies' technology departments is as follows:

- Elval Technology Centre engages to a wide series of projects with the following as main tasks:
  I) Internal impact
  Continuous improvement of all our processes expecting less through put time, consistent product properties and class A quality, high yield etc. resulting to lower

cost, less stock, less capex, less energy consumption less emissions.

II) External impact

Increase scrap content and reduce primary, focusing to less overall carbon footprint and natural resources preservation.

Specifically, the Technology center is working to develop "customized alloys", "thermo-mechanical processes" to meet customer's special requirements and technical challenges.

1. Finetuning of Can Body Stock (CBS) alloy to improve material formability and performance in can plants.
2. Development of new brazing products for the battery cooling plates of the EV platforms, a market that will grow significantly in the next years.
3. In-house development of optimizers for the capacity increase in production machines and for the optimum mix of raw materials during casting, targeting the maximization of scrap consumption and minimization of primary aluminium, which will result in the reduction of the CO_2 footprint.
4. Development of new technology metal-lacquer systems for the beverage and food industry to meet new the higher new demands of the customers.
5. Statistical Process Control (SPC) through advanced software systems, of the important production parameters on each production stage.

- Symetal's Technology Department: develops technologies that introduce and ensure innovative surface design and enhanced mechanical characteristics. These technologies allow high aluminium foil affinity control for laminates and coatings, as well as flawless forming. Symetal also focuses on the development of battery foil, which is used in the automotive rechargeable batteries industry. Symetal Battery Foil (SBF) resides at the core of Li-ion batteries, as part of its core electrodes. The technical and quality requirements for such a product are extremely high. At the same time, the reduction of rolled aluminium thickness to as low as 11 microns, allows next generation batteries to achieve a significant increase in the amount of energy stored. SBF special alloying and innovative production process is the result of extensive testing with established European rechargeable battery cells manufacturers.
- Elval Colour R&D department: in collaboration with architects and material suppliers the department develops colours through identification and experimentation to create new pigments, innovative surfaces and designs. The department also digitizes colour measurement for quality control; develops coating technologies in cooperation with equipment and coating suppliers to investigate coating processes that are more environmentally and consumer-friendly, consume less energy and contain lower or no VOCs; develops polymer compounds for faster productivity and higher fire- resistance, and explores material recyclability and material functionality. It also develops in-house and in-joint R&D projects, and new methods for the identification and analysis of material long-term performance. Elval Colour participates in numerous ongoing projects with universities relating to material performance evaluation methods, market research, and the long-term impact of coating materials on the environment. It also participates in European Technical Committees for standards' publications and updates.
- Bridgnorth Aluminium R&D Centre: develops products for new and existing customers through alloy design, laboratory testing and plant based experimental trials. Extensive work to measure and control surface and bulk properties of new and existing products is supported by our metallurgy and chemistry laboratories. The R&D team also provides technical expertise at each stage of the production process from casting through to final cold rolling and finishing. It also collaborates with UK university experts and participates in government funded industrial research projects to explore emerging technologies, such as battery technology for the automotive sector.
- Halcor's Technology Department: manages Research & Development projects, generating new and enhanced products that provide added-value solutions to clients and end-users. New alloys are designed to meet the demands of application technologies, such as, high-strength copper alloys for high-pressure refrigeration systems, lead-free brass alloys for sustainable plumbing parts and fittings, enhanced metallurgical structure of copper and brass tubes that give high-forming capabilities for special HVACR and automotive applications. Halcor offers a dedicated Client Technical Service (CTS) that supports the transfer of R&D results to customized product design and optimization, such as copper and brass tubes designed for intricate bending and expansion, copper tubes designed for specific pressure ratings depending on refrigerant type, customization of pre-insulated copper tubes with in-house design and production of thermal insulation for enhanced reaction to fire, selection of optimum brazing conditions in tube joints, design of brass rods and wire for specific machining conditions, technical consultation on chemical compatibility with water and other chemical mixtures.
- Halcor's Tube Heat Transfer Laboratory: The Heat Lab is one of the few dedicated R&D laboratories worldwide that measure the heat transfer performance of plain and inner-grooved tubes (IGT). TALOS®IGT seamless copper tubes feature internal grooves which significantly enhance the amount of heat transfer during evaporation or condensation of refrigerants. Test data derived from the laboratory enables Halcor to offer specialized technical support to manufacturers of heat-exchangers with the aim of optimizing their heat-exchanger design and achieving higher energy efficiency.
- Halcor's Industrial R&D&I Projects:
  - Teaching Factory: Teaching Factory Competence Center is a new non-profit legal entity offering training, technical and consulting services, in fields such as Remote Support based on Industry 4.0 technologies, Autonomous Collaborative Robots, AR/VR technologies, Continuous Improvement (Lean 6σ), Process and Production simulation, Advanced materials treatment, 5G solutions and Digitalization of production plant.
  - TRINEFLEX: Research project on Transformation of energy intensive process industries through integration of energy, process, and feedstock flexibility, through the implementation of a holistic predictive maintenance scheme.
  - Industrial PhDs initiated in conduction with the

University of Patras on the subject of hierarchical digital twin of production processes.

- Sofia Med Product and Process Development Department (PPD Dpt.): The main responsibilities of the department include developing new products, establishing the methods for producing the highest quality material at the lowest possible cost, maintaining the highest level of quality, providing excellent customer service and successfully homologating new customers.PPD during 2022 succeeded to develop for Cu and Cu alloys products, new production processes with less production time and less production steps in foundry, hot, cold rolling and especially in annealing. This resulted in increased productivity in certain products, reducing the cost, but also increasing capacity, avoiding thus to overload the production bottlenecks. Installation of a new SEM (scanning electronic microscope) in Sofia Medwill be very important for our future product development, quality and technical support to our customers. Finally, the trials for production of two major coin alloys were very important, their target being to reduce the total cost of the final blank products are produced by Epirus Metalworks.
- Hellenic Cables companies: employ a team of highly skilled R&D engineers utilizing advanced software tools and modern testing facilities and pursue core product development research, innovation, the redesign/optimization of existing products and technical support across three business units (two in Greece and one in Romania). The company's R&D activities include participation in international knowledge development programmes, such as CIGRE working groups and conferences and Horizon EUROPE programmes. These efforts support the companies' wider strategy towards the production of more sustainable products with lower environmental impact. Beyond the R&D personnel, it is worth noting that Hellenic Cables SA has several state-of-the-art testing laboratories in its factories. Particularly, at the Oinofita compounding plant, there is a testing polymer laboratory. The main focus of the laboratory is the development of new recipes for non-conductive cable components, chemical analysis and identification of raw materials, with emphasis on quality control and thorough analysis of polymers for underground high and extra-high voltage cables as well as submarine cables. The laboratory is also a in the research and development of new plastic and elastomer compounds. In addition, the cable production plants have also testing laboratories with a full range of testing equipment, capable of carrying out complete mechanical and electrical tests of products in accordance with international standards.
- Corinth Pipeworks R&D Centre focuses on the optimization of a wide range of pipe manufacturing and coating processes by (a) continuous internal trial productions and (b) modelling of specific processes and (c) advanced material testing protocols. Aim of company's R&D is to develop products for demanding applications (e.g. sour service, deep offshore, high strain applications such as reeling), to achieve enhanced product uniformity and extend each mill's production range as well as to develop advanced destructive, corrosion and non-destructive specialized testing techniques, providing state-of-the-art solutions. Corinth Pipeworks has successfully concluded an extensive R&D campaign for the safe transportation of hydrogen at high pressures through specialized testing of large diameter/high strength steel pipelines and has been the first pipe manufacturer to provide a technically and economically feasible solution on this application. In addition, the company has installed within its Thisvi plant premises a state-of-the-art lab for pipe testing in high pressure hydrogen, supporting fully its customers and its innovative R&D programme. Thus, pipes produced today and installed in the current gas network can cover the energy mix of tomorrow. The potential of hydrogen to build a sustainable energy mix in the future and achieve global decarbonisation targets is substantial, and Corinth Pipeworks is providing solutions to its customers to reach their goals. The results of this successful R&D initiative have been proven this year already, with the delivery of a number of hydrogen-certified international pipeline projects.

2022 Financial performance

R&D&I expenditure (both expensed and capitalised) in 2022 amounted to EUR 24.7 million. The reported amount is based mainly on the provisions of the Frascati manual (OECD standard of conduct for R&D surveys and data collection) and on the relevant International Financial Reporting Standards ('IFRS').

Further information on the companies are available on their websites:
About Elkeme: www.elkeme.gr
About Teka Systems: www.tekasystems.gr

Other activities



Other activities mainly encompass expenses incurred by the parent (holding) company, along with the results of companies which operate in the Technology and R&D&I segment, ceramic trade activities (Vitruvit) and resource recovery segment. **Profit / Loss before income tax** amounted to EUR – 1 million (2021: EUR 3 million).

Key financials

Amounts (EUR thousands)	2022	2021
Revenue	**87,568**	**64,134**
Gross profit	21,040	23,310
Gross profit (%)	24.0%	36.3%
EBITDA	**6,095**	**8,541**
EBITDA (%)	7.0%	13.3%
a-EBITDA	**6,613**	**9,008**
a- EBITDA (%)	7.6%	14.0%
EBIT	**1,225**	**4,307**
EBIT (%)	1.4%	6.7%
a-EBIT	1,742	4,774
a-EBIT (%)	2.0%	7.4%
Profit before tax	**-710**	**2,813**

-All percentages are vs. revenue





F. Subsequent events

On March 9th, 2023, Viohalco Board of Directors decided to propose to the Ordinary General Shareholders' meeting to be held on May 30th, 2023, the approval of a gross dividend of EUR 0.12 per share.

The corporate transaction for the Strategic Cooperation Agreement, through the merger with absorption of Etem by Cosmos Aluminium (Note 22), is expected to be finalized within April 2023.

No other subsequent events for which disclosure is required in the Consolidated Financial Statements have occurred since 31 December 2022.

G. Risks and Uncertainties

Viohalco's Board of Directors is responsible for assessing the risk profile of the Company's subsidiaries. As Viohalco is a holding company and does not have itself any production operations, customers, suppliers, or personnel (besides employees for administrative tasks), the risks affecting it are attributed to its subsidiaries and their operations, suppliers, clients and personnel. Each Viohalco company is therefore responsible for the identification, measurement, analysis, response (mitigation), control and monitoring of its own risks.

To support this, a set of common guidelines for an Enterprise-wide Risk Management ('ERM') framework across Viohalco companies exist. These guidelines include principles for effectively managing risk across all subsidiaries. Furthermore, the framework provides guidelines on how best to address these risks and facilitates discussion on risk management issues.

Viohalco's executive management, in consultation with the Board of Directors and an independent internal audit department, is responsible for assessing possible risks and their control mechanisms across subsidiaries. The objective of this evaluation is to enable the Company to determine whether the subsidiaries have managed risks in a proactive and effective way to mitigate them to acceptable levels.

Viohalco's ERM process comprises the following steps:

a) Identify key risks and measure / analyze their potential impact and likelihood. This is done at company level as all financial, operational, compliance and strategic risks are associated with each company's operations.
b) Manage and respond to those risks by considering existing controls as well as selecting, prioritizing and implementing appropriate actions. This step is also done at company level, following the general principles outlined in the ERM framework.
c) Control and monitor the internal and external environment for potential changes to risks, ensuring risk control continue to be effective. Each company monitors its risks and risk responses, using the common ERM guidelines but with separate procedures, systems and mechanisms put in place by each company's management.

A consolidated review of the subsidiaries' financial performance, including potential risks is undertaken at Viohalco executive management level, by the internal audit department, the outcome of which is presented to the Audit Committee and the Board of Directors. The Audit Committee monitors the effectiveness of the subsidiaries' internal control and investigates specific aspects of internal control and risk management on an on-going basis.

Key risks

Risks are classified into two main categories – 'Financial' and 'Business'.

Financial risks consider market risk affecting the activity of each subsidiary (such as exchange rate, interest rate and commodities risk), as well as credit, cash flow and liquidity risks. Business risks, broadly defined as all risks that are not balance-sheet related, are broken down into further sub-

categories, to help better understand and react to the different risk events:

a) Operational and technology - the risk of loss resulting from inadequate or failed processes, people, and systems, or from external events.
b) Compliance and reputational - possible negative impacts (economic – fines, penalties, etc. and other – exclusion from markets, etc.) of non-compliance with existing regulations and standards. For example, impact on brand image, business reputation and accounting risk.

Strategic – those risks relating to the wider business environment (e.g. the macroeconomic environment, the sector / industry conditions, etc.) the market, competition, and medium to long-term decision making that may impact business continuity and profitability.

Financial risks

Interest rate risk

Significant movements in interest rates may expose subsidiaries to higher borrowing costs, lower investment yields and/or decreased asset values. As a general rule, entities do not enter into speculative positions on interest rates but always follow hedging strategies i.e., matching duration of assets and liabilities. However, given the current interest rate environment, each entity where possible secures fixed (and low) rate financing lines to cover medium and long term capital needs and avoid variations in cash flows.

If necessary, subsidiaries use derivatives to hedge any remaining interest rate risk. Strict rules and limits, specific to each entity, regulate the use of such instruments.

Currency risk

Viohalco participates in a large number of companies with production plans and commercial relations spanning the globe. As such, they are exposed to financial (transaction), accounting (translation) and economic potential losses due to volatility in foreign exchange rates.

Companies manage this risk in a prudent manner, implementing natural hedges whenever possible (i.e. matching currencies in anticipated sales and purchases, receivables and liabilities) and using standard hedging products, such as forward contracts, if necessary.

Commodity risk

Most Viohalco entities are industrial companies, using ferrous and non-ferrous raw materials as inputs. Fluctuations in commodity prices (especially metals and particularly copper, zinc and aluminium) may therefore expose them to lower product margins or trading losses.

Future contracts traded in the London Metal Exchange ('LME') offer the obvious hedging choice for companies active in such metals. First, all metal price fixing sales and purchase contracts are netted daily and the net open commodity position is hedged by LME future contracts so that Viohalco companies exposure to commodity price risk is limited.

Additionally, Viohalco subsidiaries may be affected from fluctuations in energy prices. This risk is impacted by the ongoing war in Ukraine. Monitoring of price indexes and forecasts, along with hedging mechanisms for longer term contracts, are utilized to protect companies from significant fluctuations in natural gas and electricity prices.

Liquidity risk

For industrial companies, such as those forming the largest part of Viohalco's holding portfolio, liquidity risk is the risk that a business will have insufficient access to readily available funding to meet its financial commitments in a timely manner. Its two key elements are short-term cash flow needs to cover working capital fluctuations and long-term funding risk. The latter includes the risk that loans may not be available when the business requires them or that such funds will not be available for the required tenor or at acceptable cost levels.

Such risk may come from seasonal fluctuations, business disruptions, unplanned capital expenditures, an increase in operational costs, a narrow funding market and other reasons causing inadequate cash availability. Viohalco companies constantly monitor cash flow needs and, on a quarterly basis, report monthly rolling forecasts to ensure sufficient cash and revolving credit facilities are on hand to meet its operating needs. Through monthly financial reports, they closely track operating cash flow indicators, liquidity and leverage ratios and continuously assess funding availability, both in the local and international markets.

Finally, the Viohalco companies mitigate liquidity risk through careful cash flow management including optimizing working capital and maintaining unutilised, committed financing facilities from a diversified number of financial institutions. These allow subsidiaries to easily meet their financing requirements or contingencies.

Credit risk

Selling to a large number of customers spanning vast geographical regions and many sectors across the world, unavoidably creates credit risk for Viohalco companies as their customers may default on their obligations. Such credit risk may be accentuated if a significant portion of sales is concentrated on a specific area, sector, or small number of clients.

This risk is greatly mitigated by (a) avoiding receivables concentration of any kind, (b) running robust and frequent creditworthiness checks on customers via credit rating agents, (c) setting relevant payment terms and credit limits, (d) demanding real or other security (e.g. letters of guarantee) for receivables whenever possible, and, finally, (e) using credit insurance extensively.

Business risks

A. Operational and technology risks

Channel effectiveness risk

Poorly performing or positioned distribution channels may affect the subsidiaries' ability to effectively and efficiently access existing markets and potential new customers and end users.

Subsidiaries manage the effectiveness of their sales network by appointing commercial executives per project/market. Periodic budget reviews are used for assessing and monitoring the effectiveness of distribution channel and mitigating related risks.

Procurement / Sourcing risk

The availability of essential raw materials, metals, energy and other key commodities may threaten Viohalco companies' ability to produce quality products at competitive prices on a timely basis. As such, all companies continuously aim to minimize the likelihood of such a risk occurring. Relevant measures include maintaining a well geographically diversified suppliers base, whenever possible, the existence of alternative materials lists, the establishment of Service Level Agreements with key vendors and reduced reliance on spot markets through the use of long term contracts.

Operation interruption risk

The danger of equipment, systems, people, services, or process failure may threaten Viohalco companies' capacity to continue operations. This being a critical factor for industrial production, all subsidiaries diligently maintain their equipment, following well planned maintenance schedules formulated by their specialized maintenance departments. Plant equipment and production lines are also upgraded systematically to integrate new technologies and reduce obsolescence risk. All spare parts and consumables are gauged on criticality and safety stock levels are monitored. Some plants, facilities and production lines are interchangeable and have been mapped to ensure shifting and continuation of production if such a need arises. This risk is greatly mitigated by using business interruption insurance policies.

Product failure risk

Faulty or non-performing products may expose Viohalco companies to customer complaints, warranty claims, field repairs, returns, product liability claims, litigation and loss of revenues, market share and business reputation damage.

In order to proactively mitigate the risk arising from actual or claimed defects in its products, companies have established rigorous quality management systems at their plants. They apply fixed and formalized quality control procedures, while maintaining appropriate insurance coverage against such claims. Quality control procedures include sample testing per production batch or at item level at specific phases of production, establishment of monitoring equipment at set production phases and production lines and work centers to capture defects, and the implementation of end-to-end traceability systems, among others. In addition, companies have product liability insurance policies in place.

Information technology (IT) risk

IT risk is usually defined as the likelihood of occurrence of a particular threat (accidentally triggered or by intentionally exploiting a vulnerability) and the resulting impact of such an occurrence on IT systems and processes.

Most Viohalco companies are capital intensive and rely heavily on IT systems to guide and optimize production. IT systems bear a number of risks that arise naturally in the production environment, and thus the commercial environment overall, and may result in losses or legal liability. Such risks can revolve around disruptions due to IT equipment failure, disasters, human errors as well as unauthorized use, disclosure, modification, destruction of information, among others.

Adequately identifying gaps that may result in risks, assessing the maturity of the existing controls, and identifying and implementing risk mitigation actions is an ongoing process that must consider evolving threats, controls, and the regulatory landscape. The continuous identification and application of appropriate and proportional controls that limit exposure against the aforementioned threats is vital to the integrity of IT systems in all companies and are legal requirements.

Viohalco is conducting risk assessments and gap analyses against operational IT and information security risks in order to evaluate and continuously ameliorate its overall IT risk posture, as well as to comply with 2016/679 EU General Data Protection Regulation ('GDPR').

As well as using industry standards for data and systems protection, companies request the services of Teka Systems, a subsidiary of Viohalco, focused on the implementation, customization and support of information systems. Teka is the official competence center of Viohalco and offers tailor-made applications and software support to Viohalco's industrial companies as necessary.

Privacy risk

Viohalco recognizes the need to protect personal data, not only as a legal compliance requirement vs the 2016/679 EU General Data Protection Regulation and other standing legislation, but also for the added value and competitive advantage it offers. The company is committed to protecting the personal data of employees, customers, suppliers, partners and investors. The aim is to adhere to the international standards and best practices and thus minimize risk against the privacy of individuals and their personal data. To that end, Viohalco adopted and implemented a Personal Data Protection Policy, set specific roles, procedures and controls for the protection of personal data throughout the activities spectrum of its subsidiaries, along with the establishment of overviewing mechanisms on risk mitigation actions and their continuous improvement.

B. Compliance and reputational risks

In response to requirements arising from Viohalco's stock exchange listings, the Company has established the necessary structures and procedures to ensure continuous compliance and protect its reputation. This includes the adoption of its Corporate Governance Charter, which covers issues such as directors' and managers' accountability, good governance principles, insider trading, and conflicts of interest.

Laws and regulations apply to many aspects of subsidiaries' operations including, but not limited to, labor laws, health and safety, environmental regulations, and building and operational permits, among others.

Viohalco requires all companies in its holding portfolio to abide by all laws and regulations, whether at a local, European or international level. These may relate to health and safety in the production plants, labor and human rights, the protection of the environment, anti-corruption, bribery and financial fraud. Viohalco requires its subsidiaries to develop their own policies for all such matters and to be exclusively responsible for compliance with these.

Additional details are given in the Non-Financial Information Report section of this Report.

C. Strategic risks

Country risk

Adverse political actions may threaten subsidiaries' resources and future cash flows in a country in which each subsidiary has invested, is dependent on for a significant volume of business or has entered into a significant agreement with a counterparty subject to the laws of that country.

Companies address this risk by differentiating their manufacturing and market reach. Viohalco companies currently have manufacturing sites in eight countries, a commercial network in 21 countries and products distributed in more than 100 countries worldwide.

They also monitor the developments in the international and domestic environment on a continuous basis and adapt business strategy and risk management policies in a timely fashion to minimize the impact of macroeconomic conditions on their operations.

Industry risk

Changes in opportunities and threats, competitors' capabilities, and other conditions affecting the subsidiaries' industries may threaten the attractiveness or long-term viability of these industries. Industry risk of the subsidiaries, which is related to the specific industry in which they operate, is primarily associated with the cyclicality of demand and the substitution rate of some products.

Companies manage the former by expanding exports to global markets, to disperse cyclical exposure across geographical areas. The risk of substitution is addressed through differentiation of the product mix, for example by shifting a portion of production to products where the substitution rate is lower.

Competitor risk

The actions of competitors or new entrants to the market may impair any company's competitive advantage or even threaten its ability to survive. Hence, strategic issues regarding response to competition are assessed as part of the annual budget process and strategic plan of all Viohalco companies.

Exposure to competitor risk is captured through a daily review of market information. Relevant mitigating actions include a strong commitment to quality throughout the production phase, a competitive pricing policy in commodity products and a targeting of high-margin products.

Technological innovation risk

As technology rapidly evolves, companies in Viohalco's holding portfolio must ensure adequate innovation and investment to remain up to date. If they do not invest in the IT infrastructure necessary to effectively support current and future business requirements, this could affect sales, costs and revenues.

In addition, companies may not successfully leverage advancements in technology to achieve or sustain competitive advantage or may be exposed to the actions of competitors or substitutes that do leverage technology to attain superior quality, cost and/or time performance in their products, services and processes.

This strategic risk is primarily managed by Viohalco companies through the establishment of technical assistance and knowledge transfer agreements with global leaders in various sectors where the subsidiaries are active. All companies invest strongly in R&D and cooperate with scientific bodies and prominent international research centres. This strong focus on technology and innovation is also demonstrated through dedicated R&D departments at a number of Viohalco companies.

1. The set of perceptions about the company by the different stakeholders with whom it interacts, both internal and external.
2. The risk which concerns the proper and true economic and financial reflection of the companies' reality as well as compliance with all related regulations (IFRS, etc.).

H. Non-financial information

Introduction

This document represents the Consolidated Disclosure of Non-Financial Information (hereinafter also the "Non-Financial Disclosure", "NFD", "Statement" or "Sustainability Report") prepared according to the Belgian Code of Companies and Associations (Legislative Decree no. 83180/11.09.2017) by Viohalco S.A. ("Viohalco", "the Company") for the financial year 2022.

The objective of this NFD is to provide an overview of the 2022 critical achievements of Viohalco and its subsidiaries and an overview of the main risks, opportunities, and key performance indicators concerning the non-financial matters such as environmental, social and employee matters, anti-bribery, anti-corruption, diversity, and human rights issues also referred to as Environmental, Social, and Governance (ESG) topics.

The NFD includes non-financial information for Viohalco and its subsidiaries that affect various sustainability topics, potentially having a financial impact. The companies that contribute significantly come from all major operating segments except for the real estate and R&D&I segments. These two segments do not significantly impact the overall performance due to their relatively smaller size, and their overall, lower environmental and social impacts.

The NFD has been drawn up per the United Nations' Sustainable Development Goals (SDGs) reporting framework, which embraces a comprehensive and universal approach to sustainability issues facing today's societies. The SDGs are a list of 17 interconnected global goals, designed to be a "blueprint for achieving a better and more sustainable future for all", that address current challenges societies over the globe are facing. The 17 goals have 169 underlying, more specific targets that stimulate action in areas of concern. While Viohalco subsidiaries directly or indirectly impact the 17 SDGs, the NFD focuses on the SDGs directly impacted by or affected by the activities of the Company and its subsidiaries.





2022 highlights

Occupational health and safety audits

Viohalco subsidiaries have completed the initial round of diligent, third-party health and safety audits on the 16 largest industrial installations preparing the way for the launch of the 2023 improvement plan.

Whistleblowing mechanism

Viohalco and its subsidiaries have established a whistleblowing mechanism and launched "Integrity Hotline" link on all company internet websites.

Software platform for sustainability data

Viohalco subsidiaries have successfully launched a new, cloud-based, software platform for the management of sustainability data across subsidiaries.

Linkage of remuneration

Viohalco subsidiaries have linked senior management variable compensation packages to critical ESG related matters, incentivising high performance and promoting significance of ESG matters across the organisation.

Launched Responsible Sourcing Initiative for suppliers

Viohalco subsidiaries started implementing Ecovadis surveys for its suppliers to improve sustainability performance across their supply chain. These assessments evaluate suppliers on various sustainability metrics such as environmental impact, labour practices and ethical behaviour.

EU Taxonomy

Viohalco subsidiaries have evaluated their business activities against EU Taxonomy criteria, and they publish the proportion of their turnover, capital expenditure and operating expenditure related to "Taxonomy-eligible and Taxonomy-aligned activities.

TCFD

Viohalco is pursuing to adopt the Task Force on Climate-related Financial Disclosures (TCFD) framework to communicate management approach on climate-related risks and opportunities transparently and demonstrate its commitment to addressing the impacts of climate change.

€ 34.8 mil
Environmental expenditures

€ 16.8 mil
Health and safety expenditures

142,500
Training hours



15.2%

increase on environmental expenditures compared to 2021

12.4%

increase on health and safety expenditures compared to 2021

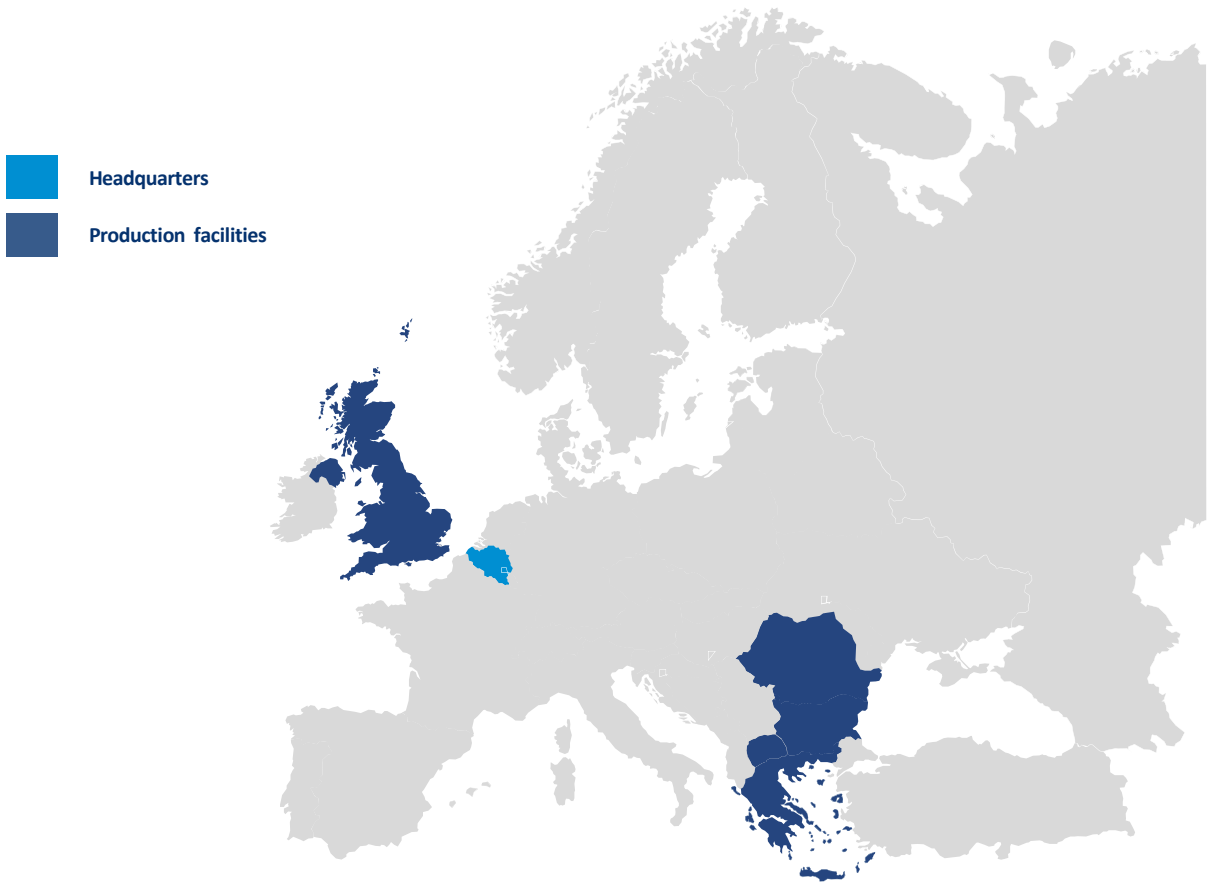
100%

subsidiaries under scope certified with ISO 14001 and ISO 45001

Business Model

Viohalco is a Belgium-based holding company listed on Euronext Brussels Exchange (VIO) and the Athens Stock Exchange (BIO). It comprises leading metal processing companies across Europe with diverse metal sector activities and an international presence. Production facilities are located in Greece, Bulgaria, the United Kingdom, Romania and North Macedonia, representing the countries where Viohalco has majority ownership and managing control of the subsidiaries operating in these countries.

Figure 1: Viohalco's geographical locations

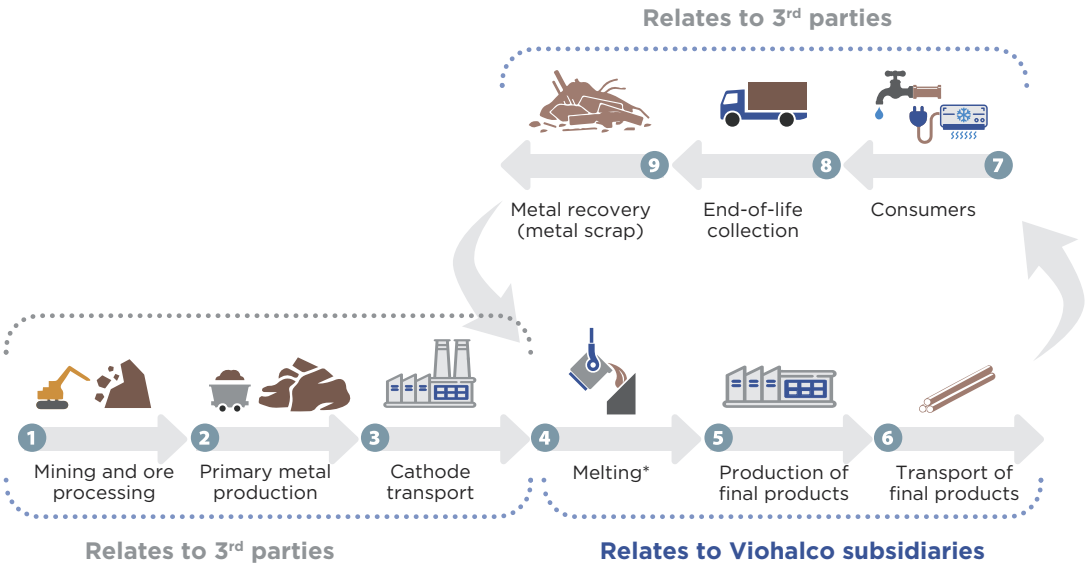


Viohalco subsidiaries are committed to sustainable manufacturing of high-quality, circular, innovative, and low-carbon products and solutions. The portfolio of Viohalco encompasses a range of dynamic markets such as building and construction, packaging, transportation (automotive, shipbuilding and rail), energy networks (offshore energy, utilities and power grids, renewable energy, gas and liquid fuels), HVAC&R (heating, ventilation, air conditioning and refrigeration), water supply, telecommunications, printing, and various industrial applications. Additionally, the company's portfolio includes a segment dedicated to technology and R&D&I, comprising companies that focus on product innovation, industrial research, technological development, engineering applications, and ERP application services. Viohalco is also active in the real estate sector through a Real Estate Investment Company that creates value through the commercial exploitation of its diversified and high-quality portfolio spanning offices, shopping centers, hotels, and logistics.

Viohalco subsidiaries offer products and solutions that closely align with the current global trends and goals for a more sustainable future. The companies provide, among others, products that are up to 100% recyclable, with high recycled content by utilizing secondary raw materials, thereby adhering to the principles of the circular economy. The product line of industrial products and services enable the transition to climate neutrality through, e.g. the capability to transport green hydrogen, electrification enabling technologies that transform the transport sector as well as contribute to urbanization through sustainable buildings and cleaner and healthier forms of private and public transport. Additionally, the companies contribute to technological advancements by enhancing digitalization, clean and affordable energy, and construction and operation of sustainable buildings.

Viohalco subsidiaries' production model is centered on secondary production and downstream metals processing.

Figure 2: Position in the value chain



*casting of metal, alloys, and manufacture of semi-finished products

Secondary production of metals refers to the remelting and recycling of metals from scrap or waste materials, as opposed to primary production, which involves extracting metals from mining. Downstream processing of metals refers to any activity after the initial refining or remelting of the metal, such as manufacturing components or finished products from the refined metal. At the end of their useful life cycles, most Viohalco products across business segments are recyclable and can be reintroduced into the value chain with little waste or loss of quality, as shown in figure 3. The life cycle of Viohalco subsidiaries' products vary depending on the use, from a few weeks for sustainable aluminium packaging to over half a century for construction steel and power cables.

Due to the relatively low operational carbon intensity, Viohalco subsidiaries have less vulnerability to carbon pricing and a much lower risk of cost exposure than primary metal producers. Indicatively, the contribution of operational (scope 1 and 2) emissions of the major subsidiaries in aluminium, copper, cables, and steel pipes is less than 10%, with the remaining coming from scope 3 and more specifically the embedded emissions in the primary raw materials. This does not include the steel segment which relies on secondary raw materials for over 98% of its metal input, hence its raw materials contribution is significantly less. Some benefits of secondary metal production are outlined below:

Figure 3: Benefits of secondary aluminium, copper and steel production

Aluminium	Copper	Steel
✔ By using aluminium scrap, CO_2 emissions can be reduced by 92% compared to primary aluminium	✔ By using copper scrap, a reduction by 65% in CO_2 emissions can be achieved	✔ Using steel scrap in the production process reduces CO_2 emissions by 58%
✔ Recycling aluminium saves 95% of the energy needed for primary production	✔ Recycling copper saves 85% of the energy needed for primary production	✔ Recycling steel saves 70% of the energy needed for primary production
✔ One tonne of recycled aluminium saves up to 8 tonnes of bauxite, 14,000 kWh of energy, and 7.6 cubic meters of land		✔ Recycling one tonne of steel saves 1.4 tonnes of iron ore, 0.8 tonnes of coal, 0.3 tonnes of limestone and additives, and 1.67 tonnes of CO_2
		✔ Using recycled steel to make new steel reduces air pollution by 86%, water use by 40%, and water pollution by 76%

With the forthcoming energy transition, it is anticipated that many of Viohalco subsidiaries' products, such as steel construction products and aluminium and cables for RES installations, will see increased demand as they are vital for the decarbonization of the electricity grids around the world through anticipated RES growth, expansion of charging stations in e-mobility, transport of low carbon hydrogen, construction of sustainable buildings, lightweight mobility, sustainable packaging, as well as digitalisation.

The future success of Viohalco subsidiaries is closely linked to their ability to operate sustainably and responsibly. The subsidiaries are working diligently to develop additional goals towards carbon footprint improvements and energy efficiency measures and are also engaging more closely with suppliers to ensure responsible sourcing of raw materials and services, as discussed further in the next section (ESG Strategy).

Viohalco subsidiaries operate modern industrial plants with environmental foundations while at the same time manufacturing products that will play an important role in making Net Zero future a reality. One of the companies' strategic goals is to cover its electricity needs with renewable energy, and they are actively working to secure this in a long-term, reliable, and cost-effective manner. Furthermore, companies are also aiming at maximising raw materials closed loop cycles according to the circular economy principles and the European Green Deal initiatives.

One subsidiary, Hellenic Cables with the other companies in the cables segment, have set scientifically based climate targets in line with the Paris Agreement by committing to the Science Based Targets initiative (SBTi) to meet near-term (2030) and long-term net-zero targets by no later than 2050 in line with the 1,5°C target. Corinth Pipeworks (steel pipes segment) furthermore, has announced its scientifically based decarbonization targets for Scope 1 and 2 emissions in line with the Paris Agreement but cannot be validated according to the SBTi framework yet, since no sector specific guidance has been developed for the particular industrial activity. More information about Viohalco's climate change targets and measures can be found in the "Climate change and energy" section.

Viohalco subsidiaries are well positioned not only to operate in a low carbon economy but to increase market share as the operational model allows for the flexibility to operate with various quality metal sources. Focusing on sustainable action and long-term corporate procedures has helped Viohalco subsidiaries remain resilient in a changing market. In addition, they must navigate a changing regulatory environment, which can create competitive disadvantages due to the European regulatory framework and increasingly demanding environmental permitting and operational requirements. Energy prices and security are also a concern for Viohalco subsidiaries, and measures must be taken to ensure business continuity. More information about non-financial risks can be found in the "Integrated management of non-financial risks" chapter, page 102.

ESG Strategy

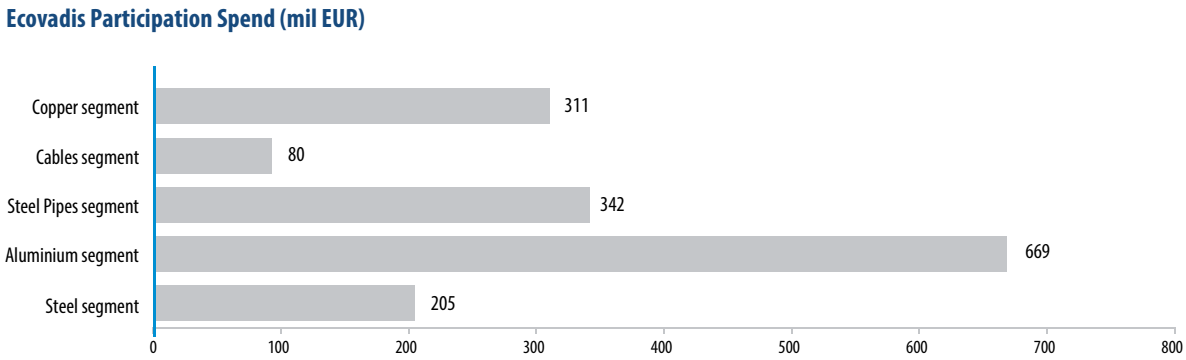
Viohalco and its subsidiaries are fully committed to sustainability and has integrated it into its strategy and decision-making processes. The subsidiaries aims to promote environmentally friendly methods and techniques, to develop products that have a positive environmental impact throughout their life cycles, to improve their environmental performance, operational health and safety, and prioritize human capital development. In line with the continuous improvement approach that Viohalco subsidiaries follow, sustainability goals and targets covering the ESG spectrum are set and incorporated into the business operations, recognizing that long-term business growth and social prosperity can only be achieved through integrating sustainability principles in the business model of all companies.

As announced last year, Viohalco made significant strides in sustainability matters by creating a comprehensive framework for its subsidiaries to operate within. The Environmental, Social and Governance Roadmap outlining the ESG Strategy was established by assessing risks and opportunities and integrating them into the business strategy. The ESG Strategy includes seven core corporate policies covering environmental, social, and governance matters. Various qualitative and quantitative metrics, internal and external controls for due diligence, and regulatory compliance are utilized to monitor these policies. The ESG Strategy also includes specific goals for industrial subsidiaries, such as the gradual replacement of electricity supply with RES, commitment to short and long-term carbon reduction targets, evaluation of top-tier suppliers on sustainability matters, and a five-year improvement action plan for health and safety.

More specifically, Viohalco subsidiaries are actively working towards the goal of replacing their entire electricity supply with RES in a reliable and cost-effective manner. As an example, Icme Ecab (Cables segment) entered a RES procurement contract for the second year in a row covering 100% of its electricity needs for 2023.

Viohalco subsidiaries launched a 5-year action plan to improve their health and safety programs across their operations (2023 being the second year of the 5-year plan). This plan is focused on reducing health and safety risks and ensuring a safer working environment for all workers and contractors. In 2022, the first round of external assessments by DuPont Sustainable Solutions (DSS+) was completed in the sixteen largest industrial plants. Viohalco subsidiaries have made progress in providing ESG training across subsidiaries, with over 1,000 training hours delivered. The training program focuses on topics such as equity, diversity and inclusion, and ethical behaviour at the employee and management levels. The subsidiaries plan to continue providing this training to ensure employees thoroughly understand the company's commitment to human rights and business ethics. Viohalco subsidiaries have implemented a responsible sourcing initiative adopting an updated Suppliers' Code of Conduct and requesting from its suppliers to sign off the principles included. At the same time Viohalco subsidiaries have an active collaboration with consulting firm EcoVadis, which evaluates suppliers on various sustainability criteria such as environment, labour and human rights, ethics, and responsible procurement. This initiative aims to map out the risks related to such critical areas and so far, suppliers covering more than €1.6 bn spend

Figure 4: Companies evaluated by EcoVadis



among subsidiaries have been assessed. More details can be found at the graph shown above. Viohalco subsidiaries will continue working with EcoVadis to ensure suppliers are evaluated against international sustainability standards.

Looking towards 2023

The key focus areas that will be at the forefront of Viohalco subsidiaries' efforts in 2023 are the following:

- Viohalco subsidiaries are committed to **improving energy efficiency in their operations**. From thermal metallurgy, rolling and extrusion processes, cooling systems, compressed air networks, to packaging equipment, they constantly seek new ways to reduce energy consumption and hence carbon footprint and environmental impact.
- **Decarbonization efforts will continue**, besides the afore mentioned energy efficiency measures, with installations of photovoltaic panels in several locations to partially decarbonize emissions from electricity consumption.
- Viohalco subsidiaries are also dedicated to **ensuring the health and safety of their employees and the communities** where they operate. They will focus on continuing the implementation of strict protocols and procedures to ensure that their operations are conducted safely and responsibly. The goal is to create a safer working culture and promote the workforce's well-being.
- Responsible supply chain will also be a key focus area of 2023. As most Viohalco subsidiaries' overall impact comes from their raw materials, it is essential to **work closely with the suppliers to ensure that they align with Viohalco subsidiaries' values and commitments in their own operations**.
- Viohalco subsidiaries are also committed to **promoting diversity, equity, and inclusion** in their workplace through specific training programs for all employees, including the management. A new course on the Business Code of Conduct (BCoC) that includes a reference to human rights has been developed and will be launched in early 2023.
- In addition to these efforts, Viohalco will further focus on its **TCFD commitment** with the publications of standalone TCFD reports of Viohalco as well as subsidiaries ElvalHalcor, Cenergy Holdings, Sidenor and Noval Property within 2023.

Sustainability governance

Viohalco's sustainability strategy cannot be achieved without proper governance structures for its sustainability matters at Board level as well as implementation of policies across all subsidiaries.

An ESG Working Group has been temporarily established to assist the Board on the discussion of ESG matters. The ESG Working Group informs the Audit Committee on recent developments, and together, they report to the Board. An executive management team at Steelmet Corporate Services, a subsidiary of Viohalco, regularly meets to discuss progress on the ESG Strategy and new ESG initiatives. In addition, an ESG coordinator at each subsidiary has been assigned to coordinate the various functions, facilitate relevant actions and report progress semi-annually. These structures were created to ensure that the Company's organic growth and economic success do not come at the expense of fair competition, safe working conditions or environmental compliance and protection. More details on sustainability governance can be found in the section "Corporate governance and business ethics".

Policy framework

As a holding company with a predominantly industrial portfolio, Viohalco believes that it is important for its subsidiaries to show the same level of responsibility and hold the same values and commitment to sustainability to maintain long-term value for its shareholders.

In line with Viohalco's ESG Strategy, the subsidiaries are committed to operating environmentally and socially responsibly while working closely with their customers and community stakeholders to create a more sustainable future for all parties involved. Viohalco subsidiaries aim to establish a responsible and trustworthy relationship with their counterparts and to meet expectations by fulfilling their commitments. The reliable operation of these companies is considered a top priority and is essential for their sustainable success.

To manage the company's sustainability matters as well as its subsidiaries, Viohalco has adopted seven policies on sustainability matters that all subsidiaries are obliged to adopt. In 2022, Viohalco introduced the Business Code of

Conduct, replacing the Business Ethics and Anti-corruption policy. The Business Code of Conduct is broader in scope. It covers a more comprehensive range of topics, including ethical guidelines and anti-corruption measures and guidelines for other areas such as social responsibility, human rights, and environmental protection. The responsibility for implementing the policies lies with the most senior executive responsible for each company.

The policies in place cover the following areas:
- Sustainability
- Environment
- Energy and Climate Change
- Health and Safety
- Labour and Human Rights
- Supplier Code of Conduct
- Business Code of Conduct

The policies can be found at
https://www.viohalco.com/845/en/Policies/

Viohalco's core values are reflected in its policies that its subsidiaries should follow, at a minimum, regarding sustainability matters. The companies under Viohalco have, in turn, developed specific and comprehensive policies that align with Viohalco's policy guidelines at a minimum.

Sustainability Policy

Viohalco strives to meet society's needs through its subsidiaries' activities by delivering reliable, inclusive, and sustainable products, creating shared value for stakeholders, and contributing to UN Sustainable Development Goals. This includes combatting climate change, preserving natural resources that the companies and society rely on, promoting recycling and circular economy, and integrating sustainability in its strategy and operations. Viohalco subsidiaries prioritize environmental, social, and economic preservation to secure long-term success and involve relevant stakeholders in their sustainable efforts, with employees being a crucial component.

Environmental Policy

Viohalco subsidiaries operate with environmental and social responsibility, prioritizing sound environmental management of production and storage facilities to ensure the sustainability of the companies' activities. They work in full compliance with applicable national and EU environmental regulations, engage in open dialogue on environmental matters with stakeholders and strive to maximize the use of secondary raw materials to contribute to a circular economy and minimize the products' carbon footprint. Furthermore, Viohalco subsidiaries make efficient use of water in their operations and will increase efforts to reduce water consumption and increase water reuse.

Energy and Climate Change Policy

Viohalco subsidiaries are committed to significantly contributing to the global effort to tackle climate change. As non-renewable and renewable energy consumers, Viohalco subsidiaries are committed to purchasing and using energy responsibly, efficiently, and cost-effectively to reduce their carbon footprint.

Health and Safety Policy

Viohalco subsidiaries are committed to continually promoting health and safety for their employees and partners, including customers, suppliers, contractors, and visitors. The companies shall strictly comply with applicable legislation and fully implement suitable standards, instructions and procedures regarding health and safety.

Labour and human rights Policy

Viohalco subsidiaries support and respect the fundamental principles articulated in the Universal Declaration of Human Rights. Viohalco subsidiaries support protecting international human rights across the business value chain and will not be complicit in human rights abuses. They do not accept discrimination of race, gender, religion, age, nationality, social or ethnic origin, disability, belief, sexual orientation, or political and trade union engagement. These principles apply to the recruitment of new employees, employees with an employment contract and the professional merit-based promotion of employees. The only decisive factors of employment are performance, experience, efficiency, skills, and qualifications. Viohalco and its companies do not accept any form of forced labour. All work performed in the companies is voluntary. Employing individuals under the applicable statutory minimum age for workers is prohibited. The Companies' policies and procedures adhere to applicable national laws concerning freedom of association and collective bargaining, non-discrimination, forced labour and underage workers in the workplace.

Supplier Code of Conduct

The Supplier Code of Conduct aims to ensure that Viohalco subsidiaries' business partners share and promote Viohalco subsidiaries' fundamental values in ethics and sustainability principles. Suppliers are requested to sign the Code of Conduct. Viohalco subsidiaries require their business partners to comply with all the Supplier Code of Conduct principles and will correspondingly promote these principles within their own supply chain.

Business Partners are expected to agree to an assessment of their performance on sustainability issues, such as their environmental, social, and ethical performance, either performed by the Company or by third parties associated with the Company. The participation of Business Partners in the sustainability assessment is considered essential for the business relationship with Viohalco subsidiaries, as sound sustainability practices are expected from all our Business Partners.

Business Code of Conduct

The Business Code of Conduct outlines the expected behaviours from all Viohalco subsidiaries' employees, the rules of conduct we adhere to and how we perform business, considering our stakeholders.

Viohalco and its subsidiaries are committed to delivering

high results standards, promoting business excellence, and building long-term relationships with customers and suppliers. Viohalco strongly emphasizes technological leadership and innovation, valuing and developing technical expertise to deliver low-cost, high-quality, and value-adding solutions that contribute to a sustainable world. Teamwork and workplace safety are also core values at Viohalco, with its subsidiaries striving to maintain a safe working environment for all employees. The companies also seek to produce products with the minimum possible impact on the environment and society, investing in technologies and industrial practices that will ensure this goal.

Operational Due Diligence

The compliance of subsidiaries' policies incorporating Viohalco's policies' principles is ensured by a due diligence program performed by Steelmet Corporate Services, which is responsible for monitoring Viohalco subsidiaries' performance in environment and health and safety matters. Steelmet Corporate Services employs proficient experts in their respective fields who perform audits and assessments of the subsidiaries' installations on a regular basis. This includes a minimum of one annual audit in each area of environmental management and health and safety matters as well as at least one annual follow-up visit by Steelmet Corporate Services experts to support and consult on any improvement areas identified during the annual audit.

The results of the previously mentioned due diligence program are discussed during the semi-annual business reviews by Viohalco executive management and each subsidiary's executive management. During the business reviews, the subsidiaries' top management reports on key performance metrics, risks, and corrective actions deemed necessary to improve the specific subjects raised by Steelmet Corporate Services professionals. Several leading and lagging indicators, progress of improvement action plans, adherence to operational procedures and custom-made assessment scorecards are used to evaluate the efficacy of environmental and health and safety programs. Any non-compliance issues with company policies or identified improvement areas are addressed, and subsidiaries must take verifiable action within a specific timeframe, depending on the materiality of each issue.

In addition, external auditors conduct annual reviews of Viohalco subsidiaries' environmental, energy management, and health and safety practices during management system certification reviews. All the production companies (100%) within the scope of this report are certified with the Environmental Management System ISO 14001:2015 and the Occupational Health and Safety Management System ISO 45001:2018. Moreover, 79% of the Companies under scope have been certified with Energy Management System ISO 50001:2018. As health and safety is a strategic priority for Viohalco subsidiaries, third-party evaluations and health checks of the H&S programs are performed by DuPont Sustainable Solutions (DSS+) periodically to ensure a transparent and unbiased assessment.

The aforementioned management systems present responsibility areas and operational practices for these task areas across our companies' operations while simultaneously creating regular monitoring of compliance with internal and external audits. To ensure that our subsidiaries follow a continuous improvement path, Steelmet Corporate Services professionals closely cooperate with subsidiaries' top management and appropriate personnel to draw continuous improvement plans with specific, prioritized improvement actions and benchmarks that need to be achieved within specific time frameworks.

Sustainability ratings of Viohalco subsidiaries

As previously mentioned, Viohalco subsidiaries have implemented a responsible sourcing initiative with EcoVadis to improve sustainability performance across their supply chain. EcoVadis evaluates suppliers on various sustainability criteria such as environment, labour and human rights, ethics, and responsible procurement. The results of the evaluations provide Viohalco subsidiaries with valuable insights to make informed decisions to promote sustainability throughout their supply chain. Viohalco subsidiaries from the different industrial segments have already completed or are currently being evaluated with the same criteria in the EcoVadis rating platform as requested by their respective customers.

In 2022, **Symetal** received a Platinum Award from EcoVadis, meaning that the company **scored in the top 1%** of companies assessed by EcoVadis in its industry, making Symetal a good business partner. **Corinth Pipeworks, Hellenic Cables, ElvalHalcor, Sofia Med, and Etem-Gestamp received a Silver Award** for the same reporting period for their sustainability practices. A Silver Award means that the company has scored in the top 25% of companies assessed by EcoVadis and has demonstrated good sustainability performance. Additionally, when including companies outside this report's scope, a subsidiary from the aluminium segment, Anoxal, received a Gold Award for 2022, indicating that the company scored in the top 5%.

Several Viohalco subsidiaries also disclosed their environmental performance through the CDP in 2022. The CDP is an international non-profit organization that operates a global disclosure system that enables companies to measure and report on their greenhouse gas emissions, water use, and deforestation-related activities. In 2022, ElvalHalcor retained its B-rating (Management Level) in CDP Climate Change, meaning that the company has addressed its business's environmental impacts and ensures good environmental management. In the same assessment, Symetal and Hellenic Cables scored C (Awareness Level), and Corinth Pipeworks scored D (Disclosure Level).

Double materiality assessment

One of the key elements of effective sustainability reporting is the implementation of the double materiality assessment, which aims to provide a comprehensive and balanced view of a company's sustainability performance. The double

materiality assessment considers both the financial and non-financial impacts of a company's activities, allowing for a more thorough evaluation of sustainability performance. This approach considers the financial opportunities and risks associated with a company's operations and the broader environmental and social impacts. By considering financial and non-financial aspects, the double materiality assessment provides a more nuanced and complete understanding of Viohalco subsidiaries' sustainability performance. Implementing the double materiality assessment, is a significant step towards more robust and transparent sustainability reporting.

The double materiality assessment has been performed on 13 of Viohalco subsidiaries split across five segments, including the largest production facilities in terms of revenue and personnel employed. Those companies constitute the scope of this report, and they represent the most material environmental, social and governance issues as they cover approximately 95% of Viohalco subsidiaries' total revenue and approximately 85% of Viohalco subsidiaries' total employees. They also cover approximately 95% of total energy consumption, 96% of total GHG Emissions (Scope 1 and Scope 2) and 97% of water usage so arguably, they represent the vast majority of Viohalco's impacts across all spectrums.

Due to the various geographic locations of each company and the varying degree of material environmental and social matters each company may be facing, a double materiality assessment has been performed individually for the companies consisting of the aluminium segment (Elval, the aluminium rolling division of ElvalHalcor, Symetal, Bridgnorth and Etem Gestamp), Copper segment (Halcor, the copper alloys extrusion division of ElvalHalcor and Sofia Med) and Steel Pipes (Corinth Pipeworks) segment. For the Steel segment (Sidenor, Sovel, Stomana Industry and Dojran Steel) and Cables segment (Hellenic Cables, Fulgor and Icme Ecab), a double materiality assessment has been performed jointly with the subsidiaries of the same segment as they have similar business model, non-financial issues and risks and opportunities.

The methodology used to perform the double materiality assessment has been the same for the companies. In the first stage, each subsidiary has identified the material topics for their business by taking into account various standards (GRI, SASB, ISO 26000, The Athens Stock Exchange ESG Reporting Guide, The Euronext ESG Guidelines, ESG ratings, etc.). Further updates to the methodology are expected as market practices evolve. The identified topics were then assessed against their impact and financial materiality:

- **Impact materiality**: Assessment of the material actual or potential, positive or negative impacts on people or the environment over the short-, medium- and long-term time horizons. For this reason, an evaluation regarding the Company's impact on the economy, the environment and society has been conducted internally, as well as an electronic survey on a representative number of our stakeholders has been conducted externally.
- **Financial materiality**: Assessment of the actual or potential financial effects of each sustainability topic on the company's assets and the overall enterprise value.

The outcome of the double materiality assessment can be viewed in the next table. More information and details on the approach taken by the subsidiaries can be found on their respective Sustainability reports where these topics are further analyzed.

The stakeholders considered in the double materiality assessment include the most important stakeholder groups such as employees, customers, business partners, local communities, academic institutions, governments, shareholders, financial institutions, and suppliers.

The non-financial material topics identified in the double materiality assessment of the companies and corresponding risks have been correlated to non-financial metrics from the SDGs' reporting framework, the CSRD and its European Sustainability Reporting Standards (ESRS).

Figure 5: Double materiality assessment correlated to non-financial metrics from the SDGs' reporting framework and CSRD's ESRS

	Material topics	Relevant SDG	ESRS	Risk and opportunities areas of material topics
E	Climate change and energy	7, 13	ESRS E1	Carbon emissions of production, carbon intensity of raw materials. Energy consumption, availability of low carbon energy at competitive cost Opportunities in carbon enabling products
	Circular economy and waste management	9, 12	ESRS E5	High quality recycled scrap, positioning in the new recycled market
	Water and wastewater management	6	ESRS E2 and E3	Water intensity, water availability, compliance with wastewater discharge limits
S	Occupational health and safety	3, 8	ESRS S1	Provision of safe working environment
	Employee training and development	8	ESRS S1	Upskilled and knowledgeable senior management and employees, employee attraction and retention
	Diversity, equity, and inclusion	5, 8	ESRS S1	Equal rights among workers, labour conditions, training for employees' skills development
	Responsible supply chain	8, 12	ESRS S3	Environmental impact and human rights in the supply chain
G	Corporate governance and business ethics	16	ESRS G1	Business ethics, data privacy, compliance with regulatory system

Environmental Responsibility

Climate change and energy (SDG 7 and 13, and ESRS E1)

Viohalco subsidiaries acknowledge their responsibility in the transition to a climate-neutral future and have committed to reducing carbon emissions in their operations and through low-carbon enabling products that are important for the transformation of the economy.

In line with this ambition, Hellenic Cables, one of the largest power and telecommunications cable producers in Europe, was Viohalco's first subsidiary to commit to the Science Based Target Initiative (SBTi) to meet near-term (2030) and long-term net zero targets at the latest by 2050. Hellenic Cables targets, both near and long term, align with the 1.5°C pathway and have been validated by the SBTi. More specifically, Hellenic Cables aims to achieve an aggressive decarbonization path of its Scope 1 and 2 emissions by at least 4.2% per annum and Scope 3 by a minimum of 2.5% annually. In the near term, Hellenic Cables has committed to reducing its Scope 1 and 2 GHG emissions by 50% by 2030 and to increase its annual use of renewable electricity from 24% in 2020 to 80% in 2025 and 100% in 2030. The company has also pledged to reduce its Scope 3 GHG emissions from purchased goods and services, employee commuting and use of sold products by 25% by 2030. In the long term, Hellenic Cables aims to reduce its Scope 1, 2, and 3 GHG emissions by 90% by 2050, starting from 2020 as a base year. These commitments demonstrate the company's dedication to reducing its carbon footprint and contributing to the global effort to combat climate change.

Corinth Pipeworks, furthermore, has publicized its scientifically based decarbonization targets for Scope 1 and 2 in line with the Paris Agreement but cannot be validated according to SBTi yet, since no sector specific guidance has been developed for the industrial activity. Five companies, namely Hellenic Cables, Fulgor, Icme Ecab, Corinth Pipeworks, and Elval Colour, have been certified with the GHG emissions monitoring international standard ISO 14064.

In addition to setting their targets, several Viohalco subsid-

iaries have carried out life cycle assessments (LCAs) to evaluate the environmental impact of their products and services. In 2022, Stomana Industry performed LCAs for several products, including hot-rolled plates, steel slabs, and hot-rolled reinforcing steel. During the year, Corinth Pipeworks conducted LCAs on HFIW pipes, LSAW pipes, HSAW pipes and HS, and several other companies plan on performing LCA for their respective product line in 2023. In addition to LCAs, some companies have obtained certification through Environmental Product Declaration (EPD) to provide transparent and accurate information about their products' environmental impact. In 2022, Sovel received an EPD for reinforcing steel in bars and coils, welded wire mesh, and reinforcing steel cages, while Corinth Pipeworks received an EPD for its steel products.

Although Viohalco subsidiaries are constantly striving to reduce their carbon emissions, their greatest challenge persists in reducing emissions across the three scopes, particularly emissions from the supply chain (Scope 3, category 1), which typically accounts for the vast majority of embedded emissions in the final products.

For metal processing companies to reach net-zero emissions by 2050, it requires a global transformation of industrial production. The necessary investments for the transformation are still several years, or even decades away from being economically and technologically feasible on a large scale. A key element of this transformation is ensuring a consistent low-carbon electricity supply. These companies rely heavily on electricity for thermal metallurgy (ie. in steel segment) or metal processing through mechanical equipment. This results in Viohalco subsidiaries generally having, on average, much higher indirect emissions (approximately 2/3) than direct emissions (approximately 1/3). To minimize indirect emissions, the companies have the ambition of entirely covering their electricity needs with renewable energy PPAs. Securing Green PPAs, as they are commonly called, is, however, challenging due to the existing power market regulatory frameworks in respective countries as well as the ability of grid operators to balance energy supply and demand in a relatively cost-effective manner, thus allowing for a shaping cost making RES PPAs competitive with traditionally lower electricity cost that most of Viohalco subsidiaries' competitors enjoy in countries outside Europe.

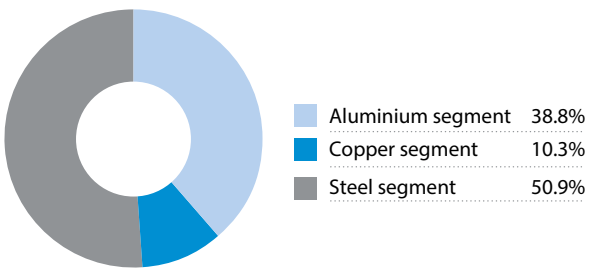
Viohalco subsidiaries do not enhance natural carbon sinks or apply technical solutions to remove GHGs from the atmosphere (e.g. direct air capture) as these technologies are still not economically or technologically mature. Furthermore, they do not participate in GHG mitigation projects financed through carbon credits as the lack of transparency and effectiveness raise doubts about the actual contribution to a net zero future.

Five Viohalco subsidiaries participate in the EU Emissions Trading System (ETS): ElvalHalcor, Sidenor, Sovel, Stomana Industry, and Sofia Med and one in the UK Carbon Trading System, Bridgnorth Aluminium. All Viohalco subsidiaries, in their corresponding trading systems, receive fewer free allowances than their actual emissions and are therefore required to purchase EU carbon allowances on an annual basis. The shortage of emissions allowances can lead to higher costs for the companies and negatively affect their competitiveness, as it does for numerous European industrial companies participating in the ETS.

Total GHG emissions for each segment are presented below. The total carbon footprint figures (Scope 1 and 2) are reported according to Greenhouse Gas Protocol Guidance[1], the most commonly used international standard. The total emissions remain relatively stable compared to last year, with the aluminium, steel and steel pipes segments showing a slight increase in emissions of 4%, 1% and 7%, respectively. Scope 2[2] emissions are responsible for the more significant portion of the total emissions across segments. In cables segment total emissions decrease by 14% as a result of the renewable electricity procurement contract Icme Ecab signed with Hidroelectrica, the largest energy producer of renewable electricity in Romania. In 2022, while Scope 1 emissions remained relatively stable, three out of the five segments experienced an increase in Scope 2 emissions.

Figure 6: Breakdown of GHG emissions in ETS per segment

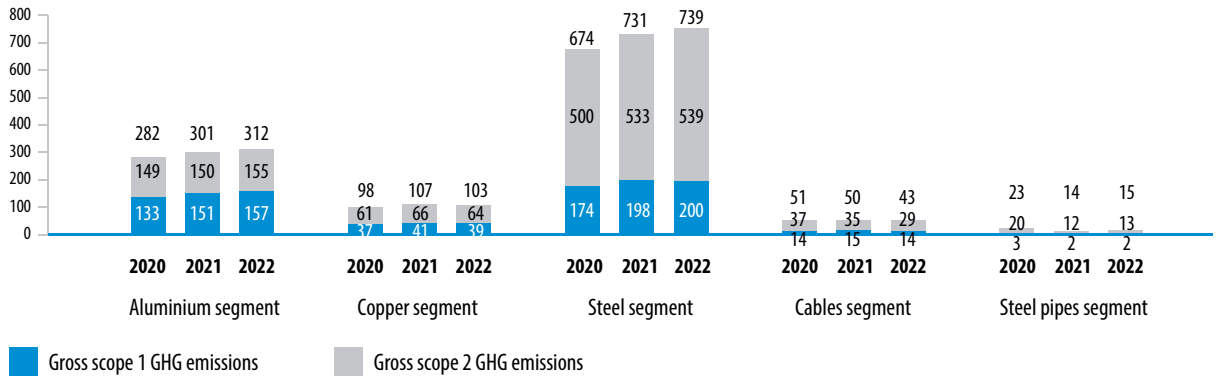
Scope 1 emisions in ETS per segment for 2022



1. Total carbon emissions in tn CO_2e / yr.

2. For the Scope 2 emissions, a location-based approach has been followed. For Greece, Romania and Bulgaria, the European Residual Mix 2021 methodology has been used. For UK, the UK Government GHG Conversion Factors for Company Reporting methodology has been used, while for North Macedonia the EIB Project Carbon Footprint Methodologies Report of European Investment Bank has been used.

Figure 7: Total scope 1 and scope 2 gross GHG emissions per segment for 2020, 2021 and 2022

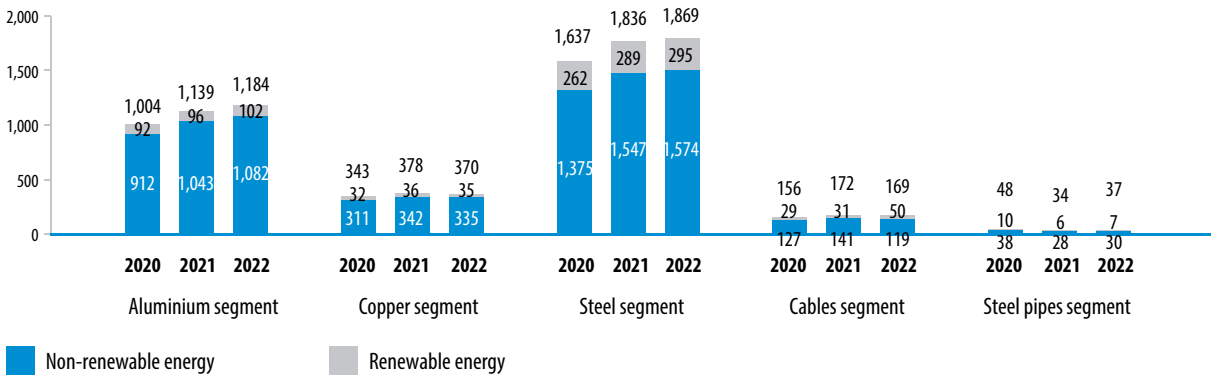


As explained in the previous section on climate change, most Viohalco subsidiaries are electro-intensive due to the nature of metal processing, both in metallurgy and downstream processing. A strong focus is placed on energy efficiency in Viohalco subsidiaries' operations, as it is vital, not only for economic reasons but also for environmental reasons as the reduction of energy intensity leads to a reduction in carbon footprint.

Viohalco subsidiaries' primary objective for enhancing energy efficiency is centered around identifying energy-saving opportunities through periodic energy audits carried out by specialized consultants. Nine of the companies within the scope of this report have concluded energy audits during 2022, and four additional companies will perform energy audits in 2023. Of the companies covered under the NFD, 79% have been certified with the ISO 50001:2018 Energy Management System.

The numbers shown in the below figure reflect the split of total energy consumption between non-renewable and renewable sources. In 2022, the aluminium, steel and steel pipes segments experienced an increase in total energy consumption, while the copper and cables segment saw a slight decrease in consumption.

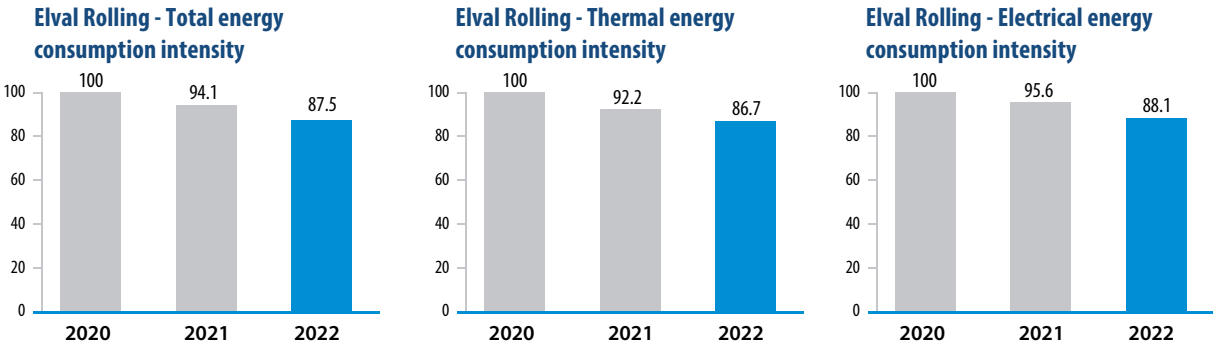
Figure 8: Total energy consumption split per renewable and non-renewable sources per segment for 2020, 2021 and 2022



The deviation between years for each segment is further explained below.

The **aluminium segment** experienced increased energy consumption because of increased production volumes. The thermal energy consumption intensity and the electrical energy consumption intensity of the segment have declined. Particularly the intensity of Elval, the aluminium rolling division of ElvalHalcor, has decreased, and especially the footprint of Elval Rolling division has improved over the years, both in terms of thermal and electrical energy. The decrease in intensity of 12%, 13% and 12%, on total, thermal and electrical, respectively, is attributed to the operation of Elval's latest investment on the modern tandem aluminium rolling mill.

Figure 9: Energy consumption intensity, thermal energy consumption intensity and electricity energy consumption for Elval Rolling division for 2020, 2021 and 2022

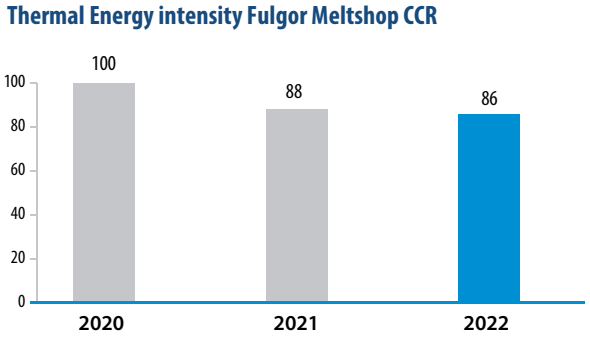


Note: the value of energy intensity of 2020 has been used as a baseline and has been given a value of 100. The following years are compared to the baseline value

The energy consumption in the **cables segment** slightly decreased in 2022 despite the increase in production overall. Mainly, the Continuous Casting Rod Meltshop (Copper melt shop) of Fulgor, the most thermal energy-intensive process of the company, showed further improvement in the thermal energy consumption intensity for the production of copper wire rods. An annual improvement of 2% was achieved in 2022 following a significant, year-to-year improvement of 12% in 2021.

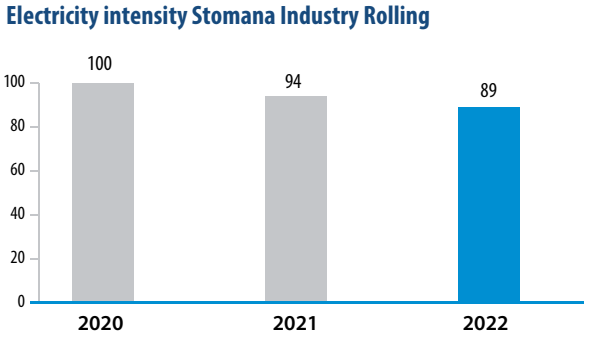
Steel segment: The total energy consumption of the steel segment increased in 2022 due to increase in production compared to 2021. However, Stomana Industry has improved its footprint in electricity consumption. In particular, the Rolling division of Stomana Industry has shown an improvement in electricity intensity of more than 11% primarily due to the cease of operation of an old rolling mill as well as improvements in productivity and investments in energy efficiency equipment.

Figure 10: Thermal energy consumption intensity for Fulgor Meltshop CCR for 2020, 2021 and 2022



Note: the value of energy intensity of 2020 has been used as a baseline and has been given a value of 100. The following years are compared to the baseline value

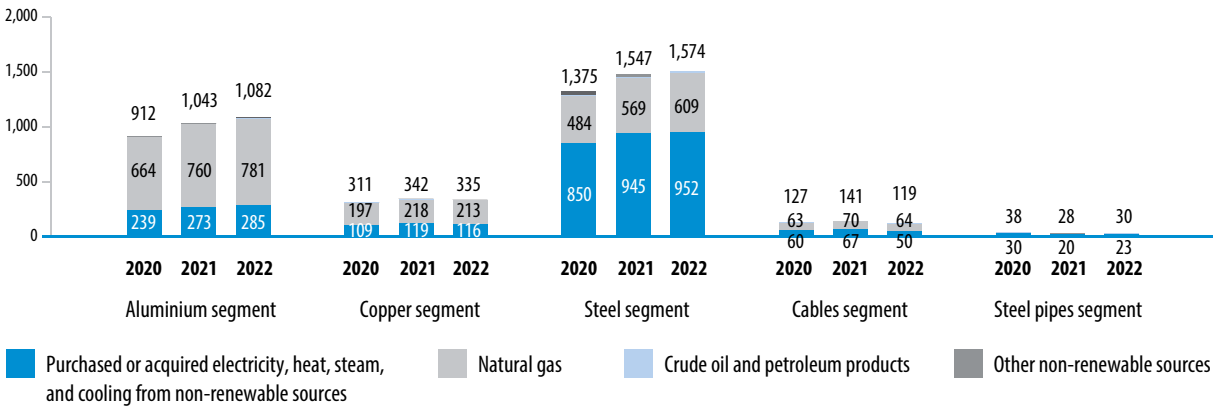
Figure 11: Electricity intensity for Stomana Industry Rolling division for 2020, 2021 and 2022



Note: The value of electricity intensity of 2020 has been used as a baseline and has been given a value of 100. The following years are compared to the baseline value

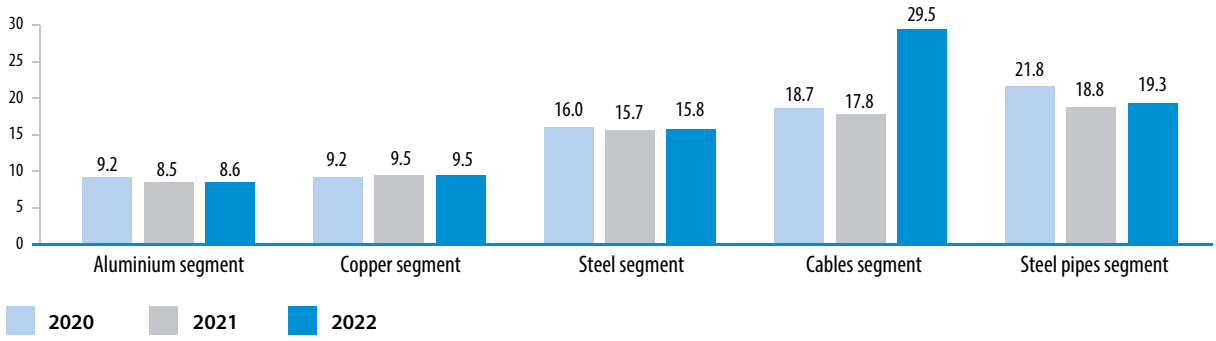
The increase of the non-renewable energy consumption for the aluminium and the steel segment over the past year has been less significant compared to the previous one, with a rise of 4% and 2% (compared to the 14% and 12% between 2021 and 2020). This is due to the increased consumption of energy, regardless of sources. Overall, in general Viohalco subsidiaries consume electricity directly from the grid of the respective countries they operate so the source of the electricity consumed reflects the energy mix of each country. Consequently, part of the non-renewable electricity consumed is sourced from natural gas (Greece, Bulgaria,) lignite power plants (Greece and Bulgaria) and nuclear power plants (Bulgaria). In cables segment, the increase in renewable electricity consumption as a result off the renewable electricity procurement contract of Icme Ecab, caused a proportional decrease in total non-renewable energy consumed.

Figure 12: Total energy consumption per non-renewable sources per segment for 2020, 2021 and 2022



Regarding renewable energy consumption, all segments, except the copper segment, which has experienced a slight decrease, and cables segment which experienced a significant increased for reasons already analyzed, have seen either an increase or no change in 2022. From the available renewable sources, Viohalco subsidiaries only consume renewable electricity and, therefore, no renewable fuels such as biogas or green hydrogen or other biofuels.

Figure 13: Share of renewable sources in total energy consumption per segment for 2020, 2021 and 2022



To minimize their carbon footprint and decrease their exposure to carbon pricing through indirect emissions, it is strategically important for Viohalco subsidiaries to have access to low-carbon electricity. Companies aim to cover their electricity needs with renewable energy entirely in that context. However, given their geographic footprint and the existing power market regulatory frameworks in these countries, there currently needs to be more viable options towards this goal.

However, Viohalco subsidiaries explore alternatives for direct renewable electricity supply, such as bilateral or market-based Green PPAs. The entire cables segment and Corinth Pipeworks are in the final stages of securing such PPAs, which is expected to deliver a minimum of 80% RES power by 2025 at the latest. Furthermore, in 2022, Icme Ecab entered a renewable electricity procurement contract with Hidroelectrica, the largest energy producer of renewable electricity in Romania.

In 2022, three of Viohalco subsidiaries' plants completed the installation and connection of photovoltaic (PV) systems. Several other companies are in the process of adding PV installations and will complete the process in 2023. More spe-

cifically, Dojran Steel installed a 4.0 MWp solar panel system, which has resulted in a 40% reduction in the company's monthly electricity consumption from the country's carbon-intensive electricity grid. ElvalHalcor installed its first solar panels in the end of December, with a total power capacity of 0,27MWp, partially decreasing its carbon footprint. Additionally, Elval Colour, a subsidiary from aluminium segment, installed a solar panel system with a capacity 1MWp enabling the company to cover 15% of its electricity needs with RES.

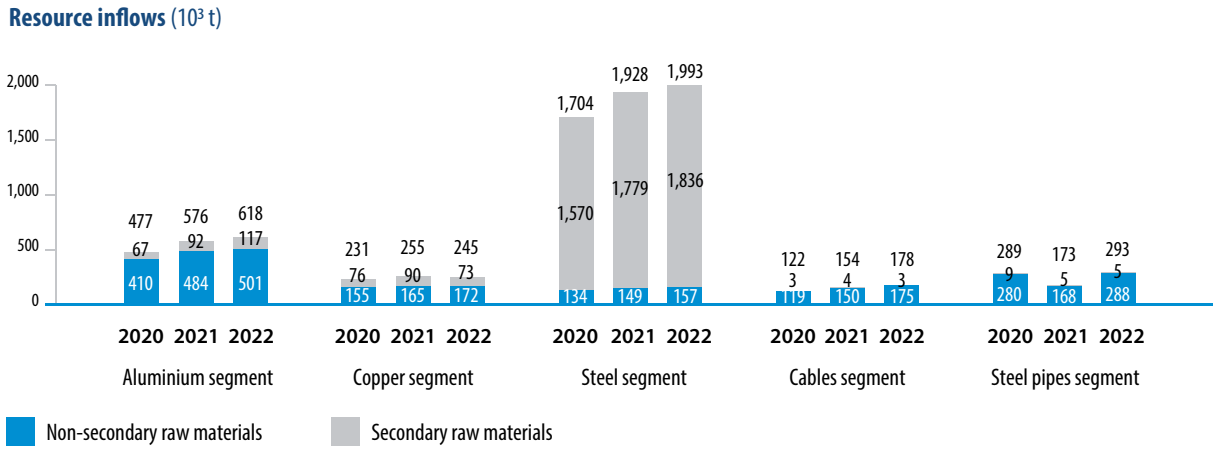
Circular economy and waste management (SDG 9 and 12, and ESRS E5)

Viohalco subsidiaries contribute to the circular economy by utilizing secondary raw materials offering products and services that are recyclable and with high recycled content and, thereby, minimizing the generation of waste. Viohalco subsidiaries are committed to environmentally friendly waste management and aim primarily at waste generation reduction and improvements related to reuse and recycling, as well as identifying contractors with a more environmentally friendly treatment method. The companies aim to maximize closed-loop cycles according to circular economy principles and the European Green Deal initiatives.

Regarding waste management, Viohalco subsidiaries continuously try to minimize their operations' environmental impact. To support this effort, the implementation of prevention measures in chemicals storage and use, as well as continuous monitoring for the case of accidental incidents (spills or leaks) to the environment, are in place. Environmental incidents that have the potential to impact the environment either directly or indirectly are closely monitored, and procedures have been developed for their immediate detection, investigation, and remediation should they occur. The companies have implemented necessary safety measures (secondary containments, implementation of zone owners, etc.), resulting in a low probability of pollution incidents. It is worth noting that 100% of the companies under scope of this report are certified with the Environmental Management System ISO 14001:2015.

The figure below presents a breakdown of resource inflows by secondary and non-secondary raw material.

Figure 14: Resource inflows divided by non-secondary raw material and secondary raw material per segment for 2020, 2021 and 2022



Waste volumes generally increased in 2022 due to increased production. However, the waste generation of non-hazardous waste decreased in the copper segment while the production remained at the same levels.

Figure 15: Total hazardous and non-hazardous waste per segment for 2020, 2021 and 2022

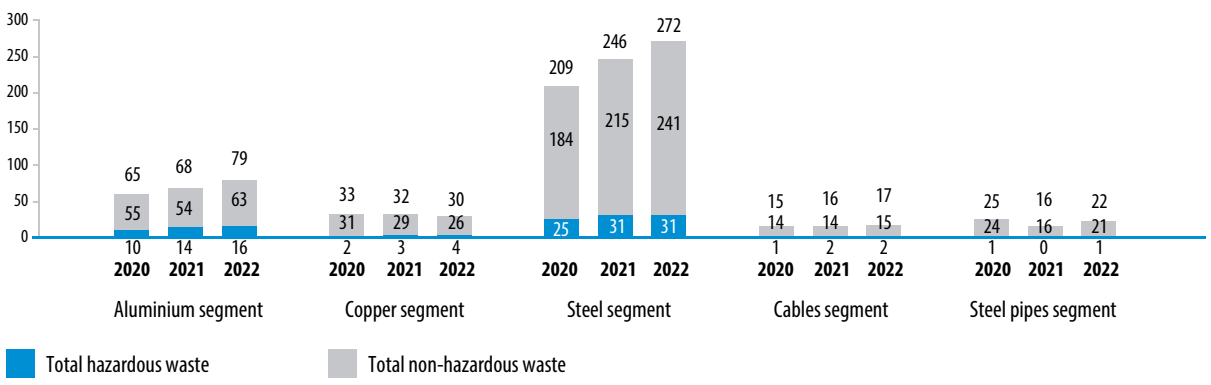


Figure 16 presents the breakdown of hazardous waste recovered and disposed and figure 17 shows a breakdown of non-hazardous waste. The steel segment experienced an increase of hazardous waste disposal in 2022 compared to 2021. However, as shown in figure 17, the disposal of non-hazardous waste decreased in 2022 for the steel segment.

Figure 16: Total hazardous waste recovered and disposed per segment for 2020, 2021 and 2022

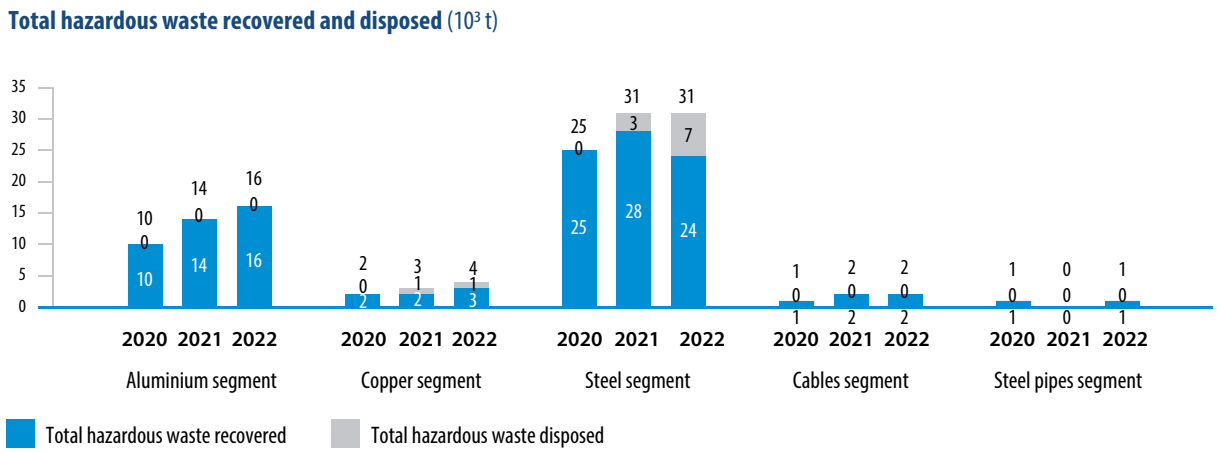
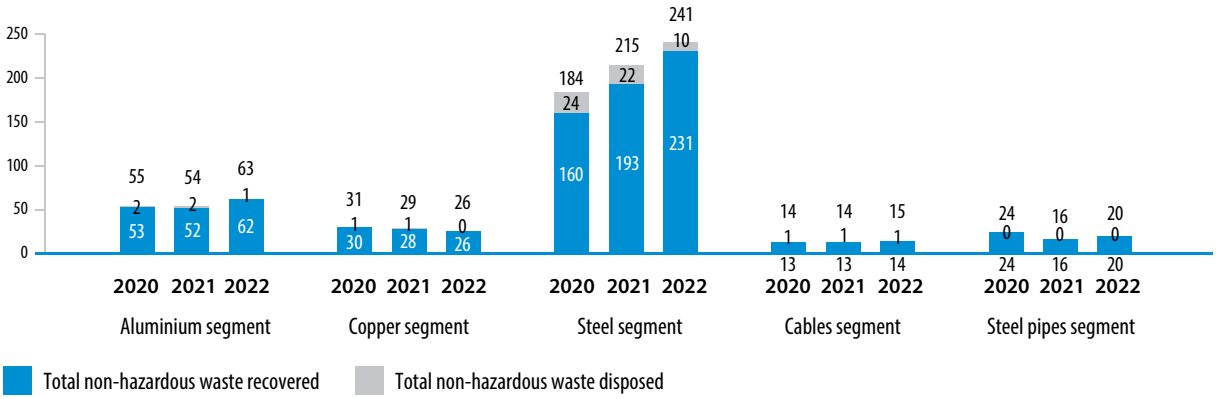
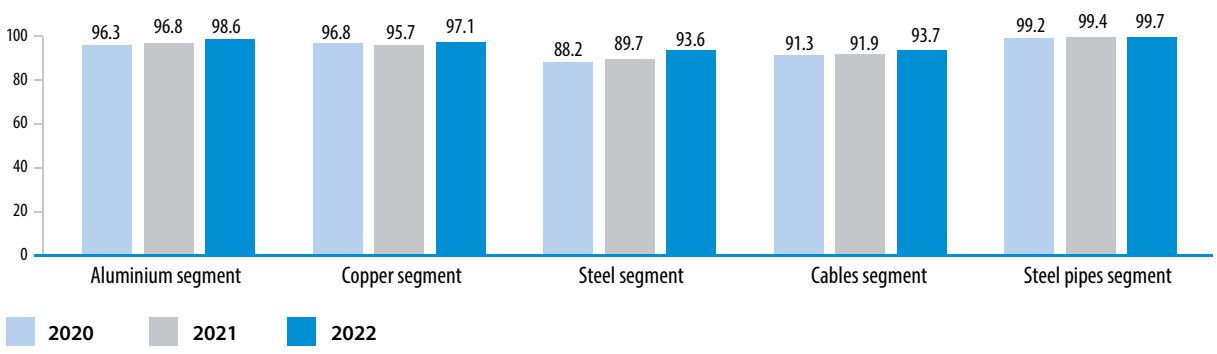


Figure 17: Total non-hazardous waste recovered and disposed per segment for 2020, 2021 and 2022



As shown in the figure below, the portion of the generated waste that is sent for reuse, remanufactured, or recycling increased for all segments in 2022 and remained at high levels, supporting the transformation to a circular economy.

Figure 18: Waste recycled and recovered per segment for 2020, 2021 and 2022



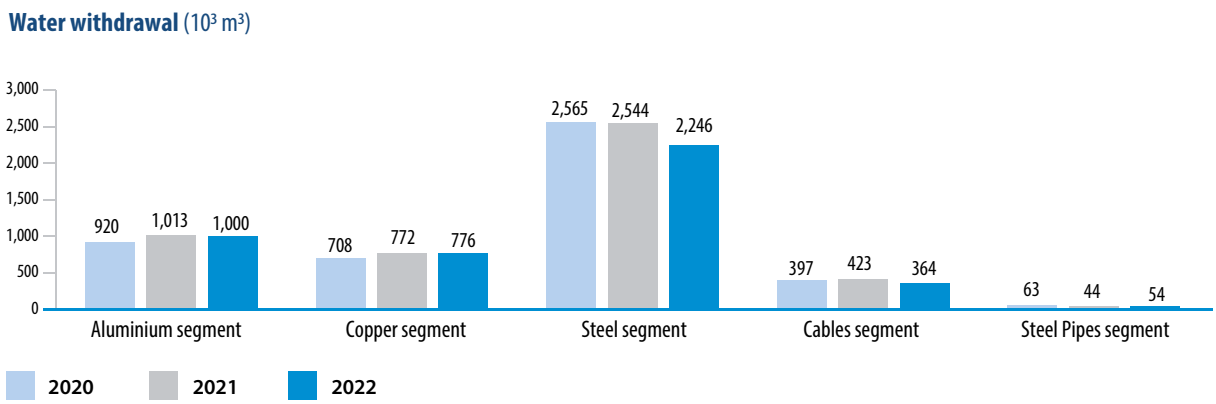
Water and wastewater management (SDG 6, and ESRS E2 and E3)

Water is a crucial component of Viohalco's production process, and responsible water usage is critical for companies' business continuity. Therefore, companies use various strategies for responsible water usage, such as reducing water intensity by using water conservation technologies where possible, continuously monitoring water consumption to detect leaks promptly and conducting preventive maintenance of water networks to minimize water losses. Responsible use of water also means assessing water availability and adopting measures for alternative water sources in the event of water shortages. Additionally, proper maintenance and operation of wastewater treatment plants is prioritized to ensure compliance with water discharge limits.

The availability of industrial water is of critical importance to Viohalco subsidiaries, and the majority of the plants have a program of water consumption monitoring to improve their water intensity. Furthermore, Halcor has achieved ISO 46001:2019 certification for Water Efficiency Management Systems, becoming the first industry in Greece to be certified.

The water withdrawal for the five segments in 2022 is presented below. Despite increased production, the steel segment has seen a decrease in water withdrawal compared to the previous year. This is primarily due to a water conservation initiative undertaken by Stomana Industry, the largest water consumer in the Steel Segment. The initiative included a dedicated project for cooling pond bottom insulation in 2022 resulting in significantly lower water withdrawal needs. The aluminium segment also experienced a slight decrease in water withdrawal despite increased production. The cables segment also experienced a significant decrease (14%) year-over-year in water consumption despite increased production due to water conservation efforts and leaks detection at Icme Ecab. The copper and steel pipes segments experienced increased total water withdrawal due to proportional increased production volumes.

Figure 19: Water withdrawal per segment for 2020, 2021 and 2022





During 2022, none of the subsidiaries were affected by water shortages and water reserves in different geographic locations. It is important to note **that Viohalco subsidiaries operate outside official water-stressed areas**. Nevertheless, the companies monitor water availability, and the hydrologic cycle as there may be future changes, mainly due to the expected effects of climate change in the Mediterranean region. The method of sourcing water varies between companies, depending on their location. Approximately 32% of Viohalco subsidiaries source water directly from extraction wells, while the rest, about 68%, receives the water from municipal water companies.

Viohalco subsidiaries operate 21 installations throughout Europe subject to the Industrial Emissions Directive (Directive 2010/75/EU) and must meet stringent emissions limits in atmospheric emissions standards and water effluents. The plants are required to meet the Best Available Technique Associated Emissions Levels (BAT-AELs), which require extensive investments in environmental infrastructure as the plants need, in many cases, high levels of water treatment to meet local discharge limits.

It is noted that the locations of all industrial installations of the subsidiaries are not in or in the vicinity of ecologically sensitive areas (e.g. Natura 2000) and they do not have a direct effect on local biodiversity or sensitive ecosystems as described in the approved Environmental Impact Studies of the installations subject to environmental permitting.

The wastewater discharge points are monitored by automated systems on a 24-hour basis or periodically by specialized personnel. The discharge of treated wastewater is a critical issue, especially for companies discharging treated wastewater directly to a water body and not to a wastewater network for further treatment. The measurement of possible incidents of discharge limit exceedances is critical in identifying the level of compliance and the possibility of any need for corrective measures. During 2022, there were not any administrative fines for wastewater samples outside the range of discharge limits.



EU Taxonomy

The EU Taxonomy is a classification system that establishes a list of economic activities considered environmentally sustainable and serves as a foundation for the Action Plan on Financing Sustainable Growth, which supports the European Green Deal. By creating a common language for sustainable activities, the EU Taxonomy establishes the first uniform and credible standard that allows economic actors to align with the transition to a low-carbon, resilient and sustainable future.

The EU Taxonomy Regulation requests that companies subject to an obligation to publish non-financial information shall disclose in their NFD the proportion of their turnover, capital expenditure and operating expenditure related to "Taxonomy-eligible and Taxonomy-aligned activities". The assessment methodology followed by Viohalco this year has been refined, considering the updated legislation and interpretation issued by the Taxonomy Platform within 2022.

Viohalco has evaluated the business activities against the EU Taxonomy eligibility criteria for climate mitigation and has identified eligible activities as shown below (cf. Disclosures Delegated Act EU 2021/2178):

Eligible economic activity	Description of operating activity	NACE-Code	Climate change mitigation
3.1 Manufacture of renewable energy technologies	Manufacture of renewable energy technologies	C27.32	✔
3.5 Manufacture of energy efficiency equipment for buildings	Manufacture of façade and roofing, heating and domestic hot water systems and cooling, ventilation systems and heat pumps key components		✔
3.6 Manufacture of other low carbon technologies	Manufacture of other low carbon technologies	C27.32	✔
3.8 Manufacture of aluminium	Secondary aluminium production	C24.42	✔
3.9 Manufacture of iron and steel	Manufacture of iron and steel, EAF production with over 90% of steel scrap relative to product output	C24.10	✔
4.9 Transmission and distribution of electricity	Construction and Installation services of electricity distribution networks	C27.32	✔
7.7 Acquisition and ownership of buildings	Buying real estate and exercising ownership of that real estate.	L68	✔

Aluminium segment

The façade and roofing activities have been included under the Manufacture of energy efficiency equipment for buildings (3.5). Viohalco's aluminium segment also engages in secondary aluminium production (3.8), through the different aluminium companies. However, since there is no distinct category regarding downstream aluminium production and the products are intermediate and further processed internally (and therefore non-revenue generating), the eligible turnover KPI of the secondary aluminium production will not be disclosed.

Aluminium facades manufacturing has been included in Taxonomy reporting under the category 3.5 Manufacture of energy efficiency equipment for buildings.

Copper segment

For the copper segment, key components for space heating and domestic hot water systems, as well as for cooling, ventilation systems and heat pumps, (i.e. copper tubes manufacturing) have been included under the Manufacture of energy efficiency equipment for buildings (3.5).

Steel segment

Viohalco Steel segment (Sidenor) produces crude steel from Electric Arc Furnaces (EAF) (3.9), using as raw material steel scrap in a percentage higher than 90% of the steel product output. However, the steel products produced in the sub installation of steel making does not generate revenue, as it is an intermediate product, thus a revenues value under the eligible turnover KPI cannot be disclosed.

Cables segment

The cables segment's products are used in various applications including renewable technologies manufacturing (3.1), as well as installation projects for transmission and distribution of electricity (4.9). Cables and accessories for the telecom sector

(optical fiber), as well as cables used in the railway sector, under the manufacture of other low carbon technologies (3.6) have also been incorporated in eligible revenue calculation.

Real estate segment

Viohalco Real estate segment (Noval Property) is included in the eligible categories under Acquisition and ownership of buildings (7.7). Viohalco's subsidiary Noval Property is buying real estate and exercises ownership of that real estate.

Eligibility reporting tables

Proportion of Viohalco subsidiaries' turnover 2022 from products or services associated with Taxonomy-eligible economic activities.

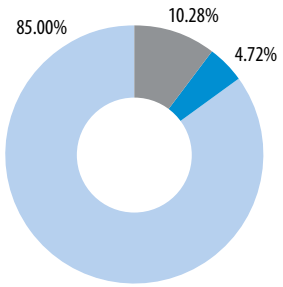
Alignment reporting tables

Proportion of Viohalco subsidiaries' turnover 2022 from products or services associated with Taxonomy-aligned economic activities.

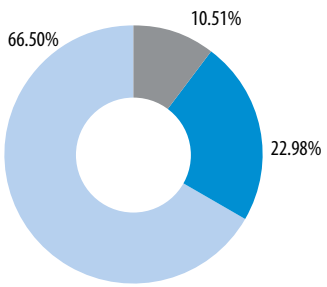
Overview of results

FY 2022	TOTAL	Proportion of Taxonomy-eligible (non-aligned) economic activities	Proportion of Taxonomy-aligned economic activities	Proportion of Taxonomy-non-eligible economic activities
Turnover	6,985,735,344	5%	10%	85%
Capital Expenditure CAPEX	357,226,783	23%	11%	66%
Operating Expenditure OPEX	104,419,070	30%	6%	64%

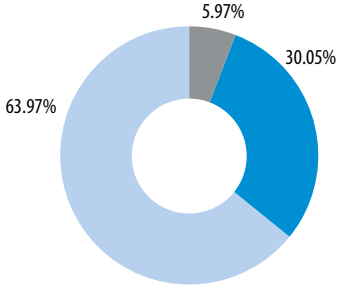
Turnover



CAPEX



OPEX



Non eligible Aligned Eligible non aligned

For details and templates, see the EU Taxonomy reporting principles (page 114)

Responsibility Towards Society

Occupational health and safety (SDG 3 and 8, and ESRS S1)

The various companies under Viohalco have distinct occupational health and safety risk profiles due to factors such as the type of production, technology used, manufacturing processes and materials utilized. Despite the different natures of activities, the safety and well-being of employees is a top priority for Viohalco and its companies, and significant resources are allocated towards enhancing working conditions and creating a safer work environment. This dedication is translated through investments to improve existing safety infrastructure, further deliver employee training on risk awareness and behavior-based safety and implement robust procedures and management systems.

Viohalco subsidiaries conduct detailed risk assessments that identify hazards and evaluate associated risks. Companies also prioritize accurate and timely incident analysis to ensure a solid framework for a systematic approach to incident reporting, management, and investigation, enabling practical corrective and preventive actions.

The year 2022 was the first year of a five-year improvement action plan related to health and safety, which is continuously monitored. As mentioned earlier, the production companies within the scope of this report are certified with the Occupational Health and Safety Management System ISO 45001:2018, and employees working within each company's territory, regardless of being direct employees or subcontractors, are covered by the Health and Safety Management System.

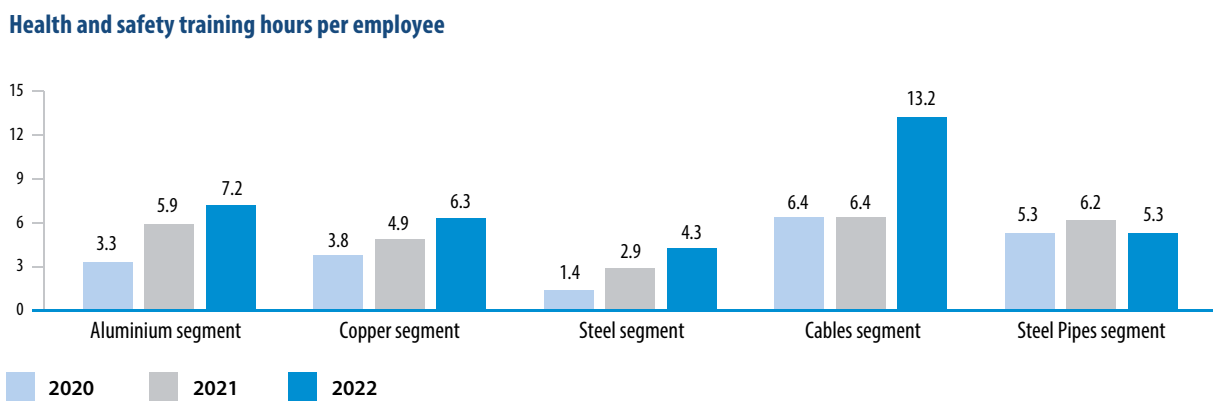
Health and Safety in Viohalco Subsidiaries

Third-party audit assessment

As health and safety matters are of strategic importance to Viohalco subsidiaries, further evaluations and fitness checks of the Health and Safety programs in place have been performed by a third party (DSS+) periodically to ensure a transparent and objective assessment. In 2022, eight more Viohalco subsidiaries' plants were evaluated by DSS+ bringing the total plants evaluated by the same third party to 16 plants. The assessments further helped the companies identify areas of improvement and create action plans for 2023.

Training in health and safety matters is of critical importance and emphasis has been given to the completion of a training matrix that is customized to each job description based on the risk assessment of each plant. In the graph below, the health and safety training hours per employee per segment are presented. Four our of five segments saw an increase, with the cables segment more than doubling its figures and only steel pipes segment facing a small decline compared to the previous year. Moreover, training hours per employee increased by 22% in aluminium segment, by 28% in copper segment, and by 48% in steel segment.

Figure 20: Health and safety training hours per employee per segment for 2020, 2021 and 2022

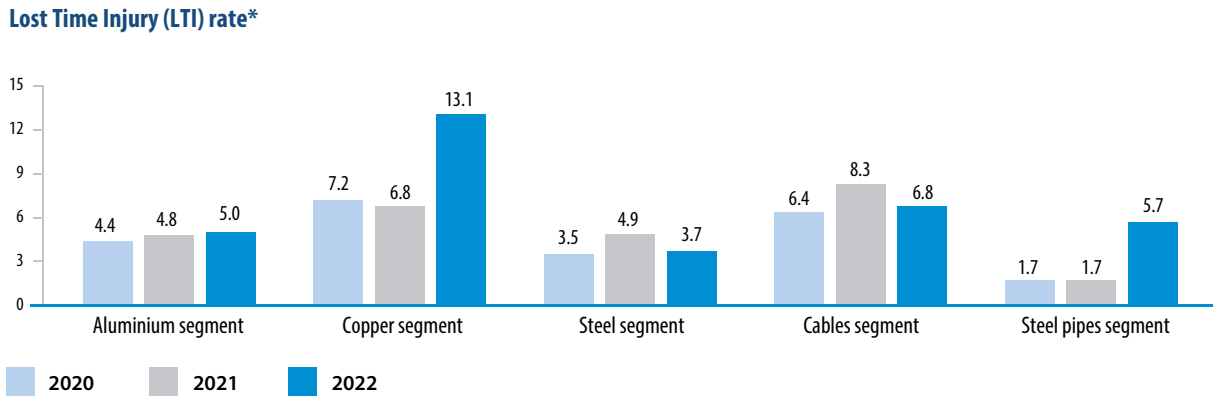


The below graphs present the Lost Time Injury Rate (LTIR), which indicates injury sustained by an employee or contractor resulting in a loss of productive work time that is required for recovery and the total recordable injury frequency rate (TRIFR), which includes the number of fatalities, lost time injuries, substitute work, and other injuries requiring medical treatment from a medical professional.

The copper and steel pipes segments have seen a significant increase in LTIR compared to 2021 due to an increased number of incidents compared to 2021. During 2022, the cables and steel segments, on the other hand, saw an improvement over LTIR in 2021.

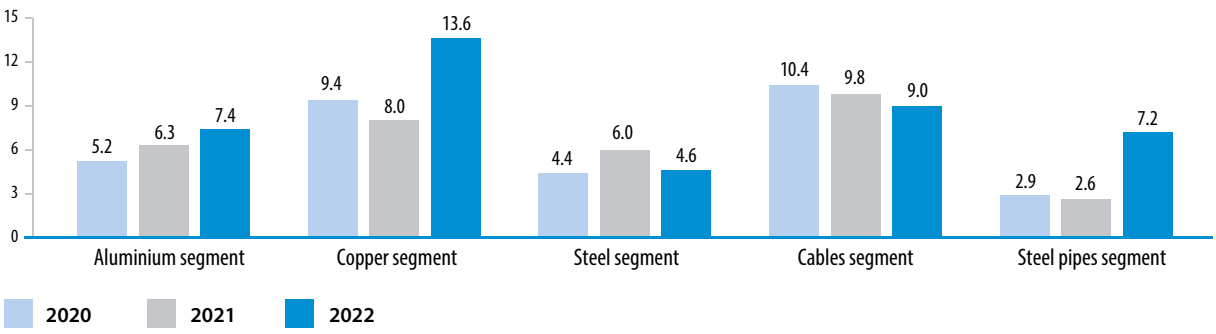
Similarly, most companies have seen their TRIFR relatively stable compared to last, but the copper and steel pipes segments experienced a significant increase in 2022.

Figure 21: Lost Time Injury rate per segment for 2020, 2021 and 2022



** LTIR: Lost time injury rate (number of LTI incidents per million working hours)*

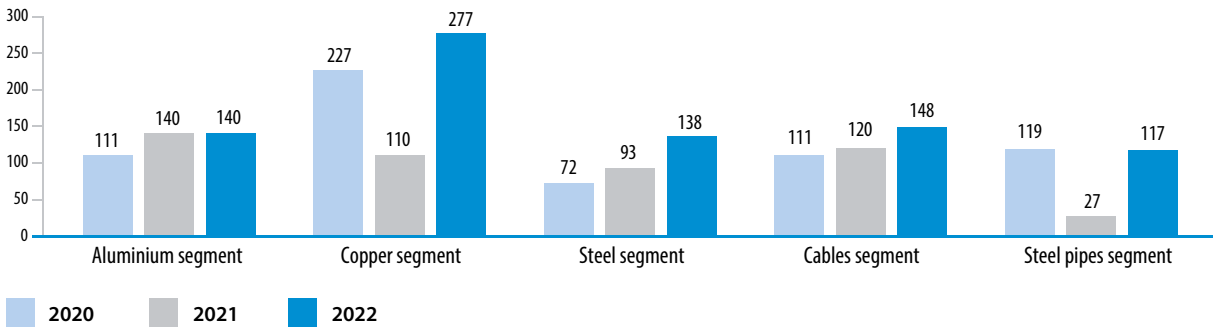
Figure 22: Total recordable injury frequency rate per segment for 2020, 2021 and 2022



** TRIFR: Total recordable injury frequency rate (number of TRIFR per million working hours)*

The severity rate, another main indicator used to show the seriousness of each incident, increased in 2022 in four out of five segments. No fatalities as a result of work-related injuries or work-related ill health happened in 2022 with the last one occurring in 2020 at Stomana Industry.

Figure 23: Severity rate per segment for 2020, 2021 and 2022



** SR: Severity rate (number of lost workdays per million working hours)*

The performance of the subsidiaries in 2022 indicates that more systematic work and human and capital resources are necessary in order to create a safer working environment for all employees and contractors. The improvement plan

for 2023 includes several initiatives and improvement areas that all Viohalco subsidiaries will concentrate such as:

1. Infrastructure improvement
2. Safety leadership training,
3. Risk identification and behavioral safety training
4. High priority initiatives execution, focusing on key risk areas such as work at heights, machinery safety, LOTOTO and electrical work

The execution of the actions for the above mentioned improvement areas have all been linked with the variable compensation of executive management of all subsidiaries in order to make these matters a priority and to indicate the company's commitment to the advancement of these issues.

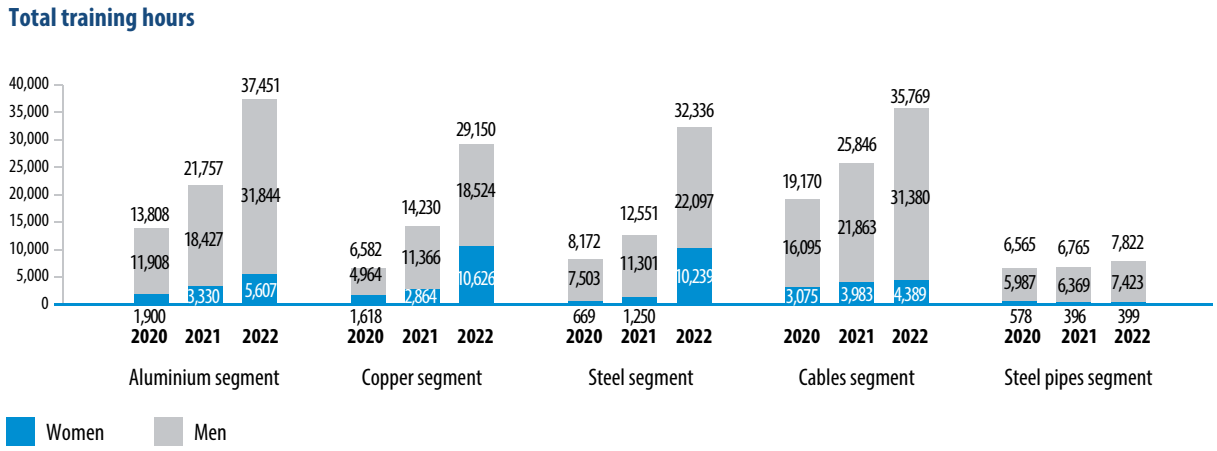
Employee training and development (SDG 8 and ESRS S1)

Viohalco subsidiaries seek to provide their employees with a workplace of equal opportunities by investing materially and systematically in their training and development. As part of the ESG Strategy, Viohalco subsidiaries implemented new employee training on business ethics, anti-bribery and corruption. The training program targets both management and employees with a high-risk job profile due to the nature of the job and comprises dedicated sessions for the management team to ensure a comprehensive grasp of issues related to business ethics, such as money laundering, antitrust and competition laws, anti-corruption, and data privacy. The company intends to maintain this training to ensure employees fully understand the organization's commitments.

In 2022, a dedicated training program for equity, diversity, and inclusion was introduced, initially aimed at senior personnel, and scheduled to be rolled out to the employees over the next three years.

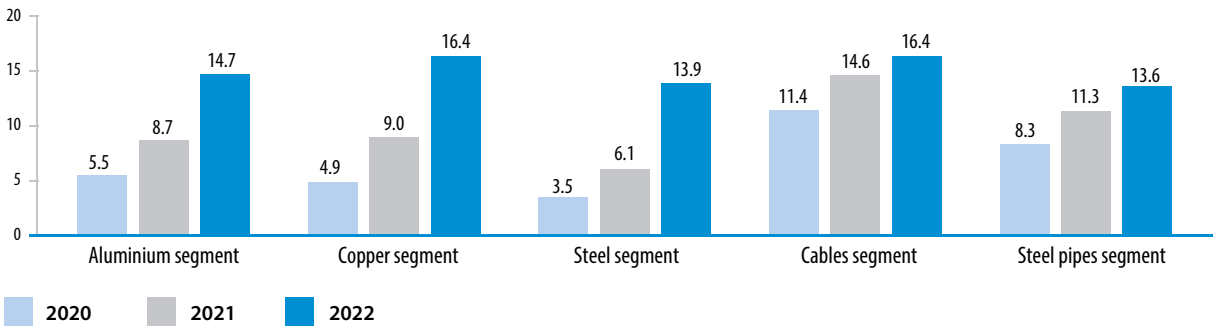
Training hours and training hours per employee have increased significantly after the restrictions were lifted from the Covid-19 pandemic, and employee training hours increased considerably across all segments in 2022. More specifically, when accounting for total training hours, the steel segment saw a growth of 157%, the copper segment a growth of 105% and the aluminium segment an increase by 72%. Given the industrial nature of Viohalco subsidiaries' activities and the consequent lower percentage of women in workforce, the training hours are proportionally distributed to men and women employees.

Figure 24: Total training hours per segment for 2020, 2021 and 2022



In line with total training hours, all segments saw an increase in the total training hours per employee. More specifically, in steel segment the training hours per employee more than doubled compared to last year, the copper segment saw a significant increase of 82% and the aluminium segment an increase of 69%. Finally, the increase in cables and steel pipes segments was 12% and 20%, respectively.

Figure 25: Total training hours per employee per segment for 2020, 2021 and 2022



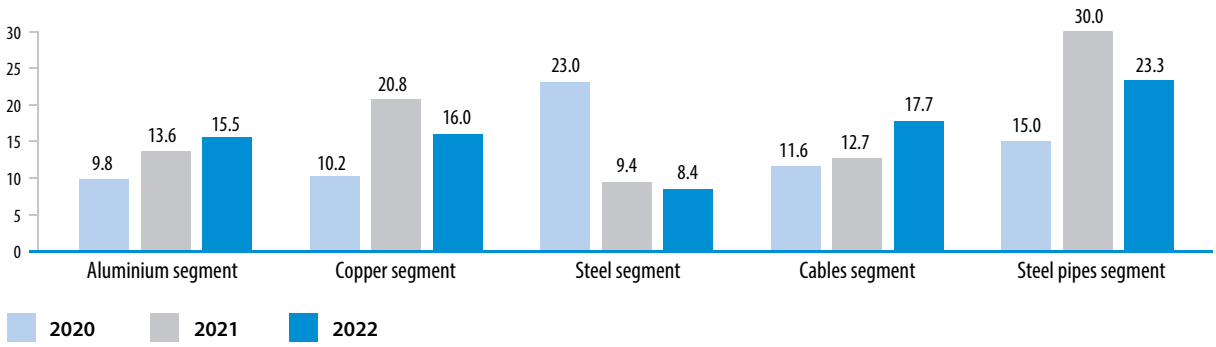
The anti-bribery and corruption training was provided at advanced level with a completion rate of 83% among segments, and during the end of the year, the basic level was also launched. The diversity, equity and inclusion training was offered to managers and of all segments, with a completion rate of 77% and 59%, respectively. The goal is for both trainings to reach 100% completion rate on both levels in 2023.

Diversity, equity, and inclusion (SDG 5 and 8, and ESRS S1)

Viohalco subsidiaries recognize the contribution of their people in their successful business performance and growth and are actively working to promote equality, diversity, and inclusion. Subsidiaries' policies and procedures adhere to applicable domestic laws concerning freedom of association and collective bargaining, non-discrimination, forced labour and underage workers in the workplace. Furthermore, employees are included in private health insurance and pension schemes as a benefit, and employees are paid at a minimum what the labour law of each country defines.

As shown in the figure below, employee turnover decreased in three segments, namely copper, steel and steel pipes. The steel pipes segment is returning to more normal values after an extraordinary year in 2021 caused by the pandemic resulted in an unusual increase in employee turnover. The cables segment showed a reasonable increase, considering the availability of industrial workers in the regions the companies operate.

Figure 26: Total employee turnover (direct and indirect employees) per segment for 2020, 2021 and 2022



** Employee turnover = (employees who leave the organization voluntarily or due to dismissal, retirement, or death in service)/Total employees*100*

Viohalco and its subsidiaries promote diversity in the work environment, and the subsidiaries have taken a series of steps to support and increase the share of female employees, such as helping families with young children with child-care subsidies on top of their base salaries. The proportion of women in the workforce increased or stood still for four out of the five segments in 2022, with only the steel segment showing a slight decrease in the proportion of women in the workforce. The steel, steel pipes and cables segment showed a positive trend for women in a top management position, while the proportion of women in top management decreased for the aluminium and copper segment throughout the year.

Figure 27: Women in workforce per segment for 2020, 2021 and 2022

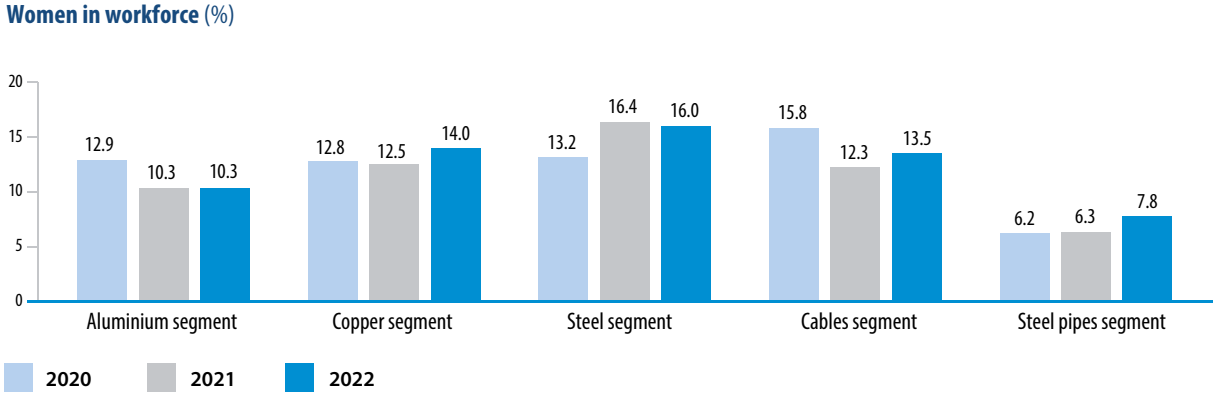
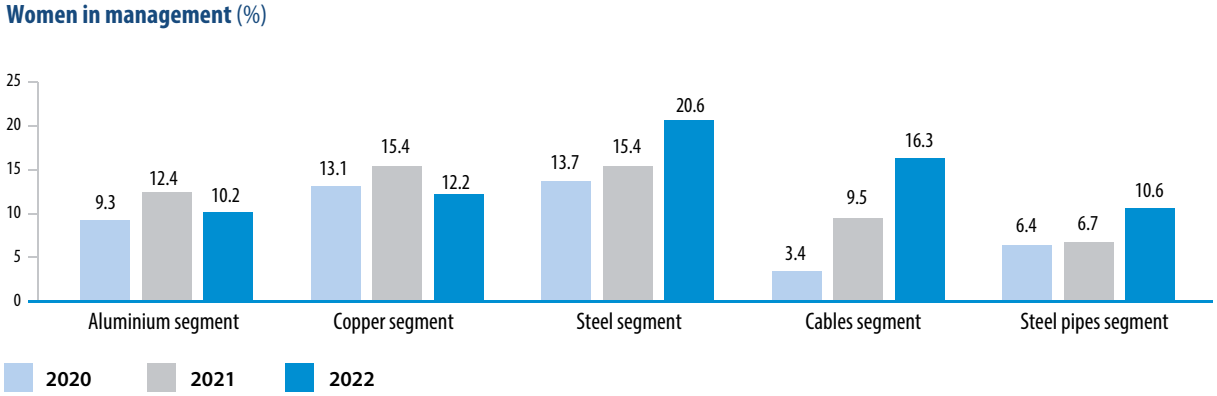


Figure 28: Women in management per segment for 2020, 2021 and 2022



In 2022, Viohalco and its subsidiaries launched the whistleblowing mechanism, the main process for deterring and identifying possible unethical behavior, including human rights violations. The mechanism establishes the proper channels of reporting for anyone, either within or outside Viohalco and its subsidiaries, to report illegal behaviour regarding labour or human rights practices, environmental compliance, and business ethics issues while at the same time ensuring complete protection and support for reporting persons. Additionally, no complaints were filed through channels for own workers or human rights issues, and no incidents related to own workforce were reported.

Responsible supply chain (SDG 8 and 12, and ESRS S3)

Viohalco subsidiaries are committed to operating responsibly in their business activities while expecting the same responsibility from their business partners. Due to their relative position in the value chain, the subsidiaries rely heavily on primary metal producers, often located outside the EU. It is, therefore, of utmost importance that the business partners and suppliers of raw materials practice sound management in ESG matters.

Suppliers are crucial to Viohalco subsidiaries, aiming to cultivate strategic partnerships founded on equivalent ethical, social, and environmental principles. As part of the ESG strategy, two new initiatives have been created to monitor suppliers' performance on sustainability matters.

First, Viohalco and its subsidiaries have adopted the Supplier's Code of Conduct which requires suppliers to show the same concern for employee health and safety, respect and protection of the environment, and respect for labour and human rights. Suppliers must sign the Code of Conduct, and Viohalco subsidiaries require their business partners to comply with the principles defined in it and promote these within their own supply chain.

The second initiative requires the evaluation of Tier 1 suppliers of raw materials on sustainability matters by a world-class company in this field, Ecovadis. The result of the initiative is presented in the section "Sustainability Ratings of Viohalco subsidiaries". The purpose of this initiative is to increase transparency in the supply chain and to identify risks that may appear in the future. In addition, responsible sourcing is vital to delivering products that carry the minimum environmental and social impact.

Viohalco's ESG Strategy's Responsible Sourcing initiative further closely monitors suppliers' compliance with the Conflict Minerals Regulation to ascertain that no material is procured from conflict countries.

Corporate governance and business ethics (SDG 16 and ESRS G1)

Viohalco and its subsidiaries prioritize business ethics and anti-corruption, implementing internal controls and procedures to ensure accountability and transparency with stakeholders. In 2022, they provided employee training on business ethics, a code of conduct, and anti-corruption. All subsidiaries also implemented a whistleblowing mechanism to report illegal behaviour regarding labour or human rights practices, environmental compliance, and business ethics.

No corruption, bribery or data privacy breaches were reported in 2022. Furthermore, no fines were paid due to settlements for unethical business practices or corruption. Viohalco plans to continue emphasizing corporate governance and business ethics in 2023.

Overall, their strong commitment to these issues demonstrates a responsible and ethical approach to business that prioritizes the interests of all stakeholders. Viohalco and its companies have taken necessary steps to ensure compliance and transparency in their operations and will continue to prioritize business ethics in the future.

Integrated management of non-financial risks

Viohalco and its subsidiaries face a variety of non-financial

risks. The companies have a risk identification process and implement mitigation measures wherever possible. Managing non-financial risks is considered an essential task by the companies' management, as non-financial risks can directly or indirectly impact the companies' continuous operation and create future liabilities. Some of the main risks Viohalco and its companies face today are climate change, changing regulatory frameworks, energy prices, water availability, resource scarcity and quality, human rights, anti-corruption, and bribery.

To improve risk management of non-financial issues among subsidiaries, Steelmet Corporate Services professionals monitor closely the compliance with established Company policies and procedures for managing risks that companies' management must comply with. Furthermore, the ESG Strategy includes periodic monitoring of several key indicators to monitor progress on ESG-related risks. The companies have skilled personnel and consultants managing these matters, and they have implemented certified management systems ISO 14001:2015 and ISO 45001:2018, as well as the energy management system 50001:2018, thereby providing an additional management tool for all related risks.

Risks are analyzed from a financial, environmental, and social perspective to understand the impacts. Below is a description of the main non-financial risks identified that can affect business operations, reputation, people and the planet, and the financial results of Viohalco.

Regulatory Compliance

The regulatory environment in which Viohalco subsidiaries operate is very demanding as industrial operations in Europe, especially in metal processing, are subject to a broad range of laws and regulations that are updated at regular intervals.

The European Green Deal and the Fit for 55 package are two recent frameworks that have introduced stringent standards that require continuous effort and investment in resources to comply with. The risks associated with non-compliance encompass various environmental risks, including harm to groundwater, surface soils, and ecosystems. Additionally, social risks can impact the quality of air or water supplies for local communities. Furthermore, failing to comply with environmental regulations can result in fines, liabilities, and damage to the company's reputation.

Viohalco subsidiaries have established environmental management programs and trained professionals to manage and mitigate these risks. The total annual environmental expenditures of Viohalco subsidiaries, including those outside the report's scope, resulted in EUR 34.8 million in 2022 increased by 15.2% compared to 2021.

Climate change

In 2021, Viohalco subsidiaries established an ESG Strategy by assessing all related risks and opportunities and integrating all these matters into its business strategy. The Sustainability strategy has in its core the climate-related matters as they could affect the companies' operation and financial planning. More specifically, it includes the obligation of the industrial subsidiaries to establish goals in strategic matters that include:

1) the gradual replacement of all electricity supply with RES as soon as technically and economically feasible
2) the commitment to specific near and long-term carbon reduction targets on all carbon-intensive activities

To that end, Viohalco is pursuing to assess the potential severity of the risks and the possible benefits of the opportunities with the aim to take all necessary measures to mitigate the negative and maximize the positive ones, and to adopt the Task Force on Climate-related Financial Disclosures (TCFD) framework to transparently communicate their management of climate-related risks and opportunities. The project covers all industrial activities and installations of Viohalco SA and has been performed on a segmental level.

Climate change requires thinking that goes beyond typical business planning. To create a specific threshold which spans over a longer timeline to quantify the effect of climate change, different timeframes have been selected in order to assess the impact of climate-related risks and opportunities. The following time horizons have been selected:

- Short-term (0-5 years)
- Medium-term (5-10 years)
- Long term (>10 years)

The climate related risks are classified into two major categories:

A. Transition risks, which relate to the risk of policy, law, technology, and market changes brought about by the low carbon economy.
B. Physical risks, which relate to the risk of financial losses caused by extreme weather events. Two types of physical risks related to climate are being defined, the event-driven (acute) and the longer-term shifts in climate patterns (chronic).

The subsidiaries utilize climate-related trends, as well as the associated risks and opportunities, to shape their strategic perspective and planning on climate matters. Through careful analysis, for each of the business segments, the most material risks and opportunities relating to the climate that could have a potential material financial impact on its activities, have been identified. These risks and opportunities, presented in the following tables, are considered in defining the strategy, financial planning and day-to-day operation.

Aluminium segment

Climate-related risks

Type	Category	Title	Description	Time horizon	Impact and management
Transition	Technology	Increase in energy prices	Higher production cost due to the increase of the electricity price resulting from increased RES contribution and higher cost of carbon allowances	Short/medium-term (0-10 years)	Energy prices are increasingly volatile, both from the increased volume of RES entering the system and from initiatives to reduce CO_2 emissions through market mechanisms such as cap-and-trade schemes and other regulatory initiatives. Long term, green PPAs have the potential to ensure long term stable prices for low carbon energy but other factors need to be addressed in order to ascertain 24-hr availability of electricity at predictable prices. Improving energy footprint is another way to mitigate the risk of increased energy prices and this can be achieved through energy efficiency investments.
Transition	Policy and Legal	Carbon taxes (CBAM)	Increased raw materials purchasing costs due to additional taxes imposed by CBAM. Potential for lack of competitiveness due to circumvention of taxes by importers.	Short/medium-term (0-10 years)	From CBAM's introduction, businesses are expected to face impacts on business from the carbon taxes imposed to aluminium imports. Viohalco subsidiaries are committed to preparing to adapt to the upcoming changes by mapping the different scenarios and implications of CBAM on the business through various suppliers. This will be achieved by reviewing the global supply chain, evaluating the overall impact on the business activity, and assessing carbon footprint of suppliers and potential effect of CBAM to the increased cost in the supply chain. Viohalco subsidiaries are monitoring the implementation of CBAM rules and how these may affect trade intensities and competitiveness with third country producers. These risks may be mitigated through close collaboration with trade associations and EU authorities in an effort to point out necessary adjustments to ensure a level-playing field.
Transition	Policy and Legal	ETS compliance	Gradual decrease of free EU Allowances starting in 2026	Short/medium-term (0-10 years)	Free EU Allowances will be decreased gradually starting in 2026. Indirectly, the cost of thermal energy will increase as the consumption of natural gas causes carbon emissions. For aluminium products, this directly affects the production cost. Energy efficiency measures will be further explored in order to mitigate this effect.
Physical	Acute	Adverse weather events	Adverse weather events (such as extreme low/high temperature, flooding due to heavy rainfall, heavy snowfall) may lead to significant disruptions in the production process, supply chain and transportation routes, and customer deliveries.	Long-term (10+ years)	Risks related to increased severity of extreme weather events that may impact the company's activities and key customers/suppliers. Viohalco subsidiaries continue to implement a loss prevention program at all aluminium production plants, which seeks to foresee and mitigate material losses and stoppages, such as by monitoring changes in the weather.
Physical	Chronic	Water availability	Increased electricity consumption for full recycling of water will increase cost. Shortage of water may hinder the company's production activities resulting from the changes in precipitation patterns in the long run due to climate change and warmer temperatures.	Long-term (10+ years)	The availability of freshwater for production purposes is a major water- management related risk. The aluminium segment is relatively water-intensive and therefore treat the water supply risk as a business continuity issue that can ultimately have a financial impact which may be material (negative impact on the company). The risk is mainly mitigated through continuous efforts to improve the water footprint of the companies through technological advancements (ie. Closed-loop cooling systems) or have alternative sources of water.

Climate-related opportunities

Type	Description	Time horizon	Impact and management
Products & services	New circular and low carbon products - Recycled materials (circular economy)	Short/medium-term (0-10 years)	Viohalco subsidiaries promote and implement the principles of the circular economy, constantly increasing the use of aluminium that is sourced from products at the end of their life cycle, so that they can return to the value chain. The waste materials that re-enter the loop include both post-consumer and pre-consumer scrap for aluminium.

Copper segment

Climate-related risks

Type	Category	Title	Description	Time horizon	Impact and management
Transition	Technology	Increase in energy prices	Higher production cost due to the increase of the electricity price resulting from increased RES contribution and higher cost of carbon allowances	Short/medium-term (0-10 years)	Energy prices are increasingly volatile, both from the increased volume of RES entering the system and from initiatives to reduce CO_2 emissions through market mechanisms such as cap-and-trade schemes and other regulatory initiatives. Long term green PPAs have the potential to ensure long term stable prices for low carbon energy but other factors needs to be addressed in order to ascertain around-the-clock availability at predictable prices. Improving energy footprint is another way to mitigate the risk of increased energy prices and this can be achieved through energy efficiency investments.
Transition	Policy and Legal	ETS compliance	Gradual decrease of free EU Allowances in 2026.	Short/medium-term (0-10 years)	Free EU Allowances will be decreased gradually starting in 2026. Indirectly, the cost of thermal energy will increase as the consumption of natural gas causes carbon emissions. For copper products, this directly affects the production cost. Energy efficiency measures will be further explored in order to mitigate this effect.
Physical	Acute	Adverse weather events	Adverse weather events (such as extreme low/high temperature, flooding due to heavy rainfall, heavy snowfall) may lead to significant disruptions in the production process, supply chain and transportation routes, and customer deliveries.	Long-term (10+ years)	Risks related to increased severity of extreme weather events that may impact the company's activities and key customers/suppliers. Viohalco subsidiaries continue to implement a loss prevention program at all copper production plants, which seeks to foresee and mitigate material losses and stoppages, such as by monitoring changes in the weather.
Physical	Chronic	Water availability	Increased electricity consumption for full recycling of water will increase cost. Shortage of water may hinder the company's production activities resulting from the changes in precipitation patterns in the long run due to climate change and warmer temperatures	Long-term (10+ years)	The availability of freshwater for production purposes is a major water management-related risk. The copper segment is relatively water-intensive and therefore treat the water supply risk as a business continuity issue that can ultimately have a possible material financial impact (negative impact on the company). The risk is mainly mitigated through continuous efforts to improve the water footprint of the companies and have multiple sources of water, so there are alternative sources of supply.

Climate-related opportunities

Type	Description	Time horizon	Impact and management
Products & services	New circular and low carbon products – Recycled materials (circular economy)	Short/medium-term (0-10 years)	Viohalco subsidiaries promote and implement the principles of the circular economy, constantly increasing the use of copper that is sourced from collecting products at the end of their life cycle, so that they can return to the value chain. The waste materials that renter the loop include both post-consumer and pre-consumer scrap for copper.
Products & services	New product - Pipes for HVAC (heating, ventilation and air-conditioning)	Short/medium-term (0-10 years)	Viohalco subsidiaries are already producing copper pipes to enable energy efficient HVAC systems which contribute to the transition to a low carbon economy. The copper segment companies are aiming to continue to do so and explore expanding its product offering to be able to further assist customers.

Steel segment

Climate-related risks

Type	Category	Title	Description	Time horizon	Impact and management
Transition	Technology	Increase in energy prices	Higher production cost due to the increase of the electricity price resulting from increased RES contribution and higher cost of carbon allowances	Short/medium-term (0-10 years)	Energy prices are increasingly volatile, both from the increased volume of RES entering the system and from initiatives to reduce CO_2 emissions through market mechanisms such as cap-and-trade schemes and other regulatory initiatives. Long term green PPAs have the potential to ensure long term stable prices for low carbon energy but other factors need to be addressed in order to ascertain 24-hr availability of electricity at predictable prices. Improving energy footprint is another way to mitigate the risk of increased energy prices and this can be achieved through energy efficiency investments.
Transition	Policy and Legal	Carbon taxes (CBAM)	Potential for lack of competitiveness due to circumvention of taxes by importers.	Short/medium-term (0-10 years)	Viohalco subsidiaries are monitoring the implementation of CBAM rules and how these may affect trade intensities and competitiveness with third country producers. These risks may be mitigated through close collaboration with trade associations and EU authorities in an effort to point out necessary adjustments to ensure a level-playing field.
Transition	Policy and Legal	ETS compliance	Gradual increase of shortage regarding EU Allowances in 2026.	Short/medium-term (0-10 years)	Free EU Allowances will be decreased gradually starting in 2026. Indirectly, the cost of thermal energy will increase as the consumption of natural gas causes carbon emissions. For steel products, this directly affects the production process. Energy efficiency measures will be further explored in order to mitigate this effect.
Physical	Acute	Adverse weather events	Adverse weather events (such as extreme low/high temperature, flooding due to heavy rainfall, heavy snowfall) may lead to significant disruptions in the production process, supply chain and transportation routes, and customer deliveries.	Long-term (10+ years)	Risks related to increased severity of extreme weather events that may impact the company's activities and key customers/suppliers. Viohalco subsidiaries continue to implement a loss prevention program at all production plants, which seeks to foresee and mitigate material losses and stoppages, such as by monitoring changes in the weather.
Physical	Chronic	Water availability	Increased electricity consumption for full recycling of water will increase cost. Shortage of water may hinder the company's production activities resulting from the changes in precipitation patterns in the long run due to climate change and warmer temperatures.	Long-term (10+ years)	Water is an essential element of steel's production process, and its availability is important to the subsidiaries' business continuity. Water related risks are associated with the availability of adequate water in both quantity and quality. Water supply-related risks are considered from a financial and environmental perspective. The steel companies aim to mitigate water management risk and improve its water footprint by continuously monitoring water usage and try to optimize its consumption by eliminating losses and reusing water wherever possible.

Climate-related opportunities

Type	Description	Time horizon	Impact and management
Energy source	Leverage energy price fluctuations in prices from RES	Medium-term (5-10 years)	The steel segment has an increased flexibility in intermittent operation making it suitable for the intermittent production of RES. As such the company can take advantage of the price fluctuations that arise from wider renewables deployment and operate during more favorable hours.

Cables segment

Climate-related risks

Type	Category	Title	Description	Time horizon	Impact and management
Transition	Policy and Legal	Carbon taxes (CBAM)	Increased purchasing costs of aluminium and steel due to additional taxes imposed by CBAM. Competitors from abroad circumventing the costs of CBAM may gain competitive advantage.	Short/medium-term (0-10 years)	From CBAM's introduction, businesses are expected to face increased cost on raw materials pricing. In addition, competitors from abroad that are not subject to increased costs of raw materials may gain a competitive advantage. Viohalco subsidiaries are committed to preparing to adapt to the upcoming changes by mapping the different scenarios and implications of CBAM on the business. This will be achieved by reviewing the global supply chain, evaluating the overall impact on the business activity, and assessing carbon footprint of suppliers and potential effect of CBAM to the increased cost in the supply chain. Viohalco subsidiaries are monitoring the implementation of CBAM rules and how these may affect trade intensities and competitiveness with third country producers. These risks may be mitigated through close collaboration with trade associations and EU authorities in an effort to point out necessary adjustments to ensure a level-playing field.
Physical	Acute	Adverse weather events	Adverse weather events (such as extreme low/high temperature, flooding from rain, heavy snowfall) may lead to significant disruptions in the production process, supply chain and transportation routes, and customer deliveries.	Long-term (10+ years)	Risks related to increased severity of extreme weather events that may impact the company's activities and key customers/suppliers. Viohalco subsidiaries continue to implement a loss prevention program at all cables production plants, which seeks to foresee and mitigate material losses and stoppages, such as by monitoring changes in the weather.

Climate-related opportunities

Type	Description	Time horizon	Impact and management
Products & Services	Products enabling decarbonisation of power through massive deployment of RES, electrification of transportation sector	Short/medium-term (0-10 years)	The cables segment manufactures amongst other power and telecom cables for energy transmission and distribution industries. A great opportunity presents itself for the cables segment to enable the decarbonization of power as their products are enablers of the development of smart grids, supporting the electrification of transport, expansion of RES, etc.

Steel pipes segment

Climate-related risks

Type	Category	Title	Description	Time horizon	Impact and management
Transition	Policy and Legal	Carbon taxes (CBAM)	Increased purchasing costs due to additional taxes imposed by CBAM on steel.	Short/medium-term (0-10 years)	CBAM's impact on steel raw materials will affect the supply chain of steel in steel pipes. The company is committed to preparing to adapt to the upcoming changes by mapping the different scenarios and implications of CBAM on the business. This will be achieved by reviewing the global supply chain and its carbon footprint, evaluating the overall impact on the business activity. Viohalco subsidiaries are monitoring the implementation of CBAM rules and how these may affect trade intensities and competitiveness with third country producers. These risks may be mitigated through close collaboration with trade associations and EU authorities in an effort to point out necessary adjustments to ensure a level-playing field.
Physical	Acute	Adverse weather events	Adverse weather events (such as extreme low/high temperature, flooding due to heavy rainfall, heavy snowfall) may lead to significant disruptions in the production process, supply chain and transportation routes, and customer deliveries.	Long-term (10+ years)	Risks related to increased severity of extreme weather events that may impact the company's activities and key customers/suppliers. The Company continues to implement a loss prevention program which seeks to foresee and mitigate material losses and stoppages, not least by monitoring changes in the weather.

This constituted the base of the analysis performed on the resilience of the strategy of the organization by taking into the consideration different climate-related scenarios, including a 2°C or lower scenario. Viohalco and its companies understand the importance of monitoring and addressing a diverse range of external factors to achieve success. In order to gain further insights into how various climate scenarios could affect the Companies, while maintaining a consistent financial metric, the method of scenario analysis has been used. To analyze the impact of climate risks to the company's assets and operations, climate risks were assessed under two different climate scenarios across two different time horizons. More information about the scenarios is presented in the table below:

Scenario	Scenario 1 Moderate climate change scenario RCP 4.5 / SSP2-4.5	Scenario 2 High climate change scenario RCP 8.5 / SSP5-8.5
GHG emissions	**Intermediate GHG emissions.** GHG emissions gradually decline after peaking in 2030-2050, then falling but not reaching net zero by 2100	**Very high GHG emissions.** GHG emissions continue to grow up through 2100. CO_2 emissions triple by 2075 compared with 2020.
Policy reaction	**Transition risks are relatively high.** • Governments will meet their current commitments to reduce climate impact. • Economic development goals are achieved despite a slowdown in the growth of resource consumption and energy consumption. • Climate policy is likely to boost the demand considerably for metals by 22%	**Transition risks are relatively low.** • Only currently implemented policies are preserved, leading to high physical risks. • The global development patterns remain unchanged. • Some countries introduce decarbonization measures, but this is not sufficient to reduce the resource and energy intensity of the global economy. • Climate policy regulations are weak and insufficient to combat climate change and its adverse impacts.
Energy & Resources	**Moderately intensive use of resources and energy.** • Global oil consumption would peak by 2030-2035, gas consumption would continue a growth throughout 2022-2050 and coal consumption would continue to decline without recovery. • The price of electricity will be in the middle range due to the use of various sources of energy production. • The resource intensity and energy intensity of the global economy declines as a result of decarbonization measures taken by developed countries and subsequent similar actions introduced by developing countries with a delay of several decades. • All metals face a strong growth in annual demand, regardless of the scenario, mostly as a result of population and GDP growth	**Intensive use of resources and energy.** • Usage of fossil energy sources will increase. • Electricity prices will be lower compared to other scenarios. • Economic development is achieved through intensive growth, which entails increased consumption of materials and energy and exploitation of natural resources. • All metals face a strong growth in annual demand, regardless of the scenario, mostly as a result of population and GDP growth
Sea level rise	A significant decrease in anthropogenic GHG emissions leads to moderate physical impacts of climate change. Average global sea-level rise will reach 0.44-0.76 m by 2100.	The increase in GHG concentrations leads to significant physical impacts of climate change. Average global sea-level rise will reach 0.63-1.01 m by 2100.
Relevant forecasts and scenarios used	• IPCC AR5 Representative Concentration Pathway (RCP) 4.5 • Shared Socioeconomic Pathway 2 (SSP 2) • NGFS Nationally Determined Contributions (NDCs)	• IPCC AR5 Representative Concentration Pathway (RCP) 8.5 • Shared Socioeconomic Pathway 5 (SSP 5) • NGFS Current Policies

In the tables below, the evaluation of risks and their potential impact on financial performance, based on the climate scenario analysis performed for the transition and the physical risks per segment, is presented.

Aluminium segment

Type	Category	Title	RCP 4.5 / SSP2-4.5		RCP 8.5 / SSP5-8.5	
			2030	2050	2030	2050
Transition	Market	Increase in energy prices				
Transition	Policy and Legal	Carbon taxes (CBAM)				
Transition	Policy and Legal	ETS compliance				
Physical	Acute	Adverse weather events (flooding due to heavy rainfall)				
		Adverse weather events (heatwave)				
Physical	Chronic	Water availability				

Copper segment

Type	Category	Title	RCP 4.5 / SSP2-4.5		RCP 8.5 / SSP5-8.5	
			2030	2050	2030	2050
Transition	Market	Increase in energy prices				
Transition	Policy and Legal	ETS compliance				
Physical	Acute	Adverse weather events (flooding due to heacy rainfall)				
		Adverse weather events (heatwave)				
Physical	Chronic	Water availability				

Steel segment

Type	Category	Title	RCP 4.5 / SSP2-4.5		RCP 8.5 / SSP5-8.5	
			2030	2050	2030	2050
Transition	Market	Increase in energy prices				
Transition	Policy and Legal	Carbon taxes (CBAM)				
Transition	Policy and Legal	ETS compliance				
Physical	Acute	Adverse weather events (flooding due to heavy rainfall)				
		Adverse weather events (heatwave)				
Physical	Chronic	Water availability				

Cables segment

Type	Category	Title	RCP 4.5 / SSP2-4.5		RCP 8.5 / SSP5-8.5	
			2030	2050	2030	2050
Transition	Policy and Legal	Carbon taxes (CBAM)				
Physical	Acute	Adverse weather events (flooding due to heavy rainfall)				
		Adverse weather events (heatwave)				

Steel pipes segment

Type	Category	Title	RCP 4.5 / SSP2-4.5		RCP 8.5 / SSP5-8.5	
			2030	2050	2030	2050
Transition	Policy and Legal	Carbon taxes (CBAM)				
Physical	Acute	Adverse weather events (flooding due to heavy rainfall)				
		Adverse weather events (heatwave)				

High Medium Low

Circular economy

Although the subsidiaries are well-positioned to embrace the circular economy, this transition also presents several challenges. Among these, supply chain risks related to raw material shortages and metal quality issues are prominent. These risks have the potential to directly impact the quality of finished products and impede production processes. Additionally, using low-quality scrap metal in recycling can be a risk factor for companies. Such low-quality scrap can negatively affect energy and water consumption, as processing lower-quality metals require more resources and may increase emissions and waste production. This, in turn, can lead to increased costs associated with processing the scrap. Moreover, low-quality scrap may contain impurities that can adversely affect the quality of the final product, leading to reduced value. These risks are addressed by diligent monitoring of scrap qualities, sorting equipment and/or manual sorting of various scrap categories, thermal metallurgy modifications for impurity removals and modifications in the mechanical processing of the products in order to accommodate for different qualities of alloyed metals.

Water management

As stated earlier, water is a crucial element of Viohalco subsidiaries' production process, and its availability is essential for their business continuity. Two of the main water-related risks are associated with adequate water in both quantity and quality and wastewater treatment before discharge.

Lack of water availability can lead to severe disruptions to the companies' operation, and inadequate water quality can lead to significant investments in water treatment, resulting in increased energy demand and waste generation. Water supply-related risks are essential from a financial and environmental perspective. As shown in the previous section, some of Viohalco subsidiaries are relatively water-intensive and therefore treat the water supply risk as a business continuity issue that can ultimately have a negative financial impact on the company. In addition to the financial implications of water shortages, environmental implications can occur when water shortages limit the water available for other uses, such as irrigation and municipal use.

To mitigate these risks, the companies continuously improve their water footprint by setting internal goals to minimize water use, reevaluating current usage, training employees on the importance of water use, and having multiple water sources to ensure alternative sources supply.

Regarding wastewater quality discharge, breaching local discharge limits can adversely affect local water supplies, cause reputational damage, and administrative and criminal prosecution. The companies mitigate the risk by setting up proper infrastructure, such as the adequate capacity of wastewater treatment, adequately trained personnel, preventive maintenance of equipment and close performance monitoring to identify any possible problems in wastewater treatment.

Human and equal rights

There are several human rights risks that Viohalco subsidiaries face. Employee-related risks entail potential violations of equal treatment and statutory working hours by personnel that may lead to operation interruption risks. The companies mitigate these risks by implementing and monitoring compliance with personnel evaluation and training, regular internal audits and through the whistle-blowing mechanism. Other human rights risks are related to the health and safety risks of workers and the supply chain and are discussed further below.

Occupational health and safety

The major risks related to social and labour matters are the occupational health and safety of the labour force. These risks are significant from both a financial and social perspective.

Viohalco subsidiaries are exposed to occupational health and safety risks at industrial sites. These risks are strongly linked with Viohalco subsidiaries' industrial operations (thermal metallurgy with high-temperature processes, heavy equipment, chemical treatment, work at heights, etc.), which they have been assessed and have been recognized for the significant impact on human life, local communities, and legal liabilities that could be created by a potential incident at its subsidiaries. Besides the physical risks, this can also affect the companies' reputation and the work environment's attractiveness, making it harder to attract and retain employees or contractors.

With regards to occupational health and safety risks, Viohalco subsidiaries have established a 5-year safety improvement plan & have safety management systems in place following a comprehensive approach for improvement which is translated into substitution controls implementation (i.e. equipment operation by distance or on floor level), engineering controls implementation (i.e. equipment upgrade), implementation of safety management principles (safety audits, standard operational procedures, work instructions, etc.), the establishment of a targeted safety training program and direct involvement and strong commitment of management. The total annual health and safety expenditure of Viohalco subsidiaries, i.e., including those outside the report's scope, resulted in EUR 16.8 million in 2022 increased by 12.4% compared to 2021.

Responsible sourcing

Social risks are especially significant in the supply chain of Viohalco's companies as the raw materials used by Viohalco subsidiaries are located in various geographic locations with varying degrees of labour and environmental standards. Most of the environmental and social footprint of Viohalco subsidiaries' products originates from the supply chain.

The Responsible Sourcing initiative described in the previous section targets the evaluation and engagement of major suppliers to identify the ones with poor environmental, social and governance practices. Following the assessment, Viohalco subsidiaries will engage them regularly to monitor progress on an action plan or look for alternative suppliers that meet the companies' ethical and environmental standards. Furthermore, in 2022, Viohalco carried out a minimum safeguard gap assessment currently being implemented to monitor and mitigate the company's negative human rights impacts. Among others, integration in business procedures and human rights risk assessment.

Anti-bribery and corruption

The risks related to anti-bribery and corruption lie in the failure to conduct business operations ethically and comply with the laws and regulations in the jurisdictions in which Viohalco and its companies operate.

To prevent and mitigate such risks, the whistleblowing mechanism was developed to ascertain that any illegal behavior can be reported without retribution to the person reporting the illegal behaviour. Furthermore, the internal audit function is responsible for monitoring and reporting timely and properly any related deviation or misconduct. Simultaneously, subsidiaries separately organize employee training, awareness-raising courses and communication actions to increase awareness and stress the importance of compliance with the companies' employees.

Detailed information on Viohalco subsidiaries' sustainability actions can be found in their standalone sustainability reports which are published on an annual basis.



ANNEX

EU Taxonomy Reporting Principles

Allocation of turnover, Capex and Opex to the environmental objective of climate change mitigation

Viohalco is particularly concerned by the objective of climate change mitigation. It was determined that activities 3.1, 3.5, 3.6, 3.8, 3.9, 4.9 & 7.7 should be allocated to climate change mitigation, as this objective is more pertinent to Viohalco's activities and the Taxonomy does not allow double counting using other objectives.

Relevant judgement on the Taxonomy-eligibility of our activities:

Cables Manufacturing

Activity 3.1 - Manufacture of renewable energy technologies

The description of activity 3.1 in Annex I to the Climate Delegated Act does not contain a clear definition of the term "renewable energy technologies" and is thus open to interpretation. In the absence of a "renewable energy technologies" definition and in the spirit of the EU Taxonomy, this term was defined by referring to the technical screening criteria for substantial contribution to climate change mitigation. Revenue generated from production and installation of cable systems used in Renewable Energy Sources projects (mainly wind and solar), which enable the diffusion of renewable energy in the electricity network was included.

Activity 4.9 - Construction and Installation services of electricity distribution networks

According to the description of activity 4.9 in Annex I to the Climate Delegated Act an economic activity should comply with at least one of the following technical screening criteria:

a. the system is the interconnected European system, i.e. the interconnected control areas of Member States, Norway, Switzerland and the United Kingdom, and its subordinated systems;
b. more than 67% of newly enabled generation capacity in the system is below the generation threshold value of 100 gCO_2e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year period;
c. the average system grid emissions factor, calculated as the total annual emissions from power generation connected to the system, divided by the total annual net electricity production in that system, is below the threshold value of 100 gCO_2e/kWh measured on a life cycle basis in accordance with electricity generation criteria, over a rolling five-year period.

Based on the Company's assessment, the cables segment revenue generated from projects relating to the interconnection of islands complies with the above-mentioned technical criteria "a".

Activity 3.6 - Manufacture of other low carbon technologies

Cable products with significant carbon emission reduction through the Global Warming Potential indicator was included in this activity. More specifically cables that reduce emissions in telecom and railway sectors are considered to comply with the activity description: Manufacture of technologies aimed at substantial GHG emission reductions in other sectors of the economy, where those technologies are not covered in Sections 3.1 to 3.5 of this Annex (Climate change mitigation).

Manufacture of facades, copper tubes for heating and cooling applications

Activity 3.5 - Manufacture of energy efficiency equipment for buildings

In the specific activity the description includes numerous NACE codes and additional insight within the Technical Screening Criteria related to the activity was used for this definition.

More specifically:

The economic activity manufactures one or more of the following products and their key components:

a. windows with U-value lower or equal to 1,0 W/m2K;
b. doors with U-value lower or equal to 1,2 W/m2K;
c. external wall systems with U-value lower or equal to 0,5 W/m2K;
d. roofing systems with U-value lower or equal to 0,3 W/m2K;
e. insulating products with a lambda value lower or equal to 0,06 W/mK;
f. household appliances falling into the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 of the European Parliament and of the Council95 and delegated acts adopted under that Regulation;
g. light sources rated in the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 and delegated acts adopted under that Regulation;
h. space heating and domestic hot water systems rated in the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 and delegated acts adopted under that Regulation;
i. cooling and ventilation systems rated in the highest two populated classes of energy efficiency in accordance with Regulation (EU) 2017/1369 and delegated acts adopted under that Regulation;
j. presence and daylight controls for lighting systems;
k. heat pumps compliant with the technical screening criteria set out in Section 4.16 of this Annex;
l. façade and roofing elements with a solar shading or

solar control function, including those that support the growing of vegetation;
m. energy-efficient building automation and control systems for residential and nonresidential buildings;
n. zoned thermostats and devices for the smart monitoring of the main electricity loads or heat loads for buildings, and sensoring equipment;
o. products for heat metering and thermostatic controls for individual homes connected to district heating systems, for individual flats connected to central heating systems serving a whole building, and for central heating systems;
p. district heating exchangers and substations compliant with the district heating/cooling distribution activity set out in Section 4.15 of this Annex;
q. products for smart monitoring and regulating of heating system, and sensoring equipment.

Based on Viohalco subsidiaries' product lines, it was concluded that eligible turnover is associated with:
- Facade elements
- space heating and domestic hot water systems key components
- cooling and ventilation systems key components
- heat pumps key components

Real Estate segment

Activity 7.7 - Acquisition and ownership of buildings

Based on the description of the activity: 'Buying real estate and exercising ownership of that real estate.', the eligible turnover from the real estate company, Noval Property was declared.

Aluminium Production

Activity 3.8 - Secondary aluminium production

The description of activity 3.8 in Annex I to the Climate Delegated Act does not contain a clear definition of the term "secondary aluminium" and is thus open to interpretation.

The aluminium producing companies of Viohalco manufacture aluminium slabs through a remelting process of the casthouse, using as raw materials primary aluminium, as well as pre-consumer and post- consumer scrap. None of the Viohalco subsidiaries' activities include primary aluminium production.

As stated above, the products of the aluminium casthouse are considered intermediate and do not generate revenue.

Steel Production

Activity 3.9 - Manufacture of iron and steel

According to the description of activity 3.9 in Annex I to the Climate Delegated Act an economic activity should comply with at least one of the following technical screening criteria:

a. iron and steel where GHG emissions, reduced by the amount of emissions.
b. steel in electric arc furnaces (EAFs) producing EAF carbon steel or EAF high alloy steel, as defined in Commission Delegated.

Regulation (EU) 2019/331 and where the steel scrap input relative to product output is not lower than:
- 70 % for the production of high alloy steel.
- 90 % for the production of carbon steel.

The steel segment revenue complies with the above-mentioned technical criteria of paragraph "b" as the steel making process of Viohalco subsidiaries are based on secondary production of steel using steel scrap more than 90% input. However, the EAF steel produced in the Meltshop is used internally and does not generate revenue.

Taxonomy-non-eligible economic activities

The activities that have not been identified as Taxonomy eligible, and which therefore comprise the Taxonomy non-eligible %, are currently not included among the sectors and activities included in the EU Taxonomy; however, they could be included in the activities envisaged in the additional four environmental objectives identified in the Regulation that are currently being standardized.

Taxonomy-eligible Capex and Opex and individually Taxonomy eligible Capex and Opex

With regards to Capex and Opex related to our Taxonomy-eligible economic activities and Capex/Opex related to purchases and measures that we consider as individually Taxonomy-eligible, explanations are provided in the sections "Capex KPI" and "Opex KPI" in the description of our accounting policies.

KPIs and accounting policies

Reporting requirements include the eligibility percentage of the Turnover, CAPEX and OPEX for the companies that are already included in the Sustainable Finance E.U. law. Article 10(1) of the Disclosures Delegated Act explicitly requires that in the first year of implementation, non-financial undertakings should disclose "the proportion of Taxonomy-eligible and Taxonomy non-eligible economic activities in their total turnover, capital and operating expenditure". The figures relevant to the aligned turnover, CAPEX and OPEX will be presented in the respective section below.

Turnover KPI

Definition

The proportion of Taxonomy-eligible economic activities has been calculated as the part of turnover derived from the economic activities presented below (numerator):

- 3.1 Manufacture of renewable energy technologies
- 4.9 Transmission and distribution of electricity
- 3.6 Manufacture of other low carbon technologies
- 3.5 Manufacture of energy efficiency equipment for buildings
- 7.7 Acquisition and ownership of buildings

divided by the turnover of Viohalco's total turnover (denominator) for financial year 2022.

For further details on our turnover accounting policy please refer to page 157 of our Annual Report 2022.

Reconciliation

Turnover of Viohalco can be reconciled to our consolidated financial statements, in "Operating segments" section, on page 170 of our Annual Report 2022.

Capex KPI

Definition

The Capex KPI is defined as Taxonomy-eligible Capex (numerator) divided by Viohalco's total Capex (denominator). The numerator consists of Taxonomy-eligible Capex related to assets or processes that are associated with the economic activities presented below (numerator):

- 3.1 Manufacture of renewable energy technologies
- 4.9 Transmission and distribution of electricity
- 3.6 Manufacture of other low carbon technologies
- 3.5 Manufacture of energy efficiency equipment for buildings
- 7.7 Acquisition and ownership of buildings

We consider that assets and processes are associated with Taxonomy eligible economic activities when they are essential components necessary to execute an economic activity. Consequently, all Capex invested into machinery or equipment for the above-mentioned activities have been included in the numerator of the Capex KPI.

In particular, secondary aluminium Capex includes Capex related to the production of aluminium from secondary raw materials (including scrap and metal-bearing materials) and the remelting and alloying processes.

The denominator consists of Viohalco subsidiaries additions to tangible and intangible fixed assets during financial year 2022, before depreciation, amortisation and any re-measurements, including those resulting from revaluations and impairments. It includes acquisitions of tangible fixed assets (IAS 16), intangible fixed assets (IAS 38) and investment properties (IAS 40). Additions resulting from business combinations are also included. Goodwill is not included in Capex, as it is not defined as an intangible asset in accordance with IAS 38. For further details on our accounting policies regarding Capex please refer to page 161 of our Annual Report 2022.

Reconciliation

Capex of Viohalco can be reconciled to our consolidated financial statements, in "Operating segments" section, on page 170 of our Annual Report 2022.

Opex KPI

Definition

The Opex KPI is defined as Taxonomy-eligible Opex (numerator) divided by total Viohalco's total Opex (denominator).

The numerator consists of Taxonomy-eligible Opex related to assets or processes that are associated with the economic activities presented below (numerator):

- 3.1 Manufacture of renewable energy technologies
- 4.9 Transmission and distribution of electricity
- 3.6 Manufacture of other low carbon technologies
- 3.5 Manufacture of energy efficiency equipment for buildings
- 7.7 Acquisition and ownership of buildings

Total Opex (denominator) consists of direct non-capitalized costs that relate to research and development, building renovation measures, short-term lease, maintenance and repair, and any other direct expenditures relating to the day-to-day servicing of assets of property, plant and equipment. This includes:

- Research and development expenditure recognized as an expense during the reporting period. This includes all noncapitalized expenditure that is directly attributable to research or development activities.
- The volume of non-capitalized leases was determined in accordance with IFRS 16 and includes expenses for short-term leases and low-value leases.
- Maintenance and repair and other direct expenditures relating to the day-to-day servicing of assets of property, plant and equipment were determined based on the maintenance and repair costs allocated to our internal cost centers. The related cost items constitute a portion of total operating expenses in the income statement. This also includes building renovation measures. In general, this includes staff costs, costs for services, and material costs for daily servicing as well as for regular and unplanned maintenance and repair measures. These costs are directly allocated to our PP&E including an appropriate allocation of overhead costs. This does not include expenditures relating to the day-to-day operation of PP&E such as raw materials, cost of employees operating the machine, electricity or fluids that are necessary to operate PP&E. Direct costs for training and other human resources adaptation needs are excluded from the denominator and the numerator. This is because Annex I to Art. 8 Delegated Act lists these costs only for the numerator which does not allow a mathematically meaningful calculation of the Opex KPI.

Taxonomy alignment KPIs

Based on the Company's evaluation of the TSC relevant to the eligible activities of the Climate change mitigation annex, it was concluded that:

- 3.5 Manufacture of energy efficiency equipment for buildings
- 7.7 Acquisition and ownership of buildings

Have a 0% alignment rate for the year of 2022.

In relation to the rest of the eligible activities, the evaluation of the alignment in the cables manufacturing was applied and the results are shown below relevant to the TSC, DNSH criteria and Minimum Social Safeguards compliance.

Compliance with Technical Screening Criteria

- 3.1 Manufacture of renewable energy technologies
  'The economic activity manufactures renewable energy technologies'
  Cable products act as enablers in the transition to a low carbon economy. As stated in the eligibility section, these products are specifically designed for wind turbine, photovoltaic etc. as well as products sold to renewable energy market segments such as renewable power generation which are explicitly matching the TSC of the 3.1 category
- 4.9 Transmission and distribution of electricity
  Projects and products (low, medium, and high voltage cables) for Construction and Installation.
  Installation services dedicated to Land or submarine transmission or distribution network are considered as aligned.
- 3.6 Manufacture of other low carbon technologies

Do no significant harm (DNSH)

The DNSH criteria were analyzed in the reporting year for economic activities covered by the cables manufacturing activities included under the categories of:

- 3.1 Manufacture of renewable energy technologies
- 4.9 Transmission and distribution of electricity
- 3.6 Manufacture of other low carbon technologies

Below, a description of the assessments and main analyses used is provided in order to examine whether there was any substantial harm to the other environmental objectives. The assessments confirm that the requirements of the DNSH criteria in the reporting year for the sites producing cables products are met.

1. Climate change adaptation
A climate risk and vulnerability assessment was performed to identify which production sites may be affected by physical climate risks. The physical climate risks we identified were assessed on the basis of the lifetime of the relevant fixed asset.

Viohalco's climate based DNSH assessment is based on Representative Concentration Pathway (RCP) scenario 4.5 and thus assumes the highest concentration of CO_2 according to the Intergovernmental Panel on Climate Change (IPCC). The relevance of the identified threats was assessed for the local environment and, if appropriate, the measures needed to mitigate the risk were developed.

2. Sustainable use and protection of water and marine resources
The economic activities with respect to the sustainable use and protection of water and marine resources was evaluated looking at the three following criteria: preserving water quality, avoiding water stress, and an environmental impact assessment (EIA) looking at the impact on water. We based the analysis primarily on the Environmental Impact Assessment (EIA) performed at the relevant sites of the cable segment where an EIA is required. The EIA has been evaluated by the pertinent authorities and environmental terms have been assigned for the measures required to be taken by the operator company. The two installations subject to EIR are the two Fulgor sites which are also subject to the Environmental Emissions Directive which further requires the implementation of Best Available Techniques for mitigation of the impact. The remaining cables segment companies (Hellenic Cables and ICME ECAB)are not subject to EIR due to its low environmental impact.

In accordance with the environmental permits of the two installations, all necessary measures are applied to prevent or limit the discharge of pollutants into the water recipient. EIA for the two installations follow the specifications of the national legislation which is in full harmony with the directive 2011/92/EU (Directive on the assessment of the effects of certain public and private projects on the environment), including section that deals with the effects of the specific activities on water resources in accordance with Directive 2000/60/EC (Water Framework Directive).

The risks that may potentially arise during the operation of the industrial installations have already been identified and the measures to mitigate its effects have already been proposed and imposed, as is evident from the approved environmental permits which are in full compliance. According to the above and based on the imperatives governing the principle of not causing significant harm in relation to the objective of the sustainable use and protection of water and marine resources, no additional assessment of the impact of the activities on water resources is required, and therefore, the specific economic activities may not cause significant harm.

3. Transition to a circular economy
The company's activities comply with the below standards for circular economy.

The activity assesses the availability of and, where feasible, adopts techniques that support: (a) reuse and use of secondary raw materials and re-used components in products manufactured; (b) design for high durability, recyclability, easy disassembly and adaptability of

products manufactured; (c) waste management that prioritises recycling over disposal, in the manufacturing process; (d) information on and traceability of substances of concern throughout the lifecycle of the manufactured products.

A waste management plan is in place and ensures maximal reuse or recycling at end of life in accordance with the waste hierarchy, including through contractual agreements with waste management partners, reflection in financial projections or official project documentation.

4. Pollution prevention and control

The DNSH criteria for this environmental objective require that the economic activity in question does not lead to substances listed in a variety of EU chemical regulations and directives being manufactured, placed on the market or used. Approval and monitoring processes are implemented with the aim of ensuring compliance with the legislation specified in the DNSH criteria.

More specifically, Best Available Techniques are applied regarding air emissions, effluent discharges, hazardous substances and waste management.

According to the environmental permits (terms) of the economic activities of the company, all necessary measures are applied to prevent pollution into the air, water and ground.

The EIA of the two installations include sections that deal with the effects of the economic activities on air, water and ground quality, dealing with the implementation of the necessary treatment and antipollution Best Available Techniques on the air emissions, stormwater and wastewater discharges. Environmental terms of the economic activities introduce upper permissible limits on the discharge pollutants into the air, water and ground which the activities are totally comply with. The collection, transportation and storage of all the wastes and hazardous substances are performed in accordance



with current legislation (National and European) and under the implementation of the Best Available Techniques.

Assessments on the environmental incidents are performed and necessary corrective actions are taken as prevention pollution measures. Finally, an Accidental Pollution Liability is maintained and emergency response plan is applied.

According to the above mentioned, the specific economic activities may not cause significant harm.

5. Protection and restoration of biodiversity and ecosystems
In order to verify adherence to the requirements on biodiversity and ecosystems, the relevant areas were identified. We do not have any biodiversity-sensitive areas located close to a production site.

At the same time we assessed whether nature conservation measures had been defined in the environmental approvals and subsequently implemented.

Minimum safeguards

The minimum safeguards consist of the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, the Fundamental Conventions of the International Labour Organisation (ILO) and the International Bill of Human Rights. Below, the main analyses used to examine whether the minimum safeguards are adhered to is described below:

A thorough assessment to address compliance with the requirements set out in the relevant report was performed. Based on that, good status in the areas of a) anti-bribery, b) fair competition, c) taxation was identified. Regarding human rights, the assessment has identified areas for improvement which have already been addressed on a risk based approach and relevant procedures have been developed.



Proportion of 2022 Turnover from Viohalco companies' products or services associated with Taxonomy-aligned economic activities

Viohalco Environmentally Sustainable - Aligned activities				Substantial contribution criteria					
Economic activities	**Codes**	**Absolute Turnover**	**Proportion of turnover (%)**	**Climate change mitigation**	**Climate change adaptation**	**Water and marine resources**	**Circular economy**	**Pollution prevention and control**	**Biodiversity and ecosystems**
A.1. Environmentally sustainable activities (Taxonomy-aligned)									
3.1 Manufacture of renewable energy technologies	27.32	166.217.845	2,38%	2,38%					
3.6 Manufacture of other low carbon technologies	27.32	13.619.596	0,19%	0,19%					
4.9 Transmission and distribution of electricity	27.32	538.454.788	7,71%	7,71%					
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**718.292.230**	10,28%	10,28%					
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)									
7.7 Acquisition and ownership of buildings		21.123.701	0,30%						
3.5 Manufacture of energy efficiency equipment for buildings		173.238.476	2,48%						
3.5 Manufacture of energy efficiency equipment for buildings		26.511.787	0,38%						
3.1 Manufacture of renewable energy technologies		0	0,00%						
3.6 Manufacture of other low carbon technologies		0	0,00%						
4.9 Transmission and distribution of electricity		108.904.326	1,56%						
Turnover of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**329.778.290**	4,72%						
Total (A.1 + A.2)		**1.048.070.520**	15,0%						
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES									
Turnover of Taxonomy-non-eligible activities (B)		**5.937.664.824**	85,00%						
Total (A+B)		**6.985.735.344**	100,00%						

		DNSH criteria ('Does Not Significantly Harm')									
	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution prevention and control	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of turnover, year 2022	Taxonomy-aligned proportion-1 of turnover, year 2021	Enabling activity	Transitional activity
		Y	Y	Y	Y	Y	Y	2,38%		E	
		Y	Y	Y	Y	Y	Y	0,19%			
		Y	Y	Y	Y	Y	Y	7,71%		E	
								10,28%			
								10,28%			

CAPEX and OPEX KPIs

Proportion of 2022 CapEx from Viohalco companies' products or services associated with Taxonomy-aligned economic activities.

Viohalco Environmentally Sustainable - Aligned activities				Substantial contribution criteria					
Economic activities	**Codes**	**Absolute CAPEX**	**Proportion of CAPEX (%)**	**Climate change mitigation**	**Climate change adaptation**	**Water and marine resources**	**Circular economy**	**Pollution prevention and control**	**Biodiversity and ecosystems**
A.1. Environmentally sustainable activities (Taxonomy-aligned)									
3.1 Manufacture of renewable energy technologies	27.32	14.174.738	4,0%	4,0%					
3.6 Manufacture of other low carbon technologies	27.32	269.101	0,1%	0,1%					
4.9 Transmission and distribution of electricity	27.32	23.112.164	6,5%	6,5%					
CAPEX of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**37.556.003**	10,5%	10,5%					
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)									
7.7 Acquisition and ownership of buildings		40.138.536	11,2%						
3.5 Manufacture of energy efficiency equipment for buildings		1.837.539	0,5%						
3.5 Manufacture of energy efficiency equipment for buildings		558.289	0,2%						
3.1 Manufacture of renewable energy technologies		0	0,0%						
3.6 Manufacture of other low carbon technologies		0	0,0%						
4.9 Transmission and distribution of electricity		4.674.514	1,3%						
3.8 Manufacture of aluminium		12.705.357	3,6%						
3.9 Manufacture of iron and steel		22.187.559	6,2%						
CAPEX of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**82.101.795**	23,0%						
Total (A.1 + A.2)		**119.657.798**	33,5%						
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES									
CAPEX of Taxonomy-non-eligible activities (B)		**237.568.985**	66,5%						
Total (A+B)		**357.226.783**	100,0%						

		DNSH criteria ('Does Not Significantly Harm')									
	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution prevention and control	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of CAPEX, year 2022	Taxonomy-aligned proportion-1 of CAPEX, year 2021	Enabling activity	Transitional activity
		Y	Y	Y	Y	Y	Y	4,0%		E	
		Y	Y	Y	Y	Y	Y	0,1%			
		Y	Y	Y	Y	Y	Y	6,5%		E	
								10,5%			
								10,5%			

Proportion of 2022 OpEx from Viohalco companies' products or services associated with Taxonomy-aligned economic activities.

Viohalco Environmentally Sustainable - Aligned activities				Substantial contribution criteria					
Economic activities	**Codes**	**Absolute OPEX**	**Proportion of OPEX (%)**	**Climate change mitigation**	**Climate change adaptation**	**Water and marine resources**	**Circular economy**	**Pollution prevention and control**	**Biodiversity and ecosystems**
A.1. Environmentally sustainable activities (Taxonomy-aligned)									
3.1 Manufacture of renewable energy technologies		2.126.795	2,04%	2,04%					
3.6 Manufacture of other low carbon technologies		49.115	0,05%	0,05%					
4.9 Transmission and distribution of electricity		4.062.099	3,89%	3,89%					
OPEX of environmentally sustainable activities (Taxonomy-aligned) (A.1)		**6.238.009**	5,97%	5,97%					
A.2 Taxonomy-Eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)									
7.7 Acquisition and ownership of buildings		5.444.316	5,21%						
3.5 Manufacture of energy efficiency equipment for buildings		5.175.414	4,96%						
3.5 Manufacture of energy efficiency equipment or buildings		641.010	0,61%						
3.1 Manufacture of renewable energy technologies		0	0,00%						
3.6 Manufacture of other low carbon technologies		0	0,00%						
4.9 Transmission and distribution of electricity		821.573	0,79%						
3.8 Manufacture of aluminium		11.649.534	11,16%						
3.9 Manufacture of iron and steel		7.649.891	7,33%						
OPEX of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		**31.381.738**	30,05%						
Total (A.1 + A.2)		**37.619.747**	36,03%						
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES									
OPEX of Taxonomy-non-eligible activities (B)		**66.799.323**	63,97%						
Total (A+B)		**104.419.070**	100,00%						

	DNSH criteria ('Does Not Significantly Harm')									
Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Pollution prevention and control	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned proportion of OPEX, year 2022	Taxonomy-aligned proportion-1 of OPEX, year 2021	Enabling activity	Transitional activity
	Y	Y	Y	Y	Y	Y	2,04%		E	
	Y	Y	Y	Y	Y	Y	0,05%			
	Y	Y	Y	Y	Y	Y	3,89%		E	
							5,97%			
							5,97%			

I. Corporate governance statement

Introduction

As a company incorporated under Belgian law and listed on Euronext Brussels, Viohalco applies standards that are compliant with the provisions of the 2020 Belgian Corporate Governance Code (the 2020 Code), which is the reference code and is publicly available on the website of the Corporate Governance Committee (www.corporategovernance-committee.be).

The 2020 Code is structured around principles, provisions, guidelines, and the «comply or explain» principle. Belgian listed companies must abide by the 2020 Code but may deviate from some of the Code's provisions, if they provide a considerate explanation for any such deviation. During the 2022 financial year, the Company complied with the principles of the 2020 Belgian Corporate Governance Code, except for the following:

- *Principle 7.6*: "A non-executive board member should receive part of their remuneration in the form of shares in the company."
- *Principle 7.9*: "The board should set a minimum threshold of shares to be held by the executives."

Explanation: The remuneration policy of the Company is set out in the remuneration report. Such policy does not provide for share-based remuneration. The Board of directors considers the proposals submitted by the Nomination and Remuneration Committee in order to determine whether, and to what extent, a modification of this policy is justified in light of the Company's objectives and strategy.

Viohalco's board of directors has also adopted a Corporate Governance Charter in order to reinforce its standards for the Company in accordance with the recommendations set out in the 2020 Code. It aims at providing a comprehensive and transparent disclosure of the Company's governance which is reviewed and updated from time to time. The Corporate Governance Charter (the ***Charter***) is available on the Company's website (www.viohalco.com).

In order to have a complete overview of Viohalco's corporate governance rules, the Corporate Governance Statement must be read in conjunction with the Company's articles of association, the Charter as well as the corporate governance provisions laid down in the Belgian Code on Companies and Associations (the BCCA).

As a company secondary listed on the Athens Stock Exchange (Athex), Viohalco also complies with the provisions of the applicable Greek capital market laws and regulations.

Board of Directors

1. Role

Viohalco has chosen the one-tier governance structure. The Board of directors (the Board) is vested with the power to perform all acts that are necessary or useful for the Company's purpose, except for those actions that are specifically reserved by law or the articles of association to the Shareholders' Meeting or other management bodies.

In particular, the Board is responsible for:

- defining the general orientations of the Company;
- deciding on and regularly reviewing any aspect related to all major strategic, financial, and operational matters of the Company;
- deciding on the Executive Management structure and determining the powers and duties entrusted to them;
- taking all necessary measures to guarantee the quality, integrity, and timely disclosure of the Company's financial statements and other material financial or non-financial information about the Company in accordance with the applicable law;
- monitoring and reviewing the effectiveness of the Audit Committee and the Nomination and Remuneration Committee;
- approving a framework of internal control and risk management set up by the Executive Management and reviewing its implementation;
- monitoring the quality of the services provided by the statutory auditor(s) and the internal audit, taking into account the Audit Committee's review;
- approving the remuneration report submitted by the Nomination and Remuneration Committee; and
- any other issue reserved to the Board by the BCCA.

The Board has delegated to the members of the Executive Management the duty to implement the corporate strategy determined by the Board and to carry out the general management of the Company.

2. Composition of the Board

As at December 31, 2022, the Board is composed of 15 members as follows, in accordance with article 8 of the articles of association:

Name	Position	Term started	Term expires
Nikolaos Stassinopoulos	Chairman - Non-executive member of the Board	May 2022	May 2023
Evangelos Moustakas	Vice-Chairman - Executive member of the Board	May 2022	May 2023
Michail Stassinopoulos	Executive member of the Board	May 2022	May 2023
Ippokratis Ioannis Stassinopoulos	CEO - Executive member of the Board	May 2022	May 2023
Jean-Charles Faulx	Executive member of the Board	May 2022	May 2023
Thanasis Molokotos	Executive member of the Board	May 2022	May 2023
Xavier Bedoret*	Executive member of the Board	May 2022	May 2023
Patrick Kron	Non-executive member of the Board	May 2022	May 2023
Joseph Rutkowski	Non-executive member of the Board	May 2022	May 2023
Marion Steiner Stassinopoulos	Non-executive member of the Board	May 2022	May 2023
Margaret Zakos	Non-executive member of the Board	May 2022	May 2023
Efthimios Christodoulou	Independent, Non-executive member of the Board	May 2022	May 2023
Kay Breeden	Independent, Non-executive member of the Board	May 2022	May 2023
Bernadette Blampain	Independent, Non-executive member of the Board	May 2022	May 2023
Astrid de Launoit	Independent, Non-executive member of the Board	May 2022	May 2023

**As from 8/12/2022, Mr. Xavier Bedoret is executive member of the Board pursuant to a Board decision.*

The mandates of all members of the Board expires at the end of the Annual Ordinary Shareholders' Meeting to be held in 2023.

3. Information on the members of the Board

Over the past five years, the members of the Board have held the following positions (apart from their directorship in the Company) and maintained relationships with the following bodies which, in theory, could become the source of conflict of interests:

Nikolaos Stassinopoulos, Chairman - Non-executive member of the Board. Mr. Stassinopoulos holds a Master's degree from the Athens University of Economics and Business. He served as President and Vice-Chairman of Viohalco Hellenic.

Evangelos Moustakas, Vice-Chairman - executive member of the Board. Mr. Moustakas joined Viohalco in 1957 where he held various technical and managerial positions, in particular the position of President of the Board of Directors of several subsidiaries of Viohalco, such as Hellenic Cables S.A. and Etem S.A. He serves as President of the Board of Directors of the Hellenic Copper Development Institute and as a member of the Board of Directors of the International Wrought Copper Council (IWCC). He was also a member of the Board of Directors of the European Copper Institute (ECI) for many years. Moreover, he serves ascorporate representative in the International Association "Intercable", the International Cablemakers Federation (ICF, since 1990), and Europacable (since 1991) and is active in the development and promotion of copper and cable products around the world.

Michail Stassinopoulos, Executive member of the Board. Mr. Stassinopoulos graduated from Athens College (1985) and holds a Bachelor Degree (BSc) in Management Sciences from London School of Economics (1989). He also holds a postgraduate diploma (MSc) in Shipping, Trade and Finance from City University Business School (UK). Mr. Stassinopoulos is the President of the Board of Directors of ElvalHalcor Hellenic Copper and Aluminium Industry S.A. He is also President of the Board of Directors of the "Hellenic Production - Industry Roundtable for Growth". He participates in the Board of Directors of the Foundation Michail N.Stassinopoulos-Viohalco and in the Board of the "Council on Competitiveness of Greece". He was a member of the Hellenic Federation of Enterprises since 1996 and for several years until 2019.

Ippokratis Ioannis Stassinopoulos, CEO – executive member of the Board. Mr. Stassinopoulos holds a Bachelor's degree in Management Sciences from City University and a Master's degree in Shipping, Trade and Finance from City University's Business School (UK). He serves as a member of the General Council of SEV (Hellenic Federation of Enterprises), the Young Presidents Organisation, and the Board of Directors of Endeavor Greece. Mr. Stassinopoulos holds a managerial position at Viohalco Hellenic since 1995.

Jean Charles Faulx, Executive member of the Board. Mr. Faulx holds a Master's degree in Economic Sciences from the Catholic University of Louvain (UCL). He is a member of the Board of Directors of International Trade S.A., Genecos S.A. (Paris), Terra Middle East (Dusseldorf), Base Metals (Istanbul), and Metal Agencies (London). He was also member of the Board of Directors of Cofidin and Cofidin Treasury Centre S.A. prior to their absorption by Cofidin in August 2013. Mr. Faulx also serves as CEO of TeproMKCI GmbH, a subsidiary of Viohalco, International trade SA, a subsidiary of Viohalco,

Strega sprl. In the past, Mr. Faulx served as CEO of Tepro Metall AG, Airicom France SAS, Studio58 S.A. and Promark SPRL and held various positions at Techno Trade S.A, JCT Invest and Elval Automotive S.A.

Thanasis Molokotos, Executive member of the Board. Mr. Molokotos holds a Master's degree in Mechanical Engineering and a Master's degree in Marine Engineering and Naval Architecture from the Massachusetts Institute of Technology (Cambridge, MA), and a Master's degree in Mechanical Engineering from Tuft University (Medford, MA); he is President and chief executive officer (CEO) of Assa Abloy Americas until May 2018. In the past, he has served as General Manager of Molokotos Textile Corporation and design specialist at Rangine Corporation.

Xavier Bedoret, Executive member of the Board. Mr Bedoret holds a Master's degree in Law and Psychology from the University of Louvain (UCL) and is a certified public accountant (IRE). He also holds a Certificate in Corporate Governance (INSEAD). After ten years of financial auditing at KPMG in Brussels (Belgium) and Stamford (USA), he joined the Finance Department and then the Audit & Risks Department of ENGIE (France). Today, he is also Chairman of the Board of directors and Chairman of the Audit Committee of Cenergy Holdings. He is also Chairman of International Trade, a Viohalco subsidiary.

Patrick Kron, Non-executive member of the Board. Mr. Kron is a graduate from Ecole Polytechnique and the Paris Ecole des Mines. Patrick Kron started his career in 1976 in the French Ministry of Industry. He then joined the Pechiney group where he became a Member of its Executive Committee and held senior managerial positions. In 1998, he was named Chief Executive Officer of Imerys. In 2003, he became Chairman & Chief Executive Officer of Alstom, left the company in January 2016 after the sale of its Energy assets to General Electric and an associated shares buy-back. He created a consulting company PKC&I and in November 2016, he joined Truffle Capital, a capital firm specialized in BioMedTech and Digital, as Chairman of this firm. Patrick Kron is Chairman of the Board of Imerys since July 2019. He is also a Board Member of Sanofi (France) and of Holcim (Switzerland), and sits in the Supervisory Board of Segula Technologies. Patrick Kron has been awarded the « Légion d'Honneur » (Chevalier) and the « Ordre National du Mérite » (Officier).

Joseph Rutkowski, Non-Executive member of the Board. Retired Executive Vice-President of Nucor Corporation responsible for Domestic and International Business Development from 2001 – 2010. Mr. Rutkowski became Executive Vice President in 1998 responsible for all steelmaking activities. Prior to that, he served as Vice President and General Manager of Nucor Steel in Darlington, South Carolina and Hertford County, North Carolina. He joined Nucor in 1989 as Manager of Nucor Cold Finish and also served as Manager of Melting and Casting at Nucor Steel-Utah. Mr. Rutkowski held various positions within the steel and steel-related industries after graduating from Johns Hopkins University in 1976 with a Bachelor of Science in Mechanics and Materials Science. He was also President of the Association of Iron and Steel Engineers. He is currently Principal of Winyah Advisors, LLC, a management consulting firm. He is also member of the Board of Directors of Insteel Industries IIIN on the NYSE and of Cenergy Holdings (Belgium).

Marion Steiner Stassinopoulos, Non-executive member of the Board. Mrs. Marion Steiner Stassinopoulos holds a Master's degree and a Ph.D in Psychology from the University of Zurich. She has also completed one year of postdoctoral studies at Northwestern University of Chicago (USA). In the past, she worked as psychologist at the Gerontopsychiatric Centre of the Psychiatric University Clinic of Zurich. She is a member of the Advisory Board of Franz Haniel & Cie. GMBH, Duisburg-Ruhrohrt in Germany.

Margaret Zakos, Non-executive member of the Board. Ms. Zakos holds a Bachelor's degree from Queens University , Canada. She was a consultant with a US based management consulting firm and held a senior executive operational position at Mount Sinai Medical Centre, NYC. She has owned and operated private firms: Insurance Brokerage and Real Estate Development. She was a Board member of various Foundation Boards and of the Kingston Health Sciences Centre Board including Committee Roles in Finance and Audit for many years. Currently, she is active in Real Estate Holding companies. She is also member of the Board of directors of Cenergy Holdings.

Efthimios Christodoulou, Independent, non-executive member of the Board. Mr. Christodoulou holds a Bachelor's degree in Economics from Hamilton College and a Master's degree in Economics from Columbia University. He has served on the staff of the National Bureau of Economic Research (New York) and was a lecturer at New York University. Mr. Christodoulou was Governor of the National Bank of Greece, President of the Union of Hellenic Banks, and Director General of the National Investment Bank for Industrial Development (ETEBA), Governor of the Bank of Greece (Central Bank of Greece). He has also acted as President of the Board and CEO of Olympic Airways, Executive President of Hellenic Petroleum S.A., and was a member of the European Parliament. He was Minister of Foreign Affairs and Minister of National Economy in Greece. Until June 2013, Mr. Christodoulou also served as President of EFG Eurobank. He is also President or member of various philanthropic institutions.

Kay Breeden, Independent, non-executive member of the Board. Ms. Breeden holds a Bachelor's degree in Biology and a Master's degree in Bio-medical Engineering from the University of Illinois and has participated in Stanford's University Executive Education Programme. Ms. Breeden has gained unique perspective through key leadership roles in government, corporate and management consulting environments, including eleven years spent at two top tier management consulting firms, Booz Allen and A.T. Kearney; more than fifteen years with large global corporations including CBRE, Seagate, and Digital Equipment Corporations in executive positions in Environmental, Health, Safety and Corporate Social Responsibility, Business Excellence and Corporate Facilities and Real Estate; and five years with the United States Environmental Protection Agency. Ms. Breeden has a broad array of industry experience including high tech, biotech, consumer products, energy, utilities, chemicals, construction and engineering, environmental services,

aerospace, real estate, metals and mining, and significant international business experience in Europe, Asia, North and South America.

Bernadette Blampain, Independent, non-executive member of the Board. Mrs. Blampain holds a Master's degree in Economic Sciences from the Catholic University of Louvain (UCL). She is also specialized in Information Security and Data Protection. She held various technical and managerial positions at ING Belgium SA/NV (formerly Bank Brussel Lambert) during 35 years, more specifically in the IT division as project manager, risk manager or responsible for the IT development and maintenance of different banking areas. Since early 2019, she has held the position of Data Protection Officer in the medical sector.

Astrid de Launoit, Independent, non-executive member of the Board. Mrs. de Launoit holds a Bachelor's degree in Economics and Finance from the University of Lille (Université Catholique de Lille) and a Master's degree in Management specialized in Luxury. She is also a graduate of the Gemological Institute of America. She has worked in several positions in the luxury and education sectors. Within the last 5 years, Mrs. de Launoit has worked on a fundraising concert for the NGO SOS Children's Villages. She is currently teaching at ISTEC Brussels.

4. Appointment of the members of the Board

The members of the Board are appointed by the Shareholders' Meeting under the quorum and majority conditions applicable to an amendment of the articles of association of the Company, upon proposal by the Board. The members of the Board are appointed for a term of one year and their term of office is renewable.

In case a seat of member of the Board becomes vacant, such vacancy may be filled temporarily by virtue of a unanimous vote of the remaining members of the Board, until the next Shareholders' Meeting which proceeds to the definitive appointment of a Board member.

Any proposal for the appointment of a Board member originating from the shareholders must be accompanied by a Board recommendation based on the advice of the Nomination and Remuneration Committee. The Nomination and Remuneration Committee reviews all the candidacies and seeks to ensure that a satisfactory balance of expertise, knowledge, and experience is maintained among the Board members.

The Board decides which candidates satisfy the independence criteria set by law. To be considered independent, a member of the Board must fulfil the criteria set forth in Principle 3.5 of the 2020 Code. Any independent member of the Board who no longer fulfils the above criteria of independence is required to immediately inform the Board.

The Board of Viohalco, having reviewed the independence criteria pursuant to the BCCA and the 2020 Code, has decided that Mr. Efthimios Christodoulou, Ms. Kay Breeden, Ms. Bernadette Blampain, and Ms. Astrid de Launoit fulfil these criteria and are independent members.

Being a holding company oriented towards industrial companies, Viohalco does not have in place a formal diversity policy for its Board of Directors or its senior executives. The required expertise limits the possibility of gender diversification. It is common worldwide that in an industrial environment in metals processing the vast majority of personnel consists of males. Nevertheless, Viohalco employs skilled and experienced personnel without any discrimination and make efforts to ensure diversity in terms of nationality, age, religion, and ethnic origin.

The Company's Board, however, has acknowledged the legal requirement of Article 7:86 of the BCCA, and, with the assistance of the Nomination and Remuneration Committee, took the appropriate measures in order to ensure compliance with the legal requirement. Viohalco's Board currently consists of 10 male and 5 female Board members. The Nomination and Remuneration Committee takes seriously this requirement as they consider future Board members.

A thorough description of the Company's "Labour and Human rights" policy is provided in the Non-financial information section.

5. Functioning

The Board has elected among its members Mr. Nikolaos Stassinopoulos as Chairman of the Board (the Chairman).

The Chairman directs the Board's works. He sets the agenda of its meetings after consultation with the Executive Management. The Chairman is responsible for ensuring that all members of the Board receive accurate, clear and timely information.

The Board has appointed a company secretary, Mr. Xavier Bedoret, to advise the Board on all corporate governance matters (the Corporate Governance Secretary).

The Board meets as frequently as the interests of the Company require so and, in any case, at least four times a year. The majority of the meetings in any year take place at the Company's registered offices in Belgium.

The meetings of the Board can also be held by teleconference, videoconference, or by any other means of communication that allow the participants to hear each other continuously and to actively participate in these meetings. Participation to a meeting through the above-mentioned means of communication is considered as physical presence to such meeting. The Board may adopt unanimous written decisions, expressing its consent in writing.

The following table provides an overview of the Board meetings held in 2022:

Date and place	Attendance
March 17, 2022 (videoconference call)	Present: 13 Represented: 1 Absent: 1
June 1, 2022 (Brussels)	Present: 15 Represented: 0 Absent: 0
September 22, 2022 (Athens)	Present:14 Represented: 1 Absent: 0
December 8, 2022 (Brussels)	Present: 15 Represented: 0 Absent: 0

Committees of the Board of Directors

The Board has set up two committees to assist and advise the Board on specific areas: the Audit Committee and the Nomination and Remuneration Committee. The competences of these committees are primarily set out in the Charter.

1. The Audit Committee

As of December 8, 2022, the Audit Committee is composed of Mr. Efthimios Christodoulou, acting as Chairman of the Committee, Mr. Patrick Kron, and Ms. Margaret Zakos. Mr. Patrick Kron was appointed as member of the Audit Committee in replacement of Mr. Xavier Bedoret. All members are non-executive members of the Board and one of them is independent.

The majority of the members of the Audit Committee have sufficient experience and expertise, notably in accounting, auditing and finance, acquired through their previous or current professional assignments.

Pursuant to the Charter, the Audit Committee meets at least four times a year, and at least twice a year it meets with the Company's statutory auditor.

The Audit Committee advises the Board on accounting, audit and internal control matters. In particular, the Audit Committee:

- monitors the financial reporting process including risks;
- monitors the effectiveness of the Company's system of internal control and risk management as well as the internal audit function;
- monitors the conducting of the statutory audit (contrôle legal/wettelijke controle) of the annual and the consolidated financial statements, including any follow-up on questions and recommendations made by the statutory auditor;
- presents recommendations to the Board with respect to the appointment of the statutory auditor; and
- reviews and monitors the independence of the statutory auditor, in particular regarding the provision of non-audit services to the Company.

In 2022, the Audit Committee met four times: on March 16, on May 30, and on December 7, in Brussels, with all members present; and on September 20, in Athens, with all members present.

2. Nomination and Remuneration Committee

As of December 8, 2022, the Nomination and Remuneration Committee is composed of Mr. Efthimios Christodoulou, acting as Chairman of the Committee, Ms. Bernadette Blampain, and Mr. Joseph Rutkowski. On May 31, 2022, Ms. Bernadette Blampain was appointed as member of the Nomination and Remuneration Committee in replacement of Mr. Francis Mer,. On December 8, 2022, Mr. Joseph Rutkowski was appointed as member of the Nomination and Remuneration Committee in replacement of Mr. Patrick Kron. All members are non-executive members of the Board, and two of them are independent.

Pursuant to the Charter, the Committee meets at least twice a year, and whenever necessary in order to carry out its duties.

The Nomination and Remuneration Committee advises the Board principally on matters regarding the appointment and the remuneration of the members of the Board and the Executive Management. In particular, the Nomination and Remuneration Committee:

- submits recommendations to the Board with regard to the appointment, re-appointment and the remuneration of the members of the Board and the Executive Management;
- identifies and nominates, for the approval of the Board, the candidates for filling vacancies as they arise;
- advises on appointment proposals originating from the shareholders;
- periodically assesses the composition and size of the Board and submits recommendations for changes to the Board;
- submits proposals to the Board regarding the remuneration policy; and
- drafts and submits the annual remuneration report, including proposals regarding the remuneration policy and recommendations based on its findings.

In 2022, the Nomination and Remuneration Committee met two times: on March 16 via conference call with two members present, and on December 7, in Brussels, with all members present.

Evaluation of the Board of Directors and its Committees

The Board regularly assesses its size, composition, performance and those of its committees, as well as its interaction with the Executive Management. On December 10, 2020, the Board reviewed the board evaluation process in order to ensure that the Company operates in an efficient

way, consistently encouraging the continuous improvement of the Company's governance.

The non-executive members of the Board assess their interaction with the Executive Management on a regular basis.

The performance of Executive Management is also assessed on an informal basis through the presentation of the Company's performance in respect of the interim and annual financial statements.

Executive Management

As of December 8, 2022, the Executive Management comprises four persons: the chief executive officer (CEO), Mr. Ippokratis Ioannis Stassinopoulos; the chief financial officer (CFO), Mr. Efstratios Thomadakis; and two executive members of the Board, Mr. Xavier Bedoret and Mr. Jean Charles Faulx. Mr. Xavier Bedoret and Mr. Jean Charles Faulx were appointed as members of the Executive Management in replacement of Mr. Evangelos Moustakas and Mr. Panteleimon Mavrakis.

In the past five years, the members of the Executive Management held the following directorships and memberships of administrative, management or supervisory bodies and/or partnerships:

Ippokratis Ioannis Stassinopoulos, CEO – executive member of the Board. Please see above section no 3, Information on the members of the Board, Board of Directors.

Efstratios Thomadakis, CFO. Mr. Thomadakis studied Business Administration and holds an MBA from the University of Piraeus. He joined Viohalco Hellenic in 2000. Since then, he has held various managerial positions in the financial department, whilst in 2010 became the CFO of the Sidenor Group, Viohalco's steel business segment. He is also member of the Board of Directors of several Viohalco subsidiaries, such as Sidenor Industry S.A.

Xavier Bedoret, executive member of the Board for the financial period 8/12/2022 – 31/12/2022. Please see above section no 3, Information on the members of the Board, Board of Directors.

Jean Charles Faulx, executive member of the Board for the financial period 8/12/2022 – 31/12/2022. Please see above section no 3, Information on the members of the Board, Board of Directors.

Evangelos Moustakas, Vice-Chairman and member of the Executive Management for the financial period 1/1/2022 – 8/12/2022. Please see above section no 3, Information on the members of the Board, Board of Directors.

Panteleimon Mavrakis, Financial Manager of the Greek Branch and member of the Executive Management for the financial period 1/1/2022 – 8/12/2022. Mr. Mavrakis studied Economics at the University of Piraeus. He joined Viohalco in 1979 and since then has held executive positions in the financial department of several Viohalco companies. From 2000 to 2013, he served as CFO of Viohalco Hellenic and some of its subsidiaries, and since 2013 he is responsible for the accounting and fiscal affairs of the Greek Branch of Viohalco.

Functioning

The Executive Management is vested with the day-to-day management of the Company. They are also entrusted with the implementation of the resolutions of the Board.

In particular, the Board has assigned the following missions to the Executive Management:

- preparing strategic proposals for the Board;
- putting internal controls in place;
- monitoring and managing the Company's results and performance against strategic and financial plans;
- giving direction, guidance, and support to the Company's business;
- preparing and presenting to the Board a timely, accurate, and reliable set of the Company's draft financial statements, in accordance with applicable accounting standards, and other material financial and non-financial information as well as the related press releases;
- providing the Board with a balanced and comprehensive assessment of the Company's financial situation;
- making recommendations to the Board with respect to matters within its competency; and
- reporting to the Board on the performance of the Company.

Remuneration policy

This remuneration policy sets forth the principles applicable to the remuneration of the members of the Board of directors and the Executive Management of Viohalco.

Procedure

This remuneration policy has been prepared by the Board of directors upon recommendation of the Nomination & Remuneration Committee. It was approved by the Shareholders' Meeting of May 31, 2022 and will be submitted to vote by the Shareholders' Meeting each time there is a material change, and at least every four years.

This policy may be revised by the Board upon recommendation of the Nomination & Remuneration Committee.

In exceptional circumstances, the Board of directors may, upon recommendation of the Nomination & Remuneration Committee, temporarily derogate from the remuneration policy if the derogation is necessary to serve the long-term interests and sustainability of the Company or to assure its viability.

For the preparation of this remuneration policy, the Board, with the assistance of the Nomination & Remuneration Committee, takes into consideration whether events of conflicts of interests exist. For the prevention of such events,

each member of the Board and each member of the Executive Management is required to always act without conflict of interests and always put the interest of Viohalco before his individual interest. They are also required to inform the Board of conflicts of interests as they arise. In the event a conflict of interests may arise, the Board is required to implement the specific procedures of conflict resolution set forth in articles 7:96 of the BCCA.

The remuneration policy is based on the prevailing market conditions for comparable companies, paying at market-competitive level achieved through benchmarking. It takes into account the responsibilities, experience, required competencies, and participation/contribution of the members of the Board of Directors and the members of the Executive Management.

The Board of Viohalco, a holding company of a predominantly industrial portfolio, aims at preserving long-term value for its shareholders. The determination and evolution of the Company's remuneration policy is closely linked with the growth, results and success of the Company as a whole. The Company's remuneration policy is built around internal fairness and external market competitiveness. The Company's objective is to balance offering competitive salaries while maintaining focus on performance and results.

Board of directors

The remuneration of the members of the Board of Directors consists in a fixed annual fee amounting to EUR 25,000. In addition, Board members who are members of a Board committee receive a fixed fee of EUR 25,000 per committee.

Additional fees or other benefits, such as company car, training, or other benefits in kind may be attributed either by the Company or by its subsidiaries based on the responsibilities and number of functions each member of the Board of Directors holds within the Company or in one or more of its subsidiaries.

The fees are allocated on a "pro rata temporis" basis for the period extending from the Annual Ordinary Shareholders' Meeting until the Annual Ordinary Shareholders' Meeting of the following year and are payable at the end of such period.

Two executive members of the Board, Mr. Evangelos Moustakas and Mr. Xavier Bedoret, receive in their executive role additional remuneration amounting to EUR 75,000 and EUR 425,000 respectively.

Members of the Board of directors do not receive any variable remuneration or remuneration in shares.

Members of the Board of directors are not entitled to retirement pension plans or severance payments.

Executive Management

The remuneration of the members of the Executive Management of Viohalco consists in a fixed annual remuneration, which is attributed either by the Company or by its subsidiaries.

Members of the Executive Management are not entitled to retirement pension plans or severance payments other than what is provided by the applicable law in each case.

In order to ensure focus on the Company's short-term and long-term objectives as well as long-term value creation for all key stakeholders, the Board, with the assistance of the Nomination & Remuneration Committee, has developed a yearly variable remuneration plan related to the levels of achievement by the beneficiaries of predefined targets which will be added to the fixed remuneration.

Such plan would include financial metrics (such as adjusted EBITDA and adjusted ROCE) as well as a set of individual targets in the following categories: specific Financials, Customer, ESG, Processes & Organizational Efficiency, People & Leadership. Performance would be assessed on an annual basis using a set of pre-determined performance targets in each category, defined at the start of the year. Depending on the performance of each participant, they may receive a variable remuneration between 0 and 100% of the defined variable remuneration "at target".

Remuneration report

This remuneration report provides an overview of the remuneration granted during the financial year 2022 to the members of the Board of directors and the members of the Executive Management, in accordance with the remuneration policy. It will be submitted to the vote of the shareholders' meeting of May 30, 2023.

With regard to the contribution of the remuneration to the long-term performance of the Company, the Company uses its KPIs (i.e. a-ROCE) as a measure of its financial performance. The evolution of the measurement during the last five years as published in the Company's financial statements is presented under the section related to the evolution of the remuneration.

This policy will be also submitted to approval by the shareholders' meeting of 30 May 2023.

Board of Directors

The following table (A) provides an overview of the remuneration of the members of the Board of directors for the financial year 2022:

Table A (amounts in EUR)

Name for members	Attributed by	Fixed remuneration			Total Remuneration	Proportion of fixed and variable remuneration
		Base Salary[a]	Fees[b]	Other benefits[c]		
Nikolaos Stassinopoulos	Viohalco	-	35,417	-	35,417	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**35,417**	**-**	**35,417**	**100%**
Evangelos Moustakas	Viohalco	-	100,000	-	100,000	100%
	Subsidiaries	1,183,429	-	-	1,183,429	100%
	Total	**1,183,429**	**100,000**	**-**	**1,283,429**	**100%**
Ippokratis Ioannis Stassinopoulos	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	863,839	-	-	863,839	100%
	Total	**863,839**	**25,000**	**-**	**888,839**	**100%**
Michail Stassinopoulos	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	863,839	-	-	863,839	100%
	Total	**863,839**	**25,000**	**-**	**888,839**	**100%**
Jean Charles Faulx	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	286,109	30,568	-	316,677	100%
	Total	**286,109**	**55,568**	**-**	**341,677**	**100%**
Thanasis Molokotos	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	873,854	-	15,652	889,506	100%
	Total	**873,854**	**25,000**	**15,652**	**914,506**	**100%**
Xavier Bedoret	Viohalco	-	450,000	4,011	454,011	100%
	Subsidiaries	-	61,667	-	61,667	100%
	Total	**-**	**511,667**	**4,011**	**515,677**	**100%**
Patrick Kron	Viohalco	-	50,000	-	50,000	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**50,000**	**-**	**50,000**	**100%**
Marion Steiner Stassinopoulos	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**25,000**	**-**	**25,000**	**100%**
Margaret Zakos	Viohalco	-	50,000	-	50,000	100%
	Subsidiaries	-	50,000	-	50,000	100%
	Total	**-**	**100,000**	**-**	**100,000**	**100%**
Joseph Rutkowski	Viohalco	-	16,667	-	16,667	100%
	Subsidiaries	-	50,000	-	50,000	-
	Total	**-**	**66,667**	**-**	**66,667**	**100%**
Efthimios Christodoulou*	Viohalco	-	-	-	-	-
	Subsidiaries	-	-	-	-	-
	Total	**-**	**-**	**-**	**-**	**-**
Francis Mer	Viohalco	-	20,833	-	20,833	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**20,833**	**-**	**20,833**	**100%**
Kay Marie Breeden	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**25,000**	**-**	**25,000**	**100%**
Astrid de Launoit	Viohalco	-	25,000	-	25,000	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**25,000**	**-**	**25,000**	**100%**
Bernadette Blampain	Viohalco	-	39,583	-	39,583	100%
	Subsidiaries	-	-	-	-	-
	Total	**-**	**39,583**	**-**	**39,583**	**100%**
Total Remuneration	**Viohalco**	**-**	**937,500**	**4,011**	**941,511**	**100%**
	Subsidiaries	**4,071,069**	**192,235**	**15,652**	**4,278,956**	**100%**
	Total	**4,071,069**	**1,129,735**	**19,663**	**5,220,467**	**100%**

(*) This member of the Board has waived all remuneration.

Executive Management

The following table (B) provides an overview of the fees of the members of the Executive Management during the financial year 2022:

Table B (Amounts in EUR)

Name	Attributed by	Fixed remuneration			Total remuneration	Proportion of fixed and variable remuneration
		Base salary[a]	Fees[b]	Other benefits[c]		
Ippokratis Ioannis	Viohalco	-	25,000	-	25,000	100%
Stassinopoulos	Subsidiaries	863,839	-	-	863,839	100%
(CEO)	**Total**	**863,839**	**25,000**	**-**	**888,839**	**100%**
	Viohalco	402,723	156,250	3,415	562,387	100%
Executive management	Subsidiaries	1,972,491	7,686		1,980,177	100%
	Total	**2,375,213**	**163,936**	**3,415**	**2,542,564**	**100%**
Total Remuneration	**Viohalco**	**402,723**	**35,417**	**3,415**	**562,387**	**100%**
to the Executive	**Subsidiaries**	**1,972,491**	**7,686**	**-**	**1,980,177**	**100%**
Management	**Total**	**2,375,213**	**163,936**	**3,415**	**2,542,564**	**100%**

Notes to Tables A & B:

(a) Base salary: this column includes the fixed base salary in exchange for professional services regarding their mandate or for any other executive or non-executive services or functions provided during the reported financial year under a specific contract.

(b) Fees: this column includes all fees of the members of the Board for the participation in the administrative, management or supervisory bodies of the Company's meetings during the reported financial year.

(c) Other benefits: this column includes the value of any benefits and perquisites, such as non-business or non-assignment related travel, medical, car, residence or housing, credit cards, and other benefits in kind.

Evolution of the remuneration

The following table (C) provides an overview of the evolution over the five most recent financial years of the overall remuneration of the members of the Board of directors and the members of the Executive Management, and the performance of the Company through the reporting of some of its KPIs.

Table C* (Amounts in EUR)

	2022**	2021	2020	2019	2018
Remuneration of the members of the Board of directors and the Executive Management	5,626,270	5,430,003	5,651,680	4,869,806	4,535,405
Performance of the Company					
EBITDA	646,363,386	514,285,403	285,339,931	273,374,327	331,857,157
a-EBITDA	648,897,136	426,017,098	294,462,579	302,473,034	317,024,722
Revenue	6,985,735,344	5,374,512,326	3,850,077,328	4,198,193,708	4,406,185,353

** The information is provided on the basis of the available information from previous remuneration reports and the Company's annual accounts.*
***The average remuneration of a full-time equivalent basis of the employees of the Company (other than the members of the Board and the Executive Management) amounts to EUR 112,654.*

The remuneration ratio, as defined by Section 3:6 of the BCCA, was 11.4x for 2022. For its calculation, the Company used the remuneration of the Executive Vice-Chairman as the highest paid executive Board member and the remuneration of the full-time employee of the holding company - who has worked for a full year - as the lowest paid employee.

Publishing of this ratio is a practice required by the law and the presentation adopted is intended to comply with the transparency requirements. The disclosure on this ratio will be assessed and evaluated in the future subject to the evolution of the ratio and to potential future guidance/clarifications that may be published on this requirement.

External audit

The statutory auditor, appointed by the Shareholders' Meeting among the members of the Belgian Institute of Certified Auditors, is entrusted with the external audit of the Company's consolidated financial statements.

The statutory auditors' mission and powers are those defined by the law. The Shareholders' Meeting sets the number of statutory auditors and determines their remuneration in compliance with the law. The statutory auditor is appointed for a renewable term of three years.

On May 31, 2022, the Company renewed the appointment of PwC Reviseurs d'Entreprises SRL, represented by Marc Daelman, as statutory auditor for a three-year period.

Company's risk management and internal audit function

The Belgian legislative and regulatory framework on risk management and internal control is set out in the law of 17 December 2008 on the establishment of an audit committee, and the law of 6 April 2010 on the enhancement of corporate governance, as well as in the 2020 Code.

As mentioned in the chapter "Risks and Uncertainties" of this annual report, the Executive Management is responsible for the risk management and the system of internal control. Under the high supervision of the Executive Management, the management team of each Company's subsidiary is responsible for developing an adequate organisation and an appropriate system of internal control for running the subsidiary's operations and managing risk.

The Audit Committee is responsible for monitoring the effectiveness of the Company's risk management, its system of internal control and its internal audit function.

Risk management

Risk management is a responsibility of the Management of the subsidiaries. The management team of the subsidiaries reports on business risks and challenges to the Company's Executive Management on a regular basis; they provide the Board and the Audit Committee with a detailed business review which analyses risks and challenges. The Internal Audit, under the supervision of the Audit Committee, ensures the monitoring and the effectiveness of their risk management systems.

Internal audit function

The Audit Committee supervises the internal audit function. Internal audit is an independent, objective assurance and consulting activity designed to add value and improve the organization's operations. It helps the organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes. Internal audit is conducted in accordance with the International Standards for the Professional Practice of Internal Auditing (IPPF).

The internal audit function is responsible for performing audit engagements in accordance with its annual internal audit plan, which is prepared and reviewed in order to assist the organisation to effectively mitigate risk throughout its operations. The audit engagements follow the audit methodology described in the internal audit charter and the internal audit manual as well as aim at ensuring that subsidiaries comply with shared services processes with regards to their operations, industrial production and consolidation guidelines. At the end of each audit engagement, the internal audit function issues an audit report containing its audit findings and recommendations. The subsidiaries' management team is responsible to design and implement remedial actions towards each of the internal audit findings and recommendations in due time.

The internal audit function reports to the Audit Committee. The Audit Committee ensures that the internal audit work is focused on the activities and the risk areas it deems critical. It ensures that the internal audit function reduces the probability of fraud and error and provides effective mitigation of risk.

Control and relationship with subsidiaries

Viohalco is a holding company that operates in a decentralised manner. Each of Viohalco companies is responsible for its performance and results. The management team of the subsidiaries is organised around solid global and regional teams, with responsibility assigned to the members of their respective Boards of directors and executive management team.

In order to secure consistency of approach when separate companies deal with similar issues, and to optimise coordination throughout the network of the Company's subsidiaries, the local management of the companies is provided with solid guidance and a workable framework for optimal local implementation and monitoring. Steelmet, a Viohalco subsidiary, is assigned through subcontracting agreements with the functional support towards the companies of Viohalco. It deploys a team of subject matter experts who oversee policy implementation, monitor performance, and promote best practices while ensuring decentralization and entrepreneurial independence of the business units. The support they provide relates, among others, to functions such as finance, investor relations, ESG, Internal Audit, Operations etc. A shared services center is also responsible for the execution of common corporate services such as procurement, transportation, cybersecurity, information technology and accounting.

All Viohalco's companies are accountable for their own organisation, risk management and system of internal control as these are developed and implemented depending on the business segment, the geographical location and the type of production plant concerned.

Financial reporting and monitoring

Viohalco has established procedures for the adequate recording and reporting of financial and non-financial information. The objective is to ensure that financial and non-financial information produced by each entity is homogeneous, coherent, and comparable, and that consolidated financial information is fair, reliable, and can be obtained in a timely manner.

Each subsidiary reports financial information on a monthly basis. This includes the balance sheet, the income statement, the statement of cash flows, and a working capital analysis.

A review of each business segment is presented to the Board. The review includes "actual versus budget", financial and non-financial information, the highlights of the reporting period, the business segment perspectives, and is a key component of Viohalco's decision-making process.

Conflict of interests

Pursuant to Article 9 of the Charter, in the event a conflict of interests with a member of the Board, a shareholder, or other Viohalco subsidiary, may arise, the Board is required to implement the specific procedures of conflict resolution set forth in articles 7:96 and 7:97 of the BCCA.

Each member of the Board and the Executive Management is required to always act without conflict of interests and always put the interest of Viohalco before his individual interest. Each member of the Board and the Executive Management is required to always arrange his or her personal business so as to avoid direct and indirect conflict of interests with Viohalco.

All members of the Board are required to inform the Board of conflicts of interests as they arise. If the conflict of interests is of proprietary nature, they will abstain from participating in the discussions and deliberations on the matter involved in accordance with article 7:96 of the BCCA. If the conflict of interests is not covered by the provisions of the BCCA and involves a transaction or contractual relationship between Viohalco or one of its related entities, on the one hand, and any member of the Board or the Executive Management (or a company or entity with which such member of the Board or the Executive Management has a close relationship), on the other hand, such member will inform the Board of the conflict. The Board is under the obligation to check that the approval of the transaction is motivated by Viohalco's interest only and that it takes place at arm's length.

In all cases involving a conflict of interests not covered by article 7:96 of the BCCA, the member of the Board affected by the conflict of interests is required to judge whether he or she should abstain from participating in the discussions and the vote.

Since the listing of the Company, the Board has not been notified of any transaction or other contractual relationship between Viohalco and its Board members which caused a conflict of interests within the meaning of articles 7:96 and 7:97 of the BCCA.

Shareholders

1. Capital structure

On December 31, 2022, the Company's share capital amounted to EUR 141,893,811.46 represented by 259,189,761 shares without nominal value. There is no authorised share capital.

All shares of the Company belong to the same class of securities and are in registered or dematerialised form. Shareholders may select, at any time, to have their registered shares converted into dematerialised shares and vice versa.

Share transfers are not restricted in the Company's articles of association; all Company's shares are freely transferable.

Each share entitles the holder to one voting right.

2. Restrictions on voting rights

The articles of association do not provide for special restrictions on the shareholders' voting rights. Provided that the shareholders are admitted to the Shareholders' Meeting and their rights are not suspended, they enjoy unrestricted freedom in exercising their voting rights. The relevant provisions governing the shareholders' admission to the Shareholders' Meeting are set out in article 19 of Viohalco's articles of association.

Article 7.3 of the articles of association provides that the Company's shares are indivisible and that it recognises only one holder per share. The Board has the right to suspend the exercise of all rights attached to jointly owned shares until a single representative of the joint owners has been appointed.

3. Transparency

Pursuant to the Belgian law of 2 May 2007 on the disclosure of major holdings in issuers whose shares are admitted to trading on a regulated market and laying down miscellaneous provisions (the Transparency Law), the Company requires that all any natural and legal person, who directly or indirectly acquires voting securities in the Company, notifies the Company and the Financial Services and Markets Authority (FSMA) of the number and proportion of existing voting rights they hold, where the voting rights attached to the voting securities reach 5% or more of the total existing rights. A similar notification is required in the following cases:

- direct or indirect acquisition or disposal of voting securities, or change of the breakdown of the voting rights, where the proportion of voting rights attached to the securities held reaches or exceeds 10%, 15%, 20% and so on, by increments of 5%, of the total existing voting rights;
- first admission of the Company's shares to trading on a

regulated market, where the voting rights attached to the voting securities represent 5% or more of the total existing voting rights;
- conclusion, modification or termination by natural or legal persons of an agreement to act in concert where the proportion of the voting rights that are the subject of the agreement, or the proportion of the voting rights held by a party to the agreement, reaches, exceeds or falls below one of the thresholds provided for in § 1, or the nature of the agreement to act in concert is modified;
- crossing of stricter notification thresholds added by the Company's articles of association.

The notification must be made as soon as possible and, not later than four trading days following the acquisition or disposal of the voting rights triggering the reaching of the initial threshold. The Company must publish the information so notified within three trading days following receipt of the notification.

At Shareholders' Meetings, shareholders cannot cast more votes than those attached to the securities or rights they have notified to the Company, in pursuance to the Transparency Law, before the date of the Shareholders' Meeting, subject to certain exceptions.

The form, on which such notifications must be made, together with additional explanations, is available on the FSMA website (www.fsma.be).

The voting rights held by the major shareholders of the Company are available on the website of Viohalco (www.viohalco.com).

Viohalco is not aware of the existence of any agreement between its shareholders which may lead to restrictions on the transfer or the exercise of the voting rights attached to the shares of the Company.

Shareholders' meeting

1. Meetings

The Annual Ordinary Shareholders' Meeting of the Company is held on the last Tuesday of May at 12:00 p.m. or, if the day is a public holiday in Belgium, on the previous business day, at the same time. It takes place in Brussels, at the registered office of the Company or at a place indicated in the convening notice of the Shareholders' Meeting.

The other Shareholders' Meetings of the Company must take place on the date, hour and place indicated in the convening notice of the Shareholders' Meeting. They may take place in locations other than the Company's registered office.

The Annual, the Special and Extraordinary Shareholders' Meetings of the Company may be convened by the Board or by the statutory auditor of the Company, or at the request of shareholders representing at least ten (10) % of the Company's share capital.

2. Quorum and majority required for modification of the articles of association

The modification of Viohalco's articles of association requires that two thirds (2/3) of the share capital are present or represented, and that it is approved by a qualified majority of 75% of the votes cast. If the quorum of two thirds is not reached during a first Shareholders' Meeting, a second Meeting can be convened with the same agenda and shall lawfully meet if 60% of the Company's share capital is present or represented.

If this second Meeting quorum is not reached, a third Meeting can be convened and shall lawfully meet if 58% of the Company's share capital is present or represented.

Share information and evolution of the shares

The share capital of Viohalco is set at EUR 141,893,811.46 and is divided into 259,189,761 shares without nominal value.

The shares have been issued in registered and dematerialised form. All the shares are freely transferable and fully paid up. The Company has not issued any other category of shares, such as non-voting or preferential shares.

All the shares representing the share capital have the same rights. In accordance with the articles of association of the Company, each share entitles its holder to one vote.

Viohalco's shares are listed under the symbol "VIO" with ISIN code BE0974271034 on the regulated market of Euronext Brussels and on the main market of the Athens Stock Exchange (Athex) with the same ISIN code and under the symbol "VIO" (in latin characters) and "ΒΙΟ" (in Greek characters).

Market data

The table below sets forth, for the periods indicated the maximum and minimum year-end closing prices, and the end of the year closing prices of Viohalco S.A. on Euronext Brussels and Athens Stock Exchange.

Share price Euronext Brussels in EUR	2022	2021
At the end of the year	4.02	4.59
Maximum	5.08	5.30
Minimum	3.26	3.23

Share price Athens Stock Exchange in EUR	2022	2021
At the end of the year	4.01	4.59
Maximum	5.03	5.19
Minimum	3.24	3.32

Investor relations contact details

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Market	NYSE Euronext Brussels
Ticker	VIO
ISIN code	BE0974271034

Market	Athens Stock Exchange
Ticker	VIO (in latin characters) and BIO (in Greek characters)
ISIN code	BE0974271034

Viohalco remains committed to high-quality and transparent financial reporting. Viohalco's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU ("IFRSs as adopted by the EU").

Shareholding structure

According to the last Transparency notifications, the shareholding structure of Viohalco is as follows:

Name (Shareholders)	% voting rights
Ippokratis Ioannis Stassinopoulos (7.05% exercised in his own name and 23.25% exercised in the name and on behalf of KIKPE Foundation in his capacity as President of the KIKPE Foundation's Board)	30.31%
Nikolaos Stassinopoulos	27.43%
Evangelos Stassinopoulos	19.20%
Michail Stassinopoulos	7.01%

Distribution and dividend policy

As a holding company with majority participations in industrial and commercial companies, Viohalco's dividend policy depends on the ability of these companies to generate profit and cash flows sufficient to secure capital invested, to support growth and long-term sustainability and pay dividends.

As a matter of corporate policy, and based on careful evaluation of each year's financial results and of the wider economic and business context, the Company assesses whether it is sounder to re-invest the totality or part of the annual profits and dividends received into the operating companies' businesses or to pay dividends to its shareholders.

The Company can give no assurance that it will make any dividend payment, for any given year in the near or distant future. Such payment will always be conditional on the complex interplay of a broad number of factors, which include Viohalco's overall strategy and business prospects, evolution of earnings, capital requirements and surplus, general financial conditions, existing contractual restrictions, as well as other factors which the Board of Directors may each time deem relevant.

Financial calendar

Date	Event
Friday, March 10th, 2023	Financial results 2022 conference call for investors and analysts
Thursday, April 6th, 2023	Publication of Annual Report 2022
Tuesday, May 30th, 2023	Ordinary General Shareholders' Meeting 2023
Monday, June 19th, 2023	Ex-Dividend date of fiscal year 2022
Tuesday, June 20th, 2023	Dividend beneficiaries of fiscal year 2022 - Record date*
Wednesday, June 21st, 2023	Dividend payment of fiscal year 2022
Thursday, September 21st, 2023	Half yearly 2023 results

** The shares will trade ex-dividend before June 16, 2023, which is the expiration day of Futures Contracts (June series) in the Athens Stock Exchange and before July 15, 2023, which is the expiration date for the Futures Contracts on the FTSE/ATHEX Large Cap index.*



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J. Appendix – Alternative Performance Measures (APMs)

Introduction

Viohalco management has adopted, monitors and reports internally and externally P&L alternative performance measures ('APMs'), namely EBITDA, EBIT, adjusted EBITDA (a-EBITDA) and adjusted EBIT (a-EBIT) on the basis that they are appropriate measures reflecting the underlying performance of the business. These APMs are also key performance metrics on which Viohalco prepares, monitors and assesses its annual budgets and long-term (5 year) plans. However, it must be noted that adjusted items should not be considered as non-operating or non-recurring items.

Relating to balance sheet items, Viohalco management monitors and reports the net debt measure.

General Definitions

EBIT

EBIT is defined as profit for the period before:
- income taxes;
- Share of profit/loss of equity-accounted investees, net of tax;
- net finance cost.

a-EBIT

a-EBIT is defined as EBIT, excluding:
- metal price lag;
- impairment / reversal of impairment of fixed and intangible assets;
- impairment / reversal of impairment of investments;
- gains/losses from sales of fixed assets, intangible assets and investments;
- exceptional litigation fees and fines;
- other exceptional or unusual items.

EBITDA

EBITDA is defined as profit for the period before:
- income taxes;
- Share of profit/loss of equity-accounted investees, net of tax;
- net finance cost;
- depreciation and amortization.

a-EBITDA

a-EBITDA is defined as EBITDA excluding the same line items as a-EBIT.

Net Debt

Net Debt is defined as the total of:
- Long term borrowings;
- Short term borrowings;

Less:
Cash and cash equivalents.

Metal Price Lag

Metal price lag is the P&L effect resulting from fluctuations in the market prices of the underlying commodity metals (ferrous and non-ferrous) which Viohalco subsidiaries use as raw materials in their end-product production processes.

Metal price lag exists due to:
1. the period of time between the pricing of purchases of metal, holding and processing the metal, and the pricing of the sale of finished inventory to customers;
2. the effect of the inventory opening balance (which in turn is affected by metal prices of previous periods) on the amount reported as cost of sales, due to the costing method used (e.g. weighted average) ;and
3. certain customer contracts containing fixed forward price commitments which result in exposure to changes in metal prices for the period of time between when our sales price fixes and the sale actually occurs.

Most of Viohalco subsidiaries use back-to-back matching of purchases and sales, or derivative instruments in order to minimize the effect of the Metal Price Lag on their results. However, there will be always some impact (positive or negative) in the P&L, since inventory in the non-ferrous segments (i.e. aluminium, copper and cables) is treated as being held on a permanent basis (minimum operating stock), and not hedged, in the ferrous segments (i.e. steel and steel pipes), no commodities hedging occurs.

Reconciliation Tables

EBIT and EBITDA

2022	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel pipes	Steel	Other activities	Total Industrial	Real Estate Division	Consolidated
EBT (as reported in Statement of Profit or Loss)	**178,602**	**39,637**	**63,529**	**8,140**	**87,554**	**-710**	**376,752**	**-2,188**	**374,564**
Adjustments for:									
Share of profit/loss (-) of equity-accounted investees	-1,374	6,814	0	-4,131	-223	0	1,086	279	1,365
Net Finance Cost	33,770	16,987	25,520	11,644	26,131	1,935	115,988	5,332	121,320
EBIT	**210,998**	**63,439**	**89,049**	**15,654**	**113,462**	**1,225**	**493,826**	**3,424**	**497,250**
Add back:									
Depreciation & Amortization	59,910	17,585	17,782	9,134	30,554	4,870	139,835	9,278	149,114
EBITDA	**270,908**	**81,023**	**106,831**	**24,788**	**144,016**	**6,095**	**633,661**	**12,702**	**646,363**

2021	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel pipes	Steel	Other activities	Total Industrial	Real Estate Division	Consolidated
EBT (as reported in Statement of Profit or Loss)	**59,556**	**58,979**	**45,754**	**-15,407**	**108,943**	**2,813**	**260,637**	**15,347**	**275,984**
Adjustments for:									
Share of profit/loss (-) of equity-accounted investees	-1,180	4,069	-	-386	-318	-	2,185	344	2,530
Net Finance Cost	20,858	14,624	21,874	7,488	26,091	1,494	92,430	3,452	95,882
EBIT	**79,234**	**77,672**	**67,629**	**-8,305**	**134,716**	**4,307**	**355,253**	**19,144**	**374,396**
Add back:									
Depreciation & Amortization	59,093	16,665	16,659	8,861	25,600	4,234	131,112	8,777	139,889
EBITDA	**138,327**	**94,338**	**84,287**	**555**	**160,316**	**8,541**	**486,365**	**27,921**	**514,285**

a-EBIT and a-EBITDA

2022	Industrial Division								
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel pipes**	**Steel**	**Other activities**	**Total Industrial**	**Real Estate Division**	**Consolidated**
EBT (as reported in Statement of Profit or Loss)	**178,602**	**39,637**	**63,529**	**8,140**	**87,554**	**-710**	**376,752**	**-2,188**	**374,564**
Adjustments for:									
Net finance cost	33,770	16,987	25,520	11,644	26,131	1,935	115,988	5,332	121,320
Metal price lag	-49,950	-17,490	1,905	-	51,132	-	-14,402	-	-14,402
Share of profit (-) / loss of equity investees, net of tax	-1,374	6,814	-	-4,131	-223	-	1,086	279	1,365
Impairment / Reversal of Impairment (-) of PPE, intangibles and Inv. Property	2,388	2,267	1,222	-	-	-	5,877	212	6,089
Impairment / Reversal of Impairment (-) of associates/JVs (1)	-	9,210	-	-	-	-	9,210	-	9,210
Gains (-) / losses from sales of PP&E, intangibles and inv. property	-220	-36	-348	1	-11	-130	-744	-	-744
Loss from disposal of associates (3)	-	-	-	156	1,343	-	1,499	-	1,499
Loss of control of subsidiary	-	-	-	-	-	647	647	-	647
Net loss for indemnity to customer (2)	-	-	-	235	-	-	235	-	235
a-EBIT	**163,216**	**57,389**	**91,829**	**16,046**	**165,925**	**1,742**	**496,148**	**3,636**	**499,783**
Add back:									
Depreciation & Amortization	59,910	17,585	17,782	9,134	30,554	4,870	139,835	9,278	149,114
a-EBITDA	**223,126**	**74,974**	**109,611**	**25,180**	**196,479**	**6,613**	**635,983**	**12,914**	**648,897**

(1) During 2022, the JV of ELVALHALCOR, Nedzink, faced significant delays in the full operation of new equipment which led to loss of sales. Additionally, the difficult economic conditions prevailing worldwide, with increased benchmark interest rates and increased energy costs, deteriorated 2022 results more than initially expected. As a result, the annual impairment test performed for the participation to the JV, indicated the recognition of an impairment loss of EUR 9.2 million.

(2) In 2013, Corinth Pipeworks manufactured and supplied pipes for a pipeline in France. During 2015, the French client filed a quality claim against Corinth Pipeworks, its insurers and the subcontractors in charge for the welding of the pipeline. The commercial court of Paris rendered its decision on 7 July 2022 and ruled that Corinth Pipeworks should be held liable for the latent defects affecting the pipes it delivered to its French customer but that the latter was also responsible for its own loss. Consequently, given that 2013 sales were fully insured, Corinth Pipeworks recorded a liability of EUR 515 thousand during 2022 that corresponds to its maximum exposure for that specific claim, while an income of EUR 280 thousand was recorded as a respective amount was received as indemnity from an insurance company for the certain case.

(3) During 2022, the participations in Belleville Tube Company and AWM were disposed.

2021	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel pipes	Steel	Other activities	Total Industrial	Real Estate Division	Consolidated
EBT (as reported in Statement of Profit or Loss)	**59,556**	**58,979**	**45,754**	**-15,407**	**108,943**	**2,813**	**260,637**	**15,347**	**275,984**
Adjustments for:									
Net finance cost	20,858	14,624	21,874	7,488	26,091	1,494	92,430	3,452	95,882
Metal price lag	-19,694	-35,193	4,915	-	-37,746	-	-87,718	-	-87,718
Share of profit(-)/ loss of equity investees, net of tax	-1,180	4,069	-	-386	-318	-	2,185	344	2,530
Impairment/ Reversal of Impairment (-) of PP&E, intangibles and inv. property	2,067	-	-	-	-	507	2,574	-18,149	-15,575
Gains (-) /losses from sales of PP&E, intangibles and inv. property	524	-187	-24	-	-13	-114	186	-491	-306
Gains(-)/losses from sales of investments	-	-	-	-	-	21	21	-	21
Exceptional litigation fees and fines / income (-)	-	-	-	-	-	41	41	-	41
Provision for antidumping duties	-	-	-	12,842	-	-	12,842	-	12,842
Reorganization costs	-	-	-	978	-	-	978	-	978
Incremental coronavirus costs (1)	1,285	1,508	445	-234	1,096	12	4,112	-2,663	1,449
a-EBIT	**63,415**	**43,800**	**72,964**	**5,280**	**98,054**	**4,774**	**288,288**	**-2,159**	**286,128**
Add back:									
Depreciation & Amortization	59,093	16,665	16,659	8,861	25,600	4,234	131,112	8,777	139,889
a-EBITDA	**122,508**	**60,465**	**89,623**	**14,141**	**123,654**	**9,008**	**419,400**	**6,618**	**426,017**

(1) Incremental coronavirus costs concern all incremental costs incurred due to the coronavirus outbreak. Such costs are directly attributable to the coronavirus outbreak and are incremental to costs incurred prior to the outbreak and not expected to recur once the crisis has subsided and operations return to normal, while they are clearly separable from normal operations.

Segmental Information

2022	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel pipes	Steel	Other activities	Total Industrial	Real Estate Division	Consolidated
Revenue	**2,312,598**	**1,811,050**	**895,367**	**457,236**	**1,391,507**	**87,568**	**6,955,326**	**30,409**	**6,985,735**
Gross profit	291,031	125,564	119,816	30,021	172,868	21,040	760,340	11,445	771,784
Operating profit	**210,998**	**63,439**	**89,049**	**15,654**	**113,462**	**1,225**	**493,826**	**3,424**	**497,250**
Net finance cost	-33,770	-16,987	-25,520	-11,644	-26,131	-1,935	-115,988	-5,332	-121,320
Share of profit/loss (-) of Associates	1,374	-6,814	0	4,131	223	0	-1,086	-279	-1,365
Profit/Loss (-) before tax	**178,602**	**39,637**	**63,529**	**8,140**	**87,554**	**-710**	**376,752**	**-2,188**	**374,564**
Income tax	-36,403	-9,216	-13,357	3,437	-17,236	1,760	-71,015	-1,160	-72,175
Profit/Loss (-)	**142,200**	**30,421**	**50,172**	**11,577**	**70,318**	**1,049**	**305,737**	**-3,348**	**302,389**

2021	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel pipes	Steel	Other activities	Total Industrial	Real Estate Division	Consolidated
Revenue	**1,677,918**	**1,563,775**	**757,170**	**225,067**	**1,067,782**	**64,134**	**5,355,846**	**18,667**	**5,374,512**
Gross profit	147,873	125,054	94,442	15,157	181,255	23,310	587,091	3,555	590,645
Operating profit	**79,234**	**77,672**	**67,629**	**-8,305**	**134,716**	**4,307**	**355,253**	**19,144**	**374,396**
Net finance cost	-20,858	-14,624	-21,874	-7,488	-26,091	-1,494	-92,430	-3,452	-95,882
Share of profit/loss (-) of Associates	1,180	-4,069	-	386	318	-	-2,185	-344	-2,530
Profit/Loss (-) before tax	**59,556**	**58,979**	**45,754**	**-15,407**	**108,943**	**2,813**	**260,637**	**15,347**	**275,984**
Income tax	-10,762	-9,052	-7,788	-451	-20,053	-7,490	-55,597	-399	-55,996
Profit/Loss (-)	**48,793**	**49,927**	**37,966**	**-15,859**	**88,891**	**-4,678**	**205,041**	**14,948**	**219,989**

Net Debt

Amounts in EUR thousands	31 December 2022	31 December 2021
Long term		
Loans & borrowings	1,471,299	1,294,093
Lease liabilities	29,449	34,639
Short term		
Loans & borrowings	958,166	848,145
Lease liabilities	10,932	10,696
Total Debt	**2,469,845**	**2,187,573**
Less:		
Cash and cash equivalents	-412,644	-503,267
Net Debt	**2,057,201**	**1,684,306**



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K. Consolidated Financial Statements 2022



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Consolidated Statement of Financial Position

Amounts in EUR thousands	Note	31 December 2022	31 December 2021
ASSETS			
Non-current assets			
Property, plant and equipment	17	2,231,036	2,089,107
Right of use assets	34	35,279	34,288
Intangible assets and goodwill	18	43,376	42,083
Investment property	19	316,024	280,876
Equity - accounted investees	20	36,638	44,372
Other investments	21	8,405	8,457
Deferred tax assets	13	9,628	13,141
Derivatives	23	38,922	944
Trade and other receivables	15	6,893	7,314
Contract costs	7	222	222
		2,726,424	**2,520,805**
Current assets			
Inventories	14	1,914,098	1,469,840
Trade and other receivables	15	675,083	623,536
Contract assets	7	199,839	101,371
Contract costs	7	14	167
Derivatives	23	27,149	16,277
Current tax assets		7,081	2,785
Cash and cash equivalents	16	412,644	503,267
Assets held for sale	22	67,865	372
Current assets		**3,303,772**	**2,717,616**
Total assets		**6,030,196**	**5,238,420**
EQUITY			
Equity attributable to owners of the Company			
Share capital	24	141,894	141,894
Share premium	24	457,571	457,571
Translation reserve		-30,802	-24,450
Other reserves	24	448,298	440,437
Retained earnings		663,823	399,175
		1,680,784	**1,414,626**
Non-controlling interest	33	275,111	240,969
Total equity		**1,955,895**	**1,655,594**
LIABILITIES			
Non-current liabilities			
Loans and borrowings	26	1,471,299	1,294,093
Lease liabilities	34	29,449	34,639
Derivatives	23	1,249	3,587
Deferred tax liabilities	13	103,489	97,263
Employee benefits	11	24,357	24,183
Grants	28	32,454	33,985
Provisions	29	1,727	1,825
Trade and other payables	27	17,073	17,615
Contract liabilities	7	9,889	9,889
		1,690,985	**1,517,080**
Current liabilities			
Loans and borrowings	26	958,166	848,145
Lease liabilities	34	10,932	10,696
Trade and other payables	27	1,180,881	1,093,804
Contract liabilities	7	123,948	51,482
Current tax liabilities		57,511	40,035
Derivatives	23	18,455	7,563
Provisions	29	15,405	14,020
Liabilities directly associated with assets classified as held for sale	22	18,020	-
		2,383,316	**2,065,746**
Total liabilities		**4,074,301**	**3,582,826**
Total equity and liabilities		**6,030,196**	**5,238,420**

The notes on pages 155 to 220 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Profit or Loss

		For the period ended 31 December	
Amounts in EUR thousands	**Note**	**2022**	**2021**
Revenue	7	6,985,735	5,374,512
Cost of sales	8	-6,213,951	-4,783,867
Gross profit		**771,784**	**590,645**
Other income	8	29,699	43,422
Selling and distribution expenses	8	-90,047	-80,351
Administrative expenses	8	-169,781	-142,620
Impairment loss on receivables and contract assets	30	-4,168	-2,698
Other expenses	8	-40,238	-34,003
Operating result		**497,250**	**374,396**
Finance income	9	8,407	2,371
Finance cost	9	-129,727	-98,253
Net Finance cost		**-121,320**	**-95,882**
Share of profit / loss (-) of equity-accounted investees	20	-1,365	-2,530
Profit before tax		**374,564**	**275,984**
Income tax	13	-72,175	-55,996
Profit for the period		**302,389**	**219,989**
Profit attributable to:			
Owners of the Company		266,133	194,994
Non-controlling interest		36,256	24,995
		302,389	**219,989**
Earnings per share (EUR per share)			
Basic and diluted	10	1.027	0.752

The notes on pages 155 to 220 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Other Comprehensive Income

		For the year ended 31 December	
Amounts in EUR thousands	**Note**	**2022**	**2021**
Profit / Loss (-)		**302,389**	**219,989**
Items that will never be reclassified to profit or loss:			
Equity investments at FVOCI - net change in fair value	21	-1,061	702
Remeasurements of defined benefit liability	11	2,418	-1,063
Related tax	13	-544	222
Total		**812**	**-139**
Items that are or may be reclassified to profit or loss			
Foreign currency translation differences		-5,530	7,731
Changes in fair value of cash flow hedges –effective portion	30	37,233	4,839
Changes in fair value of cash flow hedges - reclassified to profit or loss	30	-2,059	-1,713
Share of other comprehensive income of eq.-accounted investees		-2	0
Related tax	13	-7,905	-447
Total		**21,737**	**10,409**
Other comprehensive income / expense (-) after tax		**22,549**	**10,270**
Total comprehensive income / expense (-) after tax		**324,938**	**230,259**
Total comprehensive income attributable to			
Owners of the Company		283,994	203,578
Non-controlling interests		40,944	26,681
Total comprehensive income / expense (-) after tax		**324,938**	**230,259**

The notes on pages 155 to 220 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Changes in Equity

2022

Amounts in EUR thousands	Note	Share capital	Share premium	Other reserves	Translation reserve	Retained earnings	Total	Non-controlling interests	Total equity
Balance as at 1 January 2022		**141,894**	**457,571**	**440,437**	**-24,450**	**399,175**	**1,414,626**	**240,969**	**1,655,594**
Total comprehensive income									
Profit/loss (-)		0	0	0	0	266,133	**266,133**	36,256	**302,389**
Other comprehensive income		0	0	21,862	-5,527	1,526	**17,861**	4,688	**22,549**
Total comprehensive income		**0**	**0**	**21,862**	**-5,527**	**267,659**	**283,994**	**40,944**	**324,938**
Transactions with owners of the Company									
Capitalization of reserves	24	0	0	357	0	-357	**0**	0	**0**
Share capital increase of subsidiary		0	0	0	0	0	**0**	24,927	**24,927**
Reduction of share capital		0	0	0	0	0	**0**	-301	**-301**
Loss of Control/Disposal of subsidiary		0	0	-473	0	705	**232**	-232	**0**
Mergers & absorptions		0	0	0	0	-3,358	**-3,358**	0	**-3,358**
Transfer of reserves	24	0	0	-14,152	51	14,102	**0**	0	**0**
Dividends		0	0	0	0	-23,327	**-23,327**	-3,024	**-26,351**
Acquisition of NCI		0	0	173	-907	11,774	**11,039**	-30,594	**-19,555**
Other changes in ownership interests		0	0	95	32	-2,549	**-2,422**	2,422	**0**
Total transactions with owners of the Company		**0**	**0**	**-14,001**	**-824**	**-3,011**	**-17,836**	**-6,802**	**-24,638**
Balance as at 31 December 2022		**141,894**	**457,571**	**448,298**	**-30,802**	**663,823**	**1,680,784**	**275,111**	**1,955,895**

2021

Amounts in EUR thousands	Note	Share capital	Share premium	Other reserves	Translation reserve	Retained earnings	Total	Non-controlling interests	Total equity
Balance as at 1 January 2021		**141,894**	**457,571**	**436,104**	**-30,341**	**214,097**	**1,219,325**	**175,929**	**1,395,253**
Total comprehensive income									
Profit/loss (-)		0	0	0	0	194,994	**194,994**	24,995	**219,989**
Other comprehensive income		0	0	2,985	5,880	-281	**8,584**	1,686	**10,270**
Total comprehensive income		**0**	**0**	**2,985**	**5,880**	**194,713**	**203,578**	**26,681**	**230,259**
Transactions with owners of the Company									
Capitalization of reserves	24	0	0	1,150	0	-1,338	**-188**	188	**0**
Loss of Control/Disposal of subsidiary		0	0	0	49	-29	**21**	0	**21**
Dividends		0	0	0	0	-7,776	**-7,776**	-3,421	**-11,196**
Acquisition of NCI		0	0	331	-100	-5,112	**-4,881**	-2,619	**-7,500**
Other changes in ownership interests		0	0	-133	60	4,620	**4,547**	44,211	**48,758**
Total transactions with owners of the Company		**0**	**0**	**1,348**	**10**	**-9,635**	**-8,277**	**38,359**	**30,082**
Balance as at 31 December 2021		**141,894**	**457,571**	**440,437**	**-24,450**	**399,175**	**1,414,626**	**240,969**	**1,655,594**

The notes on pages 155 to 220 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Cash Flows

Amounts in EUR thousands	Note	For the year ended 31 December 2022	2021
Cash flows from operating activities			
Profit / loss (-) for the period		**302,389**	**219,989**
Adjustments for:			
Income tax expense/ credit (-)	13	72,175	55,996
Depreciation of PP&E	17	129,641	120,686
Depreciation of right of use assets	35	8,509	8,518
Depreciation of intangible assets	18	6,717	6,673
Depreciation of investment property	19	7,658	6,898
Impairment loss/ Reversal of impairment loss (-) and write off of PP&E and intangible assets	8	-692	-6,725
Impairment loss/ Reversal of impairment loss (-) of investment property	8	10,210	-6,922
Impairment loss/ Reversal of impairment loss (-) of associates/JVs	8	9,260	0
Profit (-) / loss from sale of PP&E and intangible assets	8	-404	170
Profit (-) / loss from sale of investment property	8	-340	-476
Amortization of grants	28	-3,411	-2,886
Finance cost	9	128,998	98,253
Finance income	9	-2,787	-2,371
Impairment loss on trade and other receivables, including contract assets	30	4,168	2,698
Profit (-) / loss from derivatives valuation	9	-4,891	-644
Gain (-) /loss from business combinations	8	2,146	21
Share of profit of equity accounted investees	20	1,365	2,530
		670,711	**502,407**
Decrease / increase (-) in inventories		-444,258	-395,251
Decrease / increase (-) in receivables		-61,238	-227,609
Decrease / increase (-) in contract assets		-98,468	-32,854
Decrease / increase (-) in contract costs		153	324
Decrease (-) / increase in liabilities		22,556	367,284
Decrease (-) / increase in employees benefits liability		2,591	1,208
Decrease (-) / increase in provisions		-212	13,355
Decrease (-) / Increase in contract liabilities		72,466	7,350
		-506,410	**-266,193**
Interest charges and related expenses paid		-123,060	-91,512
Income tax paid		-39,105	-14,106
Net cash flows from operating activities		**2,136**	**130,596**
Cash flows from investing activities			
Acquisition of PP&E and intangible assets		-306,040	-234,689
Acquisition of investment property	19	-22,266	-13,065
Proceeds from sales of PP&E and intangible assets		1,926	2,927
Proceeds from sales of investment property		1,100	1,229
Acquisition/ share capital increase of associates and joint ventures	20 - 38	-7,500	-9,525
Acquisition of other investments	21	-1,060	-77
Proceeds from sales of associates		2,727	0
Proceeds from sale of other investments	21	0	637
Interest received	9	548	557
Dividends received	9 - 20	388	1,060
Cash inflows / outflows (-) from business combinations		-2,716	0
Net cash flows used in investing activities		**-332,892**	**-250,947**
Cash flows from financing activities			
Proceeds from new borrowings	26	856,508	896,672
Repayment of borrowings	26	-570,259	-514,171
Principal elements of lease payments	26	-11,630	-11,562
Proceeds from sales of subsidiaries shares	32	0	50,000
Proceeds from collection of grants	28	1,739	1,529
Acquisition of NCI		-9,529	-7,500
Dividends paid to shareholders		-23,327	-7,776
Dividends paid to non-controlling interest		-3,024	-3,421
Net cash flows from/used in (-) financing activities		**240,477**	**403,773**
Net decrease (-)/ increase in cash and cash equivalents		**-90,279**	**283,422**
Cash and cash equivalents at the beginning of period		503,267	219,161
Foreign exchange effect on cash and cash equivalents		-344	684
Cash and cash equivalents at the end of period		**412,644**	**503,267**

The notes on pages 155 to 220 are an integral part of these Consolidated Financial Statements.

Notes to the Consolidated Financial Statements

1. Reporting entity

Viohalco S.A. (hereafter referred to as "the Company" or "Viohalco S.A.") is a Belgian Limited Liability Company. The Company's corporate registration number is 0534.941.439 and its registered office is located at 30 Avenue Marnix, 1000 Brussels, Belgium. The Company's Consolidated Financial Statements include those of the Company and its subsidiaries (together referred to as"Viohalco").

Viohalco S.A. is the holding company and holds participations in approximately 100 subsidiaries, two of which are listed, one on Euronext Brussels and the other on Athens Stock Exchange. With production facilities in Greece, Bulgaria, Romania, North Macedonia and the United Kingdom, Viohalco companies specialise in the manufacture of steel, copper and aluminium products. In addition, Viohalco owns substantial real estate properties in Greece. Its shares are traded on Euronext Brussels (trading ticker "VIO") and has since February 2014 its secondary listing on the Athens Stock exchange (trading ticker "BIO").

The Company's electronic address is www.viohalco.com, where the Consolidated Financial Statements have been posted.

2. Basis of accounting

Statement of compliance

The Consolidated Financial Statements for the year ended 31 December 2022 have been prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union and authorized by the Company's Board of Directors on 9 March 2023.

Details of the Viohalco's accounting policies are included in Note 5.

Basis of measurement

The Consolidated Financial Statements have been prepared in accordance with the historical cost principle, with the exception of the following assets and liabilities, which are measured on an alternative basis on each reporting date.

1. Derivative financial instruments (fair value) ;
2. Other Investments - Equity instruments (fair value) ;
3. Net defined benefit liability (present value of the obligation) ;
4. Provisions (present value of the expected future cash flows).

The Company has prepared the Consolidated Financial Statements on the basis that it will continue to operate as a going concern.

3. Functional currency and presentation currency

The functional and presentation currency of the parent Company is Euro. All amounts in the Consolidated Financial Statements are rounded to the nearest thousand, unless otherwise indicated. As such, due to rounding, figures shown as totals in certain tables may not be arithmetic aggregations of the figures that precede them.

4. Use of estimates and judgements

Preparing Financial Statements in line with IFRS requires that Management makes judgements, estimates and assumptions that affect the application of Viohalco's accounting policies and the reported amounts of assets, liabilities, income and expenses. The actual results may differ from these estimates.

Management's estimates and judgements are reviewed on an ongoing basis. Revisions to estimates are recognised prospectively.

Information about judgements, assumptions and estimation uncertainties that have significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities in the next financial year is included in the following notes:

- Note 7.D – Revenue recognition;
- Note 11.C.a – Measurement of defined benefit obligations: key actuarial assumptions;
- Note 13.C – Recognition of deferred tax assets: availability of future taxable profits against which carried forward tax losses can be used;
- Note 15.B - Recoverability of overdue receivable from a former customer in the Middle-East ;
- Note 17.E - Impairment loss on Property, plant and equipment;
- Note 18.F – Impairment loss test: key assumptions underlying recoverable amounts;
- Note 19.B – Measurement of fair value of Investment property;
- Note 30.C.1 – Measurement of Expected Credit Losses allowance for trade receivables and contract assets: key assumptions in determining loss rates.

5. Significant accounting policies

The accounting principles described below have been consistently applied to all periods presented in these Consolidated Financial Statements and have also been consistently applied by Viohalco and its companies (subsidiaries and equity accounted investees).

5.1. Basis of Consolidation

(a) Business combinations

Acquisition of subsidiaries is accounted for using the acquisition method on the acquisition date, i.e. the date on which control is transferred to Viohalco. To assess control, Viohalco takes into account substantive potential voting rights.

Viohalco and its companies measure goodwill on the acquisition date as follows:

- the fair value of the consideration paid, plus
- the value of any non-controlling interests in the acquired subsidiary, less
- the fair value of identifiable assets and liabilities assumed.

Any goodwill that arises is tested annually for impairment loss. Any gain on a bargain purchase is immediately recognized in the Consolidated Statement of Profit or Loss. Any expenses directly linked with acquisition are directly posted in the Consolidated Statement of Profit or Loss. Any contingent consideration is recognized at its fair value on the acquisition date.

(b) Subsidiaries

Subsidiaries are entities controlled by Viohalco. Viohalco controls an entity when it 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. The financial statements of the subsidiaries are included in the consolidated financial statements from the date on which control commences, until the date on which control ceases.

(c) Non-controlling interests

NCI are measured at fair value or at their proportionate share of the acquiree's identifiable net assets at the date of acquisition. This measurement is done on an acquisition by acquisition basis.

Changes in Viohalco's interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

(d) Loss of control

When Viohalco and its companies lose control over a subsidiary, they derecognise the assets and liabilities of the subsidiary and any related NCI and other components of equity. Any resulting gain or loss is recognised in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

(e) Interests in equity-accounted investees

Associates are those entities in which Viohalco has significant influence, but not control or joint control, over the financial and operating policies. This is generally the case where Viohalco holds between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting, after initially being recognised at cost.

Investments in joint arrangements are classified as either joint operations or joint ventures. The classification depends on the contractual rights and obligations of each investor, rather than the legal structure of the joint arrangement.

Joint operations: Viohalco recognises its direct right to the assets, liabilities, revenues and expenses of joint operations and its share of any jointly held or incurred assets, liabilities, revenues and expenses. These have been incorporated in the financial statements under the appropriate headings.

Joint ventures: A joint venture is an arrangement in which Viohalco has joint control, whereby Viohalco has rights to the net assets of the arrangement, rather than rights to its assets and obligations for its liabilities.
Interests in joint ventures are accounted for using the equity method, after initially being recognised at cost in the consolidated balance sheet.

(f) Equity method

Under the equity method of accounting, the investments are initially recognised at cost and adjusted thereafter to recognise Viohalco's share of the post-acquisition profits or losses of the investee in profit or loss, and Viohalco's share of movements in other comprehensive income of the investee in other comprehensive income, until the date on which significant influence or joint control ceases. Dividends received or receivable from associates and joint ventures are recognised as a reduction in the carrying amount of the investment.

When Viohalco's share of losses in an equity-accounted investment equals or exceeds its interest in the entity, Viohalco does not recognise further losses, unless it has incurred obligations or made payments on behalf of the other entity.

(g) Transactions eliminated on consolidation

Intra group balances and transactions and any unrealised income and expenses arising from intra group transactions are eliminated. Unrealized gains arising from transactions with equity accounted investees are eliminated against the investment to the extent of Viohalco's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

5.2. Foreign currency

(a) Foreign currency transactions

Transactions in foreign currencies are translated into the respective functional currencies of Viohalco's companies at the exchange rates at the dates of the transactions.

Monetary assets and liabilities denominated in foreign currencies are translated into functional currency at the exchange rate at the reporting date. Non-monetary assets and liabilities that are measured at fair value in a foreign currency are translated into the functional currency at the exchange rate when the fair value was determined. Foreign currency gains and losses are recognized and classified in the consolidated statement of profit or loss based on the nature of the related item of the consolidated statement of financial position.

Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rate at the date of the transaction.

Foreign currency differences arising from the translation of the following items are recognised in OCI:
- qualifying cash flow hedges to the extent that the hedges are effective;
- an investment in equity securities designated as at FVOCI.

(b) Foreign operations

The assets and liabilities of foreign operations, including goodwill and fair value adjustments arising on acquisition, are translated into Euro at the exchange rates of the reporting date. The income and expenses of foreign operations are translated into Euro at the exchange rates at the date of the transactions. The average rate for the period is deemed to be an appropriate rate.

Foreign currency differences are recognised in OCI and accumulated in the translation reserve, except to the extent that the translation difference is allocated to NCI.

5.3. Revenue

Viohalco recognizes revenue from the following major sources:
- Sale of customized products and revenue from projects;
- Sale of standard products;
- Rendering of services.

Revenue is measured based on the consideration specified in a contract with a customer and excludes amounts collected

on behalf of third parties. Viohalco recognizes revenue when it transfers control of a product or service to a customer. Consideration can vary because of trade discounts, volume rebates, returns or other similar items. Depending on the type of variable consideration the most appropriate method for measuring this variable consideration is used.

Sales of customized products and revenue from projects
Regarding contracts for projects and for customized products produced for the exclusive use of certain customers and with no alternative use, there is an enforceable right to payment for performance completed to date if the contract is terminated by the customer or another party for reasons other than Viohalco's subsidiaries' failure to perform as promised. Hence, it is concluded that the client controls all of the work in progress, as the goods are being produced.

Therefore, for such contracts revenue is recognised progressively based on the most appropriate output or input method, to measure progress towards completion.

The most common methods used are the following:
- For performance obligations related to production of customized products, depending on the type of contract concerned, the methods to measure progress is estimated based on:
  i. Production time elapsed, i.e. the ratio between the actual time spent on the production and the total number of scheduled production time. This method is used for submarine cables produced in long continuous lengths, since the production of such products normally lasts for significant period of time and, as a result, the related performance obligations are satisfied as production time elapses.
  ii. The quantity of manufactured and tested products compared with the total quantity to be produced according to the contract. This method is used for customized land cables, steel pipes and aluminium products, since the production is performed in batches and as a result the performance obligations related are satisfied as certain batches of agreed quantities have been produced.
- For installation phases of cables segment's turnkey projects, the method to measure progress is based on appraisal of results achieved or milestones reached, based to clearly defined technical milestones, such as transport or meters of cables installed. When milestones are being used as a method to measure progress, these milestones faithfully depict the performance.

Sales of standard products
For products which are not considered customized, customers do not take control of the product until production is completed, therefore revenue is recognised at a point of time, when the control of the goods sold has been transferred.

The timing of the transfer of control usually occurs when the goods have been shipped to the customers' location, unless otherwise specified in the terms of the contract. The terms defined on the contracts with customers are according to Incoterms.

Revenue recognised at a point in time is invoiced either simultaneously with its recognition, or within a short time period from its recognition. A receivable is recognised when the control is transferred to the customer, as this represents the point in time at which the right to consideration becomes unconditional.

Rendering of services
Revenue is recognised using the stage-of-completion method. The total consideration in the service contracts is allocated to all performance obligations in the contract based on their stand-alone selling prices. The stand-alone selling prices are determined based on the list prices at which Viohalco sells the services in separate transactions.

Contract assets and contract liabilities
The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances (contract liabilities). These contract assets and contract liabilities are presented on the Consolidated Statement of Financial Position in the lines 'Contract assets' and 'Contract liabilities,' respectively. For products and services for which revenue is recognised over time, amounts are billed as work progresses in accordance with agreed-upon contractual terms, either upon achievement of contractual milestones, or at the final delivery and acceptance of the manufactured items.

Generally, billing occurs subsequent to revenue recognition for customized products and services performed over time resulting in contract assets. However, when advances from customers are received before revenue is recognized, a contract liability is recognized.

Contract costs
Viohalco's subsidiaries recognize the incremental costs of obtaining contracts with customers and the costs incurred in fulfilling contracts with customers that are directly associated with the contract as an asset, if those costs are expected to be recoverable and record them in the line "Contract costs" in the Consolidated Statements of Financial Position. Incremental costs of obtaining contracts are costs incurred to obtain a contract with a customer that would not have been incurred if the contract had not been obtained.

Fulfilment costs are only capitalized if they generate or enhance resources that will be used to satisfy performance obligations in the future.

Assets arising from contract costs are amortized using either the straight-line method over a period based on the estimated contract duration or based on the portion of revenue recognised during the execution of the related contract.
Incremental costs of obtaining contracts are recognised as an expense when incurred, if the amortisation period of the assets would be one year or less.

5.4. Employee benefits

(a) Short-term employee benefits

Short-term employee benefits are expensed as the related service is provided. A liability is recognised for the amount expected to be paid if Viohalco and its companies have a present legal or constructive obligation to pay this amount, as a result of past service provided by the employee and the obligation can be estimated reliably.

(b) Defined contribution plans

Defined-contribution plans are plans for the period after the employee has ceased to work during which Viohalco and its companies pay a defined amount to a third legal entity without any other obligation. The accrued cost of defined-contribution programs is recorded as an expense in the period that it concerns.

(c) Defined benefit plans

Viohalco and its companies' net obligation in respect of defined benefit plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in the current and prior periods, discounting that amount and deducting the fair value of any plan assets. The discount rate is based on high-quality corporate bonds that are denominated in the currency in which the benefits will be paid.

The calculation of defined benefit obligations is performed annually by a qualified actuary using the projected unit credit method, while benefits are attributed over the last 16 years before retirement of each employee.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses, are recognised immediately in OCI. Viohalco and its companies determine the net interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the then-net defined benefit liability, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. Net interest expense and other expenses related to defined benefit plans are recognised in profit or loss.

When the benefits of a plan are changed or when a plan is curtailed, the resulting change in benefit that relates to past service or the gain or loss on curtailment is recognised immediately in profit or loss. Viohalco and its companies recognise gains and losses on the settlement of a defined benefit plan when the settlement occurs.

(d) Termination benefits

Termination benefits are expensed at the earlier of when Viohalco and its companies can no longer withdraw the offer of those benefits and when they recognise costs for a restructuring. If benefits are not expected to be settled wholly within 12 months of the reporting date, then they are discounted.

5.5. Government Grants

Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and Viohalco's companies will comply with all attached conditions.

Government grants relating to costs are deferred and recognized in the statement of profit or loss over the period necessary to match them with the costs that they are intended to compensate.

Government grants relating to the purchase of property, plant and equipment are included in non-current liabilities as deferred government grants and are credited to the statement of profit or loss (line "other income") on a straight line basis over the expected useful lives of the related assets.

5.6. Finance income and finance cost

Viohalco and its companies finance income and finance costs mainly include:

- interest income;
- interest expense;
- dividend income;
- Foreign currency gains and losses from loans and deposits.

Interest income or expense is recognised using the effective interest method. The 'effective interest rate' is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- the gross carrying amount of the financial asset; or
- the amortised cost of the financial liability.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset or to the amortised cost of the financial liability.

Dividend income is recognised in profit or loss on the date on which Viohalco's right to receive payment is established.

5.7. Income tax

Income tax expense comprises current and deferred tax. It is recognised in profit or loss except to the extent that it relates to a business combination, or to items recognised directly in equity or in OCI.

A. Current tax

Current tax comprised the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. It is measured using tax rates enacted or substantively enacted at the reporting date. Current tax also includes any tax arising from dividends.

Current tax assets and liabilities are offset only if certain criteria are met.

B. Deferred tax

Deferred tax is recognised in respect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for taxation purposes.

Deferred tax is not recognised for:

- Temporary differences on the initial recognition of assets or liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable profit or loss;
- Temporary differences related to investments in subsidiaries, associates and joint arrangements to the extent that Viohalco and its companies are able to control the timing of the reversal of the temporary differences and it is probable that they will not reverse in the foreseeable future; and
- Taxable temporary differences arising on the initial recognition of goodwill.

Deferred tax assets are recognised for unused tax losses, unused tax credits and deductible temporary differences to the extent that is probable that future taxable profits will be available against which they can be used. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realised; such reductions are reversed when the probability of future taxable profits improves.

Unrecognised deferred tax assets are reassessed at each reporting date and recognised to the extent that is has become probable that future taxable profits will be available against which they can be used.

Deferred tax is measured at the tax rates that are expected to be applied to temporary differences when they reverse, using tax rates enacted or substantively enacted at the reporting date.

The measurements of deferred tax reflect the tax consequences that would follow from the manner in which Viohalco and its companies expect, at the reporting date, to recover or settle the carrying amount of its assets and liabilities.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority.

5.8. Inventories

Inventories are stated at the lower of cost and net realisable value. The cost is determined by applying the method of weighted average cost and includes the production and conversion cost and all direct expenses required to bring inventories at their current condition. The net realisable value is estimated based on the inventory's current sales price, in the ordinary course of business activities, less any possible selling expenses, whenever such a case occurs.

The write-down of inventories to net realisable value and any reversals are recognized in 'cost of sales' in the period in which the write-downs occur.

5.9. Property, plant and equipment

A. Recognition and measurement

Property, plant and equipment are presented at their acquisition cost less accumulated depreciation and impairment. The acquisition cost includes all expenses that are directly associated with the asset's acquisition or self-construction. The cost of self-constructed fixed assets includes the cost of direct labour, materials and any other cost that is required for the fixed asset to be ready for use as well as any borrowing costs.

Subsequent expenditure is capitalised only if it is probable that the future economic benefits associated with the expenditure will flow to Viohalco and its companies. Repair and maintenance costs are recorded in the Consolidated Statement of Profit or Loss when these are incurred.

On the sale of property, plant and equipment, any difference that may arise between the price that is received and the carrying value thereof is recorded through profit or loss in the category 'Other operating income/expenses'.

Borrowing costs related to the construction of qualifying assets are capitalised during the period required for the construction to be completed.

B. Depreciation

Depreciation is calculated to write off the cost of items of property, plant and equipment less their estimated residual values using the straight-line method over their estimated useful lives and is generally recognised in profit or loss. Land is not depreciated. The component approach is followed if the cost of an asset comprises different major components of that asset with different useful lives.

Buildings	10-33 years
Plants	50 years
Machinery	2-35 years
Furniture and other equipment	2-8 years
Transport means	4-15 years

Computers are included in the category "Furniture and other equipment".

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

C. Reclassification to investment property

When the use of a property changes from owner-occupied to investment property, the property is reclassified to investment property.

The item is reclassified at its net book value at the date of reclassification which becomes its deemed cost for subsequent accounting purposes.

D. Reclassification to assets held for sale

Non-current assets and disposal groups are reclassified as held for sale when their carrying amount will be recovered principally through a sale transaction rather than continuing use.

5.10. Intangible assets and goodwill

A. Recognition and measurement

Goodwill: Goodwill arising on the acquisition of subsidiaries is measured at cost less accumulated impairment losses.

Research and development: Expenditure on research activities is recognised in profit and loss as incurred. Development expenditure is capitalised only if the expenditure can be measured reliably, the product or process is technically and commercial feasible, future economic benefits are probable and Viohalco's companies intend and have sufficient resources to complete development and to use or sell the asset. Otherwise, it is recognised in profit or loss as incurred. Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortisation and any accumulated impairment losses.

Software programs: Software licenses are recorded at their acquisition cost less accumulated amortisation. These assets are amortised on the straight line method over their estimated useful lives, which ranges between 3 to 5 years. Expenses that are associated with the software's maintenance are recognised in profit or loss in the year in which they are incurred.

Other intangible assets: Other intangible assets, including customer relationships, patents and trademarks, that are acquired by Viohalco and its companies and have finite useful lives are measured at cost less accumulated amortisation and any accumulated impairment losses. Other intangible assets having indefinite useful lives are measured at cost less accumulated impairment losses.

B. Subsequent expenditure

Subsequent expenditure is capitalised only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognised in profit or loss as incurred.

C. Amortisation and useful lives

Amortisation is calculated to write off the cost of intangible assets less their estimated residual values using the straight-line method over their estimated useful lives and is recognised in profit or loss. Goodwill and other intangible assets with indefinite useful lives are not amortised.

The estimated useful lives for the current and comparative periods are as follows:

• Trademarks and licenses	10 – 15 years
• Software programs	3 – 5 years

Some intangible assets included in "Trademarks and licences" have indefinite useful lives and are therefore not amortised, but subject to an impairment testing. See Note 19 for detailed information.

Amortisation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

5.11. Investment property

Investment property, which includes land, buildings and right of use assets, is owned by Viohalco and its subsidiaries for the collection of rents and is not used for owner purposes. Investment property is presented at cost less depreciation. When the carrying amounts of investment property exceed their recoverable value, the difference (impairment loss) is directly recorded in profit and loss as an expense. The reversal of impairment losses is also recognised in profit and loss as income. Land is not depreciated. The buildings are depreciated by applying the straight-line method. The expected useful life of buildings is 18-33 years.

Management exercises judgement to determine whether a property qualifies as investment property or not. The criteria related to this judgement are as follows:

- Whether a property generates cash flows derived from rentals and capital appreciation largely independently of the other assets held by Viohalco;
- Whether a property does not generate cash flows from the production or supply of goods or services or the use of property for administrative purposes that are attributable not only to property, but also to other assets used in the production or supply process;
- Whether a building that is vacant will be held to be leased out or for capital appreciation;
- Whether a property that is being constructed or developed for future use as investment property;
- Whether Viohalco holds land for a currently undetermined future use.

5.12. Assets held for sale

Non-current assets or disposal groups comprising assets and liabilities are classified as held-for-sale, if it is highly probable that they will be recovered primarily through sale rather than through continuing use.

Such assets or disposal groups are generally measured at the lower of their carrying amount and fair value less costs to sell. Any impairment loss on a disposal group is allocated first to goodwill and then to the remaining assets and liabilities on a pro rata basis, except that no loss is allocated to inventories, financial assets or employee benefits which continue to be measured in accordance Viohalco and its companies' other accounting policies. Impairment losses on initial classification as held-for-sale and subsequent gains and losses on remeasurement are recognised in profit or loss.

Once classified as held-for-sale, intangible assets and property, plant and equipment are no longer amortised or depreciated and any equity-accounted investee is no longer equity accounted.

5.13. Impairment

A. Non-derivative financial assets

Financial instruments and contract assets
Viohalco recognises loss allowances for ECLs on:
- financial assets measured at amortised cost;
- contract assets;
- lease receivables.

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime ECLs, except for cash and cash equivalents (12-month expected credit loss).

Viohalco considers a financial asset to be in default when the borrower is unlikely to pay its credit obligations in full, without recourse by Viohalco companies to actions such as realizing security (if any is held).

Lifetime ECLs are the ECLs that result from all possible default events over the expected life of a financial instrument.

12-month ECLs are the portion of ECLs that result from default events that are possible within the 12 months after the reporting date (or a shorter period if the expected life of the instrument is less than 12 months).

The maximum period considered when estimating ECLs is the maximum contractual period over which Viohalco companies are exposed to credit risk.

Measurement of ECLs
ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that Viohalco expects to receive).

ECLs are discounted at the effective interest rate of the financial asset.

Presentation of allowance for ECL in the statement of financial position
Loss allowances for financial assets measured at amortised cost are deducted from the gross carrying amount of the assets. Impairment losses related to trade and other receivables, including contract assets, are presented separately in the statement of profit or loss.

Write-off
The gross carrying amount of a financial asset is written off when Viohalco has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. For all customers, Viohalco individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery. Viohalco expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with Viohalco's procedures for recovery of amounts due.

B. Non-financial assets

At each reporting date, Viohalco and its companies review the carrying amounts of its non-financial assets (other than inventories and deferred tax assets) to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated. Goodwill and intangible assets with indefinite useful life is tested annually for impairment loss.

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs. Goodwill arising from a business combination is allocated to CGUs or groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable amount of an asset or CGU is the greater of its value in use and its fair value less costs to sell. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU. Viohalco companies, also, include in their review of the recoverable amounts assumptions related to the consequences of climate change.

An impairment loss is recognised if the carrying amount of an asset or CGU exceeds its recoverable amount. Impairment losses are recognised in profit or loss under 'Other expenses'. They are allocated first to reduce the carrying amount of any

goodwill allocated to the CGU and then to reduce the carrying amounts of the other assets in the CGU on a pro rata basis. An impairment loss in respect of goodwill is not reversed.

For other assets, 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 amortisation, if no impairment loss had been recognised.

5.14. Leases

From 1 January 2019, at inception of a contract, Viohalco assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Viohalco companies use the definition of a lease in IFRS 16.

Accounting for lease contracts as a lessee
Viohalco companies lease various offices, warehouses, machinery and cars. Rental contracts are usually made for fixed periods of 1 to 5 years, with some exceptions like lease of specialized machinery, ports, gas cylinders and land which are leased for longer periods.

Viohalco recognises a right-of-use asset and a lease liability at the lease commencement date.

The right-of-use asset is initially measured at cost, comprising the following:
- the amount of the initial measurement of lease liability;
- any lease payments made at or before the commencement date less any lease incentives received;
- any initial direct costs; and
- restoration costs.

Subsequently, the right-of-use asset is measured at cost less any accumulated depreciation and impairment losses and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the following lease payments:
- fixed payments (including in-substance fixed payments), less any lease incentives receivable;
- variable lease payment that are based on an index or a rate;
- amounts expected to be payable by the lessee under residual value guarantees;
- the exercise price of a purchase option if the lessee is reasonably certain to exercise that option; and
- payments of penalties for terminating the lease, if the lease term reflects the lessee exercising that option.

Lease payments are discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the incremental borrowing rate of the component that entered into the lease agreement. Generally, Viohalco uses its incremental borrowing rate as the discount rate.

This is the rate that the lessee, i.e. each subsidiary of Viohalco, would have to pay on the commencement date of the lease for a loan of a similar term, and with similar security, to obtain an asset of similar value to the right-of-use asset in similar economic environment.

The lease liability is subsequently increased by the interest cost on the lease liability and decreased by lease payment made. It is remeasured if there is a modification that is not accounted for as a separate lease; when there is a change in future lease payments arising from a change in an index or rate; a change in the estimate of the amount expected to be payable under a residual value guarantee; and changes in the assessment of whether a purchase or extension option is reasonably certain to be exercised or a termination option is reasonably certain not to be exercised.

Lease liabilities and right-of-use assets are presented separately in the statement of financial position. Right-of-use assets that meet the definition of investment property are presented within 'Investment property'.

Viohalco has elected not to separate non-lease components from lease components.

Payments associated with leases of 12 months or less and leases of low-value assets are recognised on a straight-line basis as an expense in profit or loss. Low-value assets comprise IT-equipment and small items of office furniture.

Viohalco applies judgement to determine the lease term for some lease contracts in which it is a lessee that include renewal options. The assessment of whether Viohalco is reasonably certain to exercise such options impacts the lease term, which significantly affects the amount of lease liabilities and right-of-use assets recognised.

Viohalco has elected to present interest paid related to lease liabilities in the Consolidated Statement of Cash Flows, within the line 'Interest charges & related expenses paid' in operating activities.

Accounting for lease contracts as a lessor
Leases in which Viohalco companies do not transfer substantially all the risks and rewards incidental to ownership of an asset are classified as operating leases. Rental income is recognised as revenue on a straight-line basis over the term of the lease. Lease incentives granted are recognised as an integral part of the total rental income, over the term of the lease. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term on the same basis as lease income.

5.15. Financial instruments

(a) Recognition and initial measurement

Trade receivables and debt securities issued are initially recognised when they are originated. All other financial assets and financial liabilities are initially recognised when Viohalco becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at FVTPL, transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

(b) Classification and subsequent measurement

Financial assets
On initial recognition, a financial asset is classified as measured at: amortised cost; FVOCI – debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless Viohalco changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortised cost if it meets both of the following conditions and is not designated as at FVTPL:
- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:
- it is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, Viohalco may irrevocably elect to present subsequent changes in the investment's fair value in OCI. This election is made on an investment-by-investment basis.

All financial assets (except derivatives to which cash flow hedging is applied) not classified as measured at amortised cost or FVOCI as described above are measured at FVTPL. On initial recognition, Viohalco may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortised cost or at FVOCI as at FVTPL, if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Financial assets – Business model assessment:
Viohalco makes an assessment of the objective of the business model in which a financial asset is held at a portfolio level because this best reflects the way the business is managed and information is provided to management.

Transfers of financial assets to third parties in transactions that do not qualify for derecognition are not considered sales for this purpose, consistent with Viohalco companies'continuing recognition of the assets.

Financial assets – Assessment whether contractual cash flows are solely payments of principal and interest:
For the purposes of this assessment, 'principal' is defined as the fair value of the financial asset on initial recognition. 'Interest' is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin. In assessing whether the contractual cash flows are solely payments of principal and interest, Viohalco considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition. In making this assessment, Viohalco considers:
- contingent events that would change the amount or timing of cash flows;
- terms that may adjust the contractual coupon rate, including variable-rate features;

- prepayment and extension features; and
- terms that limit the claim to cash flows from specified assets (e.g. non-recourse features).

Financial assets – Subsequent measurement and gains and losses:

Financial assets at FVTPL	These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss.
Financial assets at amortised cost	These assets are subsequently measured at amortised cost using the effective interest method. The amortised cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.
Debt investments at FVOCI	These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognised in profit or loss. Other net gains and losses are recognised in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss.
Equity investments at FVOCI	These assets are subsequently measured at fair value. Dividends are recognised as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognised in OCI and are never reclassified to profit or loss.

Financial liabilities – Classification, subsequent measurement and gains and losses:
Financial liabilities are classified as measured at amortised cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognised in profit or loss. Other financial liabilities are subsequently measured at amortised cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognised in profit or loss. Any gain or loss on derecognition is also recognised in profit or loss.

(c) Derecognition

Financial assets
Viohalco derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred or in which Viohalco neither transfers nor retains substantially all of the risks and rewards of ownership and it does not retain control of the financial asset.

Viohalco enters into transactions whereby it transfers assets recognised in its statement of financial position, but retains either all or substantially all of the risks and rewards of the transferred assets. In these cases, the transferred assets are not derecognised.

Financial liabilities
Viohalco derecognises a financial liability when its contractual obligations are discharged or cancelled, or expire. Viohalco also derecognises a financial liability when its terms are modified and the cash flows of the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognised at fair value.

On derecognition of a financial liability, the difference between the carrying amount extinguished and the consideration paid (including any non-cash assets transferred or liabilities assumed) is recognised in profit or loss.

(d) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, Viohalco currently has a legally enforceable right to set off the amounts and it intends either to settle them on a net basis or to realise the asset and settle the liability simultaneously.

(e) Derivatives and hedge accounting

Viohalco has elected not to adopt the provisions of IFRS 9 regarding the hedge accounting and will continue applying IAS 39.

Viohalco's companies hold derivative financial instruments designated as fair value or cash flow hedges. Derivatives are used to cover risks arising from fluctuations in prices of metals, foreign exchange rates, interest rates on borrowings and energy prices (natural gas).

Derivatives are initially measured at fair value; any directly attributable transaction costs are recognised in profit or loss as incurred. Subsequent to initial recognition, derivatives are measured at fair value and changes therein are generally

recognised in profit or loss, unless the instrument qualifies for cash flow hedge accounting. Gain or losses from derivatives are classified as operating or financing expense according to the classification of the hedged item.

Fair value hedge
Derivatives are designated as fair value hedges when the exposure to changes in the fair value of a recognized financial asset or liability is hedged.

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognised in the Consolidated Statement of Profit or Loss, along with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

Cash flow hedge
The effective portion of changes in the fair value of derivatives designated as cash flow hedges is recognised in the 'Hedging reserve'. Any ineffective proportion is recognized immediately in profit or loss.

The amounts recorded in "Hedging Reserve" are reclassified to the consolidated statement of profit or loss in the same period or periods during which the hedged forecast cash flows affect profit or loss or the hedged item affects profit or loss. When a hedge item is sold or when the hedging proportion no longer meets the hedge accounting criteria, hedge accounting is discontinued prospectively, the amounts recorded in 'Hedging reserve' remain as a reserve and are reclassified to the consolidated statement of profit or loss when the hedged asset affects profits or losses.

In the case of a hedge on a forecast future transaction which is no longer expected to be realized, the amounts recorded in 'Hedging reserve' are reclassified to the consolidated statement of profit or loss.

Viohalco's companies examine the effectiveness of the cash flow hedge at inception (prospectively) by comparing the critical terms of the hedging instrument with the critical terms of the hedged item, and then at every reporting date (retrospectively), the effectiveness of the cash flow hedge by applying the dollar offset method on a cumulative basis is examined.

5.16. Cash & cash equivalents

Cash and cash equivalents comprise cash on hand and deposits held at call with financial institutions and short-term highly liquid deposits with a maturity of three months or less, that are readily convertible to a known amount of cash and subject to an insignificant risk of changes in value.

5.17. Share capital

Shareholder's equity is composed of ordinary shares.
Incremental costs directly attributable to the issue of ordinary shares are recognised as a deduction from equity. Income tax relating to transaction costs of an equity transaction is accounted in equity (see note 5.7).

5.18. Provisions

Provisions are measured by discounting the expected future cash flows at a pre-tax rate. The discount rate used for the determination of present value reflects current market assessments of the time value of money and the risks specific to the obligation.

Provisions are recognised when:
(a) There is a present legal or constructive obligation as a result of past events.
(b) Payment is probable to settle the obligation.
(c) The amount of the payment in question can be reliably estimated.

More specifically:
Provisions for pending court rulings are recognised when it is more likely than not, that a present obligation from this litigation exists, and payment is probable.

Assurance warranty provisions are recognised when the product is sold and according to historical experience (probability that sold products will need to be replaced). The initial estimate of warranty-related costs is revised annually.

Restructuring provisions are recognised only when Viohalco has a constructive obligation, which is when a detailed formal plan identifies the business or part of the business concerned, the location and number of employees affected, a detailed estimate of the associated costs and an appropriate timeline, and the employees affected have been notified of the plan's main features or when the company has already started to implement the plan.

A provision for onerous contracts is measured at the present value of the lower of the expected cost of terminating a contract and the expected net cost of continuing with the contract. Before the provision is established, Viohalco recognises any impairment loss on the associated assets with the contract.

5.19. Earnings per Share

Viohalco presents basic and diluted earnings per share. Basic earnings per share are calculated by dividing the net profit/loss attributable to holders of the Company's ordinary shares by the average weighted number of outstanding ordinary shares during each period.

Diluted earnings per share are determined by adjusting the profit or loss attributable to holders of ordinary shares and the average weighted number of outstanding ordinary shares by the effect of all diluted eventual ordinary shares consisting of convertible notes and shares with options granted to the staff.

5.20. Operating profit

Operating profit is the result generated from the continuing principal revenue-producing activities of Viohalco as well as other income and expenses related to operating activities. Operating profit excludes net finance costs, share of profit of equity-accounted investees and income taxes.

5.21. Fair value measurement

'Fair value' is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or, in its absence, the most advantageous market to which Viohalco has access at that date. The fair value of a liability reflects its non-performance risk.

A number of Viohalco's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities.

When one is available, Viohalco measures the fair value of an instrument using the quoted price in an active market for that instrument. A market is regarded as 'active' if transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

If there is no quoted price in an active market, then Viohalco uses valuation techniques that maximise the use of relevant observable inputs and minimise the use of unobservable inputs. The chosen valuation technique incorporates all of the factors that market participants would take into account in pricing a transaction.

If an asset or a liability measured at fair value has a bid price and an ask price, then Viohalco measures assets and long positions at a bid price and liabilities and short positions at an ask price.

The best evidence of the fair value of a financial instrument on initial recognition is normally the transaction price – i.e. the fair value of the consideration given or received. If Viohalco determines that the fair value on initial recognition differs from the transaction price and the fair value is evidenced neither by a quoted price in an active market for an identical asset or liability, nor based on a valuation technique for which any unobservable inputs are judged to be insignificant in relation to the measurement, then the financial instrument is initially measured at fair value, adjusted to defer the difference between the fair value on initial recognition and the transaction price. Subsequently, that difference is recognised in profit or loss on an appropriate basis over the life of the instrument but no later than when the valuation is wholly supported by observable market data or the transaction is closed out.

5.22. CO2 Emission rights

Emission rights are accounted for under the net liability method, based on which Viohalco companies recognize a liability for emissions during the calendar year. Viohalco companies estimate the free allowances allocated and the emissions produced during the year. When emissions exceed free allowances, the companies recognize the future liability based on the net deficit and the budget estimate for the EUA price during the year. The projected deficit is covered at market prices by purchasing EUAs either on a forward or spot basis. The total cost of all forward and spot purchases represents the realized liability during the year.

5.23. New standards, amendment to standards and interpretations of IFRS's

A number of new or amended standards became applicable for the current financial year and subsequent years. Viohalco has applied all of the new standards, interpretations and amendments to existing standards that were mandatory for the first time in the fiscal year beginning 1 January 2022 and none of the new or amended standards and interpretations has had material impact on recognition and measurement in the Consolidated Financial Statements.

Standards and Interpretations effective for the current financial year

IFRS 16 (Amendment) 'Covid-19-Related Rent Concessions'
The amendment extends the application period of the practical expedient in relation to rent concessions by one year to cover rental concessions that reduce leases due only on or before 30 June 2022.

IAS 16 (Amendment) 'Property, Plant and Equipment – Proceeds before Intended Use
The amendment prohibits an entity from deducting from the cost of an item of PP&E any proceeds received from selling items produced while the entity is preparing the asset for its intended use. It also requires entities to separately disclose the amounts of proceeds and costs relating to such items produced that are not an output of the entity's ordinary activities.

IAS 37 (Amendment) 'Onerous Contracts – Cost of Fulfilling a Contract'
The amendment clarifies that 'costs to fulfil a contract' comprise the incremental costs of fulfilling that contract and an allocation of other costs that relate directly to fulfilling contracts. The amendment also clarifies that, before a separate provision for an onerous contract is established, an entity recognises any impairment loss that has occurred on assets used in fulfilling the contract, rather than on assets dedicated to that contract.

IFRS 3 (Amendment) 'Reference to the Conceptual Framework'
The amendment updated the standard to refer to the 2018 Conceptual Framework for Financial Reporting, in order to determine what constitutes an asset or a liability in a business combination. In addition, an exception was added for some types of liabilities and contingent liabilities acquired in a business combination. Finally, it is clarified that the acquirer should not recognise contingent assets, as defined in IAS 37, at the acquisition date.

Annual Improvements to IFRS Standards 2018–2020

IFRS 9 'Financial instruments'
The amendment addresses which fees should be included in the 10% test for derecognition of financial liabilities. Costs or fees could be paid to either third parties or the lender. Under the amendment, costs or fees paid to third parties will not be included in the 10% test.

IFRS 16 'Leases'
The amendment removed the illustration of payments from the lessor relating to leasehold improvements in Illustrative Example 13 of the standard in order to remove any potential confusion about the treatment of lease incentives.

Standards and Interpretations effective for subsequent periods

IAS 1 (Amendments) 'Presentation of Financial Statements' and IFRS Practice Statement 2 'Disclosure of Accounting policies'
(effective for annual periods beginning on or after 1 January 2023)
The amendments require companies to disclose their material accounting policy information and provide guidance on how to apply the concept of materiality to accounting policy disclosures.

IAS 8 (Amendments) 'Accounting policies, Changes in Accounting Estimates and Errors: Definition of Accounting Estimates'
(effective for annual periods beginning on or after 1 January 2023)
The amendments clarify how companies should distinguish changes in accounting policies from changes in accounting estimates.

IAS 12 (Amendments) 'Deferred tax related to Assets and Liabilities arising from a Single Transaction' (effective for annual periods beginning on or after 1 January 2023)

The amendments require companies to recognise deferred tax on transactions that, on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. This will typically apply to transactions such as leases for the lessee and decommissioning obligations.

IFRS 17 (Amendment) 'Initial Application of IFRS 17 and IFRS 9 – Comparative Information' (effective for annual periods beginning on or after 1 January 2023)

The amendment is a transition option relating to comparative information about financial assets presented on initial application of IFRS 17. The amendment is aimed at helping entities to avoid temporary accounting mismatches between financial assets and insurance contract liabilities, and therefore improve the usefulness of comparative information for users of financial statements.

IAS 1 'Presentation of Financial Statements' (Amendments) (effective for annual periods beginning on or after 1 January 2024)

- **2020 Amendment 'Classification of liabilities as current or non-current'**
  The amendment clarifies that liabilities are classified as either current or non-current depending on the rights that

exist at the end of the reporting period. Classification is unaffected by the expectations of the entity or events after the reporting date. The amendment also clarifies what IAS 1 means when it refers to the 'settlement' of a liability. The amendment has not yet been endorsed by the EU.

- **2022 Amendments 'Non-current liabilities with covenants'**
  The new amendments clarify that if the right to defer settlement is subject to the entity complying with specified conditions (covenants), this amendment will only apply to conditions that exist when compliance is measured on or before the reporting date. Additionally, the amendments aim to improve the information an entity provides when its right to defer settlement of a liability is subject to compliance with covenants within twelve months after the reporting period.
  The 2022 amendments changed the effective date of the 2020 amendments. As a result, the 2020 and 2022 amendments are effective for annual reporting periods beginning on or after 1 January 2024 and should be applied retrospectively in accordance with IAS 8. As a result of aligning the effective dates, the 2022 amendments override the 2020 amendments when they both become effective in 2024. The amendments have not yet been endorsed by the EU.

IFRS 16 (Amendment) 'Lease Liability in a Sale and Leaseback' (effective for annual periods beginning on or after 1 January 2024)
The amendment clarifies how an entity accounts for a sale and leaseback after the date of the transaction. Sale and leaseback transactions where some or all the lease payments are variable lease payments that do not depend on an index or rate are most likely to be impacted. An entity applies the requirements retrospectively back to sale and leaseback transactions that were entered into after the date when the entity initially applied IFRS 16. The amendment has not yet been endorsed by the EU.

6. Operating segments

A. Basis for the division into segments

For management purposes, Viohalco is split into seven major strategic reportable segments devided in two divisions, which operate in different industries:

Industrial Division
- Aluminium segment;
- Copper segment;
- Cables segment;
- Steel pipes segment;
- Steel segment;
- Other activities segment.

Real Estate Division
- Real estate segment.

These segments offer different products and services, and are managed separately because they require different technology and marketing strategies.

Such structural organization is determined by the nature of risks and returns associated with each business segment. It is based on the management structure, as well as the internal reporting system. It represents the basis on which Viohalco reports its segmental information.

The segment analysis presented in these consolidated financial statements reflects operations analysed by the business. This is the way the chief operating decision maker of Viohalco regularly reviews its' operating results in order to allocate resources to segments and in assessing their performance.

For the purposes of segmental reporting, all Viohalco companies, except those operating as trading companies, have been assigned to a specific reportable segment.

Regarding the trading companies of Viohalco, their profit or loss and balance sheet figures have been allocated to the reportable segments, according to the nature of their transactions.

A brief description of the segments is as follows:

Aluminium: ElvalHalcor through its aluminium rolling division (Elval), its subsidiaries Symetal S.A., Elval Colour S.A. and Vepal S.A. along with Bridgnorth Aluminium and Etem Extrusions deliver a wide variety of products from aluminium coils and sheets for general applications and aluminium foil for household use, to special products, such as, rolled and extruded aluminium products for shipbuilding, automotive and construction industries, and lithographic coils.

Copper: ElvalHalcor through its copper tubes division (Halcor) and its subsidiary Sofia Med S.A. produce a wide range of copper and copper alloy products that span from copper and brass tubes, copper strips, sheets and plates, to copper bus bars and rods.

Cables: Hellenic Cables companies consist one of the largest cable producers in Europe, manufacturing power, telecommunication and submarine cables, as well as enamelled wires and compounds.

Steel Pipes: Corinth Pipeworks engages in the production of steel pipes for the transportation of natural gas, oil and water networks, as well as steel hollow sections which are used in construction projects.

Steel: Sidenor Steel Industry, Stomana Industry and their subsidiaries manufacture long, flat and downstream steel products.

Real estate: Viohalco derives value from the real estate assets of its subsidiaries by developing and managing large-scale commercial and industrial properties.

Other Activities: Other activities mainly encompass expenses incurred by the parent (holding) company, along with the results of companies which operate in the Technology, R&D&I and resource recovery segments. None of these activities met the quantitative thresholds for reportable segments in 2022 or 2021.

B. Information about reportable segments

The information disclosed in the tables below is derived directly from the internal financial reporting system used by the executive management (i.e. chief operating decision maker) to monitor and evaluate the performance of the operating segments separately.

The following tables illustrate the information about the reportable segments profit or loss, assets and liabilities as at 31 December 2022 and 2021.

Revenue and operating profit per segment for 2022 were as follows:

	Industrial Division								
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel Pipes**	**Steel**	**Other activities**	**Total Industrial**	**Real Estate**	**Consolidated**
Total revenue per segment	3,520,975	2,496,410	1,702,484	685,416	2,427,924	317,588	11,150,797	42,530	**11,193,327**
Inter-company revenue	-1,208,377	-685,361	-807,117	-228,180	-1,036,417	-230,020	-4,195,471	-12,121	**-4,207,592**
Revenue from external customers	**2,312,598**	**1,811,050**	**895,367**	**457,236**	**1,391,507**	**87,568**	**6,955,326**	**30,409**	**6,985,735**
Gross profit	**291,031**	**125,564**	**119,816**	**30,021**	**172,868**	**21,040**	**760,340**	**11,445**	**771,784**
Operating result (EBIT)	**210,998**	**63,439**	**89,049**	**15,654**	**113,462**	**1,225**	**493,826**	**3,424**	**497,250**
Finance income	494	393	2,351	1,408	718	734	6,098	2,309	**8,407**
Finance cost	-34,263	-17,380	-27,871	-13,053	-26,849	-2,670	-122,086	-7,641	**-129,727**
Share of profit/ loss (-) of equity-accounted investees, net of tax	1,374	-6,814	0	4,131	223	0	-1,086	-279	**-1,365**
Profit/Loss (-) before income tax expense	**178,602**	**39,637**	**63,529**	**8,140**	**87,554**	**-710**	**376,752**	**-2,188**	**374,564**
Income tax expense (-)	-36,403	-9,216	-13,357	3,437	-17,236	1,760	-71,015	-1,160	**-72,175**
Net Profit/Loss (-)	**142,200**	**30,421**	**50,172**	**11,577**	**70,318**	**1,049**	**305,737**	**-3,348**	**302,389**

Other information per segment for 2022 is as follows:

	Industrial Division								
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel Pipes**	**Steel**	**Other activities**	**Total Industrial**	**Real Estate**	**Consolidated**
Equity accounted investees	9,725	249	0	15,963	1,244	806	27,987	8,651	**36,638**
Other assets	1,920,193	767,245	1,032,034	596,115	988,932	151,474	5,455,992	537,565	**5,993,557**
Segment assets	**1,929,917**	**767,494**	**1,032,034**	**612,077**	**990,176**	**152,280**	**5,483,979**	**546,217**	**6,030,196**
Segment liabilities	1,131,288	546,413	863,719	479,323	725,735	92,265	3,838,742	235,559	**4,074,301**
Capital expenditure	188,238	15,755	70,945	7,731	29,701	4,496	316,866	40,361	**357,227**
Depreciation and amortization	-61,302	-17,969	-18,894	-9,195	-30,948	-4,939	-143,247	-9,278	**-152,525**

Revenue and operating profit per segment for 2021 were as follows:

	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel Pipes	Steel	Other activities	Total Industrial	Real Estate	Consolidated
Total revenue per segment	2,595,628	2,193,360	1,528,529	249,301	1,801,307	246,009	8,614,134	30,813	**8,644,947**
Inter-company revenue	-917,710	-629,585	-771,359	-24,234	-733,525	-181,875	-3,258,288	-12,147	**-3,270,435**
Revenue from external customers	**1,677,918**	**1,563,775**	**757,170**	**225,067**	**1,067,782**	**64,134**	**5,355,846**	**18,667**	**5,374,512**
Gross profit	**147,873**	**125,054**	**94,442**	**15,157**	**181,255**	**23,310**	**587,091**	**3,555**	**590,645**
Operating result (EBIT)	**79,234**	**77,672**	**67,629**	**-8,305**	**134,716**	**4,307**	**355,253**	**19,144**	**374,396**
Finance income	238	433	220	16	419	400	1,726	645	**2,371**
Finance cost	-21,096	-15,057	-22,094	-7,504	-26,510	-1,894	-94,156	-4,097	**-98,253**
Share of profit/ loss (-) of equity-accounted investees, net of tax	1,180	-4,069	0	386	318	0	-2,185	-344	**-2,530**
Profit/Loss (-) before income tax expense	**59,556**	**58,979**	**45,754**	**-15,407**	**108,943**	**2,813**	**260,637**	**15,347**	**275,984**
Income tax expense (-)	-10,762	-9,052	-7,788	-451	-20,053	-7,490	-55,597	-399	**-55,996**
Net Profit/Loss (-)	**48,793**	**49,927**	**37,966**	**-15,859**	**88,891**	**-4,678**	**205,041**	**14,948**	**219,989**

Other information per segment for 2021 is as follows:

	Industrial Division								
Amounts in EUR thousands	Aluminium	Copper	Cables	Steel Pipes	Steel	Other activities	Total Industrial	Real Estate	Consolidated
Equity accounted investees	8,862	12,072	1,732	11,216	4,808	0	38,691	5,681	**44,372**
Other assets	1,585,081	775,230	775,950	363,552	975,740	171,046	4,646,598	547,450	**5,194,049**
Segment assets	**1,593,943**	**787,302**	**777,682**	**374,768**	**980,548**	**171,046**	**4,685,289**	**553,131**	**5,238,420**
Segment liabilities	987,696	558,339	658,508	256,574	782,036	82,348	3,325,502	257,324	**3,582,826**
Capital expenditure	165,634	15,131	34,992	9,551	27,039	1,671	254,017	12,008	**266,026**
Depreciation and amortization	-60,607	-16,846	-17,310	-8,938	-25,994	-4,303	-133,998	-8,777	**-142,775**

C. Geographic information

Viohalco's segments are managed on a worldwide basis, but operate manufacturing facilities and sales offices are located primarily in Greece, Germany, United Kingdom, France, Bulgaria, Romania, Serbia, North Macedonia and U.S.A.

The geographic information below analyses the consolidated non-current assets by the Company's country of domicile and other countries. In presenting the geographic information, segment assets were based on the geographic location of the assets. In Europe, assets' information for Greece and Belgium is reported separately.

Property, plant and equipment

	Balance at 31 December	
Amounts in EUR thousands	2022	2021
Belgium	1,293	1,368
Greece	1,742,991	1,611,432
Other	486,752	476,306
Total	**2,231,036**	**2,089,107**

Intangible assets and goodwill

	Balance at 31 December	
Amounts in EUR thousands	2022	2021
Belgium	3	11
Greece	37,819	35,029
Other	5,555	7,044
Total	**43,376**	**42,083**

Investment property

	Balance at 31 December	
Amounts in EUR thousands	**2022**	**2021**
Greece	310,948	280,091
Other	5,076	785
Total	**316,024**	**280,876**

Right of use assets

	Balance at 31 December	
Amounts in EUR thousands	**2022**	**2021**
Belgium	154	188
Greece	29,082	29,968
Other	6,042	4,133
Total	**35,279**	**34,288**

7. Revenue

Revenue is derived from contracts with customers and investment property rental income.

Amounts in EUR thousands	**2022**	**2021**
Rental income from investment property	21,050	11,472
Revenue from contracts with customers	6,964,685	5,363,040
Total	**6,985,735**	**5,374,512**

A. Disaggregation of revenue

In the following table, revenue from contracts with customers is disaggregated by primary geographical market and timing of revenue recognition. The table includes a reconciliation with the Viohalco's reportable segments (see Note 6).

For the year ended 31 December 2022

	Industrial Division								
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel Pipes**	**Steel**	**Other activities**	**Total Industrial**	**Real Estate**	**Consolidated**
Primary geographical markets									
Greece	176,535	92,022	330,909	34,129	359,965	32,034	**1,025,594**	9,358	**1,034,952**
European Union	1,434,210	1,188,903	296,312	128,142	838,513	26,821	**3,912,901**	0	**3,912,901**
Other European countries	332,962	297,199	148,061	28,706	189,252	3,999	**1,000,178**	0	**1,000,178**
Asia	72,479	99,404	103,062	6,785	1,386	23,648	**306,763**	0	**306,763**
America	280,283	99,674	9,555	253,255	599	238	**643,603**	0	**643,603**
Africa	15,508	27,235	7,278	720	1,793	162	**52,696**	0	**52,696**
Oceania	622	6,613	191	5,500	0	666	**13,592**	0	**13,592**
Total	**2,312,598**	**1,811,050**	**895,367**	**457,236**	**1,391,507**	**87,568**	**6,955,326**	**9,358**	**6,964,685**
Timing of revenue recognition									
Revenue recognised at a point in time	2,311,106	1,807,887	606,185	81,366	1,371,178	54,200	**6,231,923**	1,592	**6,233,515**
Products transferred over time	0	0	289,182	375,870	0	27	**665,079**	0	**665,079**
Services transferred over time	1,492	3,163	0		20,329	33,341	**58,325**	7,766	**66,091**
Total	**2,312,598**	**1,811,050**	**895,367**	**457,236**	**1,391,507**	**87,568**	**6,955,326**	**9,358**	**6,964,685**

For the year ended 31 December 2021

	Industrial Division								
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel Pipes**	**Steel**	**Other activities**	**Total Industrial**	**Real Estate**	**Consolidated**
Primary geographical markets									
Greece	136,303	67,146	258,470	18,098	271,705	21,461	773,182	7,194	**780,377**
European Union	1,069,081	985,368	290,276	132,662	591,180	20,014	3,088,581		**3,088,581**
Other European countries	170,422	294,133	112,412	16,685	197,076	2,813	793,541	0	**793,541**
Asia	76,669	91,197	84,657	40,030	3,016	18,737	314,305	0	**314,305**
America	211,308	82,563	8,683	16,792	804	429	320,579	0	**320,579**
Africa	13,892	38,485	2,673	800	4,001	39	59,890	0	**59,890**
Oceania	243	4,883	0	0	0	640	5,767	0	**5,767**
Total	**1,677,918**	**1,563,775**	**757,170**	**225,067**	**1,067,782**	**64,134**	**5,355,846**	**7,194**	**5,363,040**
Timing of revenue recognition									
Revenue recognised at a point in time	1,677,184	1,560,158	483,591	82,834	1,057,423	44,980	4,906,170	1,768	**4,907,938**
Products transferred over time	0	0	273,579	142,234	0	58	415,871	0	**415,871**
Services transferred over time	733	3,617	0	0	10,358	19,096	33,804	5,426	**39,231**
Total	**1,677,918**	**1,563,775**	**757,170**	**225,067**	**1,067,782**	**64,134**	**5,355,846**	**7,194**	**5,363,040**

Viohalco's consolidated revenue for 2022 amounted to EUR 6,986 million, increased by 30% compared to previous year (2021: 5,375 million), driven by increased sales prices.

Revenue expected to be recognised in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the reporting date amounts to EUR 525.6 million, from which EUR 463.4 million is expected to be recognised during 2023 and the remaining EUR 62.2 million is expected to be recognized during the periods from 2024 and onwards, based on the time schedules included in the open contracts on 31 December 2022, which have original expected durations of more than one year and revenue recognition started during 2022 or prior periods.

B. Contract balances

Contract assets primarily relate to the rights to consideration for work completed but not billed at the reporting date on customized products or energy projects. Contract assets are transferred to receivables when the rights become unconditional. This usually occurs when Viohalco companies issue an invoice to the customer (unless the invoice is issued in advance).

Contract liabilities primarily relate to the advance consideration received from customers for construction of customized products or energy projects for which revenue is recognized over time.

Contract assets mainly relate to cables and steel pipes segments, where amounts are billed as work progresses in accordance with agreed-upon contractual terms, either upon achievement of contractual milestones, or at the final delivery and acceptance of the products.

The following table provides information about contract assets and contract liabilities.

	As at	
Amounts in EUR thousands	**31 December 2022**	**31 December 2021**
Contract assets	199,839	101,371
Contract liabilities	-133,837	-61,371
Total	**66,002**	**40,000**

The movement in the contract assets and the contract liabilities balances during the period is described in the following table:

Amounts in EUR thousands	Contract assets	Contract liabilities
Balance at 1 January 2022	**101,371**	**61,371**
Increases due to unbilled receivables and changes in measure of progress	168,430	0
Revenue recognised relating to downpayments and deferred income balances as at the beginning of the period	0	-49,699
Transfers from contract assets recognised at the beginning of the period to receivables	-69,525	0
New downpayments and deferred income outstanding at year end	0	122,901
Impairment allowance	-12	0
Reversal of impairment allowance	127	0
Write-offs	-287	0
Loss of Control/Disposal of subsidiary	0	-9
Reclassifications	189	0
Reclassification to assets held for sale	0	-727
Foreign exchange differences	-454	0
Balance as at 31 December 2022	**199,839**	**133,837**

Amounts in EUR thousands	Contract assets	Contract liabilities
Balance at 1 January 2021	**68,517**	**54,021**
Increases due to unbilled receivables and changes in measure of progress	91,311	0
Revenue recognised relating to downpayments and deferred income balances as at the beginning of the period	0	-32,480
Transfers from contract assets recognised at the beginning of the period to receivables	-58,283	0
New downpayments and deferred income outstanding at year end	0	39,934
Impairment allowance	-175	0
Reversal of impairment allowance	0	0
Other movements	0	-96
Foreign exchange differences	0	-9
Balance at 31 December 2021	**101,371**	**61,371**

Contract assets increased by EUR 98.5 million compared previous year, due to the growth in project-related activities of cables segment and the timing of invoicing of specific ongoing projects for which the production started of steel pipes segment, during the second half of the year.

Contract liabilities, primarily, relate to the advance consideration received from customers. Contract liabilities, which are expected to be settled within more than one year are classified as non-current liabilities (EUR 9,889 thousand as of 31 December 2022). Contract liabilities increased by EUR 72.4 million compared to 31 December 2021, mainly due to the downpayments received close to year's end for the execution of energy projects in steel pipes segment.

C. Contract costs

Viohalco companies' recognized contracts costs, expect that fees, commissions and other costs associated with obtaining contracts for energy projects are recoverable.

Therefore, as at 31 December 2022, Viohalco has recorded as contract costs an amount of EUR 236 thousand, out of which an amount of EUR 222 thousand is classified as non-current assets. During the year, amortization of contract costs amounted EUR 153 thousand.

D. Significant judgements in revenue recognition

In recognizing revenue, Viohalco companies make judgements regarding the timing of satisfaction of performance obligations, the identification of distinct performance obligations, as well as the transaction price and the amounts allocated to performance obligations.

The most significant of these estimates are described below:

- Contracts including multiple performance obligations are mainly identified in cables segment for turnkey projects and for customized products in cables, steel pipes and aluminium segments, as described in Note 5.3. In such cases, the total transaction price is allocated to these performance obligations on the basis of the relative standalone selling prices of the promised goods and services. If these goods and services are not sold separately, a cost plus margin approach is used to estimate the standalone selling price.
- Some contracts with customers involve a variable transaction cost as they include a volume or trade discount based on

the total sales to the customer within a time period. In such case revenue is recognized based on the anticipated sales to the customer throughout the year, as these sales are realized and new orders are received and up to an extent it is highly probable that a significant reversal of cumulative revenue recognized will not be needed.

- A significant portion of contracts with customers, include transportation service. Transportation is considered as a separate performance obligation, if the customer can benefit from the offered transportation service and the promise to transport the goods to the customer is separately identifiable from the production of these customized products. Revenue for orders of standardized products is recognized at a specific point in time and transportation is not considered a separate performance obligation.

8. Other income and expenses

A. Other Income

		For the year ended 31 December	
Amounts in EUR thousands	**Note**	**2022**	**2021**
Government grants/subsidies		1,524	5,650
Amortization of grants received	28	3,411	2,886
Rental income		854	647
Income from fees, commissions and costs recharged		4,758	1,357
Damage Compensation		941	834
Gain on sale of PP&E and intangible assets		432	451
Gain on sale of investment property		340	476
Reversal of provisions	29	142	142
Reversal of impairment loss of PP&E and investment property		14,342	27,280
Other		2,956	3,699
Total other income		**29,699**	**43,422**

B. Other Expenses

		For the year ended 31 December	
Amounts in EUR thousands	**Note**	**2022**	**2021**
Impairment loss of PP&E and investment property		20,431	11,705
Write-off of PP&E and intangible assets		3,429	1,927
Impairment loss of associates/ Joint Ventures		9,260	0
Loss on sale of PP&E		28	622
Damages incurred		1,027	355
Employee benefits	12	0	358
Provisions on antidumping duties		0	12,842
Penalties		274	413
Depreciation and amortisation		148	2,087
Loss from business combinations		2,146	21
Other provisions		0	149
Other		3,495	3,523
Total other expense		**40,238**	**34,003**
Net other income/ expense (-)		**-10,539**	**9,419**

Net Other income/expenses for the year ended 31 December 2022 amounted to a loss of EUR 10.5 million compared to gain of EUR 9.4 million during 2021, due to the following factors:

- During 2022, the Joint Venture of Elvalhalcor, Nedzink, faced significant delays in the full operation of new equipment which led to loss of sales. Additionally, the challenging economic conditions prevailing worldwide, with increased benchmark interest rates and increased energy costs, deteriorated 2022 results more than initially expected. As a consequence, the annual impairment test performed for the participation to the Joint Venture, indicated the recognition of an impairment loss of EUR 9.2 million.
- During 2022, the following corporate transactions took place, resulting in a loss of EUR 2.1 million:
  - In June 2022, Sidenor, Viohalco's subsidiary in steel segment, sold the percentage held (34%) in AWM SPA, resulting to a loss of EUR 1.3 million.
  - In August 2022, CPW America, Viohalco's subsidiary in steel pipes segment, disposed the interest held (19.4%) in Bellville Tube Company, recording a loss of EUR 156 thousand (see also note 20).
  - In December 2022, Viohalco lose the control in the participation to Mettalourgia Attikis, due to management restructuring. As a result, a loss of EUR 647 thousand was recognized.

- During 2022, an impairment loss of EUR 6.09 million - on net basis - for own used property and investment property was recognized (2021: reversal of impairment loss EUR 15.7 million), due to changes in the fair value of real estate portfolio. Impairment loss and reversal of impairment loss are described in notes 17 and 19.
- During 2022, the US Department of Commerce (DoC) published its final results in the administrative proceedings conducted by the DoC for the period from April 19, 2019 through April 30, 2020 ("POR") in connection with an antidumping ("AD") order on large diameter welded pipe (LDWP) from Greece. As a result, the DoC determined for the POR an antidumping duty rate of 41.04 percent based on total adverse facts available (AFA) for mandatory respondent Corinth Pipeworks S.A., Viohalco's subsidiary in steel pipes segment. Corinth Pipeworks filed an appeal before the U.S. Court of International Trade against the decision of the DoC while continuing to actively work with the DoC in order to reverse the final determination. The one-off charge related to the abovementioned case amounts to EUR 12.8 million (USD 14 million plus interest) and is included in 'Provisions on antidumping duties' line for the year 2021, as it relates to sales performed in previous years.

C. Expenses by nature

		For the year ended 31 December	
Amounts in EUR thousands	**Note**	**2022**	**2021**
Cost of inventories recognized as an expense		4,926,058	3,812,652
Employee benefits	12	441,393	368,796
Energy		306,333	178,289
Depreciation and amortisation		152,377	140,688
Amortization of contract costs		153	156
Taxes and duties		24,309	19,097
Insurance expenses		39,500	25,559
Rental fees		9,936	5,303
Transportation costs (goods and materials)		213,800	147,833
Promotion and advertising		8,473	4,879
Third party fees and benefits		257,207	186,804
Other provisions		70	155
Gains (-)/losses from derivatives		-42,036	10,843
Storage and packing		15,533	11,224
Commissions		14,303	13,820
Foreign exchange gains(-)/losses		9,245	451
Maintenance expenses		61,857	50,394
Royalties		3,007	2,371
Consumption of production tools		15,045	12,824
Other expenses		17,218	14,701
Total		**6,473,779**	**5,006,838**

The key drivers of variation of operating expenses during 2022 are the following:

- The increase in sales volumes and metal prices during 2022, affected cost of sales and related operating expenses (transportation cost for goods and materials, insurance expenses, storage and packing, maintenance expenses) which have increased proportionally.
- The increase in Energy reflects the global increase in energy cost that began within 2021.
- The increase in "Third party fees and benefits" is attributed mainly to project-related services offered by cables and steel pipes segments during 2022 compared to prior year by subcontractors. In 2022 steel pipes segment used subcontractors for coating services in the context of assigned projects, while the installation services in the context of turnkey contracts executed by subsidiaries in the cables segment during 2022 were significantly higher compared to 2021.

The aggregate amount of research and development expenditure recognized as an expense during 2022 amounts to EUR 17.6 million (2021: EUR 13.3 million).

9. Net finance cost

	For the year ended 31 December	
Amounts in EUR thousands	**2022**	**2021**
Income		
Interest income	548	557
Foreign exchange gains	1,979	950
Dividend income	260	220
Gain from derivatives	5,620	644
Finance income	**8,407**	**2,371**
Expense		
Interest expense and related costs	123,801	94,574
Interest on leases	1,915	2,076
Foreign exchange losses	3,282	1,604
Losses from derivatives	729	0
Finance cost	**129,727**	**98,253**
Net finance income/cost (-)	**-121,320**	**-95,882**

Interest expenses and related costs increased by 30.9% compared to 2021 as a result of the higher working capital needs and higher interest rates due the increase in EURIBOR rates, especially during the second half of the year.

In order to be secured from interest rates volatility, Viohalco subsidiaries entered into interest rates swaps contracts. The result and valuation of these derivatives amounted to gain EUR 4.9 million -on a net basis.

10. Earnings per share

Considering that there are neither share options, nor convertible bonds, basic and diluted earnings per share are identical and have been based on the following profit attributable to the ordinary shareholders and weighted-average numbers of ordinary shares outstanding.

A. Profit/loss (-) attributable to the owners of the company

	For the year ended 31 December	
Amounts in EUR thousands	**2022**	**2021**
Profit/loss (-) attributable to the owners of the Company	**266,133**	**194,994**

B. Weighted-average number of ordinary shares outstanding

In thousands of shares	**2022**	**2021**
Issued ordinary shares at 1 January	**259,190**	**259,190**
Effect of shares issued related to the mergers	0	0
Weighted average number of ordinary shares at 31 December	**259,190**	**259,190**

The number of equity shares in 2022 remains equal to 2021, as no shares were issued during the year.

C. Earnings per share

The basic and diluted earnings per share are as follows:

Earnings per share (in EUR per share)	**2022**	**2021**
Basic and diluted	**1.0268**	**0.7523**

11. Employee benefits

Amounts in EUR thousands	Note	2022	2021
Net defined benefit liability		24,357	24,183
Liability for social security contributions	27	15,437	12,465
Total employee benefit liabilities		**39,794**	**36,648**
Non-current		24,357	24,183
Current		15,437	12,465

For details on the related employee benefit expenses, see Note 12.

A. Post-employment plans

The following post-employment plans exist:

Defined contribution plans
All employees of Viohalco companies are insured for their main pension by the respective social insurance organizations as required by the local legislation. Once the contributions have been paid, Viohalco companies have no further payment obligations. The regular contributions constitute net periodic costs for the year in which they are due, and as such are included in employee benefit expenses.

Defined benefit plans
The employees of Viohalco's companies in some countries, mainly in Greece and Bulgaria, are entitled to receive a lump sum when they retire. This lump sum is determined in accordance with the years of service and the salary at the retirement date. This obligation meets the definition of defined benefit plans and charges the accumulated benefits through profit or loss in each period with a corresponding increase of the retirement liability. Benefits paid to pensioners during each period are charged against this liability. Viohalco's companies' liability for personnel benefits as of 31 December 2022 and 2021 is EUR 24,357 thousand and EUR 24,183 thousand respectively. These plans are unfunded.

B. Movement in net defined benefit liability

The following table shows the reconciliation from the opening balance to the closing balances for net defined benefit liability and its components.

Amounts in EUR thousands	2022	2021
Balance at 1 January	**24,183**	**21,913**
Included in profit or loss		
Current service cost	2,688	2,118
Past service cost	1,129	230
Termination loss	2,710	5,152
Interest cost/income (-)	71	58
	6,598	**7,558**
Included in OCI		
Remeasurement loss/gain (-)		
Actuarial loss/gain (-) arising from:		
- Demographic assumptions	306	-46
- Financial assumptions	-3,385	764
- Experience adjustments	661	345
	-2,418	**1,063**
Other		
Benefits paid	-3,747	-6,344
Reclassification to Held for sale	-175	0
Loss of Control/Disposal of subsidiary	-94	0
Foreign exchange differences	8	-6
	-4,007	**-6,350**
Balance at 31 December	**24,357**	**24,183**

During the financial year 2022, Viohalco and its companies paid EUR 3.7 million (2021: EUR 6.3 million) in benefits in respect of employees who left during the year. An additional cost that arose due to these payments was recognized (termination loss of EUR 2.7 million – 2021: EUR 5.2 million). More specifically, in the cases of dismissal, voluntary withdrawals with benefit payment and retirement, the additional cost is the difference between the benefit paid and the amount recorded in the defined benefit liability for the respective employees.

C. Defined benefit obligation

(a) Actuarial assumptions

The following were the weighted average principal actuarial assumptions at the reporting date:

	2022	2021
Discount rate	3.69%	0.31%
Price inflation	2.72%	2.06%
Future salary growth	3.37%	2.66%
Plan duration (in years)	5	6

Assumptions regarding future mortality have been based on Swiss mortality table EVK2000.

(b) Sensitivity analysis

The sensitivity analysis for each significant actuarial assumption which was reasonably possible, at the end of the reporting period, shows how the defined benefit obligation (DBO) would have been affected by those changes as follows:

	2022	2021
Sensitivity 1 (discount rate plus 0.5%) - % Difference in DBO	-2.40%	-2.95%
Sensitivity 2 (discount rate minus 0.5%) - % Difference in DBO	2.52%	3.14%
Sensitivity 3 (salary growth rate plus 0.5%) - % Difference in DBO	2.36%	2.84%
Sensitivity 4 (salary growth rate minus 0.5%) - % Difference in DBO	-2.15%	-2.70%

The above sensitivity analysis is based on a change in one assumption while all other assumptions remain constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated.

When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognized on the statement of financial position. The methods and the formula of the assumptions used for the defined analysis have not changed compared to the previous year.

The expected maturity analysis of undiscounted pension benefits is as follows:

Amounts in EUR thousands	2022	2021
Less than a year	6,899	5,654
Between 1 and 2 years	1,547	1,432
Between 2 and 5 years	7,158	5,574
Over 5 years	16,588	13,195
Total	**32,193**	**25,855**

12. Employee benefit expenses

Amounts in EUR thousands	Note	2022	2021
Wages and salaries		338,564	283,576
Social security contributions		63,798	53,920
Defined contribution plans		1,273	1,152
Defined benefit plans	11	6,598	7,558
Other employee benefits		33,256	25,286
Total		**443,489**	**371,492**

Employee benefits have been allocated as follows:

Amounts in EUR thousands	Note	2022	2021
Cost of goods sold	8	317,369	258,985
Selling and distribution expenses	8	53,073	47,935
Administrative expenses	8	70,951	61,875
Other expenses	8	0	358
Capitalised employee benefits in projects under construction		2,095	2,338
Total		**443,489**	**371,492**

The number of employees, as well as their profile and gender, employed by Viohalco companies is presented in the following tables:

2022

	18 - 30	30-50	51+	Total
Male	1,103	5,147	2,779	**9,029**
Female	247	1,081	405	**1,733**
Total	**1,350**	**6,228**	**3,184**	**10,762**

	Office employees & professionals	Workers	Management	Total
Number of Employees	**2,756**	**6,966**	**1,040**	**10,762**

2021

	18 - 30	30-50	51+	Total
Male	986	4,715	2,518	**8,219**
Female	227	965	371	**1,563**
Total	**1,213**	**5,680**	**2,889**	**9,782**

	Office employees & professionals	Workers	Management	Total
Number of Employees	**2,689**	**6,187**	**906**	**9,782**

13. Income tax expense

A. Amounts recognised in profit or loss

Amounts in EUR thousands	2022	2021
Current tax	-73,474	-46,550
Deferred tax	1,299	-9,446
Income tax expense (-)	-72,175	-55,996

B. Amounts recognised in OCI

2022

Amounts in EUR thousands	Before tax	Related tax	Net of tax
Amounts recognized in the OCI			
Remeasurements of defined benefit liability	2,418	-536	1,881
Equity investments in FVOCI - net change in fair value	-1,061	-8	-1,069
Foreign currency translation differences	-5,530	0	-5,530
Gain / Loss (-) of changes in fair value of cash flow hedging - effective portion	37,233	-8,763	28,470
Gain / Loss (-) of changes in fair value of cash flow hedging - reclassified to profit or loss	-2,059	858	-1,201
Share of other comprehensive income of equity-accounted investees	-2	0	-2
Total	**30,998**	**-8,449**	**22,549**

2021

Amounts in EUR thousands	Before tax	Related tax	Net of tax
Amounts recognized in the OCI			
Remeasurements of defined benefit liability	-1,063	239	-823
Equity investments in FVOCI - net change in fair value	702	-17	684
Foreign currency translation differences	7,731	0	7,731
Gain / Loss (-) of changes in fair value of cash flow hedging - effective portion	4,839	-462	4,377
Gain / Loss (-) of changes in fair value of cash flow hedging - reclassified to profit or loss	-1,713	15	-1,699
Total	**10,495**	**-225**	**10,270**

C. Reconciliation of effective tax rate

Amounts in EUR thousands		2022	2021
Profit/loss (-) before income tax expense		**374,564**	**275,984**
Tax calculated at parent company's statutory income tax rate (2022 & 2021: 25.0%)		-93,641	-68,996
Effect of different tax rates in jurisdictions that Viohalco companies operate		18,772	17,017
Tax calculated at weighted average income tax rate (2022: 20.0% & 2021: 18.8%)		**-74,869**	**-51,979**
Adjustments for:			
Non-deductible expenses for tax purposes		-11,091	-9,936
Tax-exempt income		2,987	4,770
Tax incentives		1,602	769
Recognition of previously unrecognised tax losses, thin capitalization allowance or temporary differences of a prior period		5,703	2,012
Current-year losses for which no deferred tax asset is recognised		-1,453	-1,681
Tax-exempt reserves recognition		1,732	660
Withholding tax on international dividends		-53	-57
Change in tax rate or composition of new tax		-135	5,035
Derecognition of previously recognised deferred tax assets		0	-4,874
Prior year income tax adjustments		3,402	-714
Income tax expense reported in the statement of profit or loss (-) at the effective tax rate	**19%**	**-72,175**	**-55,996**

The corporate income tax rate in Belgium according to the applicable tax legislation is 25%. The profit is taxed at the applicable rate corresponding to the country in which each company is domiciled. According to the Greek law 4799/2021, enacted in May 2021, the corporate income tax rate for legal entities in Greece, where most of Viohalco subsidiaries are located, for the fiscal year 2021 and onwards is set at 22%.

The consolidated effective tax rate for 2022 was 19% (2021: 20%) due to the following reasons:

- The recognition of previously unrecognised deferred tax asset on prior years' tax losses carried forward, as the current assessment regarding the recoverability of available tax losses to offset future taxable income in steel pipes segment led to the recognition of deferred tax asset of EUR 4.6 million.
- Based on applicable Greek tax legislation, research and development (R&D) expenditure, including the tax depreciation costs of equipment and instruments used in R&D activities, may be deducted from gross income of a company with increased deduction rates. Viohalco subsidiaries in Greece made use of the above tax provisions and the estimate regarding the related tax benefit is presented in the line "Tax incentives".
- During 2022, Viohalco subsidiaries in aluminium segment recognized tax exempt reserves, according to the Greek Investment Incentives Law 4399/16.

D. Movement in deferred tax balances

2022

Net balance at 31 December

Amounts in EUR thousands	Net balance at 1 January	Recognised in profit or loss	Recognised in OCI	Foreign exchange differences	Change in tax rate recognised in profit or loss	Change in tax rate recognised in OCI	Loss of Control/ Disposal of subsidiary	Net	Deferred tax assets	Deferred tax liabilities
Property, plant & equipment	-108,365	-4,176	0	438	-244	0	-442	**-112,789**	264	-113,054
Right of use asset	5	-440	0	0	0	0	-45	**-480**	104	-584
Intangible assets	-354	-501	0	0	0	0	-4	**-859**	1,394	-2,253
Investment property	-2,598	189	0	0	0	0	0	**-2,410**	90	-2,500
Other investments	1,471	-271	0	0	0	0	-2,117	**-917**	143	-1,060
Derivatives	-1,233	-1,008	-7,879	11	20	-26	0	**-10,115**	29	-10,144
Inventories	-58	2,533	0	0	0	0	-56	**2,419**	2,419	0
Loans and borrowings	-1,117	775	0	0	0	0	0	**-342**	602	-944
Employee benefits	4,014	842	-536	-1	0	0	-51	**4,267**	4,346	-79
Provisions / Accruals	6,468	-12	0	182	0	0	-360	**6,278**	6,278	0
Contract with customers	-11,757	-5,760	0	0	0	0	0	**-17,517**	1,111	-18,628
Contract liabilities	-9	0	0	0	0	0	0	**-9**	0	-9
Other items	3,099	-1,621	0	-18	0	0	-67	**1,392**	2,220	-828
Thin capitalisation	24,229	-633	0	0	0	0	0	**23,596**	23,596	0
Tax losses carried forward	2,083	11,518	0	-66	90	0	0	**13,625**	13,625	0
Tax assets/liabilities (-) before set-off	**-84,122**	**1,433**	**-8,415**	**546**	**-135**	**-26**	**-3,143**	**-93,860**	**56,221**	**-150,082**
Set-off tax									-46,593	46,593
Net tax assets/liabilities (-)								**-93,860**	**9,628**	**-103,488**

2021

Net balance at 31 December

Amounts in EUR thousands	Net balance at 1 January	Recognised in profit or loss	Recognised in OCI	Foreign exchange differences	Change in tax rate recognised in profit or loss	Change in tax rate recognised in OCI	Loss of Control/ Disposal of subsidiary	Net	Deferred tax assets	Deferred tax liabilities
Property, plant & equipment	-109,294	-5,500	0	-404	6,832	0	0	**-108,365**	281	-108,646
Right of use asset	97	-27	0	0	-65	0	0	**5**	424	-419
Intangible assets	1,159	-1,628	0	0	115	0	0	**-354**	1,820	-2,174
Investment property	-606	-2,189	0	0	196	0	0	**-2,598**	89	-2,688
Other investments	875	607	-4	0	7	-13	0	**1,471**	1,550	-79
Derivatives	-1,074	377	-390	-19	-70	-58	0	**-1,233**	462	-1,695
Inventories	-350	176	0	0	116	0	0	**-58**	192	-249
Loans and borrowings	-1,564	308	0	0	139	0	0	**-1,117**	216	-1,333
Employee benefits	4,284	-181	45	-1	-327	195	0	**4,014**	4,126	-111
Provisions / Accruals	4,016	2,724	0	-4	-268	0	0	**6,468**	6,468	0
Contract with customers	-12,625	-40	0	-10	918	0	0	**-11,757**	1,335	-13,092
Contract liabilities	-9	0	0	0	1	0	0	**-9**	0	-9
Other items	4,269	-992	0	-3	-183	0	7	**3,099**	4,274	-1,175
Thin capitalisation	30,499	-3,879	0	-2	-2,389	0	0	**24,229**	24,229	0
Tax losses carried forward	6,272	-4,236	0	36	12	0	0	**2,083**	2,085	-2
Tax assets/liabilities (-) before set-off	**-74,051**	**-14,481**	**-349**	**-406**	**5,035**	**123**	**7**	**-84,122**	**47,552**	**-131,673**
Set-off tax									-34,410	34,410
Net tax assets/liabilities (-)								**-84,122**	**13,141**	**-97,263**

Deferred tax assets relating to tax losses carried forward are recognised only if it is probable that they can be offset against future taxable profits. At each balance sheet date, Viohalco and its subsidiaries assess whether the realization of future tax benefits is sufficiently probable based on approved business plans. On 31 December 2022, the accumulated tax losses carried forward available for future use amounted to EUR 105.9 million (31 December 2021 EUR 80 million). Viohalco companies have recognised cumulatively a deferred tax asset of EUR 13.6 million (31 December 2021: EUR 2 million) on tax losses because management considered it probable that future taxable profits would be available against which such losses can be used. EUR 11.6 million relate to Viohalco subsidiaries located in Greece and the rest EUR 2.0 million to subsidiaries in other jurisdictions. This deferred tax asset corresponds to losses equal to EUR 58.8 million (31 December 2021: EUR 9 million).

Based on these estimates regarding future taxable profits, deferred tax assets have not been recognised in respect of tax losses carried forward for an amount of EUR 47 million (EUR 70 million in 2021). Out of these, tax losses equal to EUR 22.6 million expire in 2023 and 2024, while the rest expire between 2025 and 2027.

According to the provisions of articles 49 and 72 of the Greek Law 4172/2013 concerning thin capitalization, net interest expense is deductible from current year's tax profits, if it is equal or less than 30% of EBITDA and any excess can be settled with future tax profits without time limitations. Based on the current approved business plans, the balance of the respective tax asset was equal to EUR 23.6 million, as at 31 December 2021 (31 December 2020: EUR 24.2 million).

14. Inventories

Amounts in EUR thousands	2022	2021
Merchandise	38,602	40,633
Finished goods	543,856	431,583
Semi-finished goods	408,358	282,538
By-products & scrap	123,039	83,955
Work in progress	33,333	34,684
Raw and auxiliary materials, consumables and packaging materials	766,911	596,448
Total	**1,914,098**	**1,469,840**

The amount of inventories recognised as expense during 2022 and included in 'Cost of sales' was EUR 4.9 billion (2021: EUR 3.8 billion).

Inventories with a carrying amount of EUR 220 million are pledged as security for borrowings received by Viohalco's companies (See Note 26). No significant inventory adjustments to NRV were performed during 2022.

15. Trade and other receivables

Amounts in EUR thousands	Note	2022	2021
Current Assets			
Trade receivables		483,202	474,345
Less: Impairment losses		-57,285	-53,964
Net trade receivables		**425,917**	**420,381**
Advance payments		10,891	16,478
Cheques and notes receivables & cheques overdue		47,857	40,967
Receivables from related parties	37	48,843	41,570
VAT and other tax receivables		64,669	62,298
Receivables from dividends of equity-accounting investees	37	144	334
Other debtors		88,688	54,856
Less: Impairment losses		-11,926	-13,348
Net other receivables		**249,165**	**203,155**
Total current assets		**675,083**	**623,536**
Non-current assets			
Non-current receivables from related parties	37	12	5,746
Other non-current receivables		6,881	1,568
Total non current assets		**6,893**	**7,314**
Total receivables		**681,976**	**630,850**

Viohalco and its companies have not concentrated their credit risk in relation to receivables from customers, since they have a wide range number of customers.

A. Transfer of trade receivables

The carrying amount of receivables includes amounts that are subject to factoring arrangements. Viohalco and its subsidiaries, enter into factoring agreements (with recourse) to sell trade receivables for cash proceeds. These trade receivables are not being derecognised from the statement of financial position, because substantially all the risks and rewards are still retained by Viohalco - primarily credit risk. The amount received on transfer by the factor is recognised as a secured bank loan.

The following table presents the carrying amount of trade receivables at the year-end that have been transferred, but have not been derecognised and the associated liabilities.

Amounts in EUR thousands	2022	2021
Carrying amount of trade receivables transferred to banks	60,300	44,219
Carrying amount of associated liabilities	41,244	27,257

The fair value of trade receivables transferred approximates their carrying amount.

As at 31 December 2022 and 2021, Viohalco companies had not used the total amount of credit line provided by the factoring companies.

Related loans are included in the line 'Secured bank loans' in Note 26 'Loans and Borrowings'.

B. Credit and market risks and impairment losses

During 2010, the subsidiary Corinth Pipeworks SA initiated in Greece and Dubai legal actions against a former customer in the Middle-East regarding the recovery of an overdue receivable of USD 24.8 million (EUR 23.3 million on 31 December 2022), plus legal interest.

Following a series of court proceedings, the Dubai Court of Cassation issued its final judgment, during 2017, and ruled to reject any counterclaim of the former customer and to confirm the amount due to Corinth Pipeworks.

In order to recover this long overdue balance, Corinth Pipeworks has initiated the enforcement procedures against the assets of the former customer that are located within any of the countries, where the Court of Cassation judgment issued against the former customer is enforceable (i.e. UAE and various other countries in the Middle East). There were no other substantial developments during 2022.

Corinth Pipeworks had recorded in the past an impairment loss for the whole outstanding amount, i.e. USD 24.8 million. However, the subsidiary will continue any and all actions required to collect the full amount of that receivable.

Information about Viohalco companies' exposure to credit and market risks, and impairment losses for trade and other receivables is included in Note 30.

16. Cash and cash equivalents

Amounts in EUR thousands	2022	2021
Cash in hand and at banks	98	6,848
Short-term bank deposits	412,546	496,419
Total	**412,644**	**503,267**

Short term deposits have duration of less than 90 days and are available for use.

17. Property, plant and equipment

A. Reconciliation of carrying amount

Amounts in EUR thousands	Land, plants & other buildings	Machinery & transportation equipment	Furniture & other equipment	PP&E under construction	Total
Cost					
Balance as at 1 January 2022	**1,065,978**	**2,917,527**	**79,398**	**214,763**	**4,277,666**
Effect of movement in exchange rates	-473	-9,715	5	-430	**-10,613**
Additions	46,636	25,408	5,927	219,588	**297,558**
Disposals	-1,315	-5,507	-592	-369	**-7,783**
Transfer to/from investment property	-53	0	0	0	**-53**
Reclassification to assets held for sale	-5,861	-18,710	-1,550	-2,924	**-29,045**
Reclassifications	40,959	226,796	1,798	-259,421	**10,132**
Write offs	-583	-19,477	-729	-554	**-21,343**
Loss of control / Disposal of subsidiary	-10	-1,312	-97	0	**-1,419**
Balance as at 31 December 2022	**1,145,277**	**3,115,012**	**84,159**	**170,654**	**4,515,102**
Accumulated depreciation & impairment losses					
Balance as at 1 January 2022	**-391,222**	**-1,726,929**	**-65,426**	**-4,983**	**-2,188,560**
Effect of movement in exchange rates	214	6,671	-8	0	**6,878**
Depreciation	-26,048	-98,193	-5,400	0	**-129,641**
Disposals	625	4,968	487	0	**6,080**
Write offs	5	17,284	711	0	**17,999**
Reversal of previously recognized impairment loss	10,722	258	0	0	**10,980**
Transfer to/from investment property	9	0	0	0	**9**
Impairment loss	-3,974	-2,971	0	0	**-6,944**
Reclassification to assets held for sale	2,723	7,454	961	0	**11,137**
Reclassifications	0	-13,408	0	0	**-13,408**
Loss of control / Disposal of subsidiary	10	1,298	97	0	**1,405**
Balance as at 31 December 2022	**-406,935**	**-1,803,569**	**-68,580**	**-4,983**	**-2,284,066**
Carrying amount as at 31 December 2022	**738,342**	**1,311,443**	**15,580**	**165,671**	**2,231,036**

Amounts in EUR thousands	Land, plants & other buildings	Machinery & transportation equipment	Furniture & other equipment	PP&E under construction	Total
Cost					
Balance as at 1 January 2021	**1,007,315**	**2,793,597**	**76,081**	**154,824**	**4,031,817**
Effect of movement in exchange rates	1,129	10,230	-25	330	**11,663**
Additions	31,301	26,990	4,129	186,746	**249,167**
Disposals	-2,710	-3,732	-188	-475	**-7,105**
Transfer to /from investment property	-210	0	0	0	**-210**
Reclassifications	29,420	94,977	1,237	-126,597	**-962**
Write offs	-267	-4,535	-1,836	-66	**-6,705**
Balance as at 31 December 2021	**1,065,978**	**2,917,527**	**79,398**	**214,763**	**4,277,666**
Accumulated depreciation & impairment losses					
Balance as at 1 January 2021	**-378,847**	**-1,631,552**	**-62,340**	**-4,983**	**-2,077,721**
Effect of movement in exchange rates	-374	-6,543	13	0	**-6,905**
Depreciation	-22,990	-92,682	-5,015	0	**-120,686**
Disposals	1,582	2,633	137	0	**4,352**
Write offs	267	2,706	1,804	0	**4,777**
Reversal of previously recognized impairment loss	11,226	258	0	0	**11,484**
Impairment loss	-2,087	-664	-2	0	**-2,753**
Reclassifications	1	-1,085	-23	0	**-1,107**
Balance as at 31 December 2021	**-391,222**	**-1,726,929**	**-65,426**	**-4,983**	**-2,188,560**
Carrying amount as at 31 December 2021	**674,756**	**1,190,598**	**13,971**	**209,781**	**2,089,107**

The net amount of EUR 3.3 million in 'Reclassifications' movement mainly concerns assets under construction reclassified to intangible assets and inventories as well as reclassifications from right of use assets.

B. Security

Property, plant & equipment with a carrying amount of EUR 1,377 million are mortgaged as security for borrowings received by Viohalco's companies (see Note 26).

C. Property, plant and equipment under construction

The most important additions in property, plant and equipment under construction as of 31 December 2022 concern the following:

- the expansion of the new cold rolling mill at Oinofyta aluminium rolling plant;
- the new lacquering line and new infrustructeres in Oinofyta aluminium rolling plant of ElvalHalcor,
- machinery upgrades in Bridgnorth aluminium plant;
- the revamping of press in ElvalHalcor's copper tube plant;
- the operational investments in copper alloys extrusion division of ElvalHalcor and the copper rolling division (Sofia Med);
- the ongoing investments in the cables plant in Corinth;
- a capital expenditure of EUR 6 million to support the construction of a submarine cables factory in the USA
- certain productivity and capacity improvement investments in Thisvi's plant of steel pipes segment;
- steel segment's operational investments related to plants' machinery upgrade. They also include the Meltshop filters upgrade, energy efficiency projects and IT automations in Bulgaria.

Capitalized borrowing costs related to property, plant and equipment under construction amount to EUR 0.6 million (2021: EUR 0.9 million), which have been calculated using an average capitalization rate of 3.7% (2021: 3.7%).

Additions in assets under construction also include capitalized employee benefits equal to EUR 2,095 thousand (2021: EUR 2,338 thousand).

D. Transfer to and from investment property

During 2022, Property plant and plant and equipment amounting of EUR 44 thousands were transferred to investment property.

E. Impairment loss of property, plant and equipment

On 31 December 2022, an impairment test was performed for each Cash Generating Unit (further CGU) for which indications of impairment loss existed as at 31 December 2022 concerning subsidiaries from steel and steel pipes segments. The identified indications of impairment concerned the losses incurred by certain CGUs over the last years. For the calculation

of recoverable amount per CGU, cash flow projections based on a period of five years were used. The results of this test concluded that the property, plant and equipment used by these CGUs were not impaired at 31 December 2022, since the recoverable amount of each CGU exceeded the respective carrying amount.

In addition, impairment losses of EUR 6.9 million where recognised mainly in the aluminium (EUR 2.7 million) and copper segments (EUR 2 million) for specific fixed assets that indications of impairment were existed. The recoverable amount of related assets amounted EUR 881 thousands.

During 2022, machinery equipment with NBV equal to EUR 3.3 million (2021: EUR 1.9 million) were written off since they are no longer used by Viohalco companies and they are not expected to bring economic benefits in the future since these assets became obsolete.

In addition, impairment tests were performed on real estate assets where indications of impairment exist, either owner occupied or held as investment property. The tests were carried out in order to address the risk of negative changes in the fair value of properties and respond if necessary. Valuation techniques and the results relating to investment properties are outlined in note 19.

F. Reversal of impairment loss of property, plant and equipment

A test has also been performed for CGUs, for which indications for reversal of previously recorded impairment loss existed at 31 December 2022. These indications concerned the improvement of expected performance of certain CGUs over the following years. However, the result of the test was that no impairment loss should be reversed in 2022.

In addition, previously recognized impairment losses of EUR 11 million were reversed (recoverable amount EUR 29 million) and included in the line "Other Income" of the consolidated statement of profit or loss, related to Investment property that has been transferred to PP&E in the previous years. Valuation technique applied was "Income Approach". Valuation techniques and the results relating to investment properties are outlined in note 19.

For segmental classification purposes, reversal of impairment losses reported in real estate segment.

G. Reclassification to assets held for sale

Assets amounting to EUR 17.9 million have been reclassified to Assets held for sale in the context of Etem Commercial disposal agreement (see note 22).

18. Goodwill and intangible assets

A. Reconciliation of carrying amount

Amounts in EUR thousands	Goodwill	Development costs	Trademarks and licenses	Software	Other	Total
Cost						
Balance as at 1 January 2022	**1,500**	**1,317**	**37,622**	**55,216**	**2,915**	**98,570**
Effect of movement in exchange rates	0	0	1	-4	-3	**-6**
Additions	0	0	1,867	4,402	99	**6,368**
Disposals	0	0	0	-67	0	**-67**
Write-offs	0	0	0	-25	0	**-25**
Loss of Control/Disposal of subsidiary	0	0	0	-8	0	**-8**
Reclassifications to Held for Sale	0	-884	-307	-789	0	**-1,979**
Reclassifications	0	103	386	1,894	127	**2,510**
Balance as at 31 December 2022	**1,500**	**537**	**39,569**	**60,619**	**3,138**	**105,363**
Accumulated amortization and impairment loss						
Balance as at 1 January 2022	**-1,500**	**-626**	**-11,823**	**-41,626**	**-912**	**-56,487**
Effect of movement in exchange rates	0	0	0	6	1	**7**
Amortization	0	-96	-2,484	-4,026	-111	**-6,717**
Disposals	0	0	0	67	0	**67**
Write-offs	0	0	0	25	0	**25**
Loss of Control/Disposal of subsidiary	0	0	0	8	0	**8**
Reclassifications to Held for Sale	0	217	303	591	0	**1,111**
Balance as at 31 December 2022	**-1,500**	**-505**	**-14,004**	**-44,956**	**-1,022**	**-61,986**
Carrying amount as at 31 December 2022	**0**	**32**	**25,565**	**15,663**	**2,117**	**43,376**

Amounts in EUR thousands	Goodwill	Development costs	Trademarks and licenses	Software	Other	Total
Cost						
Balance as at 1 January 2021	**1,500**	**2,097**	**34,400**	**49,000**	**2,818**	**89,814**
Effect of movement in exchange rates	0	-1	0	-95	-5	**-101**
Additions	0	0	1,581	4,289	102	**5,972**
Disposals	0	0	-1	-10	0	**-11**
Write-offs	0	0	-3	-183	0	**-186**
Reclassifications	0	-779	1,645	2,216	0	**3,082**
Balance as at 31 December 2021	**1,500**	**1,317**	**37,622**	**55,216**	**2,915**	**98,570**
Accumulated amortization and impairment loss						
Balance as at 1 January 2021	**-1,500**	**-1,097**	**-9,612**	**-37,200**	**-860**	**-50,269**
Effect of movement in exchange rates	0	1	0	68	2	**70**
Amortization for the period	0	-137	-2,215	-4,269	-53	**-6,673**
Disposals	0	0	1	10	0	**11**
Write-offs	0	0	3	183	0	**186**
Impairment loss	0	0	0	-79	0	**-79**
Reclassifications	0	608	0	-341	0	**267**
Balance as at 31 December 2021	**-1,500**	**-626**	**-11,823**	**-41,626**	**-912**	**-56,487**
Carrying amount as at 31 December 2021	**0**	**691**	**25,799**	**13,589**	**2,004**	**42,083**

B. Amortisation

The amortization of trademarks and licenses with finite useful lives, software programs and other intangible assets is allocated to the cost of inventory and is included in 'Cost of sales' when inventory is sold, as trademarks and licenses and software programs are mainly used directly for the production of products and they are considered as production overheads. The amortization of intangible assets not used for production is allocated to administrative expenses.

C. Reclassifications

Reclassifications mainly relate to intangible assets recorded initially in projects under construction (in property, plant and equipment) and upon the completion of the project, they are transferred to the column which describes their nature.

D. Goodwill

No additional Goodwill has been recognized during 2022.

E. Intangible assets with indefinite useful lives

All intangible assets have finite useful life (see Note 5.10), except for the following assets, included in trademarks and licenses category:

i. Intangible assets recognized for the CGU "Fulgor"
   a. Trade Name "Fulgor" (carrying amount of EUR 1.4 million as at 31 December 2022)
      It relates to the sector of medium voltage submarine cables and terrestrial high voltage cables that Fulgor was operating prior to its acquisition by Hellenic Cables in 2011 and which has revealed significant economic benefits. Based on the analysis of relevant factors (e.g. knowledge, no longstanding engagement with a wide range of clientele, future development of the sector), the useful life of the brand was considered indefinite.
   b. License of Port use in Soussaki, Corinth (carrying amount of EUR 8.3 million as at 31 December 2022)
      Fulgor holds a license for permanent and exclusive use of a port located in the premises of the factory in Soussaki, Corinth. The port is necessary for the production and transportation of submarine cables of medium and high voltage. Since the acquisition of the subsidiary, significant investments for the upgrade and expansion of production capacity of medium and high-voltage submarine cables took place. The useful life of the asset is considered indefinite since the right of use of these port facilities is for an indefinite period.

ii. Intangible assets recognized for the CGU "Reynolds" (carrying amount of EUR 1.7 million as at 31 December 2022).
   Upon the completion of the acquisition of Reynolds Cuivre by Genecos, an intangible asset related to the brand name "Reynolds" was recognized, as significant economic benefits are expected from its use. Based on the analysis of relevant factors (e.g. knowledge of the relevant market, wide range of clientele, expected future developments), the useful life of the brand was considered indefinite.

F. Impairment testing

(a) Intangible assets recognized for the CGU "Fulgor"

As these intangible assets do not generate independent cash inflows, it was considered appropriate to carry out the impairment test on the basis of the Cash Generating Unit (CGU) of Fulgor submarine cables production plant, which incorporates these assets. To evaluate the value in use, cash flow projections based on estimates by management covering a five-year period (2023 – 2027) were used. These estimates take into consideration the contracts already signed, as well as contracts estimated to be awarded in Greece and abroad.

The submarine cables CGU operates as a project-based business. Therefore, assumptions related to revenue and profitability growth are based on the contracts already signed, as well as those estimated to be undertaken in the forthcoming period. The main assumptions regarding the operations of submarine cables CGU and the projects to be executed within the five-year period are:

- Progressively high-capacity utilization of Corinth plant owned by Fulgor, as the one observed during the last 3 years, based on contracts already awarded and those expected given the tendering activity. Given the existing backlog and the growth of renewables business around the world, which is a significant driver in the attractive outlook for the offshore power generation market, the continuously high level of activity is expected to be retained throughout the period 2023-2027.
- Capital expenditure of approx. EUR 189 million in the following 5 years, to cover estimated production and capacity needs. Capital expenditure reflects investments for maintenance as well as organic growth. For the terminal period, investments are set equal to depreciation.
- The compound annual growth rate of revenue from offshore business for the five-year period is set to ca. 24% attributable to the assignment of new projects mainly in Greece, North Europe and the USA.
- The EBITDA margin per offshore project is assumed in the range of 15%-25% of revenue. Estimated profitability per project varies due to different types of cables required, technical specifications, geographic region and the project's timeframe.
- The compound annual growth rate of fixed operating expenses is assumed equal to ca. 4.8% for the five-year period.

Cash flows after the first five years were calculated using an estimated long term growth rate of 1.52%, which mainly reflects management's estimates for the world economy as well as long-term growth prospects of the offshore cable sector. The pre-tax rate used to discount these cash flows was 12.02%, based on the following assumptions:

- The risk-free rate was based on AAA European bond yields.
- The country risk calculations were based on the expected future sales mix and the fact that the business unit is based in Greece.
- The market risk premium was assumed equal to 6.21%., i.e., higher than the one used in last year's impairment test, as market conditions have worsened.

Commodity prices for copper and aluminium are intrinsically part of the impairment test assumptions; the metal price hedging activities undertaken, though, and the customized nature of the products sold by Fulgor, suggest that the value of the business unit is not significantly affected by fluctuations in commodity prices. Hence, a neutral result from metal price fluctuations is assumed in the context of the impairment test.

The results of this test indicated that the recoverable amount on 31 December 2022 exceeds the carrying amount of the CGU (equal to EUR 283 million) by EUR 688 million.

A sensitivity analysis was carried out on the key assumptions of the model (discount rates and growth in perpetuity), to examine the adequacy of the above headroom. Sensitivity analysis results indicated that the recoverable amount comfortably exceeds the carrying value of the CGU. Assumptions may change as follows, so as the recoverable amount equals the carrying amount:

	Assumptions used	Change in rates (percentage points change) required for the recoverable amount to equal the carrying amount
Discount rate	12.02 %	+ 14.5 ppc
Terminal growth	1.52 %	- 118.0 ppc

(b) Intangible assets recognized for the CGU "Reynolds"

The recoverable amount of the CGU that includes this intangible asset (Reynolds Cuivre S.A.) was estimated based on the present value of the future cash flows expected to be derived from the CGU (value in use).

Cash flows after the first five years were calculated using an estimated growth rate of 1%, which reflects management's estimates for the growth prospects for the market. The after-tax rate used to discount these cash flows is 8.3% for the five year period and for the terminal value and was based on the following:

- Risk free rate at 2.09%.
- The market risk premium (including the country risk for operating in France) was determined at 6.90%

Average annual revenue growth rate for the five-year period is 0.2% ; and the average annual operating expenses decrease ; percentage is 0.6%. Average capex equal to EUR 170 thousand.

The results of this test indicated that the recoverable amount as at 31 December 2022 exceeds the carrying value of the CGU amounting to EUR 10.0 million by EUR 1.9 million.

A sensitivity analysis was carried out on the key assumptions of the model (discount rates and growth in perpetuity), so as to examine the adequacy of the headroom. The result of the sensitivity analysis indicated that the recoverable amount still exceeds the carrying value of the CGU.

Results of the sensitivity analysis for the impairment testing:

	Assumptions used	Change in rates (percentage points change) required for the recoverable amount to equal the carrying amount
Discount rate	8.3%	+0.9ppc
Terminal growth	1.0%	-1.2ppc

19. Investment property

A. Reconciliation of carrying amount

Amounts in EUR thousands	2022	2021
Balance as at 1 January	**280,876**	**270,413**
Acquisitions	53,301	10,887
Disposals	-609	-753
Write offs	-85	0
(Impairment losses) / Reversal of impairment losses	-10,125	6,922
Modifications	280	95
Transfers to property, plant and equipment	0	-1
Transfers from property, plant and equipment	44	210
Depreciation	-7,658	-6,898
Balance as at 31 December	**316,024**	**280,876**
Gross carrying amount	376,519	324,684
Accumulated depreciation and impairment losses	-60,495	-43,807
Net carrying amount as at 31 December	**316,024**	**280,876**

Investment property comprises of a number of commercial and industrial properties that are either leased to third parties currently or will be in the foreseeable future. Each of these leases is indexed to consumer prices.

During 2022, Viohalco invested an amount of EUR 53 million (EUR 11 million in 2021) for the acquisition and improvement of investment properties. More specifically, 21 new real estate assets were added to the portfolio during the period, all located in Greece, 3 through acquisition and 18 through SCI with contribution in kind.

B. Measurement of fair value –Impairment loss and subsequent reversal

On December 31st 2022, an impairment test was performed on all real estate assets (individual assets), either owner occupied or held as investment property. The tests were carried out in order to address the risk of negative changes in the fair value of properties and respond if necessary. The results relating to owner occupied properties are outlined in note 17.

For investment property assets, an impairment loss of EUR 13.5 million was recorded and included in the line 'Other expense' of the consolidated statement of profit or loss. Impairment losses relate primarily to land and buildings, and the recoverable amount was based on its fair value less costs of disposal. The fair value of these properties was determined by external, independent property valuers, having appropriate recognized professional qualifications and recent experience in the location and category of the properties being valued. Valuation techniques are described in detail in the next paragraph. For segmental classification purposes, the impairment loss (recoverable amount EUR 81 million) was reported in real estate segment.

Asset valuations were also used to identify if previously recognized impairment losses could be reversed. As a result, EUR 3.4 million were reversed and included in the line 'Other Income' of the consolidated statement of profit or loss. The recoverable amount of these assets as at 31 December 2022 was EUR 240 million and they relate to the real estate segment.

The accumulated impairment losses carried forward as at 31 December 2022, amounts to EUR 40.3 million (31 December 2021: EUR 30.2 million).

The fair value of all properties reported in the line 'Investment property', as at 31 December 2022, is EUR 390 million (31 December 2021: EUR 355 million).

Valuation techniques and significant unobservable inputs (Level 2 & 3)

The fair value measurement for investment property has been categorized as a Level 2 and 3 regarding fair value hierarchy, based on the inputs to the valuation techniques used.

Valuations methods used to determine the fair value of these properties were reflecting the highest and best possible use.

- For buildings currently rented or expected to be rented out in the foreseeable future for which no observable prices were available, the income approach (either Discounted Cash Flow or Direct capitalization) method was used. DCF method considered the present value of net cash flows to be generated from each property, taking into account expected rental growth rate, void periods, occupancy rate, lease incentive costs such as rent-free periods and other costs not paid by tenants. The expected net cash flows are discounted using risk-adjusted discount rates that ranged between 8.70 % - 12.50 %. Among other factors, the discount rate estimation considers the quality of each building, its location, tenant credit quality, lease terms and the expected market return. The estimated fair value would decrease if either the expected market rental growth was lower or the risk-adjusted discount rates were higher. Direct capitalization uses an All-Risk Yield in order for the current annual estimated rental value to be capitalized. ARY ranged between 4.00% - 12.50% and offers a holistic assessment of the property market's general condition.
- For buildings, which were under construction and which are intended to be used as investment property in the future, the residual method was primarily used. The fair value determined by this method reflects the value of the property in its current condition.
- For all the properties, the comparative method (market approach) was used. According to this method the valuer estimates the market value of the subject asset by comparing the factors that mostly affect it. Such factors can be location, size, quality of construction etc. This method is based on estimation of the market price and what has been paid for similar properties under similar economic conditions. Each property is valued at a price at which similar ones in the area have recently sold with a subjective differential added (or subtracted) to adjust for the unique characteristics of the property that make it different from the benchmark properties, such as location, size, accessibility etc. The specific valuation technique has been classified as Level 2, regarding the fair value measurement hierarchy.

20. Equity-accounted investees

A. Reconciliation of carrying amount of associates and joint ventures

Amounts in EUR thousands	2022	2021
Balance as at 1 January	**44,372**	**38,089**
Share of profit / loss (-) net of tax	-1,365	-2,530
OCI profit (loss) for the period	-2	1
Dividends received	-655	-886
Additions	0	225
Share capital increase	7,500	8,800
Impairment	-9,260	0
Disposals	-6,001	0
Reclassification	856	0
Effects on movement in exchange rates	1,194	671
Balance as at 31 December	**36,638**	**44,372**

B. Financial information per associate and joint venture

The following tables present financial information per associate. The disclosed financial information reflects amounts in the financial statements of the relevant associates.

2022

Company	Principal place of business	Segment	Associate/JV	Carrying Value	Current Assets	Non-Current Assets	Non-Current Liabilities	Current Liabilities	Revenue	Profit or loss from continuing operations	Total comprehensive income	Direct ownership interest	Ultimate ownership interest
ETEM GESTAMP AUTOMOTIVE SA	Bulgaria	Aluminium	Joint Venture	**8,864**	13,662	22,921	8,100	15,399	58,423	1,569	1,637	49.00%	49.00%
DOMOPLEX LTD	Cyprus	Steel	Associate	**1,244**	4,188	1,996	3,049	532	6,779	497	497	45.00%	45.00%
AO TMK-CPW	Russia	Steel Pipes	Associate	**15,963**	69,910	5,252	87	42,498	95,246	7,287	7,287	49.00%	39.09%
HC ISITMA A.S.	Turkey	Copper	Joint Venture	**249**	8,933	1,562	1,047	1,928	24,632	2,328	2,268	50.00%	42.39%
U.E.H.E.M GmbH	Germany	Aluminium	Associate	**860**	14,896	20	0	13,216	69,383	1,235	1,235	49.00%	41.54%
NEDZINK B.V.	Netherlands	Copper	Joint Venture	**0**	39,419	46,970	38,693	43,777	100,161	-13,762	-13,762	50.00%	42.39%
THE GRID SA	Greece	Real estate	Joint Venture	**8,651**	5,300	32,952	19,624	1,681	0	-908	-908	50.00%	40.55%
Metallourgia Attikis	Greece	Other	Associate	**806**	1,747	266	96	315	2,085	267	269	50.00%	50.00%
				36,638									

2021

Company	Principal place of business	Segment	Associate/JV	Carrying Value	Current Assets	Non-Current Assets	Non-Current Liabilities	Current Liabilities	Revenue	Profit or loss from continuing operations	Total comprehensive income	Direct ownership interest	Ultimate ownership interest
ETEM GESTAMP AUTOMOTIVE SA	Bulgaria	Aluminium	Joint Venture	**8,095**	9,465	16,390	230	14,177	41,028	1,335	1,340	49.00%	49.00%
DOMOPLEX LTD	Cyprus	Steel	Associate	**1,165**	3,756	2,186	547	2,966	6,811	806	806	45.00%	45.00%
AO TMK-CPW	Russia	Steel Pipes	Associate	**11,216**	64,836	5,004	23	46,926	70,009	1,910	1,910	49.00%	39.09%
BELLVILLE TUBE	USA	Steel Pipes	Associate	**1,732**	422	13,744	3,418	3,988	20,238	-2,837	-2,837	19.40%	15.48%
AWM SPA	Italy	Steel	Associate	**3,643**	8,701	8,281	3,928	5,301	5,142	-698	-698	34.00%	34.00%
HC ISITMA A.S.	Turkey	Copper	Joint Venture	**231**	338	146	46	92	572	54	500	50.00%	42.39%
U.E.H.E.M GmbH	Germany	Aluminium	Associate	**767**	9,317	26	0	7,834	53,775	1,074	1,074	49.00%	41.54%
NEDZINK B.V.	Netherlands	Copper	Joint Venture	**11,841**	31,325	49,598	43,186	28,940	86,636	-8,192	-8,192	50.00%	42.39%
THE GRID SA	Greece	Real estate	Joint Venture	**5,681**	2,403	28,605	19,600	47	0	-688	-688	50.00%	43.64%
				44,372									

Disposal
In June 2022, Viohalco subsidiary, Sidenor sold the percentage held (34%) at AWM SPA, resulting at a loss of EUR 1.3 million.

Reclassification
In December 2022, Viohalco's control in the participation to Mettalourgia Attikis was lost due to management restructuring while the participation held was 50%. The company will be accounted as an Equity accounted investee from 31.12.2022.

Impairment
The annual impairment test performed for the participation to Nedzink, the Joint Venture of Elvalhalcor (Copper segment), indicated the recognition of an impairment loss of EUR 9.2 million onwards.

Disposal
In 2021, Viohalco through CPW America - held a 19.4% interest in Bellville Tube Company and accounted for the investment as an associate. In August 2022, Viohalco disposed its interest in Bellville Tube Company for proceeds of USD 3.3 million, receivable in monthly instalments. The disposal price was according to the initial purchase agreement, which prescribed that CPW America had the option, during the period 2022-2025 to require Bellville Tube Company to redeem all, but not less than all, of the shares of Bellville Tube Company then held by CPW America. The aggregate purchase price for the redeemed shares was set equal to USD 3.3 million, i.e., the amount initially disbursed for the purchase of the interest in Bellville Tube Company. This transaction has resulted in the derecognition of the related options previously recognised on the statement of financial position and the recognition of a gain in profit or loss, calculated as follows:

Amounts in EUR thousand	
Disposal price	**3,241**
Less:	
Carrying amount of investment on the date of disposal	(2,358)
Carrying amount of options on the date of disposal	(1,040)
Loss recognised from disposal of associate	**(156)**

Since AO TMK-CPW is based on Russia, there are restrictions on the ability of the associate to transfer funds to the Company and its subsidiaries in the form of cash dividends, due to the counter sanctions set by the Russian Federation.

Russian legislation put in place since May 2022 restrict the payments of amounts in excess of ca. EUR 150,000 to EU residents as a response to the EU imposed sanctions against Russia. Although these restrictions are stated to be temporary, to avoid any potential loss of income, Humbel Ltd (the owner of 49% of the shares in the AO TMK-CPW) has asked AO TMK-CPW to postpone the payment of any dividends, until further notice. Therefore, during 2022, there were no transactions between AO TMK-CPW and the Viohalco Companies.

There are no other restrictions on the ability of associates to transfer funds to the Company or its subsidiaries in the form of cash dividends, or to repay loans or advances made by the Company.

Aforementioned financial information is presented considering the following:
(a) There are no other restrictions on the ability of joint ventures or associates to transfer funds to the entity in the form of cash dividends, or to repay loans or advances made by the entity.
(b) The financial statements of joint ventures or associates are used in applying the equity method and as of the same date with that of Viohalco.
(c) There are no unrecognized share of losses of a joint venture or associate, both for the reporting period and cumulatively.

C. Description of associates and joint ventures

UEHEM (UACJ ELVAL HEAT EXCHANGER MATERIALS GmbH) is a joint establishment between ElvalHalcor and UACJ Corp. It markets aluminium products to manufacturers of automotive heat exchangers in Europe.

HC ISITMA is a joint venture between ElvalHalcor and Cantas AS. It is active in the manufacture of pre-insulated copper tubes in Turkey.

Bellville Tube manufactures steel tubular products for the local US market.

AO TMK-CPW is a joint stock company between Corinth Pipeworks and AO TMK, the largest manufacturer of steel pipes in Russia and one of the top three globally. AO TMK-CPW has its production facilities in Polevskoy, Russia, where it manufactures pipes and hollow structural sections.

AWM is developing, designing and manufacturing high-technology machines for the processing of reinforcement steel such as standard and special mesh welding machines, high-speed wire straightening and cutting machines, lattice girder machines, cold rolling lines, automatic mesh cutting and bending machines and special machines for production of tunnel reinforcement.

Domoplex is a Cyprus-based company active in the manufacturing and trading of welded wire mesh for the reinforcement of concrete.

NedZink B.V. is a Netherlands based company focusing on high quality zinc applications.

Gestamp Etem Automotive Bulgaria S.A. is a joint venture between Gestamp and Etem Bulgaria S.A. that focus on the commercialisation and processing of aluminium extruded profiles for the automotive industry.

THE GRID S.A. is a joint venture between Noval Property REIC and Brook Lane Capital that operates in Real Estate development sector.

Metallourgia Attikis SA is a Greek based company focusing on the production and trading of pipes, sanitary ware, faucets and heating radiators.

21. Other investments

Viohalco designates the investments shown below as equity securities at FVOCI, as they represent investments that Viohalco intends to hold for the long term strategic purposes.

The movement of equity securities, as well as their analysis, is presented below:

Amounts in EUR thousands	2022	2021
Balance as at 1 January	**8,457**	**8,324**
Additions	1,060	77
Disposals	0	-637
Change in fair value through OCI	-1,061	702
Reclassifications	-50	0
Other changes	0	-8
Balance as at 31 December	**8,405**	**8,457**

Amounts in EUR thousands	2022	2021
Listed securities		
- Greek equity instruments	243	125
- International equity instruments	3,356	4,417
- Mutual funds		0
Unlisted securities		
- Greek equity instruments	3,667	2,951
- International equity instruments	849	849
- Mutual funds	269	94
- Other	20	20
Total	**8,405**	**8,457**

22. Assets held for sale

The following assets and liabilities were reclassified 2022 at their fair value as held for sale as at 31 December 2022:

Amounts in EUR thousands	2022	2021
Property Plant & Equipment	18,272	372
Intangible assets	617	0
Other non current assets	4,189	0
Inventories	26,295	0
Trade and other receivables	15,057	0
Cash & Cash equivalents	3,434	0
Total Assets Held for Sale	**67,865**	**372**
Non current liabilities	175	0
Non current Loans & borrowings	571	0
Trade and other payables	13,609	0
Current Loans & borrowings	3,665	0
Total Liabilities directly associated with Assets Held for Sale	**18,020**	**0**

On December 27th, 2022 the strategic agreement for the absorption of Etem Commercial by Cosmos Aluminium was signed between Viohalco subsidiary ElvalHalcor and Cosmos Aluminium Shareholders. After the completion of the transaction, ElvalHalcor will hold a minority interest of 15% on the share capital of Cosmos Aluminium.

The associated assets and liabilities were consequently presented as held for sale in the financial statements. Impairment assessment performed between historical book value and fair value less costs to sell and no indication of impairment were existed.

23. Derivatives

The following table sets out the carrying amount of derivatives:

Amounts in EUR thousands	2022	2021
Non-current assets		
Interest rate swap contracts	17,242	0
Forwards	3,624	0
Commodity Swaps	18,056	0
Options	0	944
Total	**38,922**	**944**
Current assets		
Interest rate swap contracts	3,649	0
Forwards	10,427	760
Future contracts	2,380	7,670
Commodity Swaps	10,692	7,847
Total	**27,149**	**16,277**
Non-current liabilities		
Forwards	4	0
Interest rate swap contracts	0	382
Commodity Swaps	1,245	3,205
Total	**1,249**	**3,587**
Current liabilities		
Forwards	10,155	2,501
Future contracts	4,628	5,062
Commodity Swaps	3,672	0
Total	**18,455**	**7,563**

The significant increase in open derivatives positionsin commodity swaps, compared to 31.12.2021, reflects the excessive market volatility in energy markets during 2022.

Variable rate loans and borrowings expose Viohalco companies to a rate volatility risk (cash flow risk). During 2022, Viohalco subsidiaries entered into interest rates swaps contracts in order to be hedged by interest rate fluctuations, by transforming the variable interest rate of the loan into a fixed one, thus reducing such volatility risk. Interest rate swap contracts involve exchanging, on specified dates cash amounts equal to the difference between a contracted fixed interest rate calculated on a principal and a variable rate calculated on the same principal. By carefully choosing the variable rate and the principal of the swap, one actually transforms a floating rate loan into a fixed rate one.

During 2021, Viohalco subsidiaries started using Commodity Swaps referenced on the Title Transfer Facility (TTF) prices to hedge the risk of fluctuations in natural gas prices from market conditions. The significant increase in open positions, compared previous year, reflects the excessive market volatility in energy markets during 2022.

Hedge accounting
Viohalco's companies hold derivative financial instruments for cash flow and fair value hedges.

The abovementioned derivative financial instruments cover risks from:
- Changes in the prices of metals;
- Fluctuations of foreign exchange rates;
- Changes in loan interest rates;
- Fluctuations of energy prices (natural gas).

The maturity and the nominal value of derivatives held by Viohalco's companies match the maturity and nominal value of the underlying assets / liabilities (hedged items).

Derivatives held by Viohalco's companies concern mainly:
- Future contracts to hedge the risk from the change of the price of metals listed in LME (London Metal Exchange) and used in production of Viohalco's companies (i.e. mainly copper, aluminium and zinc). Such hedges are designated as cash flow hedges.
- FX Forward and FX swaps to hedge the risk from the change in exchange rate of US Dollar and British Pound (i.e. currencies to which Viohalco's companies are mainly exposed). Such hedges are either designated as fair value or cash flow hedges depending on the item hedged. FX Forwards and FX swaps when used for hedging FX risk on outstanding receivables and suppliers denominated in foreign currency these instruments are designated under fair value hedging. FX forwards when used for hedging FX risk on the forecasted sales of goods or purchase of materials executed in foreign currency FX forward is hedging instruments designated under the cash flow method.

- Variable rate loans and borrowings expose Viohalco companies to an interest rate volatility risk (cash flow risk). In order to hedge it, interest rate swaps are used to effectively transform the variable interest rate of the loan into a fixed one, thus reducing such volatility risk. Interest rate swap contracts involve exchanging, on specified dates cash amounts equal to the difference between a contracted fixed interest rate calculated on a principal and a variable rate calculated on the same principal. By carefully choosing the variable rate and the principal of the swap, one actually transforms a floating rate loan into a fixed rate one.
- Commodity Swaps referenced on the Title Transfer Facility (TTF) prices to hedge the risk of fluctuations in natural gas prices from market conditions.

Derivatives are recognised when Viohalco's companies enter into the transaction in order either to hedge the fair value of receivables, liabilities or commitments (fair value hedges) or highly probable transactions (cash flow hedges).

The change in fair value recognized in equity under cash flow hedging as at 31 December 2022 will be recycled to the consolidated statement of profit or loss during the next years, as some of the hedged events are expected to occur (the forecasted transactions will take place or the hedged items will affect profit or loss statement) within 2023 and some others at a later stage.

Viohalco companies' results from the hedging activities recorded in the statement of profit or loss are presented for metal future contracts,foreign exchange contracts and the energy contracts in the 'Revenue' and the 'Cost of sales' while for interest rate swaps in the 'Finance income/ expenses'. The amounts recognized in the consolidated statement of profit or loss are the following:

Amounts in EUR thousands	2022	2021
Gain / loss (-) on future contracts	20,714	-5,105
Gain / loss (-) on FX forward contracts	6,769	-3,754
Gain / loss (-) on interest rate swap contracts	4,891	0
Gain / loss (-) on commodity swap contracts	21,887	1,251
	54,261	**-7,608**

Profit or loss related to derivatives used for cash flow hedging recognized in other comprehensive income (Hedging reserve) as at 31 December 2022 and it will be recycled to profit or loss during the next financial years.

24. Capital and reserves

A. Share capital and share premium

The share capital of the Company amounts to EUR 141,894 thousand divided into 259,189,761 shares without nominal value. Holders of shares are entitled to one vote per share at the general meetings of the Company.

Share premium of the Company amounts to EUR 457,571 thousand.

B. Translation reserve

The translation reserve comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

C. Nature and purpose of other reserves

(a) Statutory reserve

Pursuant to the Belgian tax legislation, the companies are obliged, from their fiscal year profits, to form 5% as a legal reserve until it reaches 10% of their paid share capital. The distribution of the legal reserve is prohibited.

Pursuant to Greek company law, the companies are obliged to allocate each year at least 5% of its annual net profits to its statutory reserve, until this reserve equals at least 1/3 of the company's share capital. The distribution of the statutory reserve is prohibited but it can be used to offset losses.

(b) Hedging reserve

The effective portion of the cumulative net change in the fair value of hedging instruments used in cash flow hedges pending subsequent recognition in profit or loss as the hedged cash flows affect profit or loss.

(c) Other fair value reserve

The cumulative net change in the fair value of the equity securities until the assets are derecognized (and therefore transferred to retained earnings).

(d) Special reserves

This category relates to reserves formed by the application of the provisions of certain developmental laws which were granting tax benefits to companies that invested their retained earnings rather than distribute them to the shareholders. More specifically, the aforementioned reserves include profits that have already been taxed or have been permanently exempted from income tax, after the lapse of a specified period beginning from the completion of the investments they concern.

(e) Tax exempt reserves

This category relates to reserves formed by the application of the provisions of certain tax laws and are exempt from income tax, provided that they are not distributed to the shareholders. In case these reserves are distributed, they will be taxed using the tax rate applying at such time.

D. Reconciliation of other reserves

Amounts in EUR thousands	Statutory reserves	Hedging reserves	Other Fair Value reserve	Special reserves	Tax exempt reserves	Other reserves	Total
Balance as at 1 January 2022	**45,018**	**4,662**	**2,061**	**81,540**	**297,428**	**9,728**	**440,437**
Other comprehensive income	0	22,923	-1,061	0	0	0	**21,862**
Capitalization of reserves	150	0	0	207	0	0	**357**
Reclassification	0	0	0	0	0	0	**0**
Transfer of reserves and other movements	5,408	-650	-1	-3,697	-15,035	-176	**-14,152**
Loss of Control/Disposal of subsidiary	-207	0	0	0	-194	-72	**-473**
Acquisition of NCI	238	-192	-1	3	126	0	**173**
Change in ownership interests	64	110	0	-133	-89	143	**95**
Balance as at 31 December 2022	**50,671**	**26,853**	**997**	**77,920**	**282,235**	**9,622**	**448,298**

Amounts in EUR thousands	Statutory reserves	Hedging reserves	Other Fair Value reserve	Special reserves	Tax exempt reserves	Other reserves	Total
Balance as at 1 January 2021	**42,039**	**2,483**	**1,359**	**81,496**	**296,785**	**11,942**	**436,104**
Other comprehensive income	0	2,282	704	0	0	-1	2,985
Capitalization of reserves	2,719	0	0	153	527	-2,248	1,150
Acquisition of NCI	196	3	-2	2	132	0	331
Change in ownership interests	64	-105	0	-111	-16	35	-133
Balance as at 31 December 2021	**45,018**	**4,662**	**2,061**	**81,540**	**297,428**	**9,728**	**440,437**

Transactions that took place in 2022 are explained in note 31.

25. Capital management

Viohalco and its companies' policy consists in maintaining a strong capital structure, so as to keep the confidence of investors, creditors and the market and enable the future development of their activities. The Board of Directors monitors the return on capital which is defined as net results divided by total equity less non-controlling interests. The Board of Directors also monitors the level of dividends distributed to holders of ordinary shares.

The Board of Directors tries to maintain an equilibrium between higher returns that would be feasible through higher borrowing levels and the advantages and security offered by a strong and robust capital structure. In this context, the Board of Directors monitors, the Return on Capital Employed (ROCE) index, otherwise the Return on Invested Capital (ROIC) index, which is defined as adjusted Earnings before Interest and Tax (a-EBIT) divided by total adjusted Capital Employed, (i.e. equity and net debt). The Board of Directors seeks opportunities and examines feasibility to leverage Viohalco's companies with relatively high ROCE (in every case higher than the cost of debt) and deleverage companies that go through a relatively low ROCE performance period.

26. Loans and borrowings

A. Overview

Amounts in EUR thousands	31 December 2022	31 December 2021
Non-current liabilities		
Secured bank loans	157,520	119,994
Unsecured bank loans	65,735	69,524
Secured bond issues	629,035	455,719
Unsecured bond issues	619,010	648,856
Loans and borrowings – Long term	**1,471,299**	**1,294,093**
Lease Liabilities – Long term	**29,449**	**34,639**
Total Long-term debt	**1,500,748**	**1,328,732**
Current liabilities		
Secured bank loans	168,815	183,484
Unsecured bank loans	533,362	459,179
Current portion of secured bank loans	43,537	63,553
Current portion of unsecured bank loans	16,928	15,473
Current portion of secured bond issues	63,599	82,388
Current portion of unsecured bond issues	131,924	44,068
Loans and borrowings – Short term	**958,166**	**848,145**
Lease Liabilities – Short term	**10,932**	**10,696**
Total Short term debt	**969,097**	**858,841**
Total loans and borrowings	**2,469,845**	**2,187,573**

Information about the Viohalco companies' exposure to interest rate, foreign currency and liquidity risk is included in Note 30.

The maturities of non-current loans are as follows:

Amounts in EUR thousands	2022	2021
Between 1 and 2 years	224,059	251,691
Between 2 and 5 years	486,889	575,669
Over 5 years	789,801	501,372
Total	**1,500,748**	**1,328,732**

The effective weighted average interest rates of the main categories of loans and borrowings at the reporting date are as follows:

2022	Carrying amount	Interest rate
Bank loans (non-current)-EUR	278,133	3.78%
Bank loans (current)-EUR	630,773	4.31%
Bank loans (current)-USD	6,507	6.90%
Bank loans (current)-GBP	57,010	6.12%
Bond issues-EUR	1,443,568	3.99%

2021	Carrying amount	Interest rate
Bank loans (non-current)-EUR	260,465	2.46%
Bank loans (current)-EUR	574,039	3.39%
Bank loans (current)-USD	10,110	4.50%
Bank loans (current)-GBP	36,372	3.17%
Bond issues-EUR	1,231,031	2.94%

The majority of Viohalco companies' loans are Euro denominated.

During 2022, Viohalco subsidiaries obtained new bank loans amounting to EUR 857 million and repaid bank loans of EUR 570 million maturing within the year. The new loans were mainly bond loans and drawdowns from existing revolving credit facilities for project financing, or new loans with similar terms and conditions.

More specifically, during 2022 the main events relating to Viohalco companies' financing are the following:

Aluminium and Copper segments
ElvalHalcor signed:
- with EIB an EUR 75 million loan, 10 years maturity financing the aluminum rolling plant investment program at Oinofyta.
- with Erste Group Bank AG an EUR 18.6 million loan, 8.5 years maturity again financing the aluminum rolling plant investment program at Oinofyta.
- with three Greek banks common bond loans of EUR 15, EUR 20 and EUR 20 million, of 2, 5 and 7 years maturity respectively, to cover capex and working capital needs.

Cables and Steel Pipes segments
Cables segment issued three bond loans of total value EUR 27 million.
- Fulgor signed with a Greek bank a bond loan of EUR 5 million with a 5-year maturity.
- Hellenic Cables signed with a major Greek bank a bond loan of EUR 7 million, 7 years maturity, to cover capital expenditure needs.
- Hellenic Cables signed with a major Greek bank a long-term bond loan of EUR 15 million, 7 years maturity, to cover constant working capital needs

Steel Pipes segment issued one bond loan of total value EUR 7 million.
- Corinth Pipeworks entered to an agreement with a major Greek bank for a long-term bond loan of EUR 7 million with 7 years maturity.

In addition, Fulgor has agreed with a major Greek bank for a bond loan of EUR 19 million with a 7 years maturity. On 31 December 2022, an equal amount was received by the bank as 'bridge finance' and presented as short-term loan. The bond loan agreement is expected to be signed during the first months of 2023, upon the conclusion of the relevant negotiations.

Steel segment
- At the end of 2022 Steel Group subsidiaries (Sidenor & Sovel) finalized debt refinancing of EUR 318 million, through syndicated bond loans with a tenor of 8 years issued by four major Greek banks.

Real Estate segment
- Noval Properties has signed in February an agreement with a major Greek bank, for a long-term bond loan of EUR 69 million to refinance Bridge Financing Loans related with specific developments and cover future investments plans. The tenor of the Loan is 12 years from signing.

No other significant events, related with the financing of subsidiaries occurred during the period.

Short term facilities are predominately revolving credit facilities and factoring with recourse for funding working capital needs and project financing facilities for specific ongoing projects. Viohalco subsidiaries have never in the past experienced any issues in financing their activities, renewing their working capital lines or refinancing long-term loans. Management expects that any mandatory repayments of banking loans will be made from operating cash flows or from other unutilized committed credit facilities.

Under the terms of the loan agreements, certain Viohalco subsidiaries must comply with conditions (including financial covenants) and such compliance is tested on an annual basis for the majority of the loans. Management has considered the measures that need to be taken to mitigate the risk relating to potential breaches and expects that in the event that these covenants are breached, waivers will be granted, which have been provided in the past when requested.

The average interest rate of the outstanding bank loans as at 31 December 2022 was 4.1% (3% as at 31 December 2021). Property, plant and equipment and inventories of some subsidiaries carry mortgages and liens for a total amount of EUR 1,597 million, as collaterals for long term loans and syndicated loans. In addition, for certain Viohalco companies' loans, there are change of control clauses that provide lenders early redemption rights.The majority of Viohalco companies' loans are Euro denominated.

B. Reconciliation of movements of liabilities to cash flows from financing activities

Amounts in EUR thousands	Loans and Borrowings	Leases	Total
Balance at 1 January 2022	**2,142,238**	**45,334**	**2,187,573**
Changes from financing cash flows			
Proceeds from loans and borrowings	856,508	0	856,508
Repayment of borrowings & lease liabilities	-570,259	-11,630	-581,890
Total changes from financing cash flows	**286,248**	**-11,630**	**274,618**
Other changes			
New leases	0	10,195	10,195
Interest expense	86,229	1,915	88,144
Interest paid*	-79,500	-1,846	-81,347
Capitalised borrowing costs	600	0	600
Terminations/Modifications	253	-2,807	-2,554
Loss of Control/Disposal of subsidiary	-3,439	-801	-4,240
Division spin off	4	0	4
Effect of changes in foreign exchange rate	-3,168	21	-3,147
Total other changes	**978**	**6,676**	**7,655**
Balance at 31 December 2022	**2,429,465**	**40,380**	**2,469,845**

Amounts in EUR thousands	Loans and Borrowings	Leases	Total
Balance at 1 January 2021	**1,747,933**	**52,211**	**1,800,144**
Changes from financing cash flows			
Proceeds from loans and borrowings	896,672	0	896,672
Repayment of borrowings & lease liabilities	-514,171	-11,562	-525,733
Total changes from financing cash flows	**382,501**	**-11,562**	**370,940**
Other changes			
New leases	0	5,146	5,146
Interest expense	70,576	2,076	72,651
Interest paid*	-62,521	-2,061	-64,582
Capitalised borrowing costs	862	0	862
Terminations/Modifications	674	-483	191
Effect of changes in foreign exchange rate	2,214	7	2,159
Total other changes	**11,805**	**4,685**	**16,489**
Balance at 31 December 2021	**2,142,238**	**45,334**	**2,187,573**

** Interest paid reported in Cash Flow Statement, includes bank charges and other finance costs.*

27. Trade and other payables

Amounts in EUR thousands	Note	2022	2021
Suppliers		733,232	670,552
Notes payable		284,065	271,177
Cheques payable		151	0
Social security funds	11	15,437	12,465
Amounts due to related parties	37	3,301	4,806
Sundry creditors		20,051	17,828
Accrued expenses		112,505	105,895
Taxes-duties		29,211	28,697
Total		**1,197,953**	**1,111,420**
Non-current balance of trade and other payables		17,073	17,615
Current balance of trade and other payables		1,180,881	1,093,804
Balance as at 31 December		**1,197,953**	**1,111,420**

The increase in trade and other payables is mainly attributed to increase in metal prices and the increase in "Notes payable" which concerns structured payable arrangements related to purchases of primary raw materials, such as copper, steel etc. whose payment periods can be longer than usual for such supplies.

28. Grants

Amounts in EUR thousands	Note	2022	2021
Balance as at 1 January		**33,985**	**35,817**
New grants received during the year		1,739	1,529
New grants for which receipt is pending			0
Transfer of grants to results		-5	-51
Transfer of grants to receivables/paybales		119	-427
Amortisation of grants	8	-3,411	-2,886
Foreign exchange differences		27	3
Balance as at 31 December		**32,454**	**33,985**

Government grants have been received for investments in property, plant and equipment.

All conditions attached to the grants received by Viohalco's companies were met as at 31 December 2022.

29. Provisions

Non-current

Amounts in EUR thousands	Note	Pending court rulings	Other provisions	Total
Balance as at 1 January 2022		**25**	**1,800**	**1,825**
Additional provisions of the fiscal year		44	0	44
Provisions reversed	8	0	-142	-142
Balance as at 31 December 2022		**69**	**1,658**	**1,727**

Amounts in EUR thousands	Note	Pending court rulings	Other provisions	Total
Balance as at 1 January 2021		**25**	**1,814**	**1,839**
Additional provisions of the fiscal year		0	151	151
Reclassifications		0	-24	-24
Provisions reversed	8	0	-140	-140
Balance as at 31 December 2021		**25**	**1,800**	**1,825**

Current

Amounts in EUR thousands	Pending court rulings	Other provisions	Total
Balance as at 1 January 2022	**13,858**	**162**	**14,020**
Foreign exchange differences	833	0	833
Additional provisions of the fiscal year	691	0	691
Provisions used	-139	0	-139
Balance as at 31 December 2022	**15,243**	**162**	**15,405**

Amounts in EUR thousands	Note	Pending court rulings	Other provisions	Total
Balance as at 1 January 2021		**348**	**304**	**652**
Foreign exchange differences		573	0	573
Additional provisions of the fiscal year		12,995	0	12,995
Reclassifications		0	-111	-111
Provisions reversed	8	0	-1	-1
Provisions used		-58	-30	-88
Balance as at 31 December 2021		**13,858**	**162**	**14,020**

During 2022, the US Department of Commerce (DoC) published its final results in the administrative proceedings conducted by the DoC for the period from April 19, 2019 through April 30, 2020 ("POR") in connection with an antidumping ("AD") order on large diameter welded pipe (LDWP) from Greece. As a result, the DoC determined for the POR an antidumping duty rate of 41.04% based on total adverse facts available (AFA) for mandatory respondent Corinth Pipeworks S.A., Viohalco's subsidiary in steel pipes segment. Corinth Pipeworks filed an appeal before the U.S. Court of International Trade against the decision of the DoC while continuing to actively work with the DoC in order to reverse the final determination. The one-off

charge related to the above mentioned case amounts to EUR 12.8 million (USD 14 million plus interest) for the year 2021. The charge for 2022 relates to interest charged on the outstanding amount for the year and is included in the line 'Finance costs'.

30. Financial instruments

A. Accounting classifications and fair values

The following table shows the carrying amounts and fair values of financial assets and financial liabilities, including the levels in the fair value hierarchy.

31 December 2022

Amounts in EUR thousands	Carrying amount	First Level	Second Level	Third Level	Total
Other investments	8,405	3,597	2	4,806	**8,405**
Derivative financial assets	66,071	2,380	63,691	0	**66,071**
	74,476	**5,977**	**63,693**	**4,806**	**74,476**
Derivative financial liabilities	-19,704	-4,705	-14,999	0	**-19,704**
	54,772	**1,273**	**48,693**	**4,806**	**54,772**

31 December 2021

Amounts in EUR thousands	Carrying amount	First Level	Second Level	Third Level	Total
Other investments	8,457	4,543	0	3,915	**8,457**
Derivative financial assets	17,221	14,343	1,934	944	**17,221**
	25,679	**18,886**	**1,934**	**4,859**	**25,679**
Derivative financial liabilities	-11,149	-8,316	-2,833	0	**-11,149**
	14,529	**10,570**	**-899**	**4,859**	**14,529**

The various levels are as follows:
- Level 1: Quoted prices (unadjusted) in an active market for identical assets and liabilities;
- Level 2: Inputs that are observable either directly or indirectly;
- Level 3: Unobservable inputs for assets and liabilities.

The fair value of the following financial assets and liabilities measured at amortised cost approximate their carrying amount:
- Trade and other receivables;
- Cash and cash equivalents;
- Trade and other payables;
- Loans and borrowings;
- Lease liabilities.

Specifically, the carrying amount of loans and borrowings is considered as a good approximation of their fair value as 86% of consolidated Loans and borrowings concern floating-rate debt, which are a very good approximation of current market rates.

The following table shows reconciliation between opening and closing balances for Level 3 financial assets:

Amounts in EUR thousands	
Balance as at 1 January 2022	**3,915**
Additions	942
Impairment loss (-)/ Reversal of impairment loss	-50
Balance as at 31 December 2022	**4,806**
Balance as at 1 January 2021	**3,846**
Additions	77
Disposals	-8
Balance as at 31 December 2021	**3,915**

B. Measurement of fair values

(a) Valuation techniques and significant unobservable inputs

The fair values of financial assets that are traded in active markets (stock markets e.g. derivatives, shares, bonds, mutual funds) are set according to the published prices that are valid on the reporting date.

The fair values of financial assets that are not traded in active markets are set through the use of valuation techniques and standards that are based on market data on the reporting date.

The fair values of financial liabilities, for the purpose of being recorded in financial statements, are estimated based on the present value of the future cash flows that arise from specific contracts using the current interest rate that is available for Viohalco and its companies for the use of similar financial-credit means.

Inputs that do not meet the respective criteria and cannot be classified in Level 1 but are observable, either directly or indirectly, fall under Level 2. Over-the-counter derivative financial instruments based on prices obtained from brokers are classified in this level.

The financial assets, such as unlisted shares that are not traded in an active market whose measurement is based on the Viohalco's companies' forecasts for the issuer's future profitability are classified under Level 3.

The following table shows the valuation techniques used in measuring fair values, as well as the significant unobservable inputs used:

Type	Valuation technique	Significant unobservable inputs	Inter-relationship between key unobservable inputs and fair value measurement
Derivatives	*Market value*: Price as traded in active market *Market comparison technique*: The fair values are based on broker quotes. Similar contracts are traded in an active market and the quotes reflect the actual transactions in similar instruments	Not applicable Broker quotes	Not applicable Not applicable
Equity securities traded in active markets	*Market value*: Price as traded in active market	Not applicable	Not applicable
Equity securities not traded in active markets	*Discounted cash flows*: The fair value of shares not traded in an active market is defined based on the estimates of Viohalco and its companies for the future profitability of the issuer after taking into account the expected growth rate of its operations, as well as the discounted interest rate	- Risk-free rate: 2.1% - Market risk premium: 6.21% - Expected tax expense rate: 22% - WACC for the most significant investment: 8-9.5%	The estimated fair value would increase (decrease) if: • the estimated risk-free rate, market risk premium and WACC were lower (higher) • the estimated cash flows were higher (lower) • the expected income tax rate was lower (higher)

(b) Transfers between Levels 1 and 2

There were no transfers from Level 2 to Level 1 or from Level 1 to Level 2 in 2022 or in 2021.

C. Financial risk management

Viohalco and its companies are exposed to credit, liquidity and market risk due to the use of financial instruments. This Note sets forth information on their exposure to each one of the above risks, the policies and procedures applied to risk measurement. More quantitative particulars on these disclosures are included throughout the Consolidated Financial Statements.

The risk management policies are applied to identify and analyze the risks facing Viohalco and its companies, set risk-taking limits and apply relevant control systems. Risk management procedures are reviewed regularly and changes are implemented if the need arise.

The implementation of risk management policies and procedures is monitored by the Internal Audit function, which performs ordinary and extraordinary audits relating to the implementation of procedures, whereas the results of such audits are notified to the Board of Directors.

C.1. Credit risk

Credit risk is the risk of the financial loss to Viohalco and its companies, if a customer or counterparty to a financial instrument fails to meet its contractual obligations, and arises principally from the companies' receivables from customers, contract assets and bank deposits.

The carrying amount of financial assets represents the maximum credit exposure.

Amounts in EUR thousands	Note	2022	2021
Trade & other receivables	15	681,976	630,850
Contract assets	7	199,839	101,371
Less:			
Other down payments	15	-10,891	-16,478
Tax assets	15	-64,669	-62,298
Other non-financial assets		-51,296	-28,012
		754,960	**625,433**
Other investments	21	8,405	8,457
Cash and cash equivalents	16	412,644	503,267
Derivatives	23	66,071	17,221
		487,120	**528,945**
Total		**1,242,080**	**1,154,378**

(a) Trade and other receivables

Viohalco's companies have established a credit policy under which each customer's creditworthiness is examined on an individual basis before the determination of the payment terms offered. Credit limits are set for each customer and are regularly reviewed and, readjusted, if necessary. As a rule, customer credit limits are in accordance with of the credit insurance limits offered by the insurance companies where Viohalco companies' rceivables are insured.

When monitoring the credit risk,customers are grouped according to their credit characteristics, and their payment history. Trade and other receivables mainly include wholesale customers of Viohalco's companies. Any customers characterized as being "high risk" are monitored closely subsequent sales have zero payment terms. Depending on the customer credit rating and its status, Viohalco's companies require tangible or other security (e.g. letters of guarantee) in order to secure its receivables.

Viohalco's companies record an impairment loss that represents its expected credit losses in respect of trade and other receivables.

At 31 December, the maximum exposure to credit risk for trade and other receivables and contract assets by geographic region was as follows:

Amounts in EUR thousands	2022	2021
Greece	305,237	184,545
Other EU member states	239,576	261,941
Other European countries	82,312	77,343
Asia	28,451	57,020
America	93,314	36,440
Africa	5,689	7,665
Oceania	381	479
Total	**754,960**	**625,433**

The ageing of trade and other receivables and contract assets that were not impaired was as follows:

Amounts in EUR thousands	2022	2021
Neither past due nor impaired	680,307	556,236
Overdue		
- Up to 6 months	65,161	59,022
- Over 6 months	9,492	10,175
Total	**754,960**	**625,433**

Based on management assessment,the amounts that are past due up to 6 months and over 6 months are still collectible in full, based on historical payment behaviour and extensive analysis of customer credit risk.

Viohalco companies insure a significant portion of their receivables and at 31 December 2022, 76% of the receivables balances were credit insured.

The movement in impairment of trade and other receivables and contract assets is as follows:

	2022			2021		
Amounts in EUR thousands	Trade & other receivables	Contract assets	Total	Trade & other receivables	Contract assets	Total
Balance as at 1 January	**67,313**	**318**	**67,630**	**71,693**	**143**	**71,836**
Impairment loss recognized	5,003	12	**5,015**	2,999	175	**3,173**
Amounts written off	-1,011	0	**-1,011**	-8,454	0	**-8,454**
Impairment loss reversed	-720	-127	**-847**	-476	0	**-476**
Loss of Control/Disposal of subsidiary	-297	0	**-297**	0	0	**0**
Foreign exchange differences	1,260	0	**1,260**	1,776	0	**1,776**
Reclassification to assets held for sale	-2,275	0	**-2,275**	0	0	**0**
Reclassification	-62	0	**-62**	-225	0	**-225**
Balance as at 31 December	**69,212**	**203**	**69,414**	**67,313**	**318**	**67,630**

The allowance for expected credit losses for trade receivables and contract assets are calculated at individual level when there is an indication of impairment. For receivables and contract assets without any indication of impairment the expected credit losses are based on the historical data combined with forward-looking macroeconomic factors affecting credit risk, such as country risk and industry related risks. Expected loss rates are updated at every reporting date. The rising inflation and interest rates were also taken into consideration when calculating expected credit losses for the current year, without any significant impact on the impairment loss recognized.

In 2022, the impairment loss recognized concerned mainly clients in steel, aluminium and copper segment while amounts that have been impaired mainly in other segment were written off. On the contrary, a reversal of impairment loss was recorded, as a result of the improvement of the expected loss rates of major clients in the other segments.

The following collateral exists for securing non-insured receivables from customers and contract assets:

Amounts in EUR thousands	2022	2021
Cash collateral	2,019	1,076
Letter of credit	15,781	10,674
Collateral on property	1,850	2,037
Payables which can be offset by receivables	12,825	11,441
Other	2,597	3,253
Total	**35,073**	**28,480**

(b) Cash and cash equivalents

Viohalco and its subsidiaries held cash and cash equivalents of EUR 413 million at 31 December 2022 (2021: EUR 503 million). The cash and cash equivalents are held with bank and financial institution counterparties, which are rated from A3 to B2 based on ratings of Moody's.

Impairment on cash and cash equivalents has been measured on a 12-month expected loss basis and reflects the short maturities of the exposures. Viohalco considers that its cash and cash equivalents have low credit risk based on the credit assessment performed.

C.2. Liquidity risk

Liquidity risk is the risk that Viohalco companies will encounter difficulties in meeting their fianancial obligations in a timely manner. To manage liquidity risk they ensure, that sufficient liquidity is available, to meet their liabilities when they are due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to their reputation.

Viohalco companies maintain sufficient undrawn credit limits to meet all their scheduled financial obligations as well as most unexpected ones.

Exposure to liquidity risk
Financial liabilities and derivatives based on contractual maturity are broken down as follows:

2022

		Contractual cash flows				
Amounts in EUR thousands	**Carrying Amount**	**< 1year**	**1-2 years**	**2-5 years**	**> 5 years**	**Total**
Liabilities						
Bank loans	985,897	770,598	60,369	139,488	46,723	**1,017,179**
Bond issues	1,443,568	242,446	205,474	450,409	781,333	**1,679,662**
Lease liabilities	40,380	13,265	9,762	9,655	22,616	**55,299**
Derivatives	19,704	18,455	4	1,245	0	**19,704**
Contract liabilities	133,837	133,825	69	0	0	**133,894**
Trade and other payables	1,153,305	1,138,266	4,136	9,770	1,133	**1,153,305**
	3,776,691	**2,316,855**	**279,815**	**610,567**	**851,806**	**4,059,042**

2021

		Contractual cash flows				
Amounts in EUR thousands	**Carrying Amount**	**< 1year**	**1-2 years**	**2-5 years**	**> 5 years**	**Total**
Liabilities						
Bank loans	911,208	731,748	50,791	123,419	21,725	**927,683**
Bond issues	1,231,031	150,965	226,495	490,837	522,835	**1,391,132**
Lease liabilities	45,335	11,728	10,245	9,083	15,589	**46,644**
Derivatives	11,149	7,563	3,205	0	382	**11,149**
Contract liabilities	61,371	61,448	0	0	0	**61,448**
Trade and other payables	1,111,420	1,092,676	6,497	3,184	9,063	**1,111,420**
	3,371,513	**2,056,128**	**297,232**	**626,524**	**569,593**	**3,549,477**

Viohalco companies' loans are subject to termination clauses based on financial ratios, such as 'Total liabilities / Total equity`, 'Net debt / Total sales` and 'Current assets / Current liabilities`, that need to be maintained above or below certain predetermined levels. These ratios are monitored regularly in order to avoid breaches that may lead to loans becoming due before contractual maturity, causing liquidity pressures.

C.3. Market risk

Market risk is the risk that changes in market prices – such as commodity prices, foreign exchange rates and interest rates - will affect Viohalco and its companies income or the value of their financial instruments. Viohalco's companies use derivatives to manage market risk.

Generally, Viohalco companies apply hedge accounting to manage volatility in their returns (P&L).

(a) Currency risk

Viohalco and its companies are exposed to currency risk in relation to the sales and purchases carried out and the loans issued in a currency other than the functional currency of Viohalco and its companies, which is mainly EUR. The most important currencies in which these transactions are held are EUR, USD and GBP.

Over time, Viohalco's companies hedge the greatest part of their exposure to foreign currencies. Viohalco's companies enter mainly into forward contracts with external counterparties so as to deal with currency risk. These contracts mainly expire within the next 12 months from the reporting date. If necessary, such contracts are renewed upon expiry.

FX risk may also be covered "naturally" by taking out loans in the respective currencies if loan interest is denominated in the same currency as that of cash flows coming from operating activities.

The capital investments of Viohalco companies are not hedgedas they have been made mainly in Euro.

The summary quantitative data about Viohalco and its companies' exposure to currency risk as reported is as follows.

2022

Amounts in EUR thousands	USD	GBP	BGN	RSD	RON	Other	Total at risk	EUR	Total
Trade and other receivables	71,765	41,341	30,289	1,407	32,736	8,718	186,256	495,720	**681,976**
Contract assets	35,167	0	0	0	0	0	35,167	164,672	**199,839**
Loans and borrowings	-7,627	-61,008	-4,978	-23	-5,973	-1,639	-81,248	-2,388,598	**-2,469,845**
Trade and other payables	-168,822	-27,303	-57,798	-405	-22,192	-1,202	-277,722	-920,231	**-1,197,953**
Contract liabilities	-44,506	0	-2,068	0	-260	0	-46,834	-87,002	**-133,837**
Cash & cash equivalents	25,368	2,818	7,404	629	1,815	847	38,882	373,762	**412,644**
	-88,653	**-44,152**	**-27,152**	**1,608**	**6,127**	**6,724**	**-145,498**	**-2,361,678**	**-2,507,176**
Derivatives for risk hedging (Nominal Value)	-109,001	-16,333	0	0	0	0	-125,334	22,316	**-103,018**
Exposure	**-197,655**	**-60,485**	**-27,152**	**1,608**	**6,127**	**6,724**	**-270,833**	**-2,339,362**	**-2,610,195**

2021

Amounts in EUR thousands	USD	GBP	BGN	RSD	RON	Other	Total at risk	EUR	Total
Trade and other receivables	70,522	24,868	33,598	5,661	32,395	10,245	177,288	453,562	**630,850**
Contract assets	0	0	0	0	0	0	0	101,371	**101,371**
Loans and borrowings	-14,441	-36,467	-1,718	-31	-6,930	-7,315	-66,901	-2,120,672	**-2,187,573**
Trade and other payables	-110,971	-23,080	-55,155	-556	-17,045	-947	-207,754	-903,666	**-1,111,420**
Contract liabilities	-719	0	-1,511	-49	-1,001	-4,848	-8,129	-53,243	**-61,371**
Cash & cash equivalents	28,422	5,488	5,131	462	3,243	308	43,054	460,213	**503,267**
	-27,188	**-29,191**	**-19,655**	**5,486**	**10,662**	**-2,557**	**-62,442**	**-2,062,434**	**-2,124,876**
Derivatives for risk hedging (Nominal Value)	-61,934	-26,026	0	0	0	0	-87,960	0	**-87,960**
Exposure	**-89,122**	**-55,217**	**-19,655**	**5,486**	**10,662**	**-2,557**	**-150,402**	**-2,062,434**	**-2,212,836**

"Derivatives for risk hedging" includes also derivatives that relate to highly probable transactions, which have not been yet recognized as assets or liabilities in the consolidated statement of financial position. Euro denominated amounts are included for totals' reconciliation purposes.

The following exchange rates have been applied during the year.

	Average exchange rate		Year end spot rate	
	2022	2021	2022	2021
USD	1.05	1.18	1.07	1.13
GBP	0.85	0.86	0.89	0.84
BGN	1.96	1.96	1.96	1.96
RSD	117.46	117.57	117.32	117.58
RON	4.93	4.92	4.95	4.95

Viohalco is primarily exposed to changes of Euro against US dollar, pound sterling, Serbian Dinar and RON. A reasonably possible strengthening (weakening) of Euro against these currencies as at 31 December would have affected the measurement of financial instruments denominated in a foreign currency and affected equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular interest rates, remain constant and ignores any impact of forecast sales and purchases. The Bulgarian currency LEV is not analysed below due to its fixed currency rate at 1.96 BGN/EUR.

	Profit or loss		Equity, net of tax	
Amounts in EUR thousands	EUR Strengthening	EUR Weakening	EUR Strengthening	EUR Weakening
2022				
USD (10% movement)	15,795	-15,795	24,406	-24,406
GBP (10% movement)	5,401	-5,401	6,675	-6,675
RSD (10% movement)	-125	125	-125	125
RON (10% movement)	-478	478	-478	478
2021				
USD (10% movement)	8,920	-8,920	13,751	-13,751
GBP (10% movement)	6,337	-6,337	8,367	-8,367
RSD (10% movement)	-428	428	-428	428
RON (10% movement)	-832	832	-832	832

(b) Interest rate risk

Viohalco Subsidiaries have adopted a flexible policy of ensuring that a portion of their Medium and LT debt obligations are on a fixed rate basis. This is achieved through a combination of issuing medium term, fixed rate bond loans and using interest rate swaps to hedge a portion of their floating rate medium and LT loans. The interest rate profile of Viohalco companies' interest-bearing financial instruments, as reported is as follows.

	Nominal amount	
Amounts in EUR thousands	2022	2021
Fixed-rate instruments		
Financial liabilities	-339,913	-326,704
Variable-rate instruments		
Financial liabilities	-2,129,932	-1,860,868
Interest rate swaps (nominal value)	-123,800	0
	2,006,132	**1,860,868**

Fixed-rate instruments
Viohalco does not account for any fixed-rate financial assets or financial liabilities at fair value through profit or loss. Viohalco currently uses derivatives (interest rate swaps) as hedging instruments under a cash flow hedge accounting model.

Sensitivity analysis for variable-rate instruments
A reasonably possible change of 0.25% in interest rates of variable-rate instruments at the reporting date would have increased/ decreased (-) profit or loss by the amount shown below. This analysis assumes that all other variables, in particular foreign currency exchange rate, remain constant.

Variable rate	Profit or loss	
Amounts in EUR thousands	**0.25% increase**	**0.25% decrease**
2022		
Financial liabilities	3,535	-3,537
Cash flow sensitivity (net)	**3,535**	**-3,537**
2021		
Financial liabilities	-449	452
Cash flow sensitivity (net)	**-449**	**452**

(c) Cash flow hedges

The following table indicates the periods in which the cash flows associated with cash flow hedges are expected to occur:

Amounts in EUR thousands	Carrying amount at 31 December 2022	1-6 months	6-12 months	More than 1 year	31 December 2022
Interest rate Swaps					
Assets	17,524	1,670	1,979	13,874	17,524
Forwards					
Assets	13,294	3,862	5,808	3,624	13,294
Liabilities	10,132	5,608	4,520	4	10,132
Future contracts					
Assets	2,380	1,129	1,251	0	2,380
Liabilities	4,628	4,448	180	0	4,628
Commodity Swaps					
Assets	28,748	4,173	6,519	18,056	28,748
Liabilities	4,917	1,871	1,801	1,245	4,917
	81,624	**22,762**	**22,060**	**36,803**	**81,624**

Amounts in EUR thousands	Carrying amount at 31 December 2021	1-6 months	6-12 months	More than 1 year	31 December 2021
Interest rate Swaps					
Liabilities	382	382	0	0	382
Forwards					
Assets	760	732	28	0	760
Liabilities	2,071	2,035	36	0	2,071
Future contracts					
Assets	7,670	7,564	107	0	7,670
Liabilities	5,062	5,077	-14	0	5,062
Commodity Swaps					
Assets	6,663	3,087	3,576	0	6,663
Liabilities	3,205	0	0	3,205	3,205
	25,813	**18,876**	**3,732**	**3,205**	**25,813**

The table below provides information about the items designated as cash flow hedging instruments during the year and also as at 31 December 2022 and the reconciliation of hedging reserve. Based on their nature, hedging instruments are included in Derivatives assets and Derivatives liabilities in consolidated statement of financial position.

2022

Amounts in EUR thousands	Nominal Amount	Carrying amount		Balance 1 January 2022	Changes in the value of the hedging instrument recognised in OCI	Amount reclassified from hedging reserve to profit or loss	Other move-ments	Change in accounting policy	Effect of movement in exchange rates	Balance 31 December 2022
		Assets	Liabilities							
Forward foreign exchange contracts	187,291	13,294	-10,132	-1,311	2,773	1,462	-100	0	337	**3,161**
Future contracts	53,123	2,380	-4,628	2,608	-11,734	3,188	230	0	2	**-5,706**
Interest rate swap contracts	203,800	17,524	0	-382	15,701	-47	0	2,252	0	**17,524**
Commodity swap contracts	51,239	28,748	-4,917	3,458	30,494	-6,663	0	0	0	**27,289**
	495,452	**61,946**	**-19,678**	**4,373**	**37,233**	**-2,059**	**130**	**2,252**	**339**	**42,268**

2021

Amounts in EUR thousands	Nominal Amount	Carrying amount		Balance 1 January 2021	Changes in the value of the hedging instrument recognised in OCI	Amount reclassified from hedging reserve to profit or loss	Other movements	Effect of movement in exchange rates	Balance 31 December 2021
		Assets	Liabilities						
Forward foreign exchange contracts	101,239	760	-2,071	1,103	-1,461	-1,079	0	127	**-1,311**
Future contracts	86,383	7,670	-5,062	605	2,843	-634	-230	25	**2,608**
Interest rate swap contracts	21,300	0	-382	-1,026	0	0	644	0	**-382**
Commodity swap contracts	28,886	6,663	-3,205	0	3,458	0	0	0	**3,458**
	237,807	**15,093**	**-10,720**	**682**	**4,839**	**-1,713**	**414**	**152**	**4,373**

(d) Commodity price risk

The commodity markets experience continuous price fluctuations. Viohalco companies minimize their exposure to commodity price volatility by using hedging instruments, when possible.

Viohalco companies are exposed to the fluctuation of aluminium, copper, zinc, lead and nickel. In order to minimize the effect of the metal price fluctuations on their results, companies use back to back matching of purchases and sales or derivative instruments (future contracts).

As at 31 December 2022, the derivative net balance of future contracts per commodity as reported in the statement of financial position is:

Amounts in EUR thousands	2022	2021
Aluminium	-2,307	975
Copper	98	1,658
Lead	-39	-25
Nickel	0	0
Total	**-2,248**	**2,608**

In addition, during 2021, Viohalco subsidiaries started using Commodity Swaps referenced on the Title Transfer Facility (TTF) prices to hedge the risk of fluctuations in natural gas prices from market conditions. As at 31 December 2022, the derivative net balance these contracts as reported in the statement of financial position is EUR 23.8 million.

These hedges are designated in a cash flow hedge accounting relationship.

C.4. Risks Related to Climate change

Viohalco companies recognize the importance of transparency regarding climate-related risks and opportunities to maintain trust of stakeholders and allow investors to better understand the potential impact transition and physical risks and opportunities emanating from climate change. To that end, Viohalco has pledged to assess the potential severity of the risks and the possible benefits of the opportunities with the aim to take all necessary measures to mitigate negative impacts and maximize the positive ones, and to adopt the Task Force on Climate-related Financial Disclosures (TCFD) framework to transparently communicate all climate-related risks and opportunities. For this purpose, Viohalco subsidiaries performed an assessment of climate-related risks and opportunities that covered all industrial and real estate assets. The detailed results of this assessment are reported at segmental level in the Non-Financial Disclosure, accompanying the Annual Report.

Moving to a low-carbon economy requires certain measures to be considered and implemented. Through the analysis, for each business segment, the most material climate related transition and physical risks and opportunities over the short, medium and long-term, have been identified. The transition risks assessed relate to policy, legal, technology and market changes to address climate change mitigation and adaptation. Policy actions around climate change continue to evolve, technological improvements or innovations that support the transition to a lower-carbon and energy efficient economic system can have a significant impact on organizations, while significant changes in market such as decrease in demand for specific goods or services or decreased revenues related to changes in customer behavior are some examples of the implications that can impact the operating model and the financial planning of Viohalco subsidiaries. On the other hand, extreme weather events and longer-term shifts in climate patterns such as limited water availability and extreme heat or sea level rise may have multiple impacts and possible financial implications for Viohalco companies.

The abovementioned risks and opportunities have been identified and classified on a scale of low, medium, and high, based on the actual and potential impacts on the Viohalco companies' business model, assets and operations, as well as financial impacts on the business performance. The financial impacts have being considered to the accounting estimates to the extent that they can be currently evaluated. Moreover, challenges associated with climate related commitments have been considered, and Viohalco companies have not identified any additional issues that may have a material effect on their financial statements.

C.5. Business and Operational Risk Management

Viohalco subsidiaries follow closely and on a continuous basis the developments in the international and domestic environment and timely adapt their business strategy and risk management policies to minimize the impact of the macroeconomic conditions on their operations.

There were no changes in Viohalco companies' business and operational risk management objectives and policies during 2022.

Impact of Ukraine conflict

The Ukraine conflict, which began in February 2022, in addition to the human toll, is increasingly affecting global financial markets and exacerbating ongoing economic challenges, including issues such as rising inflation, global supply-chain disruption and energy crisis.

The direct exposure to Ukraine and Russia is very limited and business consequences were not material so far, while the same is expected for the foreseeable future. Sales to these markets represent an insignificant portion of total turnover and any loss in revenue can be fully offset by demand in other markets. In terms of financing, Viohalco companies have no exposure to Russian banks.

Regarding the impact in energy prices, Viohalco companies have already taken mitigating actions to reduce any business impact related to energy cost, while they are monitoring the situation closely in order to secure efficiency their operations.

31. Subsidiaries

Viohalco's subsidiaries and the percentages of financial interest held by the parent company at the end of the reporting period are as follows:

Subsidiary companies	Country	Financial interest 2022	Financial interest 2021
AEIFOROS S.A.	GREECE	98.11%	98.11%
AEIFOROS BULGARIA S.A.	BULGARIA	98.11%	98.11%
ALURAME SPA	ITALY	91.59%	91.59%
ANOXAL S.A.	GREECE	84.78%	84.78%
ANAMET DOO	SERBIA	97.54%	97.54%
ANAMET S.A.	GREECE	97.54%	97.54%
ANTIMET S.A.	GREECE	100.00%	100.00%
ATTIKI S.A.	GREECE	75.00%	75.00%
BASE METALS S.A.	TURKEY	69.15%	69.15%
BRIDGNORTH LTD	U.K	100.00%	75.00%
CABLEL WIRES S.A.	GREECE	84.78%	84.78%
CENERGY HOLDINGS S.A.	BELGIUM	79.78%	79.78%
HELLENIC CABLES AMERICA CO.	USA	79.78%	79.78%
CLUJ INTERNATIONAL TRADE SRL	ROMANIA	-	91.59%
CORINTH PIPEWORKS S.A.	GREECE	79.78%	79.78%

Subsidiary companies	Country	Financial interest 2022	Financial interest 2021
CPW AMERICA Co	USA	79.78%	79.78%
CPW SOLAR S.A.	GREECE	79.78%	-
CPW WIND S.A.	GREECE	79.78%	-
DE LAIRE LTD	CYPRUS	79.78%	79.78%
DIO PERNIK EOOD	BULGARIA	98.11%	98.11%
DIA.VI.PE.THI.V S.A.	GREECE	91.54%	91.54%
DOJRAN STEEL LLCOP	NORTH MACEDONIA	92.56%	100.00%
EANEP ALMYROU SA	GREECE	92.56%	-
ELVAL COLOUR S.A.	GREECE	84.78%	84.78%
ELVAL COLOUR IBERICA S.A.	SPAIN	84.78%	84.78%
ELVALHALCOR S.A.	GREECE	84.78%	84.78%
ELVIOK S.A.	GREECE	84.78%	84.78%
ELKEME S.A.	GREECE	84.40%	84.40%
EPIRUS METALWORKS S.A.	GREECE	84.78%	84.78%
ERGOSTEEL S.A.	GREECE	89.12%	89.12%
ERLIKON S.A.	GREECE	100.00%	100.00%
ETEM ALBANIA S.A.	ALBANIA	84.78%	88.79%
ETEM BULGARIA S.A.	BULGARIA	100.00%	100.00%
ETEM BG S.A.	BULGARIA	84.78%	88.79%
ETEM GESTAMP EXTRUSIONS S.A.	BULGARIA	51.00%	51.00%
ETEM COMMERCIAL S.A.	GREECE	84.78%	87.82%
ETEM SCG	SERBIA	84.78%	88.79%
ETEM SYSTEMS LLC	UCRAINE	84.78%	88.79%
ETEM SYSTEMS SRL	ROMANIA	84.78%	88.79%
ETIL S.A.	GREECE	100.00%	100.00%
FLOCOS S.A.	GREECE	100.00%	100.00%
FULGOR S.A.	GREECE	79.78%	79.78%
GENECOS S.A.	FRANCE	91.59%	91.59%
HELLENIC CABLES S.A.	GREECE	79.78%	79.78%
HELLENIC CABLES TRADING CO.	USA	79.78%	79.78%
HUMBEL LTD	CYPRUS	79.78%	79.78%
ICME ECAB S.A.	ROMANIA	79.76%	79.76%
INOS BALCAN DOO	SERBIA	97.54%	97.54%
INTERNATIONAL TRADE S.A.	BELGIUM	91.59%	91.59%
JOSTDEX LIMITED	CYPRUS	100.00%	100.00%
LESCO ROMANIA S.A.	ROMANIA	51.86%	51.86%
LESCO EOOD	BULGARIA	79.78%	79.78%
METAL AGENCIES LTD	U.K	91.59%	91.59%
METALCO S.A.	BULGARIA	100.00%	100.00%
METALIGN S.A.	BULGARIA	100.00%	100.00%
METALLOURGIA ATTIKIS S.A.	GREECE	-	50.00%
METALLOURGIA ATTIKIS PROPERTY S.A.	GREECE	-	50.00%
NOVAL PROPERTY REIC	GREECE	81.09%	87.29%
NOVOMETAL DOO	NORTH MACEDONIA	97.54%	97.54%
PORT SVISHTOV WEST S.A.	BULGARIA	73.09%	73.09%
PRAKSIS S.A.	GREECE	61.00%	61.00%
PRAKSIS BG S.A.	BULGARIA	61.00%	61.00%
REYNOLDS CUIVRE S.A.	FRANCE	91.59%	91.59%
ROULOC S.A.	GREECE	84.78%	84.78%
SIDEBALK STEEL DOO	SERBIA	100.00%	100.00%
SIDENOR INDUSTRIAL S.A.	GREECE	100.00%	100.00%
SIDERAL SHRK	ALBANIA	99.92%	99.92%
SIDEROM STEEL SRL	ROMANIA	100.00%	100.00%
SOFIA MED AD	BULGARIA	86.37%	86.37%
SOVEL S.A.	GREECE	92.56%	92.95%
SPARROWS POINT PROPERTIES HOLDING S.A.	USA	79.78%	-
SPARROWS POINT PROPERTIES S.A.	USA	79.78%	-
STEELMET CYPRUS LTD	CYPRUS	89.12%	89.12%
STEELMET PROPERTIES S.A.	GREECE	89.12%	89.12%
STEELMET ROMANIA S.A.	ROMANIA	91.59%	91.59%
STEELMET S. A.	GREECE	89.12%	89.12%

Subsidiary companies	Country	Financial interest 2022	Financial interest 2021
STEELMET FINANCIAL SERVICES S.A.	GREECE	100.00%	-
STOMANA INDUSTRY S.A.	BULGARIA	100.00%	100.00%
STOMANA ENGINEERING S.A.	BULGARIA	100.00%	100.00%
SYMETAL S.A.	GREECE	84.78%	84.78%
TECHOR S.A.	GREECE	84.78%	84.78%
TECHOR ROMANIA S.A.	ROMANIA	84.78%	84.78%
TEPROMKC AG	GERMANY	91.59%	91.59%
TERRA MIDDLE EAST AG	GERMANY	91.59%	91.59%
TEKA SYSTEMS S.A.	GREECE	100.00%	85.72%
TEKA ENGINEERING S.A.	GREECE	100.00%	-
VEPAL S.A.	GREECE	84.78%	84.78%
VIENER S.A.	GREECE	93.70%	93.70%
VIEXAL S.A.	GREECE	95.94%	95.94%
VIOMAL S.A.	GREECE	63.58%	63.58%
VITRUVIT S.A.	GREECE	99.75%	99.75%
WARSAW TUBULARS TRADING SP.ZO	POLAND	79.78%	79.78%

The ultimate controlling entity is Viohalco S.A. for all the above entities. Viohalco does exercise control, by holding the majority of the voting rights, directly and/or indirectly and these entities are reported as subsidiary companies.

The percentages reported on the above table represent the financial interest held directly and indirectly by Viohalco. For example, if Viohalco holds 70% of company A and company A holds 70% of company B, then in the table above it will be presented that Viohalco holds 49% of financial interest in company B.

Transactions that took place in 2022

Acquisition of NCI

- On March 17th, 2022, Viohalco's Board of directors approved the acquisition of 25% non-controlling interest in subsidiary Bridgnorth Aluminium in consideration of GBP 11 million. As a result, Viohalco's participation in Bridgnorth Aluminium amounts to 100%.
- On June 14th, Viohalco acquired the remaining 14.28% of Teka Systems shares, in consideration of EUR 4 million. After the transaction Viohalco participation in the company amounts to 100%.

Mergers & Absorptions

- On December 31st, 2022, Viohalco subsidiary Metallourgia Attikis Properties absorbed by Noval Property REIC.
- On December 31st, 2022, Noval Property REIC absorbed Mesogeiakes Epixeiriseis S.A.

New subsidiaries establishment

- On November 30th, 2022 new subsidiary Steelmet Financial Services S.A. was established after the spin-off of the Metalign Greek Branch.
- On July 21st, 2022 new subsidiary TEKA Engineering SA was established after the spin-off of the industrial and machinery constructions segment from Teka Systems SA.
- During 2022, they were established two new subsidiaries in the USA, Sparrows Point Properties Holdings LLC and Sparrows Point Properties LLC., to support the construction of a submarine cables factory in the USA.
- During 2022, they were established two new subsidiaries in Greece, CPW Solar SA & CPW Wind SA to support future investment plans, without a final decision yet in place.
- On February 24th, 2022, new subsidiary in the Steel segment was established named EANEP Almyrou.

Loss of control

- On December 31st, 2022, Viohalco's control in the participation to Mettalourgia Attikis was lost due to management restructuring while the participation held was 50%. The company will be accounted as an Equity accounted investee from 31.12.2022 (note 20).

Other major transactions

- On December 14th, 2022, was completed the disposal of Viohalco participation (20%) at Etem Commercial S.A. to ElvalHalcor S.A.
- On June 27th, 2022, Noval Property proceeded with a share capital increase with contributions in kind, resulting in increase of non-controlling interest by 6.25%.

32. Joint operations

Viohalco's subsidiary Hellenic Cables has a 62.48% interest in a joint arrangement called VO Cablel VOF, which was set up as a partnership together with Van Oord. The scope of this joint operation scheme is to supply and install sea and land cables for the Hollandse Kust (South) Alpha project and Hollandse Kust (South) Beta project. The principal place of business of the joint operation is in the Netherlands.

Hellenic Cables has a 50.77% interest in a joint arrangement called DEME Offshore NL - Hellenic Cables V.O.F., which was set up as a partnership together with Tideway. The scope of this joint operation scheme is to execute a turnkey contract for the supply and installation of submarine cables for the connection of the Seamade offshore wind project to the Belgian grid. The principal place of business of the joint operation is in Belgium.

Viohalco's subsidiary Fulgor has a 10% interest in a joint arrangement called Fulgor – JDN Consortium, which was set up as a partnership together with Jan De Nul. The scope of this joint operation scheme is to execute a turnkey contract for the installation of submarine cables for the interconnection Crete-Peloponnese in Greece. The principal place of business of this joint operation is in Greece.

The above joint operations were formed during prior years.

Fulgor has a 70.27% interest in a joint arrangement called Fulgor – Asso.subsea Ltd Consortium, which was set up as a partnership together with Asso.subsea Ltd. The scope of this joint operation scheme is to execute a turnkey contract for the design, manufacturing, supply and installation of the 150 kV submarine cable system connecting the under construction 330 MW Kafireas II Wind Farm to Greece's mainland grid. The principal place of business of this joint operation is in Greece.

The agreements in relation to the VO Cablel VOF, Fulgor – JDN Consortium and DEME Offshore NL - Hellenic Cables V.O.F. require unanimous consent from all parties for all relevant activities. The two partners have direct rights to the assets of the partnership and are jointly and severally liable for the liabilities incurred by the partnership. These entities are therefore classified as joint operations and the Group recognises its direct right to the jointly held assets, liabilities, revenues and expenses as described in note 5.

33. Non-controlling interests

The following table summarises the information relating to each of the subsidiaries that have material NCI (at sub-group level in the cases of Cenergy, ElvalHalcor, Sidenor) before any intra-group elimination.

2022

Amounts in EUR thousands	Cenergy	ElvalHalcor	Sidenor	Bridgnorth	Other	Intragroup eliminations	Total
NCI percentage	**20.22%**	**15.22%**	**0.00%**	**0.00%**			
Non-current assets	608,231	1,074,173	304,720	0			
Current assets	1,078,163	1,311,383	405,716	0			
Non-current liabilities	193,139	869,136	340,482	0			
Current liabilities	1,163,975	664,151	272,987	0			
Net Assets	**329,280**	**852,268**	**96,967**	**0**			
Attributable to NCI by the companies	**38**	**13,977**	**48,102**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**329,241**	**838,292**	**48,865**	**0**			
Attributable to NCI by parent Company	**66,573**	**127,588**	**0**	**0**			
Carrying amount of NCI	66,611	141,565	48,102	0	65,413	-46,580	**275,111**
Revenue	1,426,008	3,714,755	970,915	0			
Profit / Loss (-)	58,774	158,059	45,834	0			
Other comprehensive income	3,306	25,167	762	0			
Total comprehensive income	**62,081**	**183,226**	**46,596**	**0**			
Attributable to NCI by the companies	**3**	**2,563**	**10,636**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**62,077**	**180,663**	**35,960**	**0**			
Attributable to NCI by Viohalco	**12,552**	**27,497**	**0**	**0**			
Total OCI of NCI	12,555	30,060	10,636	0	507	-12,814	**40,944**
Cash flows from operating activities	-97,191	18,874	44,107	0			
Cash flows from investing activities	-71,745	-175,110	-16,984	0			
Cash flows from financing activities	206,602	100,288	-33,773	0			
Net increase/ decrease (-) in cash and cash equivalents	**37,667**	**-55,949**	**-6,651**	**0**			

2021

Amounts in EUR thousands	Cenergy	ElvalHalcor	Sidenor	Bridgnorth	Other	Intragroup eliminations	Total
NCI percentage	**20.22%**	**15.22%**	**0.00%**	**25.00%**			
Non-current assets	549,423	975,185	303,121	77,487			
Current assets	646,185	1,107,514	399,056	149,518			
Non-current liabilities	244,017	748,752	251,366	6,427			
Current liabilities	684,392	647,843	400,441	111,108			
Net Assets	**267,199**	**686,104**	**50,371**	**109,470**			
Attributable to NCI by the companies	**35**	**16,724**	**37,467**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**267,164**	**669,380**	**12,904**	**109,470**			
Attributable to NCI by parent Company	**54,021**	**101,880**	**0**	**27,368**			
Carrying amount of NCI	54,056	118,604	37,467	27,368	43,535	-40,060	**240,969**
Revenue	1,054,203	2,889,696	726,333	322,697			
Profit / Loss (-)	20,915	152,622	56,896	-5,829			
Other comprehensive income	514	2,508	-170	6,913			
Total comprehensive income	**21,429**	**155,130**	**56,727**	**1,084**			
Attributable to NCI by the companies	**1**	**2,560**	**12,658**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**21,428**	**152,569**	**44,069**	**1,084**			
Attributable to NCI by Viohalco	**4,333**	**23,221**	**0**	**271**			
Total OCI of NCI	4,334	25,781	12,658	271	3,825	-20,189	**26,681**
Cash flows from operating activities	112,514	24,577	33,603	-30,468			
Cash flows from investing activities	-43,757	-169,242	-14,629	-8,261			
Cash flows from financing activities	-20,494	202,003	1,389	41,392			
Net increase/ decrease (-) in cash and cash equivalents	**48,263**	**57,339**	**20,364**	**2,663**			

On March 17th, 2022, Viohalco's Board of directors approved the acquisition of 25% non-controlling interest in subsidiary Bridgnorth Aluminium in consideration of GBP 11 million. As a result, Viohalco's participation in Bridgnorth Aluminium amounts to 100%.

34. Leases

A. Leases as lessee

(a) Amounts recognised in the Statement of Financial Position

The Consolidated Statement of Financial Position shows the following amounts relating to leases:

Right of Use Assets

Amounts in EUR thousands	31 December 2022	31 December 2021
Land	518	345
Buildings	5,523	4,091
Machinery	16,608	18,786
Transportation equipment	12,371	10,744
Other equipment	259	323
Total Right-of-use assets	**35,279**	**34,288**

Lease liabilities

Amounts in EUR thousands	31 December 2022	31 December 2021
Current lease liabilities	10,932	10,696
Non-current lease liabilities	29,449	34,639
Total lease liabilities	**40,380**	**45,335**

Additions to the right-of-use assets during 2022 were EUR 10,195 thousands (2021: EUR 6,276 thousands).

(b) Amounts recognised in the Statement of profit or loss

The statement of profit or loss includes the following amounts relating to leases:

Amounts in EUR thousands	2022	2021
Depreciation charge of right-of-use assets		
Plots	53	37
Buildings	1,151	911
Machinery	2,722	2,926
Transportation means	4,459	4,509
Other equipment	124	135
Total	**8,509**	**8,518**
Interest expense (included in finance cost)	1,915	2,076
Variable rental fees	1,234	730
Low value rental fees	547	461
Short term rental fees	8,155	4,111
Total	**11,851**	**7,378**

B. Leases as lessor

Viohalco and its companies in the real estate development sector lease out their investment properties (See note 19).

(a) Future minimum lease collections

At 31 December, the future minimum lease payments under non-cancellable leases were as follows.

Amounts in EUR thousands	2022	2021
Less than one year	18,731	16,658
Between one and two years	17,968	14,942
Between two and three years	17,016	14,551
Between three and four years	15,915	14,321
Between four and five years	15,094	12,955
More than five years	76,623	79,110
Total	**161,346**	**152,537**

(b) Amounts recognized in profit or loss

The figures below are related to investment property that has been recognised in the statement of profit or loss. Operating expenses relate mainly to maintenance cost.

Amounts in EUR thousands	2022	2021
Rental income from investment property	21,050	11,472
Direct operating expenses that do not generate rental income	-62	-61

35. Commitments

A. Purchase commitments

The below mentioned commitments relate to contracts that Viohalco's subsidiaries have entered into, according to their investment plans and are expected to be concluded during the next 3 years.

Amounts in EUR thousands	2022	2021
Property, plant and equipment	27,265	20,383
Investment property	25,606	953
Intangible Assets	24	58

B. Guarantees

Amounts in EUR thousands	2022	2021
Liabilities		
Guarantees to secure liabilities to suppliers	46,276	35,172
Guarantees for securing the good performance of contracts with customers	505,164	238,306
Guarantees for securing the good performance of contracts with suppliers	3,129	2,141

36. Contingent liabilities

A. Litigations & administrative reviews

Regarding Corinth Pipeworks' exports of large diameter welded pipe (LDWP) to the US for the periods April 2020 - April 2021 and April 2021 - April 2022, additional administrative reviews from the US Department of Commerce (DoC) are expected. No provision has been recorded in respect to these administrative reviews due to the following facts:

- For the period April 2020 - April 2021 there were no sales to the US subject to antidumping duties; thus, no additional charge is expected for that period.
- For the period April 2021 - April 2022 sales to the US subject to antidumping duties were not material. The outcome of such administrative review is considered as highly volatile and hard to predict, thus the amount of any arising liability cannot be reasonably estimated.

B. Contigent tax liabilities

The tax filings of the subsidiaries are routinely subjected to audit by tax authorities in most of the jurisdictions in which Viohalco and its companies conduct business. These audits may result in assessments of additional taxes. Viohalco and its subsidiaries provide for additional tax in relation to the outcome of such tax assessments, to the extent that a liability is probable and estimable.

Viohalco companies believe that their accruals for tax liabilities are adequate for all open tax years based on their assessment of underlying factors, including interpretations of tax law and prior experience.

37. Related parties

A. Equity-accounted investees and other related parties

The following transactions have been made with equity-accounted investees and other related parties.

Amounts in EUR thousands	2022	2021
Sale of goods/ services		
Associates	127,262	96,281
Joint ventures	54,484	34,516
	181,746	**130,798**
Sale of fixed assets		
Joint ventures	47	198
	47	**198**
Purchases of goods / services		
Associates	11,857	10,639
Joint ventures	3,527	2,335
	15,384	**12,974**
Purchase of fixed assets		
Associates	2,152	13,351
Joint ventures	0	26
	2,152	**13,377**

Closing balances that arise from sales/purchases of goods, services, fixed assets, etc.:

Amounts in EUR thousands	2022	2021
Receivables from related parties		
Associates	35,452	37,625
Joint ventures	13,548	10,025
	48,999	**47,651**
Contract assets to related parties		
Associates	96	90
Joint ventures	6	42
	103	**132**
Liabilities to related parties		
Associates	3,102	3,543
Joint ventures	198	1,263
	3,301	**4,806**
Contract liabilities to related parties		
Joint ventures	86	8
	86	**8**

The outstanding balances from related parties are secured and the settlement of those balances is expected to be performed in cash during the following year, since the balances concern only short-term receivables and payables.

Receivables from joint ventures include EUR 4.5 million (2021: EUR 5.7 million) as short term loan to Nedzink B.V.

Services to and from related parties as well as sales and purchases of goods are carried out in accordance with the price lists applying to non-related parties. During 2022, properties of EUR 1,416 thousands and services of EUR 205 thousands (2021: EUR 180 thousands) acquired from entities that are controlled by members of the key management personnel.

B. Key management personnel compensation

The table below provides an overview of the transactions with Board members and executive management:

Amounts in EUR thousands	2022	2021
Compensation to BoD members and executives	5,626	5,430

The compensation to directors and executive management in the table above are fixed compensation. No variable compensation, post-employment benefits or share based benefits were paid in 2022 and in 2021.

38. Auditor's fees

The Company's statutory auditor (PwC Reviseurs d'Entreprises SRL/ Bedrijfsrevisoren BV) and a number of other member firms of the auditor's network, received fees for the following services:

	For year ended 31 December	
Amounts in EUR thousands	**2022**	**2021**
Statutory Auditor		
Audit	328	336
Audit related services	32	30
Tax related services	3	73
Other related services	19	0
	382	**439**
Statutory Auditor Network		
Audit	1,076	952
Tax related services	189	201
Other services	110	232
	1,375	**1,385**
Total	**1,757**	**1,824**

39. Subsequent events

On March 9th, 2023, Viohalco Board of Directors decided to propose to the Ordinary General Shareholders' meeting to be held on May 30th, 2023, the approval of a gross dividend of EUR 0.12 per share.

The corporate transaction for the Strategic Cooperation Agreement, through the merger with absorption of Etem by Cosmos Aluminium (Note 22), is expected to be finalized within April 2023.

No other subsequent events for which disclosure is required in the Consolidated Financial Statements have occurred since 31 December 2022.

Auditor's Report on the Consolidated Financial Statements

STATUTORY AUDITOR'S REPORT TO THE GENERAL SHAREHOLDERS' MEETING OF VIOHALCO SA ON THE CONSOLIDATED ACCOUNTS FOR THE YEAR ENDED 31 DECEMBER 2022

We present to you our statutory auditor's report in the context of our statutory audit of the consolidated accounts of Viohalco SA (the "Company") and its subsidiaries (jointly "the Group"). This report includes our report on the consolidated accounts, as well as the other legal and regulatory requirements. This forms part of an integrated whole and is indivisible.

We have been appointed as statutory auditor by the general meeting d.d. 31 May 2022, following the proposal formulated by the board of directors and following the recommendation by the audit committee. Our mandate will expire on the date of the general meeting which will deliberate on the annual accounts for the year ended 31 December 2024. We have performed the statutory audit of the Group's consolidated accounts for 4 consecutive years.

Report on the consolidated accounts

Unqualified opinion

We have performed the statutory audit of the Group's consolidated accounts, which comprise the consolidated statement of financial position as at 31 December 2022, the consolidated statement of profit or loss, the consolidated statement of other comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies and other explanatory information, and which is characterised by a consolidated statement of financial position total of EUR 6,030,196 thousand and a profit, attributable to owners of the company of, EUR 266,133 thousand.

In our opinion, the consolidated accounts give a true and fair view of the Group's net equity and consolidated financial position as at 31 December 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended, in accordance with International Financial Reporting Standards as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium.

Basis for unqualified opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) as applicable in Belgium. Furthermore, we have applied the International Standards on Auditing as approved by the IAASB which are applicable to the year-end and which are not yet approved at the national level. Our responsibilities under those standards are further described in the "Statutory auditor's responsibilities for the audit of the consolidated accounts" section of our report. We have fulfilled our ethical responsibilities in accordance with the ethical requirements that are relevant to our audit of the consolidated accounts in Belgium, including the requirements related to independence.

We have obtained from the board of directors and Company officials the explanations and information necessary for performing our audit.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated accounts of the current period. These matters were addressed in the context of our audit of the consolidated accounts as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter 1: Availability of financing resources and compliance with covenants

Description of the Key Audit Matter

The subsidiaries of the Group have significant non-current and current financial debts. The terms and conditions of the related financing agreements often include debt covenants that are to be complied with at each balance sheet date. Any breach in such debt covenants could result in its lenders exercising the right to claim early repayment of certain non-current and/or current financial debts. For these reasons, we considered the availability of financing resources and failure to comply with covenants as most significant to our audit.

Reference is made to Note 5: Significant accounting policies: Financial instruments and Note 26: Loans and Borrowings.

How our Audit addressed the Key Audit Matter

Our testing included obtaining an understanding of the financing agreements and the Group's procedures and controls in place both to ensure its compliance with the debt covenants and to understand the used and unused financing resources. We tested the debt covenants related to the financing agreements and assessed compliance with the terms and conditions stipulated therein. Furthermore, we evaluated both the presentation of the financial debts on the Consolidated Statement of Financial Position and the adequacy of the relevant disclosures in the Notes to the Consolidated Financial Statements.

We found the tested debt covenants to be complied with and company's disclosures of financial debts appropriate.

Key audit matter 2: Impairment of property, plant and equipment

Description of the key audit matter

The carrying value of the Group's property, plant and equipment amounts to EUR 2,231,036 thousands at 31 December 2022.

In accordance with the International Financial Reporting Standards as endorsed by the EU (IFRS), the Company is required to perform an impairment assessment in respect of the property, plant and equipment when triggers for impairment are identified. We consider this matter to be of most significance to our audit because of the magnitude of the amount and because the determination of whether or not an impairment charge is necessary involves significant judgement in estimating the future results of the business.

Reference is made to Note 17: Property, plant and equipment.

How our audit addressed the key audit matter

We evaluated the appropriateness of the Group's accounting policies and assessed compliance with the policies in accordance with IFRS. In addition, we evaluated management's impairment assessment including the identified triggers for impairment and challenged impairment calculations by assessing the future cash flow forecasts used in the models, and the process by which they were drawn up, including comparing them to the latest budgets provided by management. We challenged the following:

- Assumptions used in the Group's budget and internal forecasts and the long-term growth rates by comparing them to economic and industry forecasts;
- The discount rate by assessing the cost of capital and other inputs including benchmarking with comparable organisations;
- The historical accuracy of budgets to actual results to determine whether cash flow forecasts are reliable based on past experience;
- The mechanics of the underlying calculations.

In performing the above work, we utilized our internal valuation experts to provide challenge and external market data to assess the reasonableness of the assumptions used by management.

We evaluated the sensitivity analysis around the key drivers within the cash flow forecasts to ascertain the extent of change in those assumptions and also considered the likelihood of such a movement in those key assumptions arising.

Whilst recognizing that cash flow forecasting, impairment modelling and valuations are all inherently judgmental, we

concluded that the assumptions used by management were within an acceptable range of reasonable estimates.

Responsibilities of the board of directors for the preparation of the consolidated accounts

The board of directors is responsible for the preparation of consolidated accounts that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the European Union and with the legal and regulatory requirements applicable in Belgium, and for such internal control as the board of directors determines is necessary to enable the preparation of consolidated accounts that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated accounts, the board of directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the board of directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Statutory auditor's responsibilities for the audit of the consolidated accounts

Our objectives are to obtain reasonable assurance about whether the consolidated accounts as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated accounts.

In performing our audit, we comply with the legal, regulatory and normative framework applicable to the audit of the consolidated accounts in Belgium. A statutory audit does not provide any assurance as to the Group's future viability nor as to the efficiency or effectiveness of the board of directors' current or future business management at Group level. Our responsibilities in respect of the use of the going concern basis of accounting by the board of directors are described below.

As part of an audit in accordance with ISAs, we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated accounts, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control;
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control;
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the board of directors;
- Conclude on the appropriateness of the board of directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our statutory auditor's report to the related disclosures in the consolidated accounts or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our statutory auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern;
- Evaluate the overall presentation, structure and content of the consolidated accounts, including the disclosures, and whether the consolidated accounts represent the underlying transactions and events in a manner that achieves fair presentation;
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the audit committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the audit committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated accounts of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Responsibilities of the board of directors

The board of directors is responsible for the preparation and the content of the directors' report on the consolidated

accounts and the other information included in the annual report on the consolidated accounts.

Statutory auditor's responsibilities

In the context of our engagement and in accordance with the Belgian standard which is complementary to the International Standards on Auditing (ISAs) as applicable in Belgium, our responsibility is to verify, in all material respects, the directors' report on the consolidated accounts and the other information included in the annual report on the consolidated accounts and to report on these matters.

Aspects related to the directors' report on the consolidated accounts and to the other information included in the annual report on the consolidated accounts

In our opinion, after having performed specific procedures in relation to the directors' report on the consolidated accounts, this directors' report is consistent with the consolidated accounts for the year under audit and is prepared in accordance with article 3:32 of the Companies' and Associations' Code.

In the context of our audit of the consolidated accounts, we are also responsible for considering, in particular based on the knowledge acquired resulting from the audit, whether the directors' report on the consolidated accounts is materially misstated or contains information which is inadequately disclosed or otherwise misleading. In light of the procedures we have performed, there are no material misstatements we have to report to you.

The non-financial information required by virtue of article 3:32, §2 of the Companies' and Associations' Code is included in the directors' report on the consolidated accounts which is part of the section 'Non-financial information' of the annual report. The Company has prepared the non-financial information, based on the UN's Sustainable Development Goals (SDG's) reporting framework. However, in accordance with article 3:80, §1, 5° of the Companies' and Associations' Code, we do not express an opinion as to whether the non-financial information has been prepared in accordance with the the UN's Sustainable Development Goals (SDG's) reporting framework as disclosed in the directors' report on the consolidated accounts.

Statement related to independence

Our registered audit firm and our network did not provide services which are incompatible with the statutory audit of the consolidated accounts, and our registered audit firm remained independent of the Group in the course of our mandate.

The fees for additional services which are compatible with the statutory audit of the consolidated accounts referred to in article 3:65 of the Companies' and Associations' Code are correctly disclosed and itemized in the notes to the consolidated accounts.

European Uniform Electronic Format (ESEF)

We have also verified, in accordance with the draft standard on the verification of the compliance of the financial statements with the European Uniform Electronic Format (hereinafter "ESEF"), the compliance of the ESEF format with the regulatory technical standards established by the European Delegate Regulation No. 2019/815 of 17 December 2018 (hereinafter: "Delegated Regulation").

The board of directors is responsible for the preparation, in accordance with ESEF requirements, of the consolidated financial statements in the form of an electronic file in ESEF format (hereinafter "digital consolidated financial statements") included in the annual financial report.

Our responsibility is to obtain sufficient appropriate evidence to conclude that the format and marking language of the digital consolidated financial statements comply in all material respects with the ESEF requirements under the Delegated Regulation.

Based on the work we have performed, we believe that the format of and marking of information in the digital consolidated financial statements included in the annual financial report of Viohalco SA per
31 December 2022 comply in all material respects with the ESEF requirements under the Delegated Regulation.

Other statements

This report is consistent with the additional report to the audit committee referred to in article 11 of the Regulation (EU) N° 537/2014.

Diegem, 6 April 2023

The statutory auditor
PwC Reviseurs d'Entreprises SRL /
PwC Bedrijfsrevisoren BV
Represented by

Marc Daelman
Réviseur d'Entreprises / Bedrijfsrevisor

L. Declaration of responsible persons

Statement on the true and fair view of the consolidated financial statements and the fair overview of the management

In accordance with the article 12, §2, 3° of the Belgian Royal Decree of 14 November 2007, the members of the Executive Management, (i.e. Ippokratis Ioannis Stassinopoulos, Xavier Bedoret, Jean-Charles Faulx, Efstratios Thomadakis) declare that, on behalf and for the account of the Company, to the best of their knowledge:

a) the consolidated financial statements for the year ended 31 December 2022, which have been prepared in accordance with the International Financial Reporting Standards as adopted by the European Union, give a true and fair view of the Equity, Financial position and Financial Performance of the Company, and the entities included in the consolidation as a whole.

b) the management report on the consolidated financial statements includes a fair overview of the development and performance of the business and the position of the Company, and the entities included in the consolidation, together with the description of the main risks and uncertainties with which they are confronted.



M. Condensed Statutory Balance Sheet and Income Statement

In accordance with BCCA (Articles 3:17 and 3:36), the Company's annual accounts are presented hereafter in a condensed version, which does not include all the notes required by law or the Statutory Auditor's report. The full version of the Company's annual accounts that shall be deposited with the National Bank of Belgium, is available on the Company's website and can be obtained free of charge upon request.

The Statutory Auditor's report on the annual accounts was unqualified.

Statement of financial position

	As at 31 December	
Amounts in EUR thousands	**2022**	**2021**
Non- current assets	**1,185,552**	**1,174,218**
Start-up costs	-	-
Intangible fixed assets	3	7
Tangible fixed assets	18,485	18,625
Financial assets	1,164,851	1,153,373
Non-current receivables	2,214	2,214
Current assets	**52,068**	**73,533**
Current receivables	5,408	2,433
Short-term cash investment	41,000	65,000
Cash and cash equivalents	4,779	5,271
Accruals and deferred income	882	829
Total assets	**1,237,620**	**1,247,751**
Equity	**1,196,739**	**1,216,931**
Capital	141,894	141,894
Share premium account	528,113	528,113
Translation reserve	21,054	21,054
Other reserves	388,989	389,365
Accumulated profits (losses)	116,689	136,506
Liabilities	**40,881**	**30,820**
Non-current payables	-	-
Current payables	40,515	30,451
Accrued charges and deferred income	367	368
Total equity and liabilities	**1,237,620**	**1,247,751**

Statement of Profit or Loss

	For the year ended 31 December	
Amounts in EUR thousands	**2022**	**2021**
Sales and services	**642**	**761**
Operating charges	**-6,915**	**-7,337**
Services and other goods	-4,579	-4,971
Remuneration, social security and pensions	-1,162	-1,155
Depreciation and amounts written down on start-up costs, intangible and tangible assets	-145	-216
Other operating charges	-1,029	-994
Operating profit (loss)	**-6,273**	**-6,576**
Financial income	**16,161**	**143,464**
Income from financial assets	15,280	122,475
Income from current assets	127	139
Non-recurring financial income	-	20,851
Other financial income	754	-
Financial charges	**-3,776**	**-6,717**
Debt charges	-211	-4
Other financial expenses	-574	-95
Non-recurring financial expenses	-2,991	-6,618
Profit for the year before income taxes	**6,112**	**130,171**
Income tax	**4,799**	**-4,800**
Profit/(Loss)	**10,911**	**125,371**

N. Glossary

The following explanations are intended to assist the general reader to understand certain terms used in this Annual Report. The definitions set out below apply throughout the annual report, unless the context requires otherwise.

ASTM	American Society for Testing and Material
BCCA	the Belgian Code of Companies and Associations
Belgian GAAP	the applicable accounting framework in Belgium
Board of Directors or Board	the Board of Directors of the Company from time to time appointed in accordance with the Articles of Association
BS	British Standards
DIN	Deutsches Institut für Normung
EN	European Norm
ISO 17025	General requirements for the competence of testing and calibration laboratories
FSMA	Financial Services and Market Authority, which succeeded the Belgian Banking, Finance and Insurance Commission as the financial regulatory agency for Belgium on 1 April 2011
Gross annual return	the gross annual return is calculated on the share price it equals to (change in price from January 1 to 31 December/share price on January)
HVAC & R	Heating, ventilation, air-conditioning and refrigeration
IAS	International Accounting Standards
IFRS	International Financing Reporting Standards, as adopted by the EU
JIS	Japanese Industrial Standards
LSAW	Longitudinal Submerged Arc Welded Mill for the production of high-strength offshore and onshore energy pipes
SD	Trade Mark
THN	Mining profiles
Transparency Law	the law of 2 May 2007 on the disclosure of significant shareholdings in issuers whose securities are admitted to trading on a regulated market
HFW	high frequency induction welding unit
HSAW	helically submerged arc welding unit
ERP application	Enterprise resource planning application
SBQ	Special bar quality steel
REIC	Real Estate Investment Company
PMO	Project Management Office
LV, MV & HV power cables	Low Voltage -Medium Voltage –Hi Voltage cables

The annual report, the full versions of the statutory and consolidated annual accounts, as well as the audit reports regarding said annual accounts are available on the website (www.viohalco.com)

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