VIOHALCO

ANNUAL REPORT

2018

Contents

A. Viohalco S.A.

Viohalco S.A. (Viohalco) is the Belgium-based holding company of leading metal processing companies across Europe.

Viohalco's subsidiaries and joint ventures specialise in the manufacture of aluminium, copper, cables, steel and steel pipes products. They have production facilities in Greece, Bulgaria, the United Kingdom, Romania, Russia, North Macedonia, the Netherlands and Turkey.

With diversified activities in the metals sector and a global presence, Viohalco companies are committed to the sustainable manufacture of high quality and innovative products and services. These are used by their global customer base across a wide range of industries, including building and construction, energy and telecommunication, oil and gas transportation, marine, automotive, food and pharmaceutical packaging, heating and air conditioning, renewable energy, water supply, and lithography.

Viohalco companies have a strong marketing and sales network, encompassing commercial subsidiaries, agents and distributors, enabling them to provide a comprehensive customer support on a global scale.

Continuous investment in research and development (R&D) and close monitoring of market and technological trends ensures that the Viohalco companies maintain the highest quality of products and reliable services. In line with this commitment, Viohalco has a business segment dedicated solely to R&D and Innovation. This segment is made up of companies focused on industrial research and development, engineering applications and Enterprise Resource Planning (ERP) application services.

A Viohalco segment dedicated to recycling and waste management services focuses on trading and processing secondary raw materials, undertakes waste management and environmental operations, and provides services to consumers and corporations.

Viohalco and its companies also own a substantial real estate portfolio, located predominantly in Greece and have also implemented redevelopment projects on a number of properties. In addition, other companies in this segment provide a wide range of real estate services to Viohalco subsidiaries through a central framework.

Viohalco key data

- Listed on Euronext Brussels (VIO) and Athens Stock Exchange (BIO).
- Subsidiary Cenergy Holdings S.A. (Cenergy Holdings) is listed on Euronext Brussels and Athens Stock Exchange (CENER).
- Subsidiary ElvalHalcor S.A. (ElvalHalcor) is listed on Athens Stock Exchange (ELHA).

B. Message from the President of the Board of Directors

Dear Shareholders,

Despite ongoing uncertainty around global foreign trade policies and the macroeconomic environment across Viohalco companies' markets, Viohalco has successfully delivered a consecutive year of revenue growth and profitability in 2018. Throughout the year, the Viohalco companies have remained focused on strengthening their market positions through ongoing investment in new technologies, R&D and the upgrade of existing facilities to ensure continual improvements to product and service offerings. These efforts have yielded significant positive results, as demonstrated by the companies' resilience to external pressures and the award of several significant projects.

Viohalco's consolidated revenue for 2018 amounted to EUR 4,406 million, an 18% increase compared to EUR 3,721 million in 2017, mainly as a result of increase in sales volumes in all core segments. Consolidated EBITDA amounted to EUR 332 million, increased by 10% compared to 2017, while consolidated profit before tax increased to EUR 95.6 million, compared to EUR 56.8 million in 2017.

Since the merger in 2017 of Elval and Halcor into ElvalHalcor Hellenic Copper and Aluminium Industry, the aluminium and copper segments have been able to compete more effectively in the global market. ElvalHalcor begun the execution of its EUR 150 million investment programme, aimed at enhancing Elval's plant production capacity and efficiency (Greek aluminium rolling division), while fortifying its position in growing end-markets, including the automotive industry. During the year, the aluminium segment's revenue increased by 16%, supported mainly by positive market trends and an improved product mix, while profit before income tax amounted to EUR 70 million, versus EUR 52 million in 2017.

In a competitive landscape for the copper segment during the year, the segment increased its revenue by 13% to EUR 1,066 million versus EUR 941 million in 2017. Significant growth in sales volumes, increased utilisation rates and the successful implementation of strategic initiatives led to the improved segment results.

In 2018, the steel segment has observed improved sales volumes, better plant utilization and continued new product development resulting in an increase to revenue by 20%, despite pressures from US tariffs and price increases in critical production materials.

2018 was a positive year also for the steel pipes segment, which reported record sales, marking an increase by 59% year-on-year in revenue. During the year, Corinth Pipeworks celebrated its 50th anniversary and successfully executed a number of large onshore projects in the USA and Europe and several offshore projects, including the first deep-sea offshore pipes project for the segment.

In the cables segment, 2018 was characterised by higher sales volumes, an improved product mix and the successful completion of several significant assignments, despite delays in the award of major projects resulting in low utilisation levels at the Fulgor plant. A more favourable Greek market, the business's success in penetrating new markets such as the Nordic countries and the Middle East and solid demand for telecom and signalling cables in Europe resulted in an increase in the segment revenue by 16% versus 2017, amounting to EUR 475 million.

In the real estate segment, both River West|IKEA and Mare West Retail Park recorded significant increases in footfall and rental income, while Wyndham Grand Athens Hotel and the K29 apartment hotel, on the hospitality side continued to outperform. Several key initiatives were progressed throughout 2018 including the construction of a Leadership in Energy and Environmental Design ('LEED') certified building which was completed in January 2019 with an occupancy rate of approximately 90% and the completion of demolition works on the long-term, leased Mouzaki property. Meanwhile, a new 1,700 sqm office building in Maroussi was acquired and Noval Property REIC obtained a license from the Hellenic Capital Market Commission to operate as a Real Estate Investment Company and an internally managed Alternative Investment Fund.

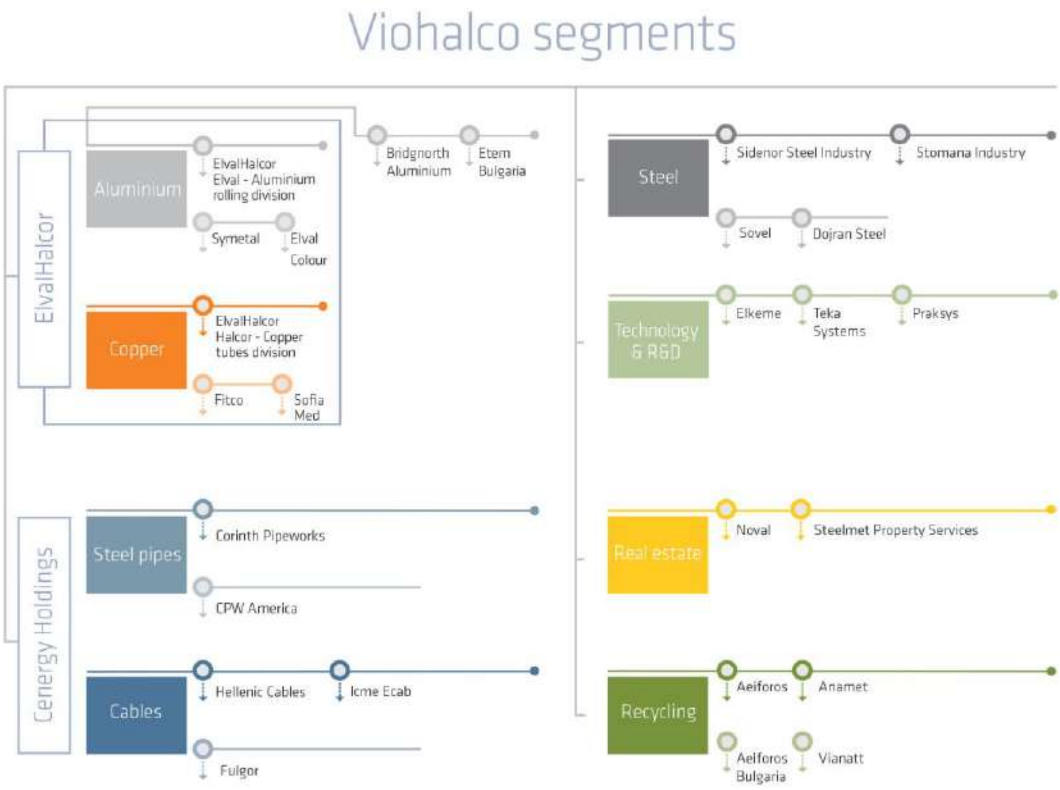
Finally, in the recycling segment, hazardous waste continued to support segment profitability, while end-of-life waste streams maintained volume levels, albeit increased production costs due to new investments.

Looking at the year ahead, the Viohalco companies remain focused on strengthening their market positions through ongoing investment programmes and the professional development of their employees, which have yielded significant positive results to date and have improved their resilience to external pressures. Across all segments, Viohalco companies remain committed to operational optimisation and technological innovation. As a result of this, we are increasingly well-positioned to take advantage of any improvements in market conditions in 2019.

Nikolaos Stassinopoulos
President of the Board of Directors

C. Viohalco's portfolio - Business segments

Viohalco operates under the following organisational structure, comprising eight business segments.



- **Aluminium:** ElvalHalcor through its aluminium rolling division (Elval), its subsidiaries Symetal S.A. (Symetal), Elval Colour S.A. (Elval Colour) and Vepal S.A. (Vepal), along with Bridgnorth Aluminium Ltd (Bridgnorth Aluminium) and Etem Bulgaria S.A. (Etem Bulgaria) manufacture a wide variety of aluminium rolling and extrusion products. The aluminium products and solutions portfolio covers a wide range of markets and diverse applications. The aluminium segment offers flat rolled aluminium sheets, plates and coils for packaging, transportation and industrial applications, aluminium foil for pharmaceutical, confectionery and household use, extruded aluminium products for architectural, industrial and automotive applications, lithographic coils and a complete range of coated aluminium products used in the building and construction industries.

- **Copper:** ElvalHalcor through its copper tubes division (Halcor) and its subsidiaries Fitco S.A. (Fitco) and Sofia Med S.A. (Sofia Med) produce a wide range of copper, brass and high performance alloys, ranging from copper and copper alloy tubes, copper strips, sheets, circles and plates to bus bars (including plated), rods, wire and fabricated parts, profiles copper alloy rods and wire.

- **Steel pipes:** Corinth Pipeworks Pipe Industry S.A. (Corinth Pipeworks) produces steel pipes for the transportation of natural gas, oil and water and steel hollow sections used in construction projects.

- **Cables:** The three Cablel® cable companies, Hellenic Cables S.A. Hellenic Cable Industry S.A. (Hellenic Cables), its subsidiary Fulgor S.A. (Fulgor) and Icme Ecab S.A. (Icme Ecab), manufacture power land and submarine cables, telecommunication cables and enamelled wires and compounds, consisting one of the largest cable producers in Europe.

- **Steel:** Sidenor Steel Industry S.A. (Sidenor Steel Industry), Stomana Industry S.A. (Stomana Industry) and their subsidiaries manufacture long, flat and down-stream steel products.

- **Real estate:** Viohalco creates value through the development of its former industrial real estate assets in Greece and abroad (Noval S.A.) and also by providing a wide range of real estate services to its subsidiaries through a central framework (Steelmet Property Services S.A.).

- **Technology and R&D:** Viohalco’s portfolio includes dedicated R&D companies and R&D centres within its subsidiaries, which focus on innovative and high value added products, efficient solutions for the optimisation of industrial and business processes, research into the environmental performance of plants and impact assessment of sustainable growth.

- **Recycling:** Viohalco’s recycling segment produces and trades secondary raw materials and undertakes various waste management and environmental projects, providing services to consumers, corporations and the public sector.

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. History of Viohalco

Viohalco Hellenic was incorporated over 80 years ago as a family business and is now the holding company of some of Europe's leading metal processing companies.

1930s
The Company was incorporated in 1937 under the name Hellenic Copper Industry S.A.

1940s
The Company was listed on the Athens Stock Exchange in 1947.

1950s
- A period of intense investment in new machinery followed. A state-of the-art aluminium rolling mill was introduced, paving the way for the launch of leading aluminium rolled products manufacturer, Elval.
- The Company was renamed Viohalco-Hellenic Copper and Aluminium Industry S.A.

1960s
- A significant corporate expansion included the launch of the steel product manufacturing segment and cable operations. Sanitary ware and tile production commenced.
- A holding company structure was introduced to secure independence and flexibility at subsidiary level.

1970s
A series of new companies were founded, including aluminium companies Etem S.A. and Elval S.A., a spin-off from Viohalco Aluminium.

1980s
The companies were restructured through multiple spin-offs, designed to form a cohesive corporate structure throughout all production units.

1990s
Major subsidiaries were listed on the Athens Stock Exchange and a capital increase was undertaken at Viohalco level to finance the swift expansion and consolidation of its subsidiaries in Greece and abroad.

2002
By 2002, Viohalco's portfolio companies comprised a series of highly promising investments including Bridgnorth Aluminium (United Kingdom), Stomana Industry (Bulgaria), Sofia Med S.A. (Bulgaria), Icme Ecab (Romania) and Corinth Pipeworks (Greece).

2011
Hellenic Cables acquired Fulgor, substantially increasing its cables production capacity and expanding its product portfolio into medium and high and extra high voltage submarine cables.

2013
- In November 2013, the cross-border merger and domestic merger proceedings with, respectively, the Greek company Viohalco-Hellenic Copper and Aluminium Industry S.A. and the Belgian company, Cofidin S.A., were completed.
- In November 2013, primary admission to listing and trading of Viohalco shares on Euronext Brussels was achieved.

2014
- In February 2014, Viohalco completed a secondary admission to listing and trading of its shares on the Athens Stock Exchange.

- In November 2014, Elval merged with Etem, through absorption of the latter by the former.

2015

- In July 2015, the cross-border merger by absorption of the Greek company Sidenor Holdings S.A. by Viohalco was completed.
- In September 2015, Elval decided the spin-off of its aluminium rolling sector and its contribution to its 100% subsidiary, Symetal (later renamed Elval Hellenic Aluminium Industry S.A.).

2016

- In February 2016, a cross-border merger by absorption of the Greek companies (Elval Holdings, Alcomet and Diatour) and the Luxembourg company Eufina by Viohalco was completed.
- In October 2016, Steelmet Property Services was established through the transformation of the former Kifissos Mall S.A. The new company provides a wide range of real estate services to Viohalco companies at a centralised level.
- In December 2016, the merger of Noval S.A. with its subsidiaries Xenka S.A., Sanitas S.A., Corinth Retail Park S.A. and Sanitas Representation Offices S.A., through absorption of the latter by the former, was completed.
- In December 2016, a cross -border merger by absorption by Cenergy Holdings of the Greek listed companies Corinth Pipeworks Holdings S.A. and Hellenic Cables S.A. Holdings was completed.In December 2016, the shares of Cenergy Holdings commenced trading on Euronext Brussels and the Athens Stock Exchange

2017

- In December 2017, the merger of Elval Hellenic Aluminium Industry S.A. and Halcor Metal Works S.A. was completed, forming the new company ElvalHalcor.

2018

- In February 2018, the shares of ElvalHalcor commenced trading on the Athens Stock Exchange.
- In April 2018, ElvaHalcor's copper tubes division acquired the assets of Ipiros Metalworks Industry S.A. with the aim to re-activate the production and, through facilitating the international commercial network of ElvalHalcor, to transform the unit into an exporting one.
- In June 2018, after securing regulatory approval, ElvalHalcor's copper tubes division acquired 50% of the Netherlands-based NedZink B.V., entering into a joint venture with the purpose of further developing manufacturing of titanium zinc products.

Markets

The markets served by Viohalco companies are as diverse as their product portfolio.

Building and construction

- Building and architectural
- Construction
- Water supply and sanitary

Energy and power networks

- Power networks
- Oil and gas industry
- Offshore and submarine networks
- Telecommunication and data networks
- Renewable energy industry

Transportation

- Automotive industry
- Road and rail industry
- Shipbuilding industry

Packaging industry

Lithography industry

Heating, ventilation and air conditioning market (HVAC&R)

Industrial applications

- Industrial engineering
- Power and electronic equipment
- Other markets
- Signage
- Mining and tunneling
- Fish farming
- Household appliances

E. Management Report

The Management Report prescribed by Article 119 of the Belgian Companies Code which was approved by the Board of Directors on 21 March 2019 consists of this chapter (pages 10 to 55), as well as the Corporate Governance Statement (pages 60 to 73).

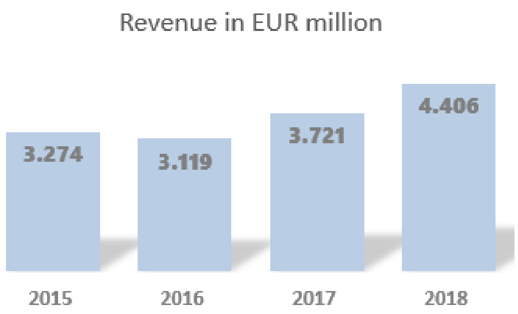
In recent years, Viohalco companies faced a number of challenging external factors, such as economic uncertainty in key operating markets, metal price fluctuations and depressed demand in energy markets.

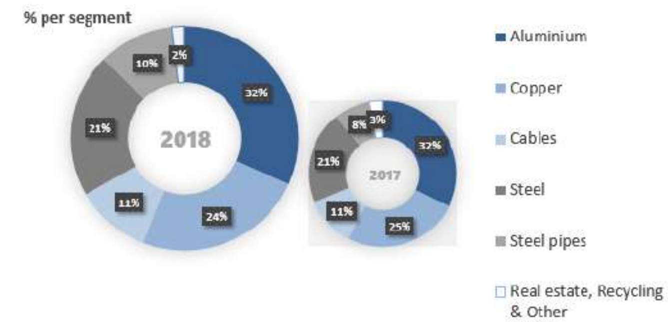
Despite this backdrop, Viohalco companies have sustained a disciplined focus on improving operational performance and implemented a number of key initiatives. Most notably, significant investment into new technologies, R&D and the upgrade of existing facilities have enabled the companies to redefine and improve product and service offerings in key markets, resulting in the award of several significant projects. Furthermore, by leveraging opportunities in emerging markets, Viohalco companies have strengthened their position in real estate and recycling.

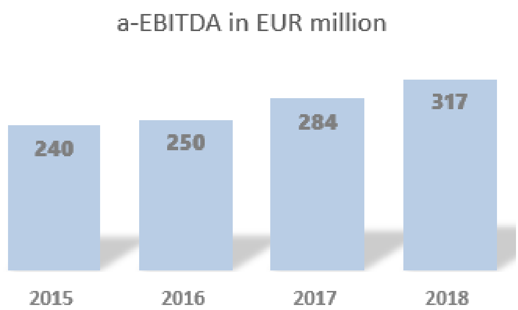
a. 2018 Highlights and 2019 Outlook

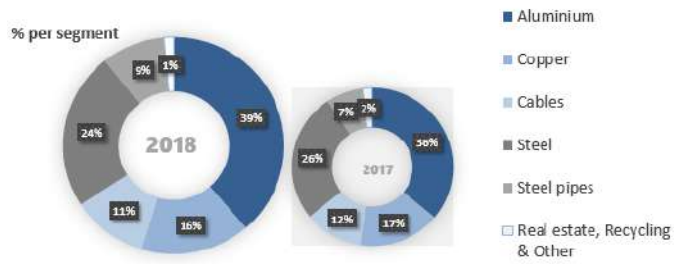
Financial highlights 2018

- Year of growth and improved profitability across core metal segments
- Continuous investments to meet end market trends
- Consolidated revenue amounted to EUR 4,406 million, up 18% year-on-year (2017: EUR 3,721 million)
- Consolidated adjusted EBITDA (a-EBITDA) equal to EUR 317 million, up 12% (2017: EUR 284 million); consolidated EBITDA of EUR 332 million, an increase of 10% (2017: EUR 303 million)
- Consolidated profit before income tax amounted to EUR 96 million, up 68% year-on-year (2017: EUR 57 million).









Overview 2018

Viohalco continued to leverage its strong track record in 2018, achieving a year of revenue growth and profitability, with all core metal segments showing improved results.
The 16% revenue growth in the aluminum segment was supported by positive market trends and an improved product mix. Meanwhile, the execution of the EUR 150 million investment programme, aimed at enhancing Elval's plant production capacity and efficiency (Greek aluminium rolling division), has commenced. This investment will be pivotal in strengthening the Company's position in growing end-markets, including the automotive industry.
The copper segment revenue grew by 13% for the year, supported by volume growth. Amidst increasing competition, investments into production facilities permitted production capacity enhancements, thus allowing the companies to further diversify their product portfolio.
The steel segment taking advantage of its recent investments achieved 20% revenue growth in 2018, as a result of higher sales volumes, better plant utilization and continued new product development. US steel tariffs affected supply and demand dynamics in Turkey, Southeastern Europe and the MENA region, while price increases in critical production materials presented further headwinds in 2018.
It has been a positive year for the steel pipes segment, which reported record sales, marking a significant increase by 59% year-on-year in revenue. In addition to a number of large onshore projects in the USA and Europe, several offshore projects were successfully executed, including the first deep-sea offshore pipes project for the segment.
The cables segment saw the development of a steady pipeline of new projects and completion of significant existing assignments in 2018. Despite lower than expected capacity utilisation at the Fulgor plant, the cables segment achieved higher sales volumes and an improved sales mix. This led to revenue growth of 16% for the year, supported by improved performance across key existing markets and further penetration into new markets.
As for the real estate segment, River West|IKEA and Mare West Retail Park on the retail side, as well as Wyndham Grand Athens Hotel and K29 apartment hotel on the hospitality side continued to outperform, while at the same time there was continued progress in several development projects.

Outlook 2019

The Viohalco companies' robust performance in 2018 demonstrates their resilience to volatile market conditions and ability to leverage their competitive advantages derived from a continued focus on technological innovation, ongoing investments into production facilities and new product development, along with their long-standing relationships with a diverse, blue-chip customer base around the world.
Looking ahead, the companies aim to maintain positive momentum in their performance. Their strategic focus remains to be generating revenue growth through further diversification into new product and geographical market segments, whilst further enhancing competitive positioning and operational efficiency through continued investments into the businesses.

b. Business performance and activity report

Viohalco

Viohalco's consolidated revenue for 2018 was EUR 4,406 million, 18% higher compared to EUR 3,721 million in 2017, mostly as a result of increase in sales volumes in all core segments.

Consolidated EBITDA increased by 10% year-on-year to EUR 332 million in 2018 (2017: EUR 303 million), mainly driven by stronger results in the aluminium and steel pipes segments.

Net finance cost decreased to EUR 102.5 million (2017: EUR 110.4 million), due to credit spread reductions which have been implemented gradually to all Viohalco companies throughout the year.

Viohalco's **consolidated profit before income tax** for the year was EUR 95.6 million, compared to EUR 56.8 million in 2017.

Consolidated profit for the period amounted to EUR 85.9 million, slightly higher than 2017 (EUR 83.8 million) despite the significant increase in profit before tax. This is due to the recognition of deferred tax assets relating to carried forward tax losses and to thin capitalization rules during 2017.

Amounts in EUR thousands	**2018**	**2017***
Revenue	**4,406,185**	**3,721,311**
Gross profit	396,775	362,215
EBITDA	**331,857**	**302,546**
a-EBITDA	**317,025**	**284,207**
EBIT	**200,044**	**167,452**
a-EBIT	185,212	149,114
Net finance cost	-102,499	-110,432
Profit before tax	**95,612**	**56,839**
Profit for the period	85,852	83,794
Profit / Loss (-) attributable to owners of the Company	76,112	73,680

** Re-presented. Reconciliation vs figures published in the 2017 Annual Report is provided in the consolidated financial statements*

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

Capital expenditure for the year amounted to EUR 193 million, leading to a 4% increase of non-current assets. **Depreciation and amortization** for the year equal to EUR 136 million.

Working capital increased by 10% compared to 2017, mainly due to higher production and sales volumes, which affected all working capital components (inventory, receivables and payables).

Viohalco companies' net **debt** increased to EUR 1,636 million (2017: EUR 1,528 million) to support the growth achieved within 2018. Total gross debt comprises 50% long term and 50% short term facilities. During the year there was a shift of facilities from current liabilities to non-current, as a result of debt restructuring actions fulfilled for certain Viohalco subsidiaries.

Amounts in EUR thousands	**31/12/2018**	**31/12/2017**
Fixed & intangible assets	1,989,868	1,935,410
Other non-current assets	67,224	50,299
Non-current assets	**2,057,092**	**1,985,709**
Inventory	1,142,309	1,005,867
Trade and other receivables *(inc. contract assets)*	668,633	509,740
Cash and cash equivalents	163,676	168,239
Other current assets	13,976	14,534
Current assets	**1,988,594**	**1,698,380**
Total assets	**4,045,685**	**3,684,089**
Equity	**1,304,624**	**1,229,218**
Loans and borrowings	896,806	718,716
Other non-current liabilities	172,160	195,113
Non-current liabilities	**1,068,965**	**913,829**
Loans and borrowings	902,555	977,071
Trade and other payables *(inc. contract liabilities)*	739,391	544,414
Other current liabilities	30,150	19,557
Current liabilities	**1,672,096**	**1,541,041**
Total equity and liabilities	**4,045,685**	**3,684,089**

Performance by business segment

While each Viohalco company operates to a clearly defined strategy, set out in more detail in the respective sections below, all Viohalco companies seek to maximise value by:

- optimising their product and service offerings through continuous innovation;
- facilitating growth in existing and target markets;
- maintaining a customer-oriented approach to marketing and product development;
- driving operating efficiencies by optimising the utilisation of assets and cost control;
- being a responsible corporate citizen and nurturing employer.

Aluminium

Activities

Viohalco's aluminium companies operate state-of-the-art production facilities located in Greece, Bulgaria and the United Kingdom where aluminium products of the highest quality are processed and manufactured abiding by the strictest international standards. The segment's aluminium products and solutions are marketed globally, leveraging a dynamic presence and brand awareness in all key geographical markets.

Viohalco's aluminium companies benefit from an extensive commercial network which includes business associates in Austria, Belgium, Bulgaria, France, Germany, Italy, Luxembourg, the Netherlands, Romania, Russia, Turkey, Ukraine, the United Kingdom and Ireland. Through this network, Viohalco's aluminium segment serves diverse, demanding customers in fast evolving markets spanning over 90 countries.

Product portfolio

Rolled products

- Construction: Mill finish and coated aluminium coils and sheets, etalbond® aluminium composite panels, corrugated and perforated sheets for building facades, orofe® coated strips for roofing applications, Ydoral® coated strips for rain gutters and other building and construction applications;
- Rigid packaging: Aluminium used in the packaging sector for food and beverage cans, caps and closures and precision valves;
- Flexible packaging: Aluminium foil for household use and industrial applications, cigarette packaging, food, pharmaceutical and aseptic packaging;
- Transportation sector: Aluminium products for the automotive, marine, road and rail industries, and the HVAC & R sector;
- Lithographic coils: Coils for the production of printing plates, used as substrates in printing lines;
- Household use: Aluminium sheets and circles used as semi-finished product by manufacturers of domestic ware and cookware;
- Industrial applications: Aluminium sheets, coils and circles for general engineering applications (i.e multilayer tubes).
- Renewable energy applications: Aluminium sheets and tread plates for wind turbines and solar thermal collectors.

Extruded products

- Architectural systems: Aluminium systems for doors, windows, dynamic building facades, curtain wall systems, sun shading systems, rolling shutters, ventilated facades systems, security systems, etc.
- Industrial aluminium applications: Aluminium profiles and processed hard alloy bars for various industrial uses:
    - General engineering applications: furniture, ladders, machine benches, heat sinks for electrical applications;
    - Building applications: scaffolding systems, lighting systems and special shading applications;
    - Energy applications: photovoltaic systems, solar water heaters, heat exchangers;
    - Transportation: aluminium profiles for truck bodies, trailers, bicycles and marine applications.
- Automotive applications: Extruded aluminium profiles and parts that have undergone special tooling and machining and are used in car chassis, suspension system and doors and decorative aluminium profiles for roof railings, aluminium composite panels for special automotive applications.

Solutions

Delivering innovative technical solutions is a key strength of Viohalco's aluminium segment companies. The strategic focus on R&D is reinforced by both the continuous investment and the collaboration with external research institutes and scientific bodies. Viohalco companies operate internal R&D centres, such as the Elval Technology Centre, and have formed strategic R&D relationships that include among others Manchester University's School of Materials and the Research and Development Department of the United Aluminum Company of Japan (UACJ Corp.).

The ongoing focus on R&D has secured the segment's ability to anticipate customer needs and respond with cutting- edge solutions and value added services.

Viohalco companies offer their customers innovative and tailored technical assistance through Elkeme, the Hellenic Research Centre for Materials S.A., which primarily focuses on industrial research, technological development of products and optimization of industrial processes.

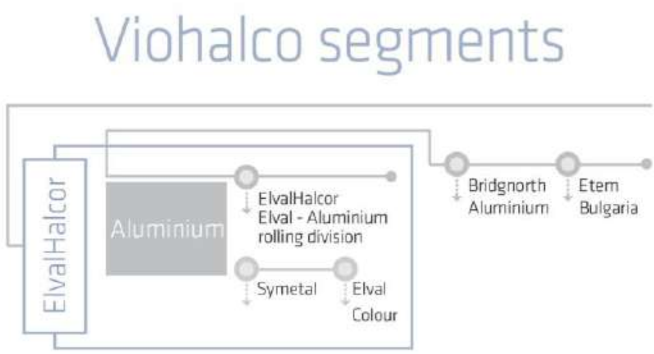
Viohalco companies focus on developing efficient and sustainable solutions to fulfil technological and business challenges. Examples of this include specialised, highly-resistant products with antislip properties, products subjected to deep drawing and extrusion, tension levelled sheets with top-quality lacquer-coatings and products made of 100% recycled aluminium.

Viohalco's aluminium segment companies manufacture environmentally friendly products such as:

- Elval Colour's etalbond® aluminium composite panels and Elval ENF™ coated aluminium sheets for facades, Orofe® coated aluminium strips for roofing applications, and Ydoral® coated strips for rain gutters;
- Green alloy: an alloy produced solely from aluminium scrap;
- Brazing alloys: high-tech, multi-layer alloys for heat exchangers;
- Aluminium alloys for multi-layer tubes;
- Wide tread plates and mill finish sheets for wind turbines and solar panels for the renewable energy industry.

Key companies

The following key companies and division make up Viohalco's aluminium segment:



ElvalHalcor aluminium rolling division (Elval) produces a broad range of flat rolled aluminium products for diverse markets and applications including packaging, construction, shipbuilding, automotive, energy, industrial and HVAC&R. Elval's offices and production facilities are located in Oinofyta, Greece.

Symetal produces aluminium foil and aluminium flexible-packaging materials. The Company is highly export-oriented with over 90% of its sales carried out into more than 60 countries in Europe, the Middle East, Africa, the Far East, America and Australia. Symetal has two production facilities; the rolling plant located in Oinofyta, Greece and the converting plant located in Mandra, Greece. The rolling plant produces aluminium foil for various uses, including flexible and pharmaceutical packaging, food containers, household and various technical applications. The converting plant carries out aluminium foil coating and/or paper lamination for products used for food and pharmaceutical packaging and cigarette inner liners.

Elval Colour produces and sells an extensive range of coated aluminium products and aluminium composite panels for the building envelope. The Company exports 99% of its production to more than 60 countries. Its key competencies include custom-made solutions in colour shades and coating systems and building envelope applications. Elval Colour successfully developed incombustible aluminium composite panels with A2, S1, d0 classification, as per EN13501-1 and built a line for production of these. This positioned the Company as the only vertically integrated ACP manufacturer in the world that sells to landmark projects and has R&D partnerships with an extensive network of architectural and industrial companies. Its production plant is located in Agios Thomas, Greece.

Vepal engages in aluminium coil and sheet coating and its production unit is located in Thiva, Greece.

Etem designs and produces aluminium systems for architectural applications and manufactures profiles for industrial application in the automotive and transportation industries, for shipbuilding, electronics and for photovoltaic systems. Etem has become a significant supplier of aluminium profiles and aluminium semi-finished and finished products, to the automotive industry and is certified for the production of crash relevant aluminium profiles. Etem is an accredited TIER 2 and TIER 1 automotive supplier, making products directly for the automotive industry and original equipment manufacturers (OEMs). Etem exports to over 20 countries worldwide. With value added products and services for architects, investors and developers, Etem products are the preferred choice for significant building developments throughout the world.

In 2018, Etem successfully commenced operations in the Middle East, supplying architectural systems for residential and significant commercial projects. In the industrial profiles sector, the increased focus on promoting materials with post-extrusion processing further strengthened Etem's positioning. Furthermore, added value machine parts received a warm reception across the demanding European market.

Bridgnorth Aluminium is headquartered in the United Kingdom and produces lithographic aluminium coils, semi-finished aluminium coils and electrical aluminium strip for transformer windings.

Viomal produces aluminium rolling shutters and insect screen systems, spacers for double glazing and retractable security doors. Its plant is located in Evia in Greece.

UACJ Elval Heat Exchanger Materials GmbH is a company established by Elval and UACJ Corp. It markets aluminium brazing products for cooling and heating solutions for internal combustion and electrically driven passenger cars, primarily in Europe.

Production Facilities
The aluminium manufacturing base includes nine production facilities in Greece, Bulgaria and the United Kingdom:

ElvalHalcor aluminium rolling division, Elval rolling plant | Oinofyta (Greece)
Annual production capacity: 290,000 tons
Elval's plant at Oinofyta is the aluminium segment's main production facility. It is active in aluminium rolling, and manufactures a broad scope of flat rolled aluminium products for diverse and demanding applications in the rigid packaging, building and construction, sea, road and rail transportation, automotive, industrial, energy, cookware and HVAC&R markets. Elval is certified as per ISO 9001:2015, IATF 16949:2016, ISO 14001:2015, OHSAS 18001:2007, ISO 50001:2011 and accredited for design, production and sale of aluminium rolled / painted products, manufacturing of aluminium rolled products intended for the automotive industry. Elval is also certified by all major classification societies (ABS, BV, DNV, GL, KR, LRS, RINA), as an approved manufacturer for shipbuilding products.

A new EUR 150 million investment program in equipment, technology and infrastructure has been initiated in 2018, aiming to more than double flat rolled aluminium product capacity. At the core of this program lies the purchase and installation of a four-stand tandem aluminium hot finishing mill, from SMS Group GmbH, for the Oinofyta plant.
With the new four-stand tandem mill, the future spectrum of hot rolled strips will secure ElvalHalcor's position as one of Europe's leading producers of wide aluminium sheets. This investment is key to ElvalHalcor's growing presence in aluminium packaging, industrial, transportation and architectural applications and sets the base for expansion in the automotive and aerospace sectors. The new investment also supports the further modernization of the plant, introduces the latest industrial technology, increases energy efficiency and improves the plant's environmental footprint. The new hot rolling line is expected to start production in the first

quarter of 2020. The Company has obtained loans from the EIB and Commerzbank for EUR 70 million and EUR 65 million, respectively, to finance this investment program.

Anoxal plant | Agios Thomas (Greece)
Annual production capacity: 49,500 tons
Through its horizontal casting facility, two melting furnaces, two holding furnaces and two homogenization furnaces, Anoxal's plant specialises in recycling and casting aluminium, and manufacturing billets and slabs.

Vepal plant | Thiva (Greece)
Annual production capacity: 45,000 tons
Vepal's plant processes sheets and coils using wet and electrostatic powder coating in order to produce aluminium products for the construction, food, and automotive industries.

Elval Colour plant | Agios Thomas (Greece)
The Elval Colour plant manufactures aluminium composite panels and corrugated sheets for the building sector in LDPE, FR and A2 core.
Elval Colour is accredited with ISO 9001:2015, ISO 14001:2015, OSHAS 18001:2007 production and quality control and BBA, DIBT, CSTB, UAE Civil Defense certified, for environmental management and health and safety management systems, respectively. The production process and products of the plant are certified and audited by numerous rigorous national certification bodies. Elval Colour is a member of the European Aluminium Association Building Board (EAA), the Aluminium Association of Greece, and the European Coil Coating Association (ECCA).

Symetal Foil rolling plant | Oinofyta, Viotia (Greece)
Annual production capacity: 52,000 tons
The rolling plant specialises in the production of plain aluminium foil in a wide range of thicknesses and alloys. Its aluminium foil products are directed at diverse markets and are used for flexible and pharmaceutical packaging, food containers, household and various technical applications (cables, insulations, heat exchangers, etc.).

Symetal Foil converting plant | Mandra, Attica (Greece)
Annual production capacity: 26,000 tons
The converting plant specialises in the conversion of aluminium foil into a number of packaging applications. Specifically, the plant carries out aluminium foil coating and/or paper lamination for products used for food and pharmaceutical packaging and cigarette inner liners.

Viomal plant | Nea Artaki (Greece)
Annual production capacity: 4,500 tons
Viomal manufactures aluminium rolls for doors, windows and garage doors, screen and shading systems and retractable security doors.

Bridgnorth Aluminium plant (Bridgnorth – United Kingdom)
Annual production capacity: 115,000 tons
Bridgnorth Aluminium is 75% owned by Viohalco, while minority shareholder is the leading Japan-based supplier of rolled aluminium products UACJ Corp. The company is an integrated rolling mill with casthouse, hot and cold rolling mills and finishing lines. Bridgnorth Aluminium's main market sectors are litho coils for the graphic arts, foilstock for packaging, and applications in the automotive, electrical and general engineering sectors.

Etem Bulgaria plant | Sofia (Bulgaria)
Annual production capacity: 27,000 tons
Etem Bulgaria's industrial complex in Sofia consists of a logistics centre which serves customers of extruded products in Central and Eastern Europe and the Balkans. It is active in aluminium extrusion and the manufacture of architectural, automotive and industrial profiles. The Etem Bulgaria plant features four extrusion lines; a vertical electrostatic powder coating line, a

horizontal electrostatic powder coating line, a horizontal electrostatic powder coating line for wood-like surfaces and a thermo-break aluminium systems production line.

Etem Greece plant | Magoula (Athens)
Annual production capacity: 7,000 tons
The Etem Greece production facility was reinstated in 2018. It is active in aluminium extrusion and the manufacture of architectural systems and industrial profiles. The Etem Greece plant features one extrusion line and a thermo-break aluminium systems production line.

Corporate Strategy
The key strategic pillars of Viohalco's aluminium segment are as follows:

Production and quality

- Boost production capacity and improve manufacturing efficiency to help enhance operational competitiveness through investment in innovation, automation, business process reengineering and personnel training;
- Maintain focus on ensuring the highest quality across all product categories and leverage the relationships of Viohalco companies with major European research centres and UACJ Corp.
- The diversification across geographical areas and market segments enables the commercial team to take quick decisions and capitalize on emerging opportunities around the world.
- Strive to provide a high added value product portfolio and services to customers by developing efficient and sustainable solutions in line with the rapidly changing technological environment.
- Strengthen presence in key geographical segments, as well as end markets, selectively expanding global footprint in business areas affected by global macro trends.
- Fortify the collaboration and partnership between customers, internal technology & innovation experts and external scientific bodies, so as to differentiate product development and metal processing technologies: Focus on Elval's Technology Center and the strategic alliance with UACJ Corp.

Commercial activity

- Strengthen the product portfolio with pioneering solutions, supported by pre-sales and after-sales services;
- Fortify companies' presence and increase their share of new and existing international markets;
- Progress commercial activity in the extrusion sector;
- Expand presence in the lithography market;
- Grow sales volumes in line with increased production capacity and achieve a commercial shift towards high added value products.

Sustainable Development

- Promote sustainable corporate responsibility, protect the environment and strengthen focus on health and safety measures in the workplace.

2018 Financial Performance

In 2018, the aluminium segment increased its sales volumes and its **revenue** increased by 16% to EUR 1,397 million. **Profit before income tax** amounted to EUR 70 million (2017: EUR 52 million).

Summary consolidated figures for the aluminium segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	1,397,322	1,206,018
Gross profit	149,335	123,735
Gross profit (%)	10.7%	10.3%
EBITDA	144,079	125,389
EBITDA (%)	10.3%	10.4%
a-EBITDA	**122,665**	**102,423**
a-EBITDA (%)	8.8%	8.5%
EBIT	89,565	69,260
EBIT (%)	6.4%	5.7%
a-EBIT	68,151	46,293
a-EBIT (%)	4.9%	3.8%
Profit before tax	**70,278**	**52,022**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

The global market for aluminium flat rolled products ('FRP') has remained favourable throughout 2018 with notable positive developments in Europe and the US. Demand for flat rolled products was mainly driven by the transportation and industrial sectors, together with a significant global upward trend in demand for packaging products. The product mix was further optimized by focusing on niche value-added aluminum sheets and coils in all industry sectors. Most notably, the combined sales volumes of the Greek aluminium rolling division grew by 7%, while sales volumes of Bridgnorth Aluminium grew 18%, driven mostly by share gains in the lithographic segment. Sales of the extrusion unit of the aluminium segment were in line with expectations, further supported by the re-opening of production facilities of the Etem Greek plant.

As part of the previously announced EUR 150 million investment programme, Elval invested EUR 47 million in 2018 for the erection of the new four-stand-tandem aluminium hot finishing mill, the first parts of which will be delivered in H1 2019. Orders have also been placed for the purchase of supplementary machinery and upgrades of the existing one. Elval's investment programme will continue during 2019, with estimated production expected to commence in Q1 2020. Following the hot finishing mill's installation, the plant's hot rolling capacity will more than double, while future additional investments will increase final production respectively.

Consistent demand for high-strength and lightweight aluminum solutions, coupled with Elval's investment programme, ensures the Company is well-positioned to pursue its strategic growth initiatives while maintaining a customer centric culture. In 2019, Elval intends to further develop innovative products and solutions, leveraging its internal Technology Center, as well its collaborations with Elkeme Research Center and its strategic partners UACJ Corp.

As for the extrusion sector, following the Investment Agreement with Gestamp, a leading global company that specialises in the design, development and manufacture of metal components and structural systems for the automotive industry, the segment intends to initiate the implementation of a three-year investment programme in Etem Bulgaria's plant which will be intended to the installation of a new extrusion line and related machinery, further enhancing the segment's position in the automotive sector.

Further information on Elval is available on its website:
www.elval.com

Copper

Activities

In the copper sector, Viohalco operates through Halcor, the copper tubes division of ElvalHalcor, and the copper segment subsidiaries, Sofia Med S.A. in Bulgaria and Fitco S.A. in Greece. Through a diversified product portfolio comprising copper and brass tubes and copper and brass extruded and rolled products, Halcor and its subsidiaries are able to service the complex needs of its international clients on a global scale, including most major geographical markets.

Product portfolio

Halcor and the copper subsidiaries provide their clients with active solutions, catering to most consumer and industrial requirements. The main product categories are:

- **Copper tubes products:** Talos®, Talos®Ecutherm™, Cusmart®, Talos® Plastic Coated, Talos® Gas, Talos® Med, Talos® ACR, Talos® ACR Inner Grooved, Talos® ACR EcuthermTM, Talos® Geotherm, Talos® EcuthermTM Solar, Talos® Solar Plus, Talos® ACR Linesets, Talos® Form, Talos® XS and Talos® Plated copper tubes.
- **Rolled products:** All shapes including strips, foil, sheets, discs, circles and plates in copper, brass and special high performance alloys.
- **Extruded products:** Copper bus bars, rods, wires, profiles, fabricated parts with tin and silver surface coating (electroplating) options, brass copper alloy rods and tubes, sections and wires, along with UR30 copper alloy wire and net for cage farming aquaculture.

Halcor and its subsidiaries have a strong track record of developing products which strengthen their commercial presence globally.

Key product examples include:

- Talos® Ecutherm™: pre-insulated copper tube with advanced insulating characteristics;
- Cusmart®: a patented flexible copper tube coated with a special PE compound;
- Talos® Geotherm: coated, PVC-insulated copper tube used in geothermal applications;
- Talos® ACR Inner Grooved Tubes (IGT): Halcor's production technology for TALOS® IGT copper tubes enables the manufacture of advanced inner-groove designs in a complete range of sizes, from 16mm outside diameter to new generation microgroove™ tubes with an outside diameter of 5mm or less. Halcor is one of the few manufacturers in the world able to offer this.
- Talos® plated copper tubes: combine excellent technical attributes with a unique design for installation applications;
- Talos® Form: copper tubes for exceptional forming capability.
- Talos® Med: designed for high pressures.
- Doma®: copper strips and sheets for roofing.

Key companies

The copper segment's key manufacturers are as follows:

Halcor, the copper tubes division of **ElvalHalcor**, operates two production plants in Greece. It manufactures copper tubes for building installation and a variety of industrial applications. Uses of its products include water supply, heating, cooling and natural gas networks, air-conditioning and refrigeration (HVAC&R).

Sofia Med in Sofia, Bulgaria, produces copper, copper alloy and high-performance alloys rolled, as well as copper extruded products.

Fitco's production facility in Oinofyta, Greece, produces copper alloy extruded bars, sections, rods, wires and tubes, copper alloy wire and net for cage farming aquaculture.

Epirus Metalworks is the production plant of ElvalHalcor's copper tubes division specializing in producing all types of coin blanks, as well as rings for bi-colour coins, according to any specification request, offering high-quality products with an extended after-sales support.

Production Facilities

The copper segment companies industrial base comprise four primary manufacturing facilities in Greece, Bulgaria, the Netherlands and Turkey.

Halcor Foundry | Oinofyta (Greece)
Annual production capacity: 235,000 tons
Halcor's foundry in Oinofyta produces semi-finished copper, copper alloys and brass products in billet and slab form. The plant has a fully operational copper and copper alloy scrap sorting and recovery centre and is certified under ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 and ISO 50001:2011.

Halcor copper tubes plant | Oinofyta (Greece)
Annual production capacity: 75,000 tons
The state-of-the-art copper tubes plant in Oinofyta produces copper tubes for heating, water supply, natural gas networks, air conditioning and refrigeration (HVAC&R) and industrial applications, including fittings, filters and cable shoes. Its manufacturing facilities are certified under ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007 and ISO 50001:2011.

Fitco extrusion plant for brass and copper alloy products | Oinofyta (Greece)
Annual production capacity: 40,000 tons
Fitco primarily produces solid and hollow copper alloy rods and sections, copper alloy wire and bars, seamless copper alloy tubes of different cross-sections, welded copper alloy tubes with a circular cross-section and copper alloy wire and net for cage farming aquaculture. The plant's facilities are certified under ISO 9001:2015, ISO 14001:2015 and OSHAS 18001:2007 and its products comply with several quality specifications (EN, DIN, BS, NF, ASTM, JIS, NSF).

Sofia Med copper processing plant | Sofia (Bulgaria)
Annual production capacity: 140,000 tons
Sofia Med produces copper, brass, high performance rolled products, copper bus bars, rods profiles, wire, fabricated parts with additional capabilities for tin/silver electroplating. Its production facilities are certified under ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007, ISO 26000:2007, ISO 50001:2011 and IATF 16949:2016. Sofia Med received IATF 16949:2016 and ISO 50001:2011 certification, reinforcing its ability to further penetrate the automotive industry (connectors). In addition, the Company passed all quality audits performed in 2018, including those by the world's largest producers of connector products for the automotive industry.

Sofia Med continues to invest in new product development and in optimizing its position to meet future demand for its products. During 2018, the Company invested a total of EUR 9.5 million in foundry, rolling, extrusion and quality departments, the hot dip tinning line, two melting furnaces and quality control equipment.

Epirus Metalworks | Epirus (Greece)
Annual production capacity: 6,000 tons
Epirus Metalworks focuses on state-of-the-art manufacturing of all types of coin blanks and rings for bi-colour coins. The quality management System applied, complies with ISO 9001:2015 and ISO 50001:2011.

HC Isitma | Gebze (Turkey)
Annual production capacity: 6,000,000 meters of tubes per year.
HC Isitma is a joint-venture established in 2015, that started operation during 2016 in Gebze, Turkey. HC Isitma produces Ecutherm copper tubes (production capacity: 4,200,000 meters per year) and corrugated A/C drain hoses (production capacity: 1,800,000 meters per year)

Nedzink | Budel-Dorplein (the Netherlands)
Annual production capacity: 24,000 tons
Nedzink operates a production facility of titanium zinc in Budel Dorplein and produces coils, sheets, strips, gutters and other accessories for roofing. Nedzink's products are the first titanium zinc products that have been certified with the standard NEN-EN-ISO 9001:2015.

Halcor has allocated significant resources to R&D, as part of its strategic focus on innovation. Within this framework, alongside other initiatives, Halcor cooperates with Elkeme Hellenic Research Centre for Metals S.A. (Elkeme) to conduct applied technological research related to the quality characteristics and attributes of metal products, the development of new, innovative solutions and the improvement of current production processes.

Corporate Strategy

The key strategic pillars of Halcor and the copper subsidiaries are as follows:

Product and service portfolio
- Strengthen Halcor's product portfolio via investing in research and development to deliver innovative, high added value products.
- Maintain a customer-oriented business approach across all activities and processes and improve further after-sales service and customer support.

Commercial development
- Grow international sales through the expansion of underdeveloped product segments in key geographical markets, while reinforcing Halcor's leading position in South-Eastern Europe.
- Focus on Halcor's reorganized production base and leverage commercial synergies.
- Identify and promote selected high-value product categories, including innovative tubes.

Production and operations
- Improve efficiency of various operational activities and control of fixed cost
- Identify potential for further improvements and implement actions to enhance Halcor's environmental protection
- Increase the usage of recycled copper
- Continue to deliver high-quality products.
- Maintain a positive working climate and culture
- Invest in additional capacity to meet future demand from existing and new customers
- Improve further customer service and support via advanced CRM practices.
- Integrate further sustainability in daily operations and decision making across the supply chain

2018 Financial Performance

In 2018, the copper segment saw significant growth in sales volumes and increased utilisation rates, that led to improved segment results. **Revenue** stood at EUR 1,066 million versus EUR 941 million in the prior year. **Profit before income tax** amounted to EUR 21.1 million.

Summary consolidated figures for the copper segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	1,065,500	940,940
Gross profit	77,638	79,533
Gross profit (%)	7.3%	8.5%
EBITDA	53,500	58,424
EBITDA (%)	5.0%	6.2%
a-EBITDA	**50,658**	**46,895**
a-EBITDA (%)	4.8%	5.0%
EBIT	41,706	44,537
EBIT (%)	3.9%	4.7%
a-EBIT	38,863	33,007
a-EBIT (%)	3.6%	3.5%
Profit before tax	**21,119**	**19,846**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

All companies within the copper segment continued to grow sales, supported by volume growth. Overall volume of sales grew by 8.8%, surpassing the growth rate of demand in the market, supported mainly from the improved performance of flat rolled products. Metal prices for 2018 remained broadly stable with a decline registered at year-end resulting in a neutral result from metal, in contrast to the metal profit of 2017. Nevertheless, adjusted EBITDA increased year-on-year owing to the successful implementation of strategic initiatives.

In H2 2018, copper companies in Greece and Bulgaria successfully renegotiated their loans resulting in a reduction in the effective interest rate and an extension in the maturity term of the loans.

The competitive landscape for the copper segment evolved significantly in 2018. To further reinforce their competitive positioning, the companies in this segment continued to progress their respective investment programmes. Halcor's investment in the copper tubes mill was successfully completed, increasing overall production capacity by 5,000 tonnes. As for Sofia Med, the company commissioned a hot dip tinning line for strips, facilitating access to markets and products with high demand and added value, and a new furnace in the foundry, doubling capacity for standard copper alloys.

For 2019, conditions in the market are expected to be mixed. While the growth rate of demand in tubes will probably remain low, the new capacity of the tubes mill could be exhausted very fast as it is directed towards products and customers with increasing demand. Production of copper and alloy rolled products can also keep increasing at very good rates, as global demand is expected to remain strong and there is still significant unutilized capacity in Sofia Med's rolling mill. Finally, the investments in higher value added products are gradually improving the portfolio and profitability of the segment.

Further information on Halcor is available on the website: www.halcor.com

ElvalHalcor S.A.

ElvalHalcor Hellenic Copper and Aluminium industry S.A. (ElvalHalcor) is a leading global industrial manufacturer of aluminium and copper products.

The Company was formed in December 2017 through the merger of Elval, a leading European aluminum rolling company, and Halcor, the largest copper tubes producer in Europe. It is listed on the Athens Stock Exchange (Athex).

As a combined entity, ElvalHalcor takes advantage of the synergies in innovation and technology, research and development (R&D), procurement, marketing, infrastructure and environment to produce high-quality, value added solutions for its customers on a global scale.

ElvalHalcor's fundamental success is attributable to its efforts in commercial exports, customer-focused philosophy and innovation which are achieved through ongoing investment in R&D.

The Company has over 80 years of experience, a strong production base across 14 industrial units, a market presence in over 100 countries, and highly experienced and specialised personnel.

ElvalHalcor is active in many dynamic, growing markets, including:
- Automotive (conventional and E- Mobility) and shipbuilding
- Packaging
- Energy and power networks
- Renewable energy
- Industrial applications
- Water supply
- Heating, ventilation, air conditioning and refrigeration (HVAC & R)
- Building and construction

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

Steel

Activities

With more than 55 years of manufacturing experience and expertise in steel production and distribution, Sidenor, Stomana Industry and their subsidiaries provide high quality, innovative solutions to customers across the world.

They are leading producers of steel products in South Eastern Europe with an extensive product portfolio which includes long, flat and downstream steel products. The companies operate eight manufacturing facilities in Greece, Bulgaria, Romania and North Macedonia.

As global suppliers, the companies provide a range of solutions to the steel sector and cater to the complex needs of clients worldwide.

Product portfolio

The companies in the Viohalco's steel segment offer a broad range of value added products and solutions used in building and construction (including buildings, roadworks, metro stations, bridges, shopping malls and hydroelectric dam projects), industrial engineering, shipbuilding, road and rail, the automotive industry, as well as in mining and tunneling applications.

The product family is structured as follows:

- **SD integrated reinforcing system:** The SD integrated concrete reinforcing system is Sidenor's product response to significant demand for high ductility steel to provide increased protection against earthquakes. The system consists of 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 rod:** Wire rod of S.A.E 1006, 1008, 1010 grades, RSt37-2 electrode quality, in cross sections from Ø5.5 to Ø16.0, which is suitable for a wide range of size reduction applications and meets all low-carbon wire production needs.
- **Special Bar Quality steels (SBQ):** Hot-rolled round bars (diameter: 22-120mm) and peeled, turned and polished round bars (diameter: 30-115mm) in a wide range of steel grades used to produce components for hydraulic and linear shafting systems, industrial machinery, earth moving and agriculture machines and vehicles, cranes and lifting equipment, forging parts, for fasteners and also in parts in the automotive industry.
- **Steel plates:** Manufactured in accordance with EN and ASTM European and American standards, and also more specific certifications for shipbuilding, boilers, etc. Plates are intended for general construction purposes, ship-building, manufacturing of tanks, pressurised boilers, bridges, coach works, pipes, agricultural machinery, machinery components etc.
- **Merchant bars:** Sidenor is the sole producer of merchant bars in Greece. Its portfolio of merchant bars consists of hot-rolled square bars, hot-rolled flat bars of rectangular cross-section, hot-rolled round bars of circular cross-section, hot-rolled equal angle bars with round edges, I-section beams (IPE), and UPN channels.
- **Steel balls for grinding:** Steel balls for grinding are produced in various diameters ranging from 60mm to 125mm. They are used for grinding ore in mills, most commonly in metal mining. To optimise its function for a specific metal, different hardness levels of the product can be used.
- **THN mining profiles:** THN mining profiles have been developed for use in the production of steel arches for public works and underground mines, as well as formworks for tunnels. The use of THN profiles in tunnel and roadway support provides higher resistance and a yielding support.
- **Boron flats:** Boron steel flats bars are utilised where high strength, impact resistance, good bendability and weldability are required. Hot-rolled boron flats are used in the fork-lift industry in the production of lifting forks.
- **Welding products:** Erlikon Wire Processing S.A. (Erlikon) produces a complete range of welding electrodes and wires. Its steel products cover a wide range of welding, hard-facing and cutting applications. The quality offered meets the precise requirements of the construction and ship-building sectors, raw materials and power industries, as well as the chemical and food industries. Various types of electrodes and welding wires are made available for non-alloyed and low-alloyed steels, fine-grained structural steels, hard-facing, heat-resistant steels, stainless and heat-resisting steels and also for cast iron and aluminium.
- **Wire products:** Wire products are manufactured by Erlikon and used in a variety of applications. The wire products produced by Erlikon are divided into the following categories:
  - Black soft and hard wires;
  - Common soft galvanised wires, semi-hard and heavily-galvanised wire under the trade names Syrgal, Syrgal Hard and Extragal, respectively;

- Welded galvanised mesh in rolls and sheets under the trade names Perinet and Overnet, respectively;
- Steel fibres for concrete reinforcement under the trade name Inomix (part of the SD Integrated Reinforcement System);
- Double-twist hexagonal mesh (serasanetti) in rolls and gabions.
- Tubular products: This range includes tubes of pre-galvanized steel, of cold rolled steel and of hot rolled steel in round, square and rectangular profiles. All the profiles are for structural and mechanical applications according the EN 10219:2006 standard.

In order to achieve the optimum balance between operational and commercial flexibility, and production effectiveness, the steel segment has adopted an operational structure focused on the following three areas:

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

Key companies

Steel segment key companies are:

Sidenor Steel Industry produces a wide range of steel products including billets, SD concrete reinforcing steel (in bars and coils), wire rods and merchant bars.

Sovel produces SD concrete reinforcing steel in bars, spooled coils, SD stirrup reinforcing mesh, SD wire mesh and mesh as well as Sidefit, Sidefor and Sidefor Plus product lines.

Stomana Industry has production facilities in Pernik, Bulgaria that manufacture a variety of steel products, including steel quarto plates, SBQs (special steels), SD concrete reinforcing steel in bars, steel balls for grinding, special profiles (THN and boron flats) and merchant bars.

Dojran Steel has production facilities in Nikolic, North Macedonia. The Company produces merchant bars, SD concrete reinforcing steel in bars, SD wire mesh, galvanized mesh, double twist hexagonal mesh (serasanetti) and lattice girders.

Siderom Steel SRL, located in Bucharest, Romania has started production of SD reinforcing mesh and Sidefor ready cages.

Erlikon is the sole producer of welding products in Greece. It primarily manufactures welding electrodes, copper-plated wires, galvanized and black wires, and concrete reinforcing steel fibres.

Port Svishtov West supports the strengthening of Stomana Industry's links with Central and Western Europe. The port is situated on the banks of the Danube River, 1,840 km from the port of Regensburg, where materials are frequently dispatched by barges and subsequently delivered via trucks/wagons to their final destination.

Production facilities and ports

To establish and maintain a strong competitive advantage, Viohalco's steel companies have focused on and invested significantly in reinforcing their production base over the past two decades. Through these long-term efforts to modernise and upgrade their manufacturing sites, Sidenor Steel Industry, Stomana Industry and their subsidiaries have become vertically integrated, and able to deliver high value-added solutions.

Viohalco's steel manufacturing facilities are as follows:

Sidenor Steel Industry plant | Thessaloniki (Greece)
Annual production capacity: meltshop: 800,000 tons, long products rolling mill: 800,000 tons (upon completion of investments).
Sidenor Steel Industry's Thessaloniki plant primarily produces billets, SD concrete reinforcing steel (in bars and coils), merchant bars and wire rod products. Its facilities have been qualified under ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 and ISO 50001:2011.

Sovel plant and port | Almyros (Greece)
Annual production capacity: meltshop: 1,350,000 tons, long products rolling mill: 1,200,000 tons.
Sovel's state-of-the-art production facilities produce a wide range of products including billets, SD concrete reinforcing steel, SD spooled coils, SD wire mesh, SD stirrup reinforcing mesh, Sidefit special mesh, and Sidefor and Sidefor Plus prefabricated stirrup cages. The plant has access to privately owned port facilities and is certified under ISO 9001:2015, ISO 14001:2015 , OHSAS 18001:2007 and ISO 50001:2011..

Stomana Industry plant | Pernik (Bulgaria)
Annual production capacity: meltshop: 1,400,000 tons, long products rolling mill: 1,000,000 tons, plate products rolling mill: 400,000 tons.
The Stomana Industry plant represents a key investment for the steel segment. Its product portfolio includes SD concrete reinforcing steel, steel quarto plates, SBQ-Special Steels, merchant bars, steel balls, special profiles, beams and continuously cast semi-products (billets, blooms and slabs). The plant is certified under ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 and its products meet the requirements of EN, DIN, ASTM, JIS, BS, Lloyd's Register and Germanischer Lloyd.

Erlikon plant | Kilkis (Greece)
Erlikon is the sole producer of welding products in Greece and its production plant primarily manufactures welding electrodes, copper-plated wires, galvanised and black wires, galvanised mesh in rolls and sheets and concrete reinforcing steel fibres. Erlikon has an active role in developing solutions for eco-friendly projects such as galvanized concrete reinforcing mesh for offshore fuel pipes and galvanized steel wire armor for submarine power cables (round and flat profiles). Its facilities are ISO 9001:2015 and OHSAS 18001:2007 certified.

Dojran Steel plant | Nikolic (North Macedonia)
Annual production capacity: long products rolling mill: 200,000 tons, wire mesh production unit: 20,000 tons, lattice girders unit: 10,000 tons.
The Dojran Steel plant in North Macedonia produces SD concrete reinforcing steel, merchant bars, SD wire mesh and double-twist hexagonal mesh (serasanetti). Its facilities are certified under ISO 9001:2015, ISO 14001: 2015 and OHSAS 18001:2007 and ISO 50001:2011.

Siderom Steel SRL | Bucharest, Romania
Siderom manufactures prefabricated cages and special reinforcing mesh for the Romanian market using Synthesis™ technology. Its facilities are ISO 9001:2015 certified.

Port Svishtov West I (Bulgaria)
Port Svishtov West S.A. is on the banks of the Danube River, 1,840 km from the port of Regensburg. The port was acquired to link Stomana Industry with Central and Western Europe in a more efficient way, in line with the Company's strategic goals.

Prosal tubes plant I Pernik (Bulgaria)
Prosal produces and trades pipes made of pre-galvanized , cold and hot rolled steel.
Its annual production capacity is 12,000 tons. The plant is certified according to ISO 9001:2015.

Corporate Strategy

Viohalco's steel companies have the following strategic objectives:

- Continuous investment in strengthening international competitiveness;
- Leveraging high capacity production facilities and a broad sales network to establish a fortified market position in Central Europe, the Balkans and the neighbouring countries of the Eastern Mediterranean;
- Optimising operating efficiencies through cost reduction, strict working capital management, updated logistics processes and ongoing investment in personnel training;
- Maintaining efforts to reduce environmental impacts.

2018 Financial performance

Amidst a mixed and volatile environment in 2018, the steel segment successfully increased sales volumes by approximately 6% and **revenue** by 20% to EUR 917 million, mainly by developing its reinforcing steel sales to the Balkan region and Cyprus, as well as wire rod and merchant bars sales. As for the prices, compared to international finished goods prices, they were significantly improved as a result of customer service and strategic positioning in regional markets. Increased sales led to improved utilisation of the plants, allowing for further operational efficiencies and the opportunity to capitalise on recent investments, such as the induction furnaces in the two Greek plants rolling mills. It should also be noted that throughout 2018, the steel segment contended with price increases in critical production materials, CO_2 and electricity base prices in Bulgaria.
All these resulted in an increase in **profit before income tax** to EUR 9.1 million. Improvement in profitability was however constrained by a decline in international scrap prices in Q4 2018, which resulted in metal losses.

Summary consolidated figures for the steel segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	916,581	765,243
Gross profit	69,626	70,647
Gross profit (%)	7.6%	9.2%
EBITDA	74,002	71,191
EBITDA (%)	8.1%	9.3%
a-EBITDA	**74,312**	**75,156**
a-EBITDA (%)	8.1%	9.8%
EBIT	37,812	35,956
EBIT (%)	4.1%	4.7%
a-EBIT	38,122	39,922
a-EBIT (%)	4.2%	5.2%
Profit before tax	9,115	3,315

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

In the USA, steel import tariffs affected the steel segment indirectly, especially after tariffs to Turkish steel imports were doubled. Quotas imposed by the EU proved insufficient to counterbalance this effect. Demand for steel in the Greek market remained low, while an improvement in the market conditions of Romania enabled the steel segment to capitalise and expand on its strategic position in this market.

With regards to key operational developments in the segment, strategic expansion in special bar quality ('SBQ') steel progressed through new investments, while new products were launched in SBQs, wire rods and merchant bars - the latter as a consequence of the recent investment in Dojran Steel plant.

In 2019, further volume growth is foreseen especially in wire rods, SBQs and reinforcing steel in markets outside Greece. Furthermore, new quotas introduced by the EU are expected to be more effective in balancing regional price pressures created by US tariffs.

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

Steel Pipes

Activities

Following the cross-border merger by absorption by Cenergy Holdings of the formerly listed Greek companies Corinth Pipeworks Holdings S.A. and Hellenic Cables S.A Holdings Société Anonyme in December 2016, **Corinth Pipeworks** is now a subsidiary of **Cenergy Holdings**.

With a manufacturing plant in Greece and extensive expertise in delivering complex projects on a global scale, Corinth Pipeworks is the supplier of choice for oil, gas and international construction companies. **Corinth Pipeworks** produces steel pipes for oil, gas and water transportation, oil and gas extraction and hollow structural sections for construction applications.

Corinth Pipework's clients include ABB, Allseas, AnlgoAmerican, BP, Cheniere Energy, Chevron, DCP Midstream, Denbury, DEPA, DESFA, DNOW, E.ON, EDF, Enbridge, Energy Transfer, ENGIE, ENI, EPCO, EXXON MOBIL, GASCO, Gaz System, Genesis, KPO, MRC Global, National Grid, Noble Energy, OGC, OMV, PDO, PEMEX, Plains All American, Qatar Petroleum, Repsol, Saipem, Sapura energy, Saudi Aramco, Shell, Snam, Socar, Sonatrach, Spartan, Spectra Energy, STEG, Subsea 7, TechnipFMC, Terega, Total, Whitewater Midstream, Wintershall etc.

The segment's ability to manufacture cutting edge products and remain at the forefront of its industry through investment in R&D drives operational efficiency and commercial achievements across the world. Corinth Pipeworks often collaborates with international research organisations including the European Pipeline Research Group (EPRG) and the Welding Institute, as well as regularly participating in research projects linked to its core business activities.

The Prosal tubes plant in Bulgaria is also a part of Viohalco's steel pipes segment.

Product Portfolio

Corinth Pipeworks produces steel pipes for oil, gas, CO_2, water and slurry pipelines, as well as casing pipes for drilling operations. The Group also produces a wide range of structural hollow sections for the construction sector. Corinth Pipeworks' long history of innovation and 'one-stop-shop' integrated services have secured its position as one of the world's major steel pipe suppliers.

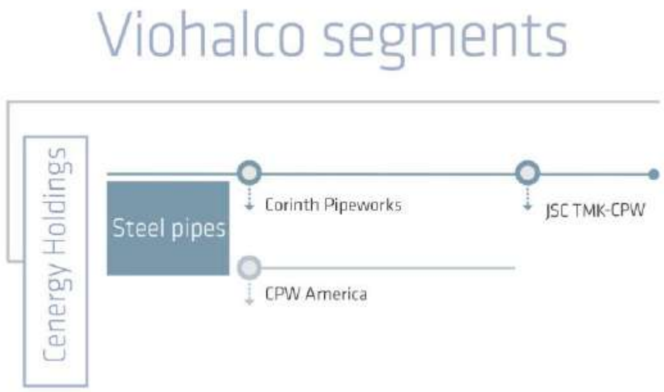
The Corinth Pipeworks Group's three main product categories are:

- **Line pipes:** They are manufactured either in the Group'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. The product range offered for this application has been expanded by the installation of the new LSAW mill.
- **Hollow structural sections:** Used in the construction sector.

Services

- Internal and external coating of pipes produced by other pipe manufacturers;
- Accredited laboratory for raw material and pipe testing, in accordance with ISO 17025:2006;
- In-house corrosion testing laboratory for sour service applications;
- Weld on connector facilities for casing pipes;
- Pipe storage;
- Supply of pipes or assignment of pipe coating to third party authorised subcontractors in the context of major project implementation;
- Pipe transportation.

Key companies



With state-of-the-art facilities in Thisvi, in the Viotia province of Greece, Corinth Pipeworks' product portfolio includes steel pipes solutions for oil and gas transportation and hollow structural sections for the construction industry. The Company offers competitive pricing and fast delivery of products, due to its exclusive use of port facilities located approximately 1.5 km from the plant.

JSC TMK-CPW is a joint stock company between Corinth Pipeworks (through Cenergy Holdings 100% subsidiary Humbel Ltd., which controls 49% of the joint stock company) and TMK, the largest manufacturer of steel pipes in Russia and one of the top three globally. JSC TMK-CPW has its production facilities in Polevskoy, Russia, where it manufactures pipes and hollow structural sections.

Production Facilities and ports

Corinth Pipeworks Group's industrial plants are located in Thisvi, Viotia Greece and Polevskoy, Russia.

Corinth Pipeworks plant and port | Thisvi (Greece)
Annual production capacity: 925,000 tons
The Thisvi plant produces pipes and hollow structural sections, using state-of-the-art machinery. The plant's facilities cover a total surface area of 103,000 sq.m. and are located within an area of 497,000 sq.m. in Thisvi, Viotia Greece. The plant is approximately 1.5 km away from the Company's dedicated port facilities. This is strategically important as the Thisvi port enables Corinth Pipeworks to reduce transportation costs on raw materials and offer more competitive pricing on its products and faster delivery. The port includes a fully operational set of cranes, forklifts and other machinery, in line with the provisions of the International Ship and Port Facility Security Code.

Corinth Pipeworks has also recently installed a concrete weight coating facility, in order to offer all pipe manufacturing and pipe coating operations required to supply a complete offshore pipeline package in one location.

JSC TMK-CPW plant | Polevskoy (Russia)
Annual production capacity: 200,000 tons
JSC TMK-CPW plant in Russia manufactures high frequency welded pipes and hollow structural sections. It uses equipment with very high technical specifications which allows for the production of pipes measuring 168-530mm in diameter, with 2.9-12.7mm wall thickness and up to 18m in length, and hollow sections in line with international quality standards.

Corporate Strategy

Corinth Pipeworks has extensive experience and a strong track record of implementing complex projects for the energy sector worldwide, both onshore and offshore. Furthermore, the Company is an approved supplier to major oil and gas companies and EPC contractors. Corinth Pipeworks offers a comprehensive set of services to customers from initial evaluation of a project and compliance with its technical requirements, to completion and delivery to the final site.

Corinth Pipeworks aims to meet the needs of the international energy market by focusing on the following strategic priorities:

- Growth across Europe, the Middle East, North Africa, North America, and the emerging markets of East and West Africa and the CIS;
- Leveraging LSAW investment to offer one of the widest product ranges of welded products in the world (HFW, HSAW, LSAW), which meets the highest international standards. Corinth Pipeworks acts as an integrated "one-stop-shop" for energy steel pipe products and related services;
- Constant improvement of the operating efficiency of production plants to strengthen Corinth Pipeworks' competitive and financial position;
- Cultivating long-term strategic cooperation with top quality raw material manufacturers for the steel industry worldwide.

Recent projects

2018 marked the 50th anniversary of Corinth Pipeworks, which achieved record sales and production output for the year. Specifically, sales in 2018 were up by around 35% year-on-year while production reached approx. 450,000 tons.

Operating under adverse market conditions characterized by strong protectionism, particularly in the USA, Corinth Pipeworks leveraged its reputation for top quality to maintain and increase its market share, and successfully enter new markets.

2018 was also an important milestone as the Company commenced its first deep sea offshore pipes project. Karish is a strategic project in the Southeastern Mediterranean at a maximum depth of 1,750m and a highly complex project that only a few companies worldwide could accomplish.

In 2018, Corinth Pipeworks was a major supplier to projects, such as:

- Baltic connector - 79 km of 20" offshore pipeline in Finland / Estonia.
- Plains All American, Cactus II, a 750 km oil pipeline of 26" pipes.
- Plains All American, Wink to McCamey, a 127 km oil pipeline of 26" pipes.

During the year, the Company successfully concluded an intensive program of qualifications by major companies such as BP, Shell, Technip etc., as well as the manufacture of products for new applications such as HFI pipes for reel-lay applications and LSAW pipes for offshore projects. These achievements, combined with the full integration of the concrete weight coating facility into our strategic plan, provided Corinth Pipeworks with a competitive advantage in offshore projects, as reflected in the latest project awards.

Corinth Pipeworks is one of the few firms in the world that offers pipes up to 24m length for reel lay purposes compared to the common 12m. Longer pipes mean less girth welds, decreased time of preparation and lower total cost.

2018 Financial performance

Revenue for the steel pipes segment amounted to EUR 470 million in 2018, a 59% increase year-on-year (2017: EUR 295 million), driven mostly by record sales volume. **Profit before income tax** reached EUR 8.6 million, compared to a loss of EUR 8.1 million in 2017.

Summary consolidated figures for the steel pipes segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	470,174	294,991
Gross profit	33,029	24,841
Gross profit (%)	7.0%	8.4%
EBITDA	25,536	11,489
EBITDA (%)	5.4%	3.9%
a-EBITDA	**29,345**	**20,645**
a-EBITDA (%)	6.2%	7.0%
EBIT	17,918	2,332
EBIT (%)	3.8%	0.8%
a-EBIT	21,727	11,489
a-EBIT (%)	4.6%	3.9%
Profit/ Loss (-) before tax	**8,612**	**-8,149**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

In 2018, the steel pipes segment commenced its first deep-sea offshore pipes project, Karish. This is a strategic project in the Southeastern Mediterranean at a maximum depth of 1,750m and a highly demanding project that only limited companies worldwide could deliver. During the year, a number of other offshore projects in the North Sea and the Baltic region were successfully executed along with large-scale onshore projects in mature markets across Europe and the USA.
The market position of the steel pipes segment was further enhanced by qualifications received from major companies such as BP, Shell and Technip, as well as by the manufacture of products for new applications, such as HFI pipes for reel-lay applications and LSAW pipes for offshore projects. Combined with the full integration of the concrete weight coating facility in its strategic plan, the steel pipes segment now has a clear competitive advantage when it comes to offshore projects.
Looking forward, the global economic environment in which the Company operates remains volatile, as a result of the imposition of tariffs and antidumping duties by the USA. Despite these headwinds, Corinth Pipeworks remains focused on maintaining its revenue growth, through the penetration of new geographical and product markets. The market trend for new pipeline projects together with the backlog of previously-awarded contracts give rise to optimism for 2019. The Company has been awarded both offshore and onshore projects for the supply of pipes for pipelines that will be constructed in Europe, the Middle East, the North Sea and North America, showing a significant geographical spread and product diversification.

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

Cables

Activities

The three Cablel® cable companies, which make up the cables segment of Viohalco S.A. are Hellenic Cables S.A. and its subsidiary Fulgor S.A., which operate in Greece, and Icme Ecab S.A., which operates in Romania. Following the cross-border merger by absorption by Cenergy Holdings of Corinth Pipeworks Holdings S.A. and Hellenic Cables S.A. Holdings Société Anonyme in December 2016, Cablel® cable companies are now subsidiaries of Cenergy Holdings.

Over the past decade, Cablel® cable companies have been the largest producer of cables in Greece and Southeastern Europe, with a strong international focus, exporting to more than 50 countries worldwide.

Cablel® cable companies are an approved supplier of the largest international electricity network operators and have one of the largest and most advanced submarine cable plants in the world (Fulgor). They operate in energy transmission and distribution for the renewable energy sources, telecommunications and data transfer, construction and industrial applications sectors.

The cables segment's product range includes a variety of cables and wires that cater to a range of different applications. It consists of submarine and land cables, low, medium, high and extra high voltage power cables, umbilical cables, fibre optic, data, signaling and telecommunication cables, flexible subsea pipes and enamelled wires and compounds. Cables segment's production base comprises six plants in Greece, Romania and Bulgaria. The product portfolio of the cables segment is commercially traded under the registered brand Cablel ®.

Hellenic Cables and its subsidiary, Fulgor, have recently been awarded several high-profile projects across Europe by major utilities. This is testament to the leading position that Cablel® Hellenic Cables has established in both the submarine cable manufacturing market as well as the global offshore energy industry. Furthermore, it highlights the Company's ability to successfully implement cost-effective, reliable and innovative solutions and successfully execute complex turnkey projects. In recent years, Hellenic Cables has developed a wide range of innovative cabling solutions including high voltage submarine cables, extra high voltage cables and optical fibre submarine cables.

Product portfolio

Product solutions provided by Hellenic Cables, its subsidiaries and Icme Ecab are used in the building, telecommunications and energy industries, as well as for specialised industrial applications. The key product categories are as follows:

- Power cables: Low, medium, high and extra high voltage cables submarine and land power 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.
- Telecommunication cables: Conventional telephone cables, telephone exchange and data transmission cables (LAN), fibre-optic (single-mode and multi-mode), submarine cables, and signaling cables.
- Enamelled wires: Enamelled copper and aluminium wires (round and rectangular) for electric motors and transformers, and copper wires for grounding, earthing and welding applications (can industry). Hellenic Cables is the sole manufacturer of enamelled wires in Greece.
- Plastic and rubber compounds: PVC-based plastic compounds, low smoke halogen free polyolefin-based plastic compounds and rubber compounds.

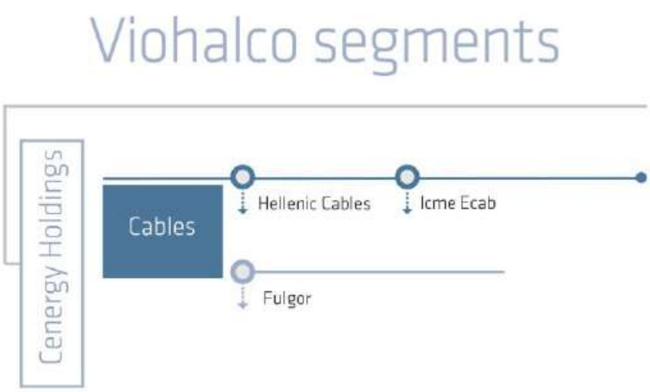
Solutions

One of the competitive advantages of the Cablel® cable companies comprising the cables segment is their ability to provide turnkey solutions to customers. 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 the cable route;
- 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 the operation of the system;
- Provision of maintenance and repair solutions.

Key companies

Viohalco's main subsidiaries in the cables segment comprise the following:



Hellenic Cables manufactures low, medium, high and extra high voltage land and submarine power cables, telecommunication cables, enamelled wires and plastic as well as rubber compounds, individually tailored to customers' specifications. The production base of the Company and its subsidiaries includes four plants in Greece.

Fulgor has industrial facilities in Soussaki, Corinth, Greece, and manufactures medium, high and extra high voltage submarine cables, submarine fibre optic cables, composite cables, special purpose cables, and copper and aluminium wires and rods. Fully-equipped port facilities operate within the plant to ensure immediate cable loading onto cable vessels.

Icme Ecab has industrial facilities in Bucharest, Romania. The Company has a wide product portfolio which includes cables for indoor installations, power, control, industrial applications, low and medium voltage, fire-retardant, fire-resistant and halogen-free cables, mine cables, marine and special-requirement cables, telecommunication cables, signaling, remote control and data transmission cables, copper and aluminium conductors, as well as plastic and rubber compounds. A well-equipped research and development unit which operates in the plant is responsible for the ongoing improvement of product quality.

Lesco Ltd is a wooden reels and pallets plant in Blagoevgrad, Bulgaria.

Production facilities and port

Following significant investment in the expansion and upgrade of manufacturing facilities, the cable companies operate an effective production base that comprises four plants in Greece, one in Romania and one in Bulgaria:

Hellenic Cables power and optical fibres cable plant | Thiva (Greece)
Annual production capacity: 60,000 tons
The completion of a high and extra high voltage cable production line in 2003 has enabled the plant to produce:

- LV power cables;
- MV power cables;
- HV power cables;
- EHV power cables up to 500 kV;
- Fibre optic cables.

Certifications: ISO 9001 :2015, ISO 14001 :2015, OHSAS 180012007, ISO 50001:2011, ISO 22301:2012

Fulgor Cable plant and port | Soussaki, Corinth (Greece)
Annual production capacity: 50,000 tons of cables and 120,000 tons of rods
Following the implementation of an approx. EUR 120 million investment plan, the plant is now one of the most advanced factories in the world and is focused on the production of high and extra high voltage submarine cables. During 2018, a further capacity expansion took place, while investments will continue during the period 2019-2020.

The plant can produce:

- LV power cables;
- MV power cables;
- HV power cables since 1995;
- Fibre optic submarine cables since 1992;
- Submarine MV cables since 1972;
- Upgraded for HV submarine cables (AC up to 400 kV / DC up to 400 kV).

In submarine cable production, Fulgor's main strengths are:

- Very long continuous lengths with or without the minimum number of factory joints;
- Direct loading from its dock facilities in Corinth;
- Among the highest storage capacity for high voltage submarine cables.

The Fulgor plant also carries out vertically integrated manufacturing of submarine cables.
Certifications: ISO 9001:2015, ISO 14001:2015, OHSAS 18001:2007, ISO 50001:2011, ISO 22301:2012

Icme Ecab Cable plant | Bucharest (Romania)
Annual production capacity: 50,000 tons
The company has an extensive product portfolio which includes cables for indoor installations, energy, control, industrial and external applications, low and medium voltage, fire-retardant, fire-resistant and halogen-free cables, mine cables, marine and special-requirement cables, telecommunication cables, signaling, remote control and data transmission cables, copper and aluminium conductors, as well as plastic and rubber compounds.
Certifications: ISO 9001 :2015, ISO 14001 :2015, ISO 45001:2018.

Hellenic Cables enamelled wires plant | Livadia (Greece)
Annual production capacity: 12,500 tons
This plant is Hellenic Cables' production facility for enamelled wires. The plant can produce copper (Cu) round and rectangular enamelled wires and aluminium (Al) round and rectangular enamelled wires.

Certifications: ISO 9001 :2015, ISO 14001 :2015, OHSAS 18001 :2007, IATF 16949, ISO 50001:2011, ISO 22301:2012

Hellenic Cables plastic and rubber compounds plant | Oinofyta (Greece)
Annual production capacity: 24,000 tons
The compound plant is Hellenic Cables' supporting facility for the production of PVC and rubber compounds.
Hellenic Cables has established a state-of-the-art, advanced polymer laboratory at the Oinofyta plant. The laboratory conducts specialised chemical tests focused on quality control and insulation analysis (XLPE) for high and extra-high voltage cables (raw materials, production process and evaluation of produced materials), as well as other polymers.
Certifications: ISO 9001:2015, ISO 14001 :2015, OHSAS 18001:2007, ISO 50001:2011, ISO 22301:2012

Lesco Ltd. | Blagoevgrad (Bulgaria)
Lesco O.O.D. is one of Hellenic Cables' supporting facilities. It produces packing materials and wooden drums for cables and has a total annual production capacity of 16,500 m³. The Lesco facility also recycles pallets and scraps drums.

Corporate Strategy

The strategic objectives that guide the operational activities of the companies comprising the cables segment are as follows:

- Focus efforts and investment on value added products such as high and extra high voltage submarine cables and extra high voltage underground cables;
- Progress activities in geographical locations such as Europe and the USA, specifically in markets that are investing heavily in the development of power and telecommunication networks and in renewable energy projects;
- Grow the level of direct sales to Transmission System Operators (TSOs) and Distribution System Operators (DSOs);
- Boost productivity by rationalisation of the cost base, strict inventory management and enhancing operational performance of production units;
- Improve liquidity through prudent working capital management;
- Invest in developing human capital and on the sustainable development of its companies.

Major ongoing contracts

Contract with DEME Group for the supply of submarine cable systems for the Modular Offshore Grid ("MOG") project of the Belgian company Elia in the North Sea.
In October 2017, Cablel® Hellenic Cables S.A. signed a contract worth about EUR 70 million with Dredging International NV, a member of the DEME Group, for the supply of high-voltage submarine cable systems. These cable systems will be used for the gradual interconnection of wind farms in the Belgian part of the North Sea with the high voltage land-based network in Belgium's Zeebrugge region ("MOG" project).

Contract with Enel Green Power Hellas for the submarine cable interconnection with the national network of the Kafireas onshore wind farm complex in Karystos, Evia
In July 2017, Fulgor signed a turnkey contract with Enel Green Power Hellas, a subsidiary of the Italian energy company Enel, to supply and install a submarine electrical high voltage interconnection to transmit the electricity generated from the Kafireas wind farm complex to the national network (Substation of Pallini, Attica). Upon completion, the Kafireas wind power project will have a total installed capacity of 154 MW and will be the largest wind farm complex in Greece.

Contract with Hellenic Transmission Operator for the second phase of the Interconnection of Cyclades Islands in Greece

In July 2018, the association of economic operators Hellenic Cables -Fulgor was selected as a supplier by the Independent Hellenic Transmission Operator ("ADMIE"), for a turnkey project of approximate value of EUR 40 million for the supply of high voltage submarine systems (52 Km of 150 kV subsea cables). These cables will connect the islands Paros-Naxos and Naxos-Mykonos in the Aegean Sea, Greece with the onshore high voltage grid of ADMIE on the mainland. The execution of the project commenced in 2018.

Contract with Electricity Authority of Cyprus for the upgrade of several transmission lines of the Cyprus grid

In October 2018, the Electricity Authority of Cyprus awarded Hellenic Cables a turnkey contract of EUR 10 million to supply and install high voltage land cables (70 Km of 132 kV cables) for the upgrade of several transmission lines of the Cyprus grid. The execution of the project started during 2018.

Recent awards

In September 2018, TenneT selected the Van Oord-Hellenic Cables consortium to supply and install sea and land cables for the Hollandse Kust (South) Alpha project. The Van Oord-Hellenic Cables consortium was also chosen to deliver and install cables for the Hollandse Kust (South) Beta project. Hellenic Cables' value of the assignments for both Hollandse Kust (South) Alpha and Beta projects is approximately EUR 105 million and will commence during 2019. The Hollandse Kust (South) Alpha grid connection is due to be completed by 2021, and the Beta in 2022.

In September 2018, the Independent Hellenic Transmission Operator (ADMIE), awarded Fulgor a contract of approximately EUR 140 million to supply and install one of the two submarine cables (135km of 150 kV subsea cable) to connect the island of Crete to the national power transmission grid in Peloponnese and all required underground cables (87km of 150 kV cables) to connect both submarine cables to the national power transmission grid on the side of Peloponnese (Lot A). ADMIE also awarded Hellenic Cables a contract of approximately EUR 41 million for the supply and installation of the required underground cables (204 km of 150 kV cables) to connect the two submarine cables to the power transmission grid of Crete in the Chania area (Lot C). The execution of these projects will begin in 2019. Both projects will be completed by the end of 2020.

In November 2018, the Independent Hellenic Transmission Operator (ADMIE) has awarded the association of economic operators Hellenic Cables - Fulgor two contracts worth a contract of approximately EUR 29 million and to Hellenic Cables a contract of approximately EUR 18 million to supply and install submarine (18 km of six 400 kV single core submarine cables and optical fiber submarine cables) and land cables (42 km of 400 kV land cables) in the Rio – Antirrio area for the extension of the 400 kV grid towards Peloponnese, Greece.
Furthermore, the assignment to Hellenic Cables includes the design and manufacturing of the necessary 400 kV land cables for the completion of the interconnection, of an aggregate length of 42 km, and their installation along the land route from the landing points of the submarine cables in Peloponnese and Central Greece.

Finally, in November 2018, Seamade NV awarded the Tideway-Hellenic Cables consortium a turnkey contract with total value of approximately EUR 44 million for the supply and installation of submarine export cables (30 km of 220 kV subsea cables) for the connection of the Seamade offshore wind project to the Belgian grid. The execution of the project will start during 2018.

2018 Financial performance

Cables segment **revenue** amounted to EUR 475 million in 2018, 16% up from EUR 408 million the previous year. **Loss before income tax** amounted to EUR 4 million, while **adjusted EBITDA** amounted to EUR 35.6 million in 2018, versus EUR 33.2 million in 2017. The increase is attributable to the stronger performance of cables products, as the profitability from cables projects was in line with results achieved in 2017.

Summary consolidated figures for the cables segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	474,734	407,971
Gross profit	40,880	34,046
Gross profit (%)	8.6%	8.3%
EBITDA	32,208	30,297
EBITDA (%)	6.8%	7.4%
a-EBITDA	**35,564**	**33,246**
a-EBITDA (%)	7.5%	8.1%
EBIT	18,541	17,452
EBIT (%)	3.9%	4.3%
a-EBIT	21,898	20,402
a-EBIT (%)	4.6%	5.0%
Loss before tax	**-3,961**	**-4,459**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

In the cables business, a steady pipeline of new projects was built up during H2 2018, while significant assignments, such as the interconnection of Tennet’s wind parks, Borkum Riffgrund 2 and Trianel, were successfully completed. Delays to project awards, especially in H1 2018, led to lower than expected capacity utilisation at the Fulgor plant during the year. Despite these issues, the cables products business achieved higher sales volumes, which were up 6.3% compared to 2017, along with an improved sales mix. The main drivers of the enhanced performance were the improved performance in the Greek market, further penetration into new markets, such as the Nordic countries and the Middle East, and solid demand for telecom and signalling cables in Europe and the Middle East.

Investments in the cables segment amounted to EUR 44 million in 2018, largely attributable to the expansion and upgrade of the submarine unit at Fulgor’s plant to meet expected future demand levels and improve productivity at the Hellenic Cables and Icme Ecab plants.

During 2018, the re-profiling of the segment’s debt was completed, resulting in a total of EUR 88 million of debt being re-profiled at improved terms.

With the pipeline of new contracts developing and the growth potential of the offshore cables business, the outlook for the business is positive. We expect Fulgor to operate at high capacity utilisation rates throughout 2019, which will support the segment’s profitability in the year ahead. Simultaneously, completion of the above-mentioned investment programme will further strengthen Fulgor’s ability to capitalise on favourable market trends.

Further information is available on the Hellenic Cables website:
www.cablel.com

Cenergy Holdings S.A.

Cenergy Holdings S.A. is a Belgium-based holding company founded in 2016 and listed on Euronext Brussels and the Athens Stock Exchange.

In December 2016, the cross-border merger by absorption by Cenergy Holdings of Corinth Pipeworks Holdings S.A. and Hellenic Cables S.A. Holdings Société Anonyme (both formerly listed in Greece) was completed and Cenergy Holdings became the parent company of the subsidiaries formerly owned by Corinth Pipeworks Holdings S.A. and Hellenic Cables S.A. Holdings Société Anonyme. On 21 December 2016, the trading of its shares commenced on Euronext Brussels and the Athens Stock Exchange (Athex).

Cenergy Holdings invests in industrial companies positioned in high-growth sectors such as energy and data transmission and construction.

Cenergy Holdings' portfolio operates under the following organisational structure which includes two business segments:

- Cables: Hellenic Cables, its subsidiaries, and Icme Ecab, i.e. the Cablel® cable companies constitute 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.

The companies in Cenergy Holdings' portfolio:

- have a long history of implementing big projects in more than 70 countries;
- have served major customers worldwide for nearly 70 years;
- operate seven production units and four supporting facilities in four countries;
- provide value added products for niche markets.

Real Estate

Viohalco focuses on effectively managing and further developing its yield producing real estate assets and capitalizing on non-income producing properties, in order to maximize value over the medium to long term, through its real estate investment arm, Noval S.A. (Noval).

Viohalco and its subsidiary companies own a wide variety of real estate assets, such as office buildings, hospitality properties, shopping malls, industrial complexes and logistics, located in Greece (Athens, Thessaloniki, Piraeus, Aspropyrgos, Elefsina, Corinth, Kefalonia and elsewhere) and in Bulgaria (Sofia).

Steelmet Property Services S.A. (SPS) supports Viohalco and its subsidiary companies to monitor their real estate assets, by providing a wide range of real estate and facility management services at a centralized level.

Activities

Noval's main objective is to optimize the operation of Viohalco's real estate assets, both by thoroughly managing income producing properties, but also through the design and implementation of (re)development projects. The latter typically involves turning idle industrial or office buildings into modern and energy efficient establishments, in line with international sustainability standards related to the environment and the local communities. Viohalco also holds significant plots in prime locations for future development.

On 30 November 2018, Noval obtained an initial approval to establish a Real Estate Investment Company (REIC) from the Hellenic Capital Market Commission (HCMC). Since other approvals are still pending it cannot be reliably estimated when the establishment will be completed.

2018 Financial performance

The **revenue** of the segment amounted to EUR 8.4 million in 2018, down 8% compared to 2017. **Loss before income tax** amounted to EUR 1.5 million, versus a gain of EUR 0.1 million in 2017, due to the decrease in revenue in combination with increased operational expenses, as a result of the development works in progress, aiming to the optimum use and the increase in rental income from currently idle properties.

Summary consolidated figures for the real estate segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	8,388	9,159
Gross profit	3,024	3,493
Gross profit (%)	36.1%	38.1%
EBITDA	4,607	5,565
EBITDA (%)	54.9%	60.8%
a-EBITDA	**4,597**	**5,565**
a-EBITDA (%)	54.8%	60.8%
EBIT	297	1,298
EBIT (%)	3.5%	14.2%
a-EBIT	287	1,298
a-EBIT (%)	3.4%	14.2%
Profit/ Loss (-) before tax	**-1,507**	**112**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

In 2018, the River West|IKEA Shopping Center recorded increase in rental income and footfall of 6.5% and 10%, respectively, while the current occupancy rate is 100%. Meanwhile, Mare West Retail Park achieved rental income and footfall increase of 5% and 10%, respectively.

Other notable developments in 2018 in the segment include the completion of demolition works on the long-term, leased Mouzaki property, while the turnover and occupancy rates of Wyndham Grand Athens Hotel and the K29 apartment hotel outperformed expectations. Construction works commenced on a Leadership in Energy and Environmental Design ('LEED') certified office building with completion recorded in January 2019 and occupancy rate of approximately 90% at the time. A new 1,700sqm office building in Maroussi was acquired through a financial lease and, in November 2018, Noval Property REIC obtained a license from the Hellenic Capital Market Commission to operate as a Real Estate Investment Company and an internally managed Alternative Investment Fund. Establishment of Noval Property REIC is in progress.

Looking ahead, the segment will focus on further increasing the rental income and footfall at River West|IKEA and Mare West, through the launch of new marketing and communications strategies. River West's expansion plans are to progress and the construction of a 7,000 sqm athleisure park is scheduled at Mare West. The construction of a 23,000 sqm. retail building on the Mouzaki property is expected to commence in 2019, while development of a LEED certified office complex is scheduled for H2 2019. Various development options are being explored across the remaining real estate assets, in parallel with potential new acquisitions.

Technology and R&D

Viohalco's portfolio includes research and development (R&D) dedicated companies, as well as production plants' in-house departments which focus on developing new and high value added products, efficient solutions to optimise business and industrial processes, and to enhance the environmental performance of plants and the impact assessment of sustainable growth.

The portfolio also includes engineering, automation and IT companies with over 30 years' experience in developing innovative applications for industry, energy and environment. IT activities include pioneering solutions in the fields of ERP, CRM, BI, traceability and others.

Viohalco companies have a long-standing reputation of staying ahead of technological developments through a strong innovation culture and significant investment in R&D. This is also supported by the companies' strategic partnerships with scientific bodies, international research centres and other international pioneer companies. Scientific research carried out at Viohalco's copper, aluminium and steel foundries and their respective production plants has resulted in significant in-house metallurgy knowledge.

Further differentiating Viohalco from its competitors is the companies' expertise in building and upgrading plants, together with their experience in planning, re-engineering, process optimisation and supervisory control systems. Human capital also remains a key strength through the highly experienced mechanical, electrical and process engineers and metallurgists who ensure ongoing quality improvements and productivity increases.

Key companies

Elkeme, Hellenic Research Centre for Metals S.A. (Elkeme). Elkeme's main focus is applied industrial research and technological development and analysis of the four major metals sectors (aluminium, copper, steel and zinc). The Centre provides R&D services and technical solutions for new products and the optimization of existing products, as well as business and plant production processes.

Teka Systems S.A. (Teka Systems) undertakes demanding engineering projects in the steel, aluminium, copper, power and telecommunication cables industries. It is active in engineering and construction, the commissioning of industrial equipment and the process and automation of technologies in integrated projects. It also implements IT projects in the fields of ERP, CRM, BI, analytics and others.

Praksys S.A. (Praksys) develops, markets, and oversees the implementation of new technologies in structural and concrete reinforcing steel. Among other, it has developed the 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.

Technology departments

Elval Technology centre develops highly-resistant special products with non-skid properties, extra flat sheets with top-quality lacquer-coatings, products made of 100% recycled aluminium and deep drawing and extrusion products.

Symetal's Technology department develops innovative surface design, while controlling the aluminium affinity for laminates and coatings, as well as customised mechanical characteristics for flawless forming. Its activities comply with the latest European Food Contact Legislation, which is in line with the Company's strategic presence in the food and pharmaceutical packaging industries.

Halcor operates a new innovative Tube Heat Transfer laboratory, which tests the thermal performance of inner grooved tubes (IGT). The Tube Heat Transfer laboratory has been developed in line with international standards and allows Halcor to meet a wide range of customer specifications and product applications in the manufacturing of Talos® Inner-Groove Tubes (IGT) and Talos® ACR tubes.

Sofia Med has reinforced its quality control department by adding new laboratory equipment and devices to control the material produced by the hot dip tinning line for use in automotive and electrical industries.

Cablel® Hellenic Cables has established a state-of-the-art Polymer Laboratory at its plant in Oinofyta. The laboratory mainly conducts chemical analyses and identification of raw materials, with an emphasis on quality control and the analysis of polymers for high and extra high underground and submarine cables. Research and development of new plastics and elastomer compounds also takes place in the laboratory.

Etem continually develops product solutions for the automotive industry, investing in dedicated machines and processing tools and undertaking vigorous testing to deliver high quality products. Following years of development and collaboration with customers and European institutes and research centres, Etem is a Tier 2 and Tier 1 supplier to the automotive industry, certified to produce aluminium profiles and parts for crash relevant systems. Furthermore, Etem develops its architectural systems to comply with the strictest European standards.

The long-standing culture of innovation at **Sidenor Steel Industry** is exemplified in its research and considerable investment in hi-tech machinery. Sidenor, Stomana and their subsidiaries are proud to have moved one step ahead and developed a technology in-house, patented under the name Synthesis™. Synthesis™ is a unique system for the industrial-scale prefabrication of reinforcing steel. The Synthesis™concept was developed by the steel segment's R&D arm, Praksys, which 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. Sidenor Steel Industry supports innovation and research through considerable investment in hi-tech machinery. Sidenor, Stomana Industry and their subsidiaries are proud to have moved one step ahead and developed a technology in house, patented under the name Synthesis™, together with R&D arm Praksys. Sidenor Steel Industry has also adopted new production solutions in both of its Greek plants, in Almyros and Thessaloniki. Induction reheating furnaces have replaced gas-fired furnaces, leading to significantly reduced carbon emissions during the process of production, natural gas conservation and energy demand reduction per ton of produced steel.

The field of oil and gas exploration and production to which **Corinth Pipeworks** activities are largely dedicated, is focused on ongoing technological developments and the use of advanced technologies. Keeping up-to date with the latest developments, Corinth Pipeworks continuously focuses on the following R&D activities:

- implementation of process optimisation techniques combined with continuous internal trial productions, aiming to narrow down the optimum working range for all variables, targeting higher product uniformity;
- broadening its production range in terms of thickness and grade;
- development of advanced tracking, process control systems, advanced non-destructive inspection techniques and controls;
- development and manufacturing of pipes for extreme applications (sour service, offshore, high strain applications such as reeling, etc.);
- application of advanced corrosion and mechanical protection systems;
- participation in major European and international projects targeting both the development of pipe properties and pipeline integrity (JIP and RFCS projects).

The total amount of R&D expenditure (both expensed and capitalized) for the year 2018, was equal to EUR 19 million. The calculation of this amount has been based mainly on the Frascati manual (generally accepted standard of conduct for R&D surveys and data collection) and on the relevant International Financial Reporting Standards.

Recycling

Viohalco’s recycling segment produces and trades secondary raw materials and undertakes various waste management and environmental projects, providing services to consumers, corporations and the public sector.

Initially established in line with Viohalco’s long-term commitment to a strategy of sustainable resource management for its own factories, the segment has gradually developed to expand the scope of its activities and customer portfolio, which currently includes multinational companies, public utilities, municipalities and extended producer responsibility schemes. The segment’s companies handle, either physically or commercially, more than 700,000 tons of waste per year. The individual waste streams range from End-of-Life consumer-oriented products, such as cars and domestic appliances, to industrial waste and ferrous and non-ferrous scrap metal.

Key companies

The key companies in the recycling segment are:

Established in 2001, **Aeiforos S.A.** (Aeiforos) processes 400,000 tons of industrial waste per year through its two recycling plants in Greece. The Company provides waste management and other services to steelmaking plants, non-ferrous metals smelters, refineries and scrap shredders. Aeiforos also operates an end-of-life vehicle depollution center and a 6,000 sq.m. warehouse for metallic scrap trading. Secondary raw materials produced by Aeiforos are used in the manufacture of metals, in road construction where slag aggregates are used in asphalt layers, and in cement plants, where secondary fuel from Aeiforos’ new post-shredder-treatment plant is used for energy recovery. Aeiforos holds all waste collection permits required for its operations in Greece, including a license for hazardous waste management. The Company’s plants are certified for quality and environmental performance according to ISO 9001:2015 , OSHAS: 2007 and ISO 14001:2015.

Established in 2004, **Aeiforos Bulgaria S.A.** (Aeiforos Bulgaria) processes more than 100,000 tons of industrial waste per year. Situated in Pernik, Bulgaria, the Company focuses on the recovery of steelmaking residues like steel slag, heavy shredder fraction, used refractories and scrap sorting residues. Aeiforos Bulgaria’s products are recycled for use in road construction, cement production and metals production. The Company has also gradually expanded into other waste management activities, including waste stabilisation. Aeiforos Bulgaria’s plant is certified for quality and environmental performance according to ISO 9001:2015, OSHAS:2007 and ISO 14001:2015.

Anamet S.A. (Anamet) is the leading metal scrap trading company in Greece. Established as a scrap metal trader in 1966, Anamet has now evolved to offer a wide range of waste management services not only to Viohalco companies, but also to third parties. These services include the recovery and offtake of secondary raw materials, the servicing of industrial sites and the safe disposal of non-recyclable process residues. Anamet also retains contractual agreements with most of the extended producer responsibility schemes operating in Greece. Its Aspropyrgos facility includes a modern end of life vehicles depollution unit, a car shredder installation and other infrastructure, geared primarily towards metal recovery and processing. The Company is certified for quality, health and safety, and environmental performance according to ISO 9001:2015, OHSAS 18001:2007, ISO 14001:2015, ISO 39001:2012 and regulation 2009/1221/EC (EMAS), respectively. It is also certified according to the regulation 2011/333/EC for establishing end of waste criteria for ferrous and aluminium scrap. Furthermore, Anamet carries out various corporate social responsibility initiatives to promote recycling, counter illegal activities and establish win-win practices for all stakeholders (public, NGOs, governmental bodies, industry). These include programmes, such as metal alert (www.metal-alert.gr), car4care (www.car4care.gr) and green auto parts (www.greenautoparts.gr).

Vianatt S.A. (Vianatt) specialises in the processing and depollution of Waste Electrical and Electronic Equipment (WEEE). The Company's plant in Aspropyrgos is equipped with processing lines for all WEEE categories, from fridges and other large domestic appliances to the small electronic equipment. The Company operates under an ongoing contract with Appliances Recycling, the collective take-back system for WEEE in Greece, and can process up to 15,000 tons of WEEE per annum. Vianatt is certified for quality, health and safety and environmental performance according to ISO 9001:2015, OHSAS 18001:2007, ISO 14001:2015 and regulation 2009/1221/EC (EMAS). Further-more, the Company offers safe data destruction services (Total EraseTM) and is certified according to ISO 27001:2013. Vianatt is committed to promoting a culture of responsible WEEE management and as such, organizes educational programmes for schools and offers a free website library on recycling.

Inos Balkan Doo, founded in Serbia in 1951, processes and trades ferrous and non-ferrous scrap metals. Through its two main facilities in the port of Belgarde and Valjevo, the Company purchases from both individuals and small businesses, while it also undertakes various off-site projects. Inos Balkan is certified for quality, health and safety and environmental performance according to ISO 9001:2015, OHSAS 18001:2007 and ISO 14001:2015, respectively.

Based in Skopje, **Novometal Doo** is one of North Macedonia's major recycling companies. It collects and processes different types of waste materials including metals, electrical and electronic equipment (WEEE), end-of-life vehicles (ELVs) and demolition waste. Novometal began operations in 2008 and was the first scrap processing company in North Macedonia to become ISO 9001:2015, ISO 14001:2015 and OHSAS 18001:2007 certified.

2018 Financial performance

Recycling segment **revenue** decreased by 31% year-on-year, while **result before income tax** amounted to a loss of EUR 1.8 million, compared to a gain of EUR 1.7 million in 2017, primarily due to weaker top-line performance and increased production costs. More specifically, protectionist trade policies adopted by China and Serbia, both key markets for non-ferrous and ferrous, respectively, caused significant disruption in the normal course of business. Hazardous waste continued to support segment profitability, while end-of-life waste streams maintained volume levels, albeit with increased production costs due to new investments.

Summary consolidated figures for the recycling segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	45,626	66,005
Gross profit	14,227	19,061
Gross profit (%)	31.2%	28.9%
EBITDA	2,952	6,896
EBITDA (%)	6.5%	10.4%
a-EBITDA	**3,256**	**6,728**
a-EBITDA (%)	7.1%	10.2%
EBIT	273	4,179
EBIT (%)	0.6%	6.3%
a-EBIT	577	4,011
a-EBIT (%)	1.3%	6.1%
Profit/ Loss (-) before tax	**-1,807**	**1,672**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

In 2019, the global scrap trade market is expected to normalise and support growth in ferrous and non-ferrous. Overall, the recycling segment will continue to assess and adopt new technologies and processes, which will increase quality and recovery rates from recycled materials, in order to strengthen profitability and support expansion to new markets.

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 segment and in ceramic trade activities (Vitruvit).

Loss before income tax amounted to EUR 6.2 million, compared with EUR 7.5 million in 2017. This was mainly due to improved results of subsidiaries operating in the technology segment.

Summary consolidated figures for the other segment	**For the year ended 31 December**	
Amounts in EUR thousands	**2018**	**2017**
Revenue	27,860	30,984
Gross profit	9,015	6,860
Gross profit (%)	32.4%	22.1%
EBITDA	-5,027	-6,705
EBITDA (%)	-18.0%	-21.6%
a-EBITDA	**-3,372**	**-6,450**
a-EBITDA (%)	-12.1%	-20.8%
EBIT	-6,068	-7,563
EBIT (%)	-21.8%	-24.4%
a-EBIT	-4,413	-7,309
a-EBIT (%)	-15.8%	-23.6%
Loss before income tax	**-6,238**	**-7,520**

- All percentages are vs. revenue

-EBITDA, EBIT, adjusted EBITDA and adjusted EBIT are considered Alternative Performance Measures (APMs). For definitions and further information please refer to the Appendix.

c. Subsequent events

On January 7th, 2019, the Board of Directors of Viohalco's wholly owned subsidiary Etem Bulgaria SA, the extrusion branch of the aluminium segment of Viohalco SA, decided the spin-off of the production of extruded aluminium profiles business and the additional processing of aluminium profiles for the automotive industry business into two subsidiaries of Etem Bulgaria. The aforementioned decision will serve the purposes of an Investment Agreement (the 'Agreement') that Etem Bulgaria has entered into with Gestamp, a leading global Group specialized in the design, development and manufacturing of metal components and structural systems for the automotive industry. As part of the Agreement, two joint ventures will be established which will focus on the extrusion and processing of aluminium profiles for the automotive industry, in which an investment programme will be implemented, in the next three years, for the installation of a new extrusion line and related machinery for further processing of aluminium profiles in Bulgaria.

On February 5th, 2019, the subsidiary ElvalHalcor announced the decision of its' Board of Directors to commence the proceedings of the transformation of the branch in Pogoni, Ioannina, manufacturing plant of all types of coin blanks and rings into a newly founded company limited by shares ("Société anonyme") in accordance with the third section of par. 2 of article 52 of L. 4172/2013, as replaced by article 23, par. 6.c., of L. 4223/2013.

On February 21st, 2019, the U.S. Department of Commerce (the 'DoC') announced its affirmative final determinations in the antidumping duty investigations initiated in early 2018 on imports of large diameter welded pipe from Canada, Greece, Korea and Turkey. Similar determinations about imports from China and India were announced in December 2018. In the Greece investigation, the DoC assigned an antidumping duty rate of 9.96% for Corinth Pipeworks S.A, subsidiary of Viohalco.

On April 16th, 2019 the United States International Trade Commission (ITC) completed and filed its injury determinations in the antidumping and countervailing duty investigations concerning large diameter welded (LDW) pipe from Canada, Greece, Korea and Turkey. Concerning Greece, the ITC determined that an industry in the United States is threatened with material injury by reason of less than fair value imports of LDW line pipe from Greece. On the contrary, it ruled that LDW structural pipe imports from Greece do not cause and are not a threat to cause material injury to the U.S. industry.

As a result of ITC's affirmative determinations aforementioned, the DoC will issue an antidumping duty order on future imports of LDW steel line pipe from Greece at a corrected rate of 10.26%. In contrast, structural pipe from Greece will not be covered by such an antidumping duty order.

It is noted that imports of LDW line pipe from Greece, which were entered prior to the publication date of DOC dumping order, will not be assessed dumping duties – hence, any deposited preliminary dumping duties will be refunded.

d. Risks and Uncertainties

Viohalco's Board of Directors is responsible for assessing the risk profile of the Company's subsidiaries. Since 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 of Viohalco's subsidiaries is therefore responsible for the identification, measurement, analysis, response (mitigation), control and monitoring of its own risks.
Still, a set of common guidelines for an Entreprise-wide Risk Management (ERM) framework across Viohalco's subsidiaries exist: these include principles for effectively managing risks, in all subsidiaries. Furthermore, the framework provides guidelines on how best to address these risks and facilitates discussion on risk management issues.
In turn, Viohalco's executive management in consultation with the Board of Directors is responsible with successfully exploring business opportunities, whilst at the same time assessing possible risks and their control mechanisms across subsidiaries, with the help of an independent Internal Audit department. The objective of this evaluation is to enable the Company to determine whether the subsidiaries have managed risks in a proactive and dynamic way to mitigate them down to an acceptable level.
The ERM process in Viohalco's subsidiaries comprises the following steps:

a) Identify key risks and measure / analyse 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 operation.
b) Manage (i.e., respond to) those risks by considering existing controls as well as selecting, prioritising 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 internal and external environment for potential changes to risks, ensuring risk responses continue to be effective. Each company monitors its risks and risk responses, using the common ERM guidelines but separate procedures, systems and mechanisms put in place by each company's management.

A consolidated review of all the subsidiaries' financial performance including potential risks takes place 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 looks into specific aspects of internal control and risk management on an on-going basis.

Key risks

Risks are classified into two major families, **Financial** and **Business** Risks. The former includes different types of market risk affecting the activity of each subsidiary (mainly, exchange rate, interest rate and commodities risk) as well as credit risk, counterparty risk and liquidity risk.The **Business** Risks family, broadly defined as all risks that are not balance-sheet related, is broken down into further sub-categories, to help better understand and react to the different risk events:

A. ***Operational and technology risks*** defined as the risk of loss resulting from inadequate or failed processes, people and systems or from external events. Operations risks comprise all risks associated with the day-to-day operations such as Health & Safety, environmental issues, legal risk (as it refers to processes) but not strategic or reputational risks.
B. ***Compliance and reputational risks*** include possible negative impacts (economic – fines, penalties, etc. and other – exclusion from markets, etc.) from noncompliance with

existing regulations and standards. Also included are potential impacts to the subsidiary's brand image and business[1] reputation, as well as accounting risk[2].

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

Financial risks

Interest rate risk

It is clear that significant movements in interest rates may expose subsidiaries to higher borrowing costs, lower investment yields and/or decreased asset values. As a central rule, entities do not enter into speculative positions on interest rates of any kind but always try to follow natural immunization strategies i.e., matching durations of assets and liabilities and keep away from fair value shocks. On the other hand, given the current low interest rate environment, each entity tries, in the measure possible, to secure fixed (and low) rate financing lines to avoid variations in cash flows and facilitate capital budgeting.
If absolutely necessary, subsidiaries use derivatives to hedge any remaining interest rate risk; strict rules and limits, internal to each entity, regulate the use of such instruments.

Currency risk

Viohalco holds stakes 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 losses due to volatility in foreign exchange rates.
Companies manage this risk in a prudent manner, trying for natural hedges whenever possible (i.e. matching currencies in anticipated sales and purchases, as well as receivables and liabilities) and using standard hedging products, such as forward contracts, if necessary.

Commodity risk

Most of Viohalco's entities are industrial companies, using ferrous and non-ferrous raw materials as inputs. Fluctuations in commodity prices (esp. metals and particularly copper, zinc and aluminum) 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 change in the net open commodity is generally hedged by LME future contracts so that Viohalco's subsidiaries are not exposed to commodity price risk.

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 funds to meet its financial commitments in a timely manner. Its two key elements are short-term cash flow risk 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 term or at acceptable cost. Such risk may come from seasonal fluctuations, business disruptions, unplanned capital expenditure, an increase in operational costs, a narrow funding market and other reasons causing inadequate cash management. Viohalco's subsidiaries constantly monitor cash flow needs and quarterly report monthly rolling forecasts to ensure sufficient cash on hand to meet its operating needs. Through monthly financial reports, they closely follow operating cash flow

[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.).

indicators, liquidity and leverage ratios and continuously assess available funding, both in the local and international markets.
Finally, companies mitigate liquidity risk by careful cash flow management including optimising working capital and by maintaining unused, committed financing facilities from a diversified number of financial institutions. These allow their business to easily meet its future requirements or contingencies.

Credit risk

Selling to a large number of customers spanning vast geographical regions and many sectors across the world, unavoidably creates an important credit risk for Viohalco's subsidiaries as their customers may default on their obligations. Such credit risk may be accentuated if a significant portion of business 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 (e.g. no customer may represent more than 10% of any company's revenue), (b) executing robust creditworthiness checks for 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

Operations and technology

- **Channel effectiveness risk**

Poorly performing or positioned distribution channels may threaten subsidiaries capacity to effectively and efficiently access current and potential customers and end users.
Subsidiaries manage the channel effectiveness risk through commercial executives per project / market. Periodic budget reviews are the main tools used for the setting up and monitoring of distribution channel objectives.

- **Procurement / Sourcing risk**

Limited sources of energy, metals and other key commodities, raw materials and component parts may threaten Viohalco's subsidiaries' ability to produce quality products at competitive prices on a timely basis. Hence, all companies continuously aim to minimize the likelihood of such a risk occurring. Relevant measures include maintaining a wide and diverse supplier base (esp. from different geographies, where possible), the existence of alternate material lists, the establishment of Service Level Agreements with key vendors and the reduction of exposure to the spot market through long term contracts.

- **Operation Interruption risk**

The unexpected unavailability of raw materials, skilled labour, information technologies, or other resources and the danger for equipment breakdowns may threaten Viohalco's subsidiaries' capacity to continue operations. This being central to industrial production, all subsidiaries maintain thoroughly their equipment via specialized maintenance departments for every single plant that follow a well-planned maintenance schedule. 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 of the 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 the companies by using business interruption insurance policies.

- **Product failure risk**

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

fixed and formalised quality control procedures, while maintaining appropriate insurance coverage against such claims. The 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 centres to capture defects, implementation of end-to-end traceability systems, etc. In addition, companies have applied product liability insurance policies.

- **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.

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

The need to adequately identify the gaps that may result in risks, assess the maturity of the existing controls and identify risk mitigation actions is an ongoing process that must take into consideration the ever-changing threats, control and 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 as well as against legal requirements.

Viohalco has taken the initiative to conduct such gap analyses against IT and information security risks in order to comply with 2016/679 EU General Data Protection Regulation, but taking also this opportunity to evaluate and ameliorate its overall IT risk posture, beyond the requirements of the said Regulation.

Besides 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 centre of Viohalco and offers tailor-made applications and software support to Viohalco's industrial companies as necessary.

Compliance and reputation risks

- **Financial Regulation risk**

In regards with the requirements arising from its stock exchange listings, Viohalco has established the necessary structures and procedures in order to ensure continuous compliance, including the adoption of its Corporate Governance Charter, which covers issues such as directors' and managers' accountability, good governance principles, insider dealing, and conflicts of interest.

- **Compliance Risk**

Laws and regulations apply to many aspects of subsidiaries' operations including but not limited to, labour laws, Health and Safety, environmental regulations, building and operational permits, etc.

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

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

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 exogenous risk in particular by differentiating their manufacturing and market reach. Viohalco's subsidiaries currently have manufacturing sites in eight countries, a commercial network in 21 countries and products distributed in more than 100 countries worldwide.
They also 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 in order to minimize the impact of the macroeconomic conditions on their operations.

- **Industry risk**

Changes in opportunities and threats, capabilities of competitors, 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 with the specific industry they operate in, is primarily associated with the cyclicality of demand and the substitution rate of some of its subsidiaries' products.
Companies manage the former by expanding their exports to global markets, to differentiate cyclical exposure across geographical areas. The risk of substitution is addressed through the differentiation of their product mix, for example by shifting part of the 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 of all Viohalco's subsidiaries and the strategic markets plan by each subsidiary.
Exposure to competitor risk is captured through 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 on high-margin products.

- **Technological innovation risk**

In a world of rapidly changing technology, companies in Viohalco's holding portfolio risk not efficiently following the technology wave or investing in the information technology (IT) infrastructure necessary to effectively support current and future business requirements. This may seriously affect sales, costs and revenues.
On the other hand, companies may not be leveraging advancements in technology in their business model 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's subsidiaries 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 research and development (R&D) and cooperate with scientific bodies and prominent international research centres. This strong focus on technology and innovation is additionally demonstrated through dedicated R&D departments at a number of Viohalco's subsidiaries.

F. Non-financial information

This Non-Financial Statement has been prepared in accordance with the Belgian Companies Code (119§2), as recently introduced by the Belgian Law of September 3, 2017, on the disclosure of non-financial and diversity information by certain large companies and groups.

Business Model

Viohalco S.A. (**Viohalco** or **Company**) is a Belgian holding company with participations in various metal processing companies across Europe. Viohalco's portfolio comprises companies with a global presence. Viohalco and its companies also own a substantial real estate portfolio, located predominantly in Greece.

Management report presents a thorough description of each business on pages 10-55.

Core principles – Reference code

Viohalco, as a holding company of a predominantly industrial portfolio, believes that the companies must demonstrate the responsibility and commitment in sustainability issues in order to create and preserve long-term value for its shareholders.
The principles on which the Company bases its actions and all companies should embrace and aim at are the following:

- *Excellence*: Viohalco aims to achieve excellence, encouraging and aspiring continuous improvement in all its activities.
- *Respect*: respect for persons is at the center of all action undertaken by the Company; it is within the Company's philosophy to make the most of the characteristics, dignity and uniqueness of each individual.
- *Trust*: Viohalco aims to establish a relationship of trust with its counterparties and to meet expectations by keeping faith with commitments undertaken.

Viohalco's principles are reflected in policies outlined below (in alphabetical order):

- ***"Business Ethics and Anti-corruption policy***",
- ***"Environmental policy***",
- "***Health and Safety policy"*** and "***Labor and Human Rights policy"***,
- "***Sustainability policy***".

Viohalco outlines these policies as a "reference code". All companies are required to incorporate these principles into their own respective policies and ensure compliance.

<u>Business Ethics and Anti-Corruption</u>
Viohalco is committed to conduct business with honesty and integrity and in compliance with all applicable laws. Viohalco ensures integrity and transparency in its transactions and interactions with third parties. All companies should acknowledge their obligation to act responsibly and lawfully in all jurisdictions. Business growth and success rests on the quality of their products and services. Viohalco has zero tolerance for illegal unethical business whatever the circumstances.

It is fully opposed to all kinds of bribery and corruption and is determined to maintain a culture of honesty and opposition to fraud and corruption. All companies should maintain a system of internal accounting controls that accurately trace and assess transactions and dispositions of assets.

<u>Environment</u>
Viohalco is committed to the highest standards of responsible business: all companies' activity must be effected in full respect of the environment and the communities affected.

Sound environmental management of production and storage installations is a key element for the sustainability of the companies' activities. Viohalco companies should operate in full compliance with applicable national and EU environmental laws, or specifically local (at plant level) terms and conditions. With regard to environmental issues, all companies should establish a culture of transparency and open dialogue with the stakeholders.

<u>Health and Safety – Labour and Human Rights</u>

Viohalco has no tolerance for an unhealthy workplace; no tolerance for accidents in the workplace. All companies should implement high standards of health and establish internal procedures for closely monitoring implementation. They should comply fully with all applicable laws on health and safety, and creatively seek continuous improvement of performance in this field.

Viohalco has zero tolerance for discrimination motivated by race, gender, religion, age, nationality, origin, disability, sexual orientation, or political and trade union engagement. Viohalco companies should embed this principle of no-discrimination in their recruitment and professional training policies. The decisive factors for all employment and career decisions should be performance, experience, personality, skills and qualifications.

Viohalco rejects all forms of forced labour. Work performed in the companies must be voluntary. Forced or illegal labour practices are banned and prohibited in all jurisdictions.

Viohalco recognises the right of all employees and stakeholders to work with dignity and to see their fundamental rights, as articulated in the various international Conventions and Declarations that Belgium and the EU have adhered to, fully respected. All companies should embed into their policies and internal procedures strict respect of these fundamental principles and rights.

<u>Sustainability – Social Matters</u>

Viohalco is committed to iincorporate the principles of sustainability in its business operations and ascertain that all its companies recognise that their long-term growth can only be achieved through sustainable development. All companies should implement the principles of sustainable development in their daily operations and demand the same responsibility from its business partners and suppliers while maintaining a harmonious coexistence with the local communities in which they operate.

All companies are required to maintain an open communication with all stakeholders in order to identify and record their needs and expectations while cooperating and supporting local communities in which they operate.

Operational Due diligence

The operational due diligence is performed by Steelmet S.A. (*Steelmet)* an affiliate company of Viohalco, which is responsible for the monitoring of Viohalco companies performance including compliance with the reference code. Companies' Board of Directors and top management are responsible with the assistance of Steelmet to ensure compliance with the reference code.

As part of its tasks, currently Steelmet is using specific metrics, identifies, quantifies, and prioritises the risks in all relevant areas. It then reports to the board of directors of each company the results of the monitoring process and proposes corrective actions, where necessary. Steelmet also reports on actual or potential risk generated in these areas to Viohalco's Audit Committee.

85% of the companies in Viohalco' portfolio is certified with the Environmental Management System ISO 14001:2015; and 77% are certified with the Occupational Health and Safety Management System OHSAS 18001:2007. These certified management systems are implemented by the companies' own skilled personnel and consultants. Through annual management system certification reviews conducted by various external auditors, each company secures ongoing in-depth due diligence in the concerned fields.

The certified management systems selected allows each company to take the appropriate preventive measures, and instill its personnel with the continuous improvement culture necessary to ensure successful risk management.

For more information on the main risks identified by Viohalco and the preventive measures taken, please refer to the section 'Risks & Uncertainties' in the annual report.

Materiality analysis and KPIs

Materiality analysis aims to determine the most significant environmental and social matters which have impact on the activities of the companies. It is a tool which prioritises and forces to take action on the issues of the highest priority for the business.
Viohalco companies have carried out a "materiality analysis" in order to determine a range of environmental and social matters[3].
The analysis has been conducted by the companies whose production processes and facilities may have largest impact on the areas reviewed herein. The companies concerned are the following: ElvalHalcor S.A., Sidenor Steel Industry S.A., Corinth Pipeworks S.A., Hellenic Cables S.A., Fulgor S.A., Icme Ecab S.A., Stomana Industry S.A., Sovel S.A., Etem Bulgaria S.A., Symetal S.A., Sofia Med S.A., Fitco S.A. and Bridgnorth Ltd.
All these companies, using as materiality principle the international guidelines and sustainability frameworks (AA 1000, GRI-G3.1 and ISO 26000), have identified and prioritised as material sustainability issues the following:

- ***Business Ethics and Anti-Corruption***

During 2018, as in previous years, no incident of corruption or bribery was recorded or reported.

- **Human Rights and equal opportunities**

During 2018, as in previous years, no incident of discrimination was recorded or reported and there has been no incident of forced or voluntary child labour.
The turnover ratio of employees and the percentage of women in total workforce are the two main KPIs utilised for the monitoring of the implementation of the companies' labour policies.

	ElvalHalcor		Sofia Med		CPW		Stomana		Hellenic Cables		Bridgnorth	
year	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
employee turnover*	3.6	5.1	19.7	22.6	2.8	2.7	18.4	12.5	5.7	6.1	8.1	7.0
% of women	8.5	7.7	19.4	19.6	8.5	8.6	30.8	31.5	7.4	23.3	9.6	10.4

	Symetal		Sidenor		Sovel		ICME		Etem BG		Fitco		Fulgor	
year	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
employee turnover*	6.3	4.7	2.3	2.5	1.4	3.3	21.3	46.0	18.7	7.6	5.0	5.8	3.7	12.4
%of women	10.3	9.6	9.7	10.7	4.2	3.3	22.9	7.9	19.2	14.4	12.0	11.6	10.4	7.6

** Turnover rate: Percentage of employees who left the company (due to resignation, dismissal, retirement, etc.) in total company's workforce.*

- **Supporting local communities**

The performance of the companies in these matters is primarily evaluated on the basis of the percentage of employees from local communities as shown below.

	ElvalHalcor		Sofia Med		CPW		Stomana		Hellenic Cables		Bridgnorth	
year	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
% of employees from local communities	56.8	54.8	12.3	15.6	90.7	90.6	95.2	89.8	76.2	82.3	52.9	51.8

[3] The majority of the companies' segments reports are available on the following websites: Aluminium and Copper segment http://www.elvalhalcor.com/sustainability/reporting/overview/ , Cables segment http://www.cablel.com/778/en/corporate-responsibility-and-sustainability-reports/, Steel Pipes segment http://www.cpw.gr/en/media-center/Publications/.

Year	Symetal		Sidenor		Sovel		ICME		Etem BG		Fitco		Fulgor	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
% of employees from local communities	51.6	53.1	83.4	75.9	98.6	97.4	51.9	100.0	-	22.7	40.0	33.1	76.9	75.4

- **Occupational Health and Safety,**

The performance metrics in this matter are depicted on the internationally accepted performance indicators listed below.

Year	ElvalHalcor		Sofia Med		CPW		Stomana		Hellenic Cables		Bridgnorth	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
LTIR*	4.3	7.5	6.5	8.8	3.0	3.4	2.9	1.9	11.9	10.5	15.7	7.9
SR**	105.4	126.4	334.9	126.1	374.5	118.1	214.5	283.9	116.2	282.8	119.5	65.8

Year	Symetal		Sidenor		Sovel		ICME		Etem BG		Fitco		Fulgor	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
LTIR*	9.8	3.4	4.0	12.8	4.0	5.2	6.4	5.7	3.1	10.5	9.9	18.0	11.3	11.6
SR**	215.8	159.3	92.1	558.9	144.9	63.8	115.8	75.9	177.8	172.1	122.3	262.5	338.0	299.9

** LTIR: Lost time incident rate (number of LTI incidents per million working hours)*
*** SR: Severity rate (number of lost work days per million working hours)*

Furthermore, in 2018 no fatalities occurred at any of these companies.

- **Environmental Protection and climate change mitigation.**

The common biggest challenges companies face is the minimisation of water consumption and carbon emissions. It is noted that the carbon footprint of the companies includes both the direct and the indirect carbon emissions (i.e. the carbon emissions generated by the companies' electricity supplier).

Year	ElvalHalcor		Sofia Med		CPW		Stomana		Hellenic Cables		Bridgnorth	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Carbon Emissions*	0.75	0.75	0.63	0.72	0.07	0.08	0.54	0.56	0.46	0.40	0.41	0.41
Water Consumption**	1.73	1.81	9.27	7.92	0.23	0.24	2.36	2.31	0.60	0.55	1.63	1.47

Year	Symetal		Sidenor		Sovel		ICME		Etem BG		Fitco		Fulgor	
	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018	2017	2018
Carbon Emissions*	0.47	0.44	0.77	0.90	0.61	0.61	0.41	0.40	0.49	0.47	0.35	0.30	0.35	0.28
Water Consumption**	0.59	0.56	2.60	2.61	1.09	1.18	11.32	9.49	2.14	1.57	2.85	2.75	0.23	0.29

** Total Carbon Emissions: the sum of direct and indirect CO2 emissions (tn CO2/ tn core products)*
*** Water consumption: m3/ tn core products*

No pollution incidents of significant environmental impact occurred at any of these companies during 2018.

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

G. 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 2009 Belgian Corporate Governance Code (the ***2009 Code***), which is the reference code and is publicly available on the website of the Corporate Governance Committee (www.corporategovernance-committee.be).

The 2009 Code is structured around principles, provisions, guidelines, and the «comply or explain» principle. Belgian listed companies must abide by the 2009 Code but may deviate from some of the Code's provisions, if they provide a considerate explanation for any such deviation. The internal organisation of Viohalco deviates from the following principles of the 2009 Code:

- **Principle 6.2** "The executive management comprises at least all executive directors".

Explanation: certain directors are considered to be executive directors due to the management functions they assume in one of the subsidiaries of Viohalco, without being part of the Company's Executive Management.

- **Principle 7.11** "For the interests of an executive manager to be aligned with those of the Company and its shareholders, an adequate part of an executive manager's remuneration package is structured in such a way as to be linked to both the individual and corporate performance".

Explanation: The remuneration policy of the Company is set out in the remuneration report. Such policy does not include variable remuneration. The board of directors will consider 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 specific nature 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 2009 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 Companies Code (the ***BCC***).

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

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 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;
- 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 BCC.

The Board has delegated part of its powers related mainly to the day-to-day management of the Company to the members of the Executive Management.

2. Composition of the Board

In accordance with article 8 of the articles of association, the Board is composed of 15 members (as at 31 December 2018) as follows:

Name	Position	Term started	Term expires
Nikolaos Stassinopoulos	President - Non-executive member of the Board	May 2018	May 2019
Jacques Moulaert	Vice-President - Executive member of the Board	May 2018	May 2019
Evangelos Moustakas	CEO - Executive member of the Board	May 2018	May 2019
Michail Stassinopoulos	Executive member of the Board	May 2018	May 2019
Ippokratis Ioannis Stasinopoulos	Executive member of the Board	May 2018	May 2019
Jean Charles Faulx	Executive member of the Board	May 2018	May 2019
Xavier Bedoret	Non-executive member of the Board	May 2018	May 2019
Marion Steiner Stassinopoulos	Non-executive member of the Board	November 2018	May 2019
Margaret Zakos	Non-executive member of the Board	November 2018	May 2019
Rudolf Wiedenmann	Non-executive member of the Board	May 2018	November 2018
Efthimios Christodoulou	Independent , Non-executive member of the Board	May 2018	May 2019
Francis Mer	Independent, Non-executive member of the Board	May 2018	May 2019
Thanasis Molokotos	Independent, Non-executive member of the Board	May 2018	May 2019
Kay Breeden	Independent, Non-executive member of the Board	November 2018	May 2019
Kalliopi Tsolina	Independent, Non-executive member of the Board	November 2018	May 2019
Astrid de Launoit	Independent, Non-executive member of the Board	November 2018	May 2019
Vincent de Launoit	Independent, Non-executive member of the Board	May 2018	November 2018

On November 29, 2018, the extraordinary shareholders' meeting of Viohalco acknowledged the resignation of Mr. Rudolf Wiedenmann and of Comte Vincent de Launoit from their position as members of the Board of Viohalco; and decided the appointment of Ms. Marion Steiner Stassinopoulos and Ms. Margaret Zakos as non-executive members of the Board, and Ms. Kay Breeden, Ms. Kalliopi Tsolina, and Ms. Astrid de Launoit as independent, non-executive members of the Viohalco Board. Their term will expire at the end of the annual ordinary shareholders' meeting to be held in 2019.

The mandates of all members of the Board will expire at the end of the Annual Ordinary Shareholders' Meeting to be held in 2019.

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, President - 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-President of Viohalco Hellenic.

Jacques Moulaert, Vice- President - Executive member of the Board. Mr. Moulaert holds a Ph.D. in law from the University of Ghent and a Master's degree in Public Administration from Harvard University. He serves as honorary managing Director at Groupe Bruxelles Lambert S.A. and as honorary President of the Board of ING Belgium S.A./NV. He is a founder and honorary Vice-president of the Louvain Foundation. In the past, Mr. Moulaert served as visiting professor at the Catholic University of Louvain (UCL).

Evangelos Moustakas, CEO - 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) and the European Copper Institute (ECI). He is also corporate 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's Degree 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 a member of the Board of Directors of Viohalco since 2013. He was a member of the Board of Directors of Elval S.A. Aluminium Industry for 11 years. He also participates in the Board of Directors of the Hellenic Federation of Enterprises since 2016 and was previously a member during 1996-2006. He is a member of the Board of Directors of the "Hellenic Production - Industry Roundtable for Growth", a newly established nongovernmental organization.

Ippokratis Ioannis Stasinopoulos, Executive member of the Board. Mr. Stasinopoulos 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. Stasinopoulos 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 Center S.A. prior to their absorption by Cofidin in August 2013. Mr. Faulx also serves as CEO of Tepro Metall AG, a subsidiary of Viohalco, Strega sprl, Airicom France SAS and Airicom Middle East. In the past, Mr. Faulx served as CEO of Studio58 S.A. and Promark SPRL and held various positions at Techno Trade S.A, JCT Invest and Elval Automotive S.A.

Xavier Bedoret, Non-executive member of the Board. Mr. Bedoret holds a Master's degree in Law and Psychology from the Catholic University of Louvain (UCL) and is certified public accountant. Before joining Viohalco, he served as senior audit manager at KPMG and member of the Audit and Risk Management Division at ENGIE S.A.

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 Center 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 (Kingston, Ontario, Canada). She is a Registered Insurance Broker in Ontario and previously owned Harbour Insurance Services Limited. She is currently active in Real Estate Holding Companies. In the past, she was a consultant with Medicus Systems Corporation (Chicago), and was Associate Director of Nursing (Mt. Sinai Medical Centre, New York). Her philanthropic work included serving on the Board of Directors of Kingston General Hospital, participating as a member of the Finance Committee and the Audit Committee, and as well serving on the Board of the Community Foundation for Kingston. She is presently a member of the Health Sciences Campaign Cabinet Board (Queens University).

Rudolf Wiedenmann, Non-executive member of the Board. Mr. Wiedenmann holds a master's degree in chemistry from Ludwig-Maximilians Universität München and a PhD in natural sciences. He is a member of the Board of Directors of Icme Ecab S.A. In the past, he worked as director in the research and development center and as managing director of energy cables division of Siemens in Germany. He served as president in the European Association of Cable Manufacturers.

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 of various philanthropic institutions.

Francis Mer, Independent, non-executive member of the Board. Mr. Mer holds a Master's degree from Ecole Polytechnique and a Master's degree in engineering from Ecole des Mines. He serves as honorary President of Safran Group. In the past, Mr. Mer has held various positions at Usinor Sacilor Group, including President of the Board of Directors and CEO, and served as President of Cockerill Sambre, Eurofer (European Steel Association) and the International Iron and Steel Institute. He was President of the French Steel Federation, the National Technical Research Association, EpE (Entreprises pour l'Environnement) and the Cercle de l'Industrie, and co-president of the Board of Arcelor. Mr. Mer was the French Minister of Economy, Finance and Industry from 2002 to 2004.

Thanasis Molokotos, Independent, non-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. In the past, he has served as General Manager of Molokotos Textile Corporation and design specialist at Rangine Corporation.

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. She is also a graduate of Management Executive Education Programme of Stanford University. 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.

Kalliopi Tsolina, Independent non-executive member of the Board. Ms. Tsolina attended classical studies and is a graduate of the Faculty of Philosophy of the University of Athens. She was responsible for the Foreign Relations department of Viohalco and its subsidiaries throughout 1984 – 2010. She has been a member of the Board of Directors of Viohalco Hellenic Copper and Aluminium Industry S.A and of Sidenor Steel Industry S.A.

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.

Vincent de Launoit, Independent, non-executive member of the Board. Mr. Vincent de Launoit serves as CEO at Lasere S.A., Laserus S.A., Laserys S.A. and Laserouest S.A.

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 will proceed 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 article 526ter of the BCC. 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 BCC and the 2009 Code, has decided that Mr. Efthimios Christodoulou, Mr. Vincent de Launoit, Mr. Francis Mer, Mr. Thanasis Molokotos, Ms. Kay Breeden, Ms. Kalliopi Tsolina, and Ms. Astrid de Launoit fulfil these criteria and are independent non-executive members.

Pursuant to Article 518bis §1 of the BCC, the Company's Board with the assistance of the Nomination and Remuneration Committee took the adequate measures in order to ensure compliance with the legal requirement and thus it currently consists of 10 male and 5 female Board members. For more information on the diversity policy of the Company, please refer to the Non-Financial Statement of this Annual Report.

5. Functioning

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

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

The Board has appointed a company secretary, Mr. Jacques Moulaert, 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.

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.

In exceptional circumstances, duly justified by the urgency of the matter and the corporate interest, the Board can adopt unanimous written decisions, expressing its consent in a written document, a facsimile or an e-mail, or by any other similar means of communication. However, this procedure may not be used for the approval of the annual accounts.

The following table provides an overview of the Board meetings held in 2018:

Date and Place	Attendance
March 22, 2018 (Brussels)	Present: 9 Represented: 2 Absent: 1
May 30, 2018 (Brussels)	Present: 10 Represented: 1 Absent: 1
September 27, 2018 (Athens)	Present:10 Represented: 2 Absent: -
November 29, 2018 (Brussels) at 11.30 am	Present:11 Represented: - Absent: 1
November 29, 2018 (Brussels) at 3.00 pm	Present: 14 Represented: 1 Absent: -

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

The Audit Committee is composed of Mr. Efthimios Christodoulou, acting as President of the Committee, Mr. Xavier Bedoret, and Ms. Kalliopi Tsolina. All members are non-executive members of the Board and two of them are independent.

On November 29, 2018, comte Vincent de Launoit resigned from his position as member of the Board and of the Audit Committee. Following the proposal of the Nomination & Remuneration Committee, Ms. Kalliopi Tsolina was appointed as the new member of the Audit Committee.

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 auditors.

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

- monitors the financial reporting process;
- 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 of the annual and the consolidated financial statements, including the follow-up on questions and recommendations made by the statutory auditors;
- reports regularly to the Board on the exercise of its duties, and at least when the Board sets up the annual and the consolidated financial statements, as well as the condensed financial statements intended for publication;
- presents recommendations to the Board with respect to the appointment of the statutory auditors; and
- reviews and monitors the independence of the statutory auditors, in particular regarding the provision of non-audit services to the Company.

The Audit Committee reports regularly to the Board on the exercise of its duties, identifying any matters in respect of which it considers that action or improvement is needed, and at least when the Board sets up the annual and the consolidated accounts intended for publication.

In 2018, the Audit Committee met four times: on March 22, in Brussels, with two members present; on May 30, in Brussels, with all members present; on September 27, in Athens, with two members present, and on November 29, in Brussels, with two members present.

2. Nomination and Remuneration Committee

The Nomination and Remuneration Committee is composed of Mr. Nikolaos Stassinopoulos, acting as President of the Committee, Mr. Francis Mer, and Mr. Efthimios Christodoulou. 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:

- makes recommendations to the Board with regard to the 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 to fill vacancies as they arise;
- advises on appointment proposals originating from the shareholders;
- periodically assesses the composition and size of the Board and submits recommendations to the Board with regard to any changes; and
- drafts and submits a remuneration report to the Board, including proposals regarding the remuneration policy and recommendations based on its findings.

In 2018, the Nomination and Remuneration Committee met three times: on March 22 the Committee decided by a circular resolution, on September 27 in Athens with two members present and on November 29 in Brussels, with two members present.

Evaluation of the Board of Directors and its Committees

The Board regularly (at least every two or three years) assesses its size, composition, performance and those of its committees, as well as its interaction with the Executive Management. On March 30, 2017, the Board, with the assistance of the Nomination and Remuneration Committee, concluded that it 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.

Executive Management

The Executive Management comprises four persons: the chief executive officer (CEO), Mr. Evangelos Moustakas; an executive vice-President, Mr. Jacques Moulaert; the chief financial officer (CFO), Mr. Efstratios Thomadakis; and the Financial Manager of the Greek Branch, 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:

Jacques Moulaert, Vice-President - executive member of the Board. Please see above section no 3, Information on the members of the Board, Board of Directors.

Evangelos Moustakas, 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.

Panteleimon Mavrakis, Financial Manager of the Greek Branch. 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.

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;
- presenting to the Board a timely and reliable set of the Company's draft financial statements, in accordance with applicable accounting standards, 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 report

1. Remuneration policy

The policy regarding the remuneration of executive and non-executive members of the Board is determined by the Board, based on a proposal from the Nomination and Remuneration Committee. It leads to proposals that must be approved by the shareholders during the Annual Ordinary Shareholders' Meeting. The Nomination and Remuneration Committee bases its proposals on a review of the prevailing market conditions for comparable companies.

Viohalco does not foresee any significant change in its actual remuneration policy for the years 2019 and 2020.

2. Board of directors

The remuneration policy for the year 2018-2019 foresees a fixed fee for each member of the Board amounting to EUR 25,000, plus an equal sum in case they are members of a committee.

These 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 due at the end of such period. No variable remuneration is foreseen.

The following table provides an overview of the fees paid to the Board members during their term of office (2018-2019):

Name for members (amounts in EUR)	**Fixed amount for members of the Board**	**Fixed amount for members of the Audit Committee**	**Fixed amount for the members of the Nomination and Remuneration Committee**	**Total**
Nikolaos Stassinopoulos	25,000.00	0.00	25,000.00	50,000.00
Jacques Moulaert	25,000.00	0.00	0.00	25,000.00
Evangelos Moustakas	25,000.00	0.00	0.00	25,000.00
Michail Stassinopoulos	25,000.00	0.00	0.00	25,000.00
Ippokratis Ioannis Stasinopoulos	25,000.00	0.00	0.00	25,000.00
Jean Charles Faulx	25,000.00	0.00	0.00	25,000.00
Xavier Bedoret	25,000.00	25,000.00	0.00	50,000.00
Marion Steiner Stassinopoulos (**)	12,500.00	0.00	0.00	12,500.00
Margaret Zakos (**)	12,500.00	0.00	0.00	12,500.00
Rudolf Wiedenmann (***)	12,500.00	0.00	0.00	12,500.00
Efthimios Christodoulou (*)	0.00	0.00	0.00	0.00
Francis Mer	25,000.00	0.00	25,000.00	50,000.00
Thanasis Molokotos	25,000.00	0.00	0.00	25,000.00
Kay Marie Breeden (**)	12,500.00	0.00	0.00	12,500.00
Kalliopi Tsolina (*), (**)	0.00	0.00	0.00	0.00
Astrid de Launoit (**)	12,500.00	0.00	0.00	12,500.00
Vincent de Launoit (*), *(***)*	0.00	0.00	0.00	0.00
Total Remuneration	**287,500.00**	**25,000.00**	**50,000.00**	**362,500.00**

(*) These members of the Board have waived all remuneration.
(**) These members of the Board were appointed on November 29, 2018.
(***) These members of the Board resigned on November 29, 2018.

The total remuneration of non-executive members of the Board is presented in the above table, with the exception of Mr. Nikolaos Stassinopoulos, who is entitled to additional remuneration of EUR 450k by Viohalco and Mr. Bedoret, who is entitled to additional remuneration of EUR 270k by Viohalco and EUR 50k by Cenergy Holdings.

3. Executive members of the Board and Executive Management

The remuneration policy for the executive members of the Board and the Executive Management of Viohalco is made up of a fixed fee. They are entitled to neither stock options nor a supplementary pension scheme. No contingent or deferred compensation has been paid by the Company to the executive members of the Board or the Executive Management. They do not have any contract with the Company which would entitle them to benefits by the end of their term of office.

The remuneration scheme for the CEO and the Executive Vice-President does not include a variable part. The remuneration of other executive members of the Board and legal representatives is not determined by the Company, but by its subsidiaries.

The CEO's remuneration for the fiscal year 2018 amounts to EUR 1,174k (in addition to his remuneration as a member of the Board).

The remuneration granted in 2018 to the executive members of the Board (in addition to their remuneration as members of the Board) and the Executive Management, excluding the CEO, amounts to EUR 2,237k.

External Audit
Two statutory auditors, appointed by the Shareholders' Meeting among the members of the Belgian Institute of Certified Auditors, are entrusted with the external audit of the Company's 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 auditors are appointed for a renewable term of three years.

On May 31, 2016, the Company appointed KPMG Bedrijfsrevisoren/Réviseurs d'Entreprises SCRL ("KPMG"), represented by Mr. Benoît Van Roost, and Renaud de Borman Réviseurs d'Entreprises-Bedrijfsrevisoren SPRL, represented by Mr. Renaud de Borman, as statutory auditors for a three-year period. KPMG has been appointed to audit the Company's consolidated financial statements.

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 2009 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 of each Company's subsidiary is in charge of 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.

- ***Company's Risk Management***

Risk management is a responsibility delegated by the Board to the Management of the subsidiaries. The latter report on business risks and challenges to the 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 auditing 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 organization 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 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' managment 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 decentralized manner. Each of the Viohalco's subsidiaries is responsible for its performance and results. The management of the subsidiaries is organised around solid global and regional teams, with responsibility assigned to the members of their respective Executive Management team.

All Viohalco's companies are accountable for their own organization, 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 covering each business segment is presented to the Board. The review includes "actual versus budget", financial and non-financial information, the highlights of the semester, the business segment perspectives, and is a key component of Viohalco's decision-making process.

Conflict of interests

Pursuant to Article 10 of the Charter, in the event a conflict of interests with a member of the Board, a shareholder, or another Viohalco subsidiary, may arise, the Board is required to implement the specific procedures of conflict resolution set forth in articles 523 and 524 of the BCC.

Each member of the Board and the Executive Management is required to always act without conflict of interests and always puts 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 523 of the BCC. If the conflict of interests is not covered by the provisions of the BCC 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 523 of the BCC, 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 523 and 524 of the BCC.

Shareholders

1. Capital Structure

On December 31, 2018, the Company’s share capital amounted to EUR 141,893,812.84 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 concerning 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 the one fifth (1/5) 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.

H. Shareholder information and market data

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, further to the completion of the cross-border merger by absorption by Viohalco of the Greek companies, Elval Holdings Société Anonyme (Elval), Diatour, Management and Tourism Société Anonyme (Diatour), Alcomet Copper and Aluminium Société Anonyme (Alcomet) and the Luxembourg company Eufina S.A. (Eufina) on 26 February 2016.

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 BIO (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	**2018**	**2017**
At the end of the year	2.65	3.20
Maximum	3.97	3.40
Minimum	2.48	1.26
Share price ATHENS EXCHANGE in EUR	**2018**	**2017**
At the end of the year	2.54	3.24
Maximum	4.00	3.44
Minimum	2.44	1.34

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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) (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
Based on the last Transparency Declarations, the shareholding structure of Viohalco is as follows:

Name (Shareholders)	% voting rights
Evangelos Stassinopoulos	42.81%
Nikolaos Stassinopoulos	32.27%

Distribution and dividend policy
Since its incorporation in 2013, Viohalco does not have any history of dividend distribution.

It is the present intention of the Board that in the short term, the Company's profits shall be reinvested into the Company's businesses. This policy will be reviewed by the Board in due course and, if the policy changes, the Company will inform the market accordingly. However, no assurances can be given that Viohalco will make dividend payments in the future. Such payments will depend upon a number of factors, including Viohalco's prospects, strategies, results of operations, earnings, capital requirements and surplus, general financial conditions, contractual restrictions and other factors considered to be relevant by the Board of Directors. Due to its interest and participation in a number of subsidiaries and affiliated companies, Viohalco's stand-alone income and its ability to pay dividends depends in part on the receipt of dividends and distributions from these subsidiaries and affiliated companies. The payment of dividends by these subsidiaries and affiliated companies is contingent upon the sufficiency of earnings, cash flows, and distributable reserves.

Financial calendar

Date	Publication / Event
22 May 2019	Presentation of 2018 financial results to the analysts (Athens Stock Exchange)
28 May 2019	Annual General Meeting 2019
26 September 2019	Half Yearly 2019 results

I. 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-range (5 year) plans. However, it must be noted that adjusted items should not be considered as non-operating or non-recurring.
Relating to balance sheet items, Viohalco management monitors and reports the net debt measure.

General Definitions

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

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-EBITDA

a-EBITDA is defined as profit for the period before:

- income taxes,
- net interest cost,
- depreciation and amortization

as adjusted to exclude:

- metal price lag,

- restructuring costs,
- exceptional idle costs,
- impairment / reversal of impairment of fixed and intangible assets
- impairment / reversal of impairment of investments
- unrealized gains or losses on derivatives and on foreign exchange differences,
- gains/losses from sales of fixed assets, intangible assets and investments,
- exceptional litigation fees and fines,
- exceptional provisions on receivables along with the respective insurance income and
- other exceptional or unusual items

a-EBIT

a-EBIT is defined as income from continuing operations before:

- income taxes,
- net interest cost,

as **adjusted to exclude** items same to those of a-EBITDA

Readers' attention is drawn to the fact that EBITDA and EBIT account for net finance costs, while a-EBITDA and a-EBIT account for net interest costs.

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's subsidiaries use as raw materials in their end-product production processes.

Metal price lag exists due to:

(i) 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,

(ii) 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

(iii) 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's** 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. Aluminum, 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

Amounts in EUR thousands	Aluminium	Copper	Cables	Steel	2018 Steel pipes	Real estate	Recycling	Other activities	Total
EBT (as reported in Statement of Profit or Loss)	**70,278**	**21,119**	**-3,961**	**9,115**	**8,612**	**-1,507**	**-1,807**	**-6,238**	**95,612**
Adjustments for:									
Share of profit/loss (-) of equity-accounted investees, net of tax	-322	1,957	-	952	-653	-	-	-	1,934
Finance Income/Cost	19,609	18,630	22,502	27,745	9,959	1,804	2,081	170	102,499
EBIT	**89,565**	**41,706**	**18,541**	**37,812**	**17,918**	**297**	**273**	**-6,068**	**200,044**
Add back:									
Depreciation & Amortization	54,515	11,795	13,667	36,190	7,618	4,310	2,678	1,041	131,813
EBITDA	**144,079**	**53,500**	**32,208**	**74,002**	**25,536**	**4,607**	**2,952**	**-5,027**	**331,857**

Amounts in EUR thousands	Aluminium	Copper	Cables	Steel	2017 Steel pipes	Real estate	Recycling	Other activities	Total
EBT (as reported in Statement of Profit or Loss)	**52,022**	**19,846**	**-4,459**	**3,315**	**-8,149**	**112**	**1,672**	**-7,519**	**56,839**
Adjustments for:									
Share of profit/loss (-) of equity-accounted investees, net of tax	-125	150	-	560	-402	-	-	-	183
Finance Income/Cost	17,363	24,541	21,912	32,082	10,884	1,187	2,507	-44	110,432
EBIT	**69,260**	**44,537**	**17,453**	**35,957**	**2,333**	**1,299**	**4,179**	**-7,563**	**167,454**
Add back:									
Depreciation & Amortization	56,129	13,888	12,844	35,234	9,156	4,267	2,717	858	135,093
EBITDA	**125,389**	**58,424**	**30,297**	**71,191**	**11,488**	**5,566**	**6,896**	**-6,705**	**302,545**

a-EBIT and a-EBITDA

Amounts in EUR thousands	Aluminium	Copper	Cables	Steel	2018 Steel pipes	Real estate	Recycling	Other activities	Total
EBT (as reported in Statement of Profit or Loss)	**70,278**	**21,119**	**-3,961**	**9,115**	**8,612**	**-1,507**	**-1,807**	**-6,238**	**95,612**
Adjustments for:									
Net interest cost	19,462	18,799	22,188	28,568	10,136	1,804	2,265	266	**103,488**
Metal price lag	-22,041	-545	1,679	9,110	173	-	-	-	**-11,624**
Unrealized gains (-) /losses on fx balances and derivatives	459	-204	7	1,153	1,923	-	121	12	**3,471**
Impairment/ Reversal of Impairment (-) on fixed assets	-22	-	-	-	-	-	-	1,100	**1,078**
Exceptional litigation fees and fines / income (-)	120	-	-	-	-	-	3	-	**123**
Exceptional legal fees	-	-	-	-	906	-	-	-	**906**
Gains (-) /losses from sales of fixed assets	-105	-305	-16	-3	-23	-10	-4	-11	**-478**
Out-of-court settlement	-	-	2,000	-	-	-	-	-	**2,000**
EU ETS allowances	-	-	-	-9,822	-	-	-	-	**-9,822**
Other exceptional or unusual income (-) /expenses	-	-	-	-	-	-	-	458	**458**
a-EBIT	**68,151**	**38,863**	**21,898**	**38,122**	**21,727**	**287**	**577**	**-4,413**	**185,212**
Add back:									
Depreciation & Amortization	54,515	11,795	13,667	36,190	7,618	4,310	2,678	1,041	**131,813**
a-EBITDA	**122,665**	**50,658**	**35,564**	**74,312**	**29,345**	**4,597**	**3,256**	**-3,372**	**317,025**

Amounts in EUR thousands	Aluminium	Copper	Cables	Steel	2017 Steel pipes	Real estate	Recycling	Other activities	Total
EBT (as reported in Statement of Profit or Loss)	**52,022**	**19,846**	**-4,459**	**3,315**	**-8,149**	**112**	**1,672**	**-7,519**	**56,839**
Adjustments for:									
Net interest cost	18,256	24,389	21,128	30,912	10,541	1,187	2,431	291	**109,134**
Metal price lag	-24,536	-11,423	3,147	6,539	217	-	-	-	**-26,056**
Restructuring expenses	-	-	99	-	-	-	-	-	**99**
Unrealized (gains (-) /losses on fx balances and derivatives	921	-37	924	-687	-2	-	7	-5	**1,120**
Impairment/ Reversal of Impairment (-) on fixed assets	464	-	-	-	-	-	1	-149	**315**
Impairment/ Reversal of Impairment (-) on investments	111	-	-	-	-	-	-	-	**111**
Exceptional provisions on receivables along with the respective insurance income	-	-	-	-	8,883	-	-	-	**8,883**
Exceptional litigation fees and fines / income (-)	-	-	-	531	-	-	-	-	**531**
Gains (-) /losses from sales of fixed assets	-944	232	-15	-62	-1	-	-82	74	**-798**
(Gains)/losses from sales of investments assets (+/-)	-	-	-	-39	-	-	-	-	**-39**
Other exceptional or unusual income (-) /expenses	-	-	-422	-585	-	-	-17	-	**-1,025**
a-EBIT	**46,293**	**33,007**	**20,402**	**39,922**	**11,489**	**1,298**	**4,011**	**-7,309**	**149,114**
Add back:									
Depreciation & Amortization	56,129	13,888	12,844	35,234	9,156	4,267	2,717	858	**135,093**
a-EBITDA	**102,423**	**46,895**	**33,246**	**75,156**	**20,645**	**5,565**	**6,728**	**-6,450**	**284,207**

Net Debt

	As at	
Amounts in EUR thousands	**31 December 2018**	**31 December 2017**
Long term borrowings	896,806	718,716
Short term borrowings	902,555	977,071
Total Debt	**1,799,360**	**1,695,787**
Less :		
Cash and cash equivalents	-163,676	-168,239
Net Debt	**1,635,684**	**1,527,548**

J. Consolidated Financial Statements 2018

Contents

Consolidated Statement of Financial Position

Amounts in EUR thousands	Note	As at 31 December 2018	31 December 2017
ASSETS			
Property, plant and equipment	18	1,783,812	1,743,632
Intangible assets and goodwill	19	32,346	26,531
Investment property	20	173,710	165,247
Equity-accounted investees	21	32,066	16,956
Other investments	22	8,538	7,949
Deferred tax assets	14	20,193	18,785
Derivatives	24	3	262
Trade and other receivables	16	6,315	6,346
Contract costs	8	108	0
Non-current assets		**2,057,091**	**1,985,709**
Inventories	15	1,142,309	1,005,867
Trade and other receivables	16	551,205	509,740
Contract assets	8	117,428	0
Contract costs	8	1,872	0
Derivatives	24	7,009	7,606
Other investments	22	0	1,624
Currrent tax assets		872	1,082
Cash and cash equivalents	17	163,676	168,239
Assets held for sale	23	4,223	4,223
Current assets		**1,988,594**	**1,698,380**
Total assets		**4,045,685**	**3,684,089**
EQUITY			
Share capital	25	141,894	141,894
Share premium	25	457,571	457,571
Translation reserve		-26,227	-24,535
Other reserves	25	404,370	406,616
Retained earnings		196,142	125,087
Equity attributable to owners of the Company		**1,173,749**	**1,106,633**
Non-controlling interests	34	130,875	122,585
Total equity		**1,304,624**	**1,229,218**
LIABILITIES			
Loans and borrowings	27	896,806	718,716
Derivatives	24	101	1,281
Deferred tax liabilities	14	88,402	98,312
Employee benefits	12	31,624	29,724
Grants	29	39,618	43,088
Provisions	30	4,071	4,416
Trade and other payables	28	8,324	18,292
Contract liabilities	8	19	0
Non-current liabilities		**1,068,965**	**913,829**
Loans and borrowings	27	902,555	977,071
Trade and other payables	28	661,544	544,414
Contract liabilities	8	77,847	0
Current tax liabilities		16,115	10,029
Derivatives	24	13,498	8,878
Provisions	30	538	650
Current liabilities		**1,672,096**	**1,541,041**
Total liabilities		**2,741,061**	**2,454,871**
Total equity and liabilities		**4,045,685**	**3,684,089**

The notes on pages 89 to 172 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Profit or Loss

Amounts in EUR thousands	Note	For the year ended 31 December 2018	2017 *Re-presented**
Revenue	8	**4,406,185**	**3,721,311**
Cost of sales	9	-4,009,411	-3,359,096
Gross profit		**396,775**	**362,215**
Other income	9	24,533	15,044
Selling and distribution expenses	9	-82,835	-78,641
Administrative expenses	9	-117,586	-104,815
Impairment loss on trade and other receivables, including contract assets	31	-328	-13,897
Other expenses	9	-20,516	-12,453
Operating result (EBIT)		**200,044**	**167,452**
Finance income	10	3,335	2,019
Finance cost	10	-105,834	-112,451
Net finance income / costs (-)		**-102,499**	**-110,432**
Share of profit/ loss (-) of equity-accounted investees, net of tax	21	-1,934	-181
Profit/Loss (-) before income tax expense		**95,612**	**56,839**
Income tax expense (-)	14	-9,760	26,956
Profit/Loss (-)		**85,852**	**83,794**
Profit/Loss (-) attributable to:			
Owners of the Company		76,112	73,680
Non-controlling interests		9,740	10,114
		85,852	**83,794**
Earnings per share (in EUR per share)			
Basic and diluted	11	0.2937	0.2843

**See Note 5.21*

The notes on pages 89 to 172 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Profit or Loss and Other Comprehensive Income

Amounts in EUR thousands	Note	For the year ended 31 December 2018	2017
Profit / Loss (-)		**85,852**	**83,794**
Items that will never be reclassified to profit or loss:			
Equity investments at FVOCI - net change in fair value	22	-395	0
Remeasurements of defined benefit liability	12	-808	-1,888
Related tax	14	226	519
Total		**-977**	**-1,369**
Items that are or may be reclassified to profit or loss			
Foreign currency translation differences		-2,164	-6,379
Changes in fair value of cash flow hedges –effective portion	31	315	8,720
Changes in fair value of cash flow hedges - reclassified to profit or loss	31	-7,010	-1,228
Changes in fair value of available-for-sale financial assets	22	0	122
Related tax	14	1,598	-1,404
Total		**-7,261**	**-170**
Total comprehensive income / expense (-) after tax		**77,614**	**82,256**
Total comprehensive income attributable to			
Owners of the Company		69,253	72,497
Non-controlling interests		8,361	9,759
Total comprehensive income / expense (-) after tax		**77,614**	**82,256**

The notes on pages 89 to 172 are an integral part of these Consolidated Financial Statements.

Consolidated Statement of Changes in Equity

2018

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 2018		**141,894**	**457,571**	**406,616**	**-24,535**	**125,087**	**1,106,633**	**122,585**	**1,229,218**
Adjustment on initial application of IFRS 15, (net of tax)	6	0	0	0	-34	3,213	3,179	732	3,911
Adjustment on initial application of IFRS 9, (net of tax)	6	0	0	0	0	-4,780	-4,780	-222	-5,002
Restated balance at 1 January 2018		**141,894**	**457,571**	**406,616**	**-24,569**	**123,520**	**1,105,031**	**123,095**	**1,228,126**
Total comprehensive income									
Profit/loss (-)		0	0	0	0	76,112	76,112	9,740	85,852
Other comprehensive income		0	0	-4,733	-1,642	-484	-6,859	-1,379	-8,238
Total comprehensive income		**0**	**0**	**-4,733**	**-1,642**	**75,628**	**69,253**	**8,361**	**77,614**
Transactions with owners of the Company									
Transfer of reserves & other movements	24	0	0	2,532	0	-2,492	40	0	40
Dividends		0	0	0	0	0	0	-896	-896
Total		**0**	**0**	**2,532**	**0**	**-2,492**	**40**	**-896**	**-856**
Changes in ownership interests:									
Acquisition of NCI		0	0	25	0	-239	-214	**-46**	-260
Other changes in ownership interests		0	0	-69	-17	-274	-361	**361**	0
Balance as at 31 December 2018		**141,894**	**457,571**	**404,370**	**-26,227**	**196,142**	**1,173,749**	**130,875**	**1,304,624**

2017

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 2017		**141,894**	**457,571**	**395,563**	**-18,847**	**81,525**	**1,057,707**	**90,533**	**1,148,239**
Total comprehensive income									
Profit/loss (-)		0	0	0	0	73,680	73,680	10,114	83,794
Other comprehensive income		0	0	4,972	-4,875	-1,280	-1,183	-355	-1,539
Total comprehensive income		**0**	**0**	**4,972**	**-4,875**	**72,401**	**72,497**	**9,759**	**82,256**
Transactions with owners of the Company									
Transfer of reserves & other movements	24	0	0	2,874	0	-1,535	1,339	0	1,339
Dividends		0	0	0	0	0	0	-722	-722
Total		**0**	**0**	**2,874**	**0**	**-1,535**	**1,339**	**-722**	**617**
Changes in ownership interests:									
Acquisition of NCI	32	0	0	85	0	-336	-251	-1,642	-1,893
Other changes in ownership interests	32	0	0	3,122	-813	-26,967	-24,659	24,659	0
Balance as at 31 December 2017		**141,894**	**457,571**	**406,616**	**-24,535**	**125,087**	**1,106,633**	**122,585**	**1,229,218**

The notes on pages 89 to 172 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 2018	2017
Cash flows from operating activities			
Profit / loss (-) for the period		**85,852**	**83,794**
Adjustments for:			
Income tax expense/ credit (-)	14	9,760	-26,956
Depreciation of PP&E	9	128,088	132,107
Depreciation of intangible assets	9	4,083	3,370
Depreciation of investment property	9	3,612	3,603
Impairment loss/ Reversal of impairment loss (-) and write off of PP&E	9	2,383	1,341
Impairment loss/ Reversal of impairment loss (-) and write off of investment property	9	0	-149
Profit (-) / loss from sale of PP&E and intangibles	9	-478	-895
Profit (-) / loss from sale of investment property	9	0	98
Amortization of grants	29	-3,970	-3,986
Finance cost	10	105,834	112,451
Finance income	10	-3,335	-2,019
Impairment loss on trade and other receivables, including contract assets	31	328	13,897
Share of profit of equity accounted investees	21	1,934	181
		334,090	**316,837**
Decrease / increase (-) in inventories		-170,946	-148,448
Decrease / increase (-) in receivables		-77,692	52,523
Decrease / increase (-) in contract assets		-47,077	0
Decrease / increase (-) in contract costs		-769	0
Decrease (-) / increase in liabilities		104,476	31,680
Decrease (-) / increase in employees benefits liability		1,091	969
Decrease (-) / increase in provisions		-457	788
Decrease (-) / Increase in contract liabilities		65,929	0
		-125,444	**-62,488**
Interest paid		-103,755	-104,903
Tax expense paid		-13,151	-26,606
Net cash flows from operating activities		**91,740**	**122,840**
Cash flows from investing activities			
Acquisition of PP&E and intangible assets		-175,571	-100,901
Acquisition of investment property	20	-10,791	-3,540
Proceeds from sales of PP&E and intangible assets		1,543	3,606
Proceeds from sales of investment property		0	80
Acquisition of / increase in share capital of equity accounted investees	21 - 38	-7,680	-501
Acquisition of other investments	22	-13	-400
Proceeds from sale of other investments		569	39
Interest received		649	1,298
Dividends received	10 -21	581	459
Proceeds from collection of grants	29	501	609
Net cash flows used in investing activities		**-190,214**	**-99,252**
Cash flows from financing activities			
Proceeds from new borrowings	27	369,963	285,370
Repayment of borrowings	27	-271,341	-306,268
Payment of finance lease liabilities settlement	27	-4,801	-2,650
Dividends paid to minority interest		-896	-722
Acquisition of non-controlling interests		-260	-1,893
Net cash flows from/used in (-) financing activities		**92,664**	**-26,163**
Net decrease (-)/ increase in cash and cash equivalents		**-5,810**	**-2,575**
Cash and cash equivalents at the beginning of period		168,239	171,784
Foreign exchange effect on cash and cash equivalents		1,248	-971
Cash and cash equivalents at the end of period		**163,676**	**168,239**

The notes on pages 89 to 172 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 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"), and Viohalco's interest in associates accounted for using the equity method.
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 subsidiaries specialise in the manufacture of steel, copper and aluminium products. In addition, Viohalco owns substantial real estate properties in Greece and redeveloped some of its properties as real estate development projects. Its shares are traded on Euronext Brussels and has since February 2014 its secondary listing on the Athens Stock exchange (trading ticker "VIO").
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 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 19 April 2019.

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

This is the first set of Viohalco's Financial Statements where IFRS 15 Revenue from Contracts with Customers and IFRS 9 Financial Instruments have been applied. Changes to significant accounting policies are described in Note 6.

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)

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, makes 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 propectively.

A. Judgements

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 5.1 and 21 - equity-accounted investees: whether Viohalco has significant influence over an investee;
- Note 5.1 and 32 - Consolidation: whether Viohalco has de facto control over an investee;
- Note 8 – revenue recognition: whether revenue from customised products is recognised over time or at a point in time;

B. Assumptions and estimation uncertainties

Information about assumptions and estimation uncertainties that have significant risk of resulting in a material adjustment in the year ended 31 December 2018 is included in the following notes:

- Note 8 – revenue recognition: estimate of expected returns;
- Note 12 – Measurement of defined benefit obligations: key actuarial assumptions;
- Note 14 – Recognition of deferred tax assets, availability of future taxable profits against which carried forward tax losses can be used;
- Note 19 – Impairment loss test: key assumptions underlying recoverable amounts;
- Note 30 and 36 – Recognition and measurement of provisions and contingencies: key assumptions about the likelihood and magnitude of an outflow of resources.
- Note 31 – measurement of ECL allowance for trade receivables and contract assets: key assumptions in determining loss rates;
- Note 27 and 5.14 - Lease: whether an arrangement contains a lease;
- Note 35 and 5.14 – Lease classification

5. Significant accounting policies

The accounting principles described below have been consistently applied to all periods presented in these Consolidated Financial Statements (with the exception disclosed in note 6) 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.

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.

(f) 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 (2017: available-for-sale equity investments) except on impairment, in which case foreign currency differences that have been recognised in OCI are reclassified to profit or loss.

(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.

When a foreign operation is disposed of in its entirety or partially such that the control, significant influence or joint control is lost, the cumulative amount in the translation reserve related that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal. If Viohalco disposes of parts of its interest in the subsidiary but retains control, then the relevant proportion of the cumulative amount is reattributed to NCI. When Viohalco disposes of only part of an associate or joint venture while retaining significant influence or joint control, the relevant proportion of the cumulative amount is reclassified to profit or loss.

5.3. Revenue

Viohalco has initially applied IFRS 15 from 1 January 2018. Accounting policies that applied in the comparative period are disclosed in note 6.

Viohalco recognizes revenue from the following major sources:

- Sale of customized products and revenue from projects
- Sale of standard products
- Rendering of services
- Rental income

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. In most cases, Viohalco uses the "most likely amount" method in order to estimate and deduct the amount of such variable consideration by identifying the single most likely amount from a range of possible outcomes.

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 last 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 customised, 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 capitalised 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.

Rental income
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.

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.
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;
- impairment losses recognised on financial assets (other than trade receivables);
- 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 reflects 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.

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 if 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 to 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 ar reviewed at each reporting date and adjusted if appropriate.

5.11. Investment property

Investment property, which mainly includes land and buildings, 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

Viohalco has initially applied IFRS 9 from 1 January 2018. Accounting policies that applied in the comparative period are disclosed in note 6.

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 and
- debt investments at FVOCI

and it measures the allowance 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.

Credit-impaired financial assets

At each reporting date, Viohalco companies assess whether financial assets carried at amortised cost are credit-impaired. A financial asset is 'credit-impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. In such case the asset is assessed individually and if necessary, it is fully impaired.

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.
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 expense". 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

Leases of property, plant and equipment, in which Viohalco and its companies substantially obtains all the risks and benefits of ownership, are classified as finance leases. The leased asset is recognized from the moment the lease begins at the lower of their fair value and the present value of the minimum lease payments. The lease liability is initially recognized at the same amount. The reduction of the lease liability is recognized under the effective interest method. Items of property, plant and equipment under finance lease are depreciated over the shorter period between the useful lives thereof and the term of their lease. However, if at inception of the lease it is reasonably certain that the lessee will obtain ownership of the asset by the end of the lease term, then the asset is depreciated over its expected useful life.
Leases, in which the lessor substantially maintains all the risks and benefits of ownership, are classified as operating leases. The rental expense with regard to operating leases are recognized on a straight-line basis over the lease term.

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 the Group's 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 changes in prices of metals, fluctuations of foreign exchange rates and changes in interest rates on borrowings.
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.

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. 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).

5.17. 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.

5.18. 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.

5.19. 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.

5.20. 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.

5.21. Re-presentation of 2017 consolidated statement of profit or loss

As a result of the adoption of IFRS 9, Viohalco has adopted consequential amendments to IAS 1 Presentation of Financial Statements, which require impairment of financial assets to be presented in a separate line item in the statement of profit or loss. Consequently Viohalco reclassified impairment losses from receivables equal to EUR 5.3 million from "Cost of Sales" and EUR 8.9 million from "Other Expenses" to the new line "Impairment loss of receivables and contract assets". Furthermore, EUR 271 thousand which related to reversal of impairment loss on receivables were reclassified from "Other Income" to "Impairment loss of receivables and contract assets".
The remaining reclassifications relate to changes made in order for Viohalco to apply uniformity regarding the results' presentation of subisidiaries with similar activities; direct sales expenses were reclassified from "Selling and Distribution" and "Administration", to "Cost of Sales".
The adjustments performed in the Consolidated Statement of Profit or Loss are presented in the table below:

Amounts in EUR thousands	**As published**	**Re-presentation**	**As represented**
Revenue	**3,721,311**		**3,721,311**
Cost of sales	-3,371,713	12,618	-3,359,096
Gross profit	**349,597**		**362,215**
Other income	15,315	-271	15,044
Selling and distribution expenses	-66,351	-12,291	-78,641
Administrative expenses	-109,773	4,958	-104,815
Impairment loss on receivables and contract assets		-13,897	-13,897
Other expenses	-21,336	8,883	-12,453
Operating result (EBIT)	**167,452**		**167,452**
Finance income	2,019		2,019
Finance cost	-112,451		-112,451
Net Finance income /cost (-)	**-110,432**		**-110,432**
Share of profit/ loss (-) of equity-accounted investees, net of tax	-181		-181
Profit/Loss (-) before income tax expense	**56,839**		**56,839**
Income tax expense (-)	26,956		26,956
Profit/Loss (-)	**83,794**		**83,794**

5.22. New standards, amendment to standards and interpretations of IFRS's

Certain new standards, amendments to standards and interpretations have been issued that are mandatory for periods beginning during the current financial year and subsequent years. Viohalco's evaluation of the effect of these new standards, amendments to standards and interpretations is set out below.

Standards and Interpretations effective for the current financial year

- ***IFRS 15 "Revenue from Contracts with Customers"***
  IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It replaces existing revenue recognition guidance, including IAS 18 Revenue, IAS 11 Construction Contracts and IFRIC 13 Customer Loyalty Programmes. IFRS 15 adoption effect is presented in Note 6.

- ***IFRS 15 (Clarifications) "Revenue from Contracts with Customers"***
  The objective of the clarifications is to clarify the IASB's intentions when developing the requirements in IFRS 15 Revenue from Contracts with Customers, particularly the accounting of identifying performance obligations amending the wording of the "separately identifiable" principle, of principal versus agent considerations including the assessment of whether an entity is a principal or an agent as well as applications of control principle and of licensing providing additional guidance for accounting of intellectual property and royalties. The clarifications also provide additional practical expedients for entities that either apply IFRS 15 fully retrospectively or that elect to apply the modified retrospective approach.

- ***IFRS 9 "Financial Instruments" and subsequent amendments to IFRS 9 and IFRS 7***
  In July 2014, the International Accounting Standards Board issued the final version of IFRS 9 Financial Instruments. IFRS 9 adoption effect is presented in Note 6.

The following standards, amendments to standards and interpretations issued and effective for the current financial year did not have significant impact for the Consolidated Financial Statements of Viohalco:

- ***Annual Improvements to IFRS Standards 2014-2016 Cycle.***
  - *IAS 28 "Investments in associates and Joint ventures":* The amendments clarify that the election to measure at fair value through profit or loss an investment in an associate or a joint venture that is held by an entity that is venture capital organization, or other qualifying entity, is available for each investment in an associate or joint venture on an investment-by-investment basis, upon initial recognition.

- ***IAS 40 (Amendments) "Transfers to Investment Property"***
  The amendment clarifies the application of paragraph 57 of IAS 40 Investment Property, and which provides guidance on transfers to, or from, investment properties.

- ***IFRIC Interpretation 22 "Foreign Currency Transactions and Advance Consideration"***
  The interpretation clarifies the accounting for transactions that include the receipt of payment of advance consideration in a foreign currency.

- ***IFRS 2 (Amendments) "Classification and measurement of Shared-based Payment transactions"***
  The amendment clarifies the measurement basis for cash-settled, share-based payments and the accounting for modifications that change an award from cash-settled to equity-settled. It also introduces an exception to the principles in IFRS 2 that will require an award to be treated as if it was wholly equity-settled, where an employer is obliged to withhold an amount for the employee's tax obligation associated with a share-based payment and pay that amount to the tax authority.

Standards and Interpretations effective for subsequent periods:

- ***IFRS 16 "Leases"*** *(effective for annual periods beginning on or after 1 January 2019)*

  Viohalco is required to adopt IFRS 16 Leases from 1 January 2019. Viohalco has assessed the estimated impact that initial application of IFRS 16 will have on its consolidated financial statements, as described below. The actual impacts of adopting the standard on 1 January 2019 may change because:

  – Viohalco has not finalised the testing and assessment of controls over its new IT systems; and

  – the new accounting policies are subject to change until Viohalco presents its first financial statements that include the date of initial application.

  IFRS 16 introduces a single, on-balance sheet lease accounting model for lessees. A lessee recognises a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items (Viohalco will use this practical expedient). Lessor accounting remains similar to the current standard – i.e. lessors continue to classify leases as finance or operating leases.

  IFRS 16 replaces existing leases guidance, including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases – Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

  i. Leases in which Viohalco is a lessee

  Viohalco will recognise new assets and liabilities for its operating leases (mainly of cars, administration buildings, machinery and warehouses). The nature of expenses related to those leases will now change because Viohalco will recognise a depreciation charge for right-of-use assets and interest expense on lease liabilities.

  Previously, Viohalco recognised operating lease expense on a straight-line basis over the term of the lease, and recognised assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognised.

  No significant impact is expected for Viohalco's finance leases.

  Based on the information currently available, Viohalco estimates that it will recognise additional lease liabilities of EUR 22.9 million as at 1 January 2019. The impact on the Consolidated Statement of Profit or Loss is not expected to be material, as the cancellation of operating lease payments will be offset by the depreciation charged on right-of-use assets and recognized in operating result. The annual interest recognized on lease liabilities is calculated based on each subsidiary's incremental borrowing rate and it is not expected to be material. The impact on the statement of cash flows of restating operating leases will be limited to reclassifications, as the standard will have no effect on Viohalco's cash and cash equivalents.Viohalco does not expect the adoption of IFRS 16 to impact its ability to comply with loan covenants.

  ii. Leases in which Viohalco is a lessor

  No significant impact is expected for leases in which Viohalco is a lessor.

  iii. Transition

  Viohalco plans to apply IFRS 16 initially on 1 January 2019, using the modified retrospective approach. Therefore, the cumulative effect of adopting IFRS 16 will be recognised as an adjustment to the opening balance of assets and liabilities at 1 January 2019, with no restatement of comparative information. No adjustment is expected to the opening balance of retained earnings.

  Viohalco plans to apply the practical expedient to grandfather the definition of a lease on transition. This means that it will apply IFRS 16 to all contracts entered into before 1 January 2019 and identified as leases in accordance with IAS 17 and IFRIC 4.

  The remaining standards, amendments to standards and interpretations are not expected to have significant impact for the Consolidated Financial Statements of Viohalco:

- ***IFRIC 23 — "Uncertainty over Income Tax Treatments"*** *(effective for annual periods beginning on or after 1 January 2019)*

  The interpretation addresses the accounting for income taxes when tax treatments involve uncertainty that affects the application of IAS 12. The interpretation provides guidance on considering uncertain tax treatments separately or together, examination by tax authorities, the appropriate method to reflect uncertainty and accounting for changes in facts and circumstances.

- ***IFRS 9 (Amendments) "Prepayment Features with Negative Compensation".*** *(effective for annual periods beginning on or after 1 January 2019)*
  The amendment allows financial assets with prepayment features that permit or require a party to a contract either to pay or receive reasonable compensation for the early termination of the contract (so that, from the perspective of the holder of the asset there may be 'negative compensation'), to be measured at amortized cost or at fair value through other comprehensive income.

- ***IAS 28 (Amendments) "Long-term Interests in Associates and Joint Ventures"*** *(effective for annual periods beginning on or after 1 January 2019)*
  The amendments relate to whether the measurement, in particular impairment requirements, of long term interests in associates and joint ventures that, in substance, form part of the 'net investment' in the associate or joint venture should be governed by IFRS 9, IAS 28 or a combination of both. The amendments clarify that an entity applies IFRS 9 Financial Instruments, before it applies IAS 28, to such long-term interests for which the equity method is not applied. In applying IFRS 9, the entity does not take account of any adjustments to the carrying amount of long- term interests that arise from applying IAS 28.

- ***IAS 19 (Amendment) "Plan Amendment, Curtailment or Settlement".*** *(effective for annual periods beginning on or after 1 January 2019)*
  The amendments require entities to use updated actuarial assumptions to determine current service cost and net interest for the remainder of the annual reporting period after a plan amendment, curtailment or settlement has occurred. The amendments also clarify how the accounting for a plan amendment, curtailment or settlement affects applying the asset ceiling requirements.

- ***Annual Improvements to IFRS Standards 2015-2017 Cycle.*** *(effective for annual periods beginning on or after 1 January 2019)*
  - *IFRS 3 "Business Combinations and IFRS 11 Joint Arrangements":* The amendments to IFRS 3 clarify that when an entity obtains control of a business that is a joint operation, it remeasures previously held interests in that business. The amendments to IFRS 11 clarify that when an entity obtains joint control of a business that is a joint operation, the entity does not remeasure previously held interests in that business.
  - *IAS 12 "Income Taxes":* The amendments clarify that the income tax consequences of payments on financial instruments classified as equity should be recognized according to where the past transactions or events that generated distributable profits has been recognized.
  - *IAS 23 "Borrowing Costs":* The amendments clarify paragraph 14 of the standard that, when a qualifying asset is ready for its intended use or sale, and some of the specific borrowing related to that qualifying asset remains outstanding at that point, that borrowing is to be included in the funds that an entity borrows generally.

- ***IAS 1 Presentation of Financial Statements and IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors*** *(effective for annual periods beginning on or after 1 January 2020 with earlier application permitted).*
  The amendments clarify the definition of material and how it should be applied. The new definition states that, 'Information is material if omitting, misstating or obscuring it could reasonably be expected to influence decisions that the primary users of general purpose financial statements make on the basis of those financial statements, which provide financial information about a specific reporting entity'. In addition, the explanations accompanying the definition have been improved. The amendments also ensure that the definition of material is consistent across all IFRS Standards. These amendments have not yet been endorsed by the EU.

- ***IFRS 3 Business Combinations (Amendments)***
  The IASB issued amendments in Definition of a Business (Amendments to IFRS 3) aimed at resolving the difficulties that arise when an entity determines whether it has acquired a business or a group of assets. The amendments are effective for business combinations for which the acquisition date is on or after the beginning of the first annual reporting period beginning on or after 1 January 2020 and to asset acquisitions that occur on or after the beginning of that period, with earlier application permitted. These Amendments have not yet been endorsed by the EU.

- ***Conceptual Framework in IFRS standards***
  The IASB issued the revised Conceptual Framework for Financial Reporting on 29 March 2018. The Conceptual Framework sets out a comprehensive set of concepts for financial reporting, standard setting, guidance for preparers in developing consistent accounting policies and assistance to others in their efforts to understand and interpret the standards. IASB also issued a separate accompanying document, Amendments to References to the Conceptual Framework in IFRS Standards, which sets out the amendments to affected standards in order to update references to the revised Conceptual Framework. It's objective is to support transition to the revised Conceptual Framework for companies that develop accounting policies using the Conceptual Framework when no IFRS Standard applies to a particular transaction. For preparers who develop accounting policies based on the Conceptual Framework, it is effective for annual periods beginning on or after 1 January 2020. These Amendments have not yet been endorsed by the EU.

6. Changes in accounting policies

Viohalco has initially applied IFRS 15 Revenue from Contracts with Customers (see A) and IFRS 9 Financial Instruments (see B) from 1 January 2018. A number of other new standards are also effective from 1 January 2018 but they do not have a material effect on Viohalco's Consolidated Financial Statements.

Due to the transition methods chosen by Viohalco in applying these standards, comparative information throughout these financial statements has not been restated to reflect the requirements of the new standards, except for separately presenting impairment loss on trade receivables and contract assets (see B).

The effect of applying these standards is mainly attributed to the following:

- Differences in timing of revenue recognition from customized products and energy projects and recognition of new elements such as contract assets, contract costs and contract liabilities in the consolidated statement of financial position (see A below);
- an increase in impairment losses recognised on financial assets (see B below).

A. IFRS 15 Revenue from Contracts with Customers

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognised. It replaced IAS 18 Revenue, IAS 11 Construction Contracts and related interpretations.

Viohalco has adopted IFRS 15 using the cumulative effect method, with the effect of initially applying this standard recognised at the date of initial application (i.e. 1 January 2018). Accordingly, the information presented for 2017 has not been restated – i.e. it is presented, as previously reported, under IAS 18, IAS 11 and related interpretations.

As previously mentioned, the effect of the transition to IFRS 15 relates to the recognition of revenue for specialized products and for energy projects, over time. The following table summarises the impact, net of tax, on retained earnings, reserves and NCI at 1 January 2018.

Amounts in EUR thousands	**Impact of adopting IFRS 15 at 1 January 2018**
Reserves	-34
Retained earnings	3,213
Non-controlling interests	732
Total	**3,911**

Deferred tax liability recognized as at 1 January 2018, due to the change in accounting policy was equal to EUR 1,345 thousand.

The following tables summarise the impacts of adopting IFRS 15 on Viohalco's statement of financial position as at 31 December 2018 and its statement of profit or loss for the year then ended for each of the line items affected. There was no material impact on the consolidated statement of cash flows for the year ended 31 December 2018.

Impact on the condensed consolidated statement of financial position

	As reported	Adjustments	Amounts without adoption of IFRS 15
ASSETS			
Non-current assets	**2,057,091**	**-56**	**2,057,036**
Current assets			
Inventories	1,142,309	74,122	1,216,430
Trade and other receivables	551,205	45,298	596,504
Contract assets	117,428	-117,428	0
Contract costs	1,872	-1,872	0
Current assets	**1,988,594**	**119**	**1,988,713**
Total assets	**4,045,685**	**64**	**4,045,749**
EQUITY			
Equity attributable to owners of the Company	**1,173,749**	**-4,058**	**1,169,691**
Non-controlling interest	130,875	-965	129,910
Total equity	**1,304,624**	**-5,023**	**1,299,601**
LIABILITIES			
Non-current liabilities			
Trade and other payables	8,324	19	8,343
Deferred tax liabilities	88,402	-1,704	86,698
Contract liabilities	19	-19	0
Non-current liabilities	**1,068,965**	**-1,704**	**1,067,262**
Current liabilities			
Trade and other payables	661,544	84,637	746,181
Contract liabilities	77,847	-77,847	0
Current liabilities	**1,672,096**	**6,790**	**1,678,887**
Total liabilities	**2,741,061**	**5,086**	**2,746,148**
Total equity and liabilities	**4,045,685**	**64**	**4,045,749**

Impact on the condensed consolidated statement of profit or loss and OCI

	As reported	Adjustments	Amounts without adoption of IFRS 15
Revenue	4,406,185	-10,270	4,395,915
Cost of sales	-4,009,411	8,779	-4,000,632
Gross profit	**396,775**	**-1,492**	**395,283**
Profit/Loss (-) before income tax	**95,612**	**-1,492**	**94,120**
Income tax	-9,760	453	-9,307
Profit/Loss (-)	**85,852**	**-1,038**	**84,814**
Other comprehensive income	-8,238	-56	-8,295
Total comprehensive income / expense (-) after tax	**77,614**	**-1,094**	**76,519**

The details of the new significant accounting policies and the nature of the changes to previous accounting policies in relation to Viohalco's various goods and services are set out below.

Under IFRS 15, revenue is recognised when a customer obtains control of the goods or services. Determining the timing of the transfer of control – at a point in time or over time – requires judgement.

Sales of customized products

Previously, Viohalco's subsidiaries recognised revenue for all those products which were not part of a construction contract (according to the definition of IAS 11), when the significant risks and rewards of ownership had been transferred to the customer. The timing of the transfer of risks and rewards varied according to the terms of each sales agreement. The recognition generally occured when the product was delivered to the customer; however for some international shipments the transfer of risks and rewards occurred - based on the incoterms - when the goods were loaded onto the ship, or other delivery vehicle, at the port of the seller.

According to IFRS 15, Viohalco' subsidiaries recognize revenue when a customer obtains control over the product. Under contracts 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 was concluded that the client controls all of the work in progress, as the goods are being produced.

Therefore, for such contracts revenue is now 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 last 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.

The adoption of IFRS 15 did not have impact on the recognition of revenue relating to projects, which were previously meeting the definition of a construction contract under IAS 11. The accounting treatment for revenue recognition based on IAS 11 for such contracts was already substantially compliant with the new standard.

Sales of standard products

For products which are not considered customised, customers do not take control of the product until production is completed. Thus, Viohalco's subsidiaries continue to recognise revenue for such products, in the same manner, as under IAS 18, since the timing of transfer of control is substantially at the same point of time with the transfer of the risks and rewards.

Rendering of services

Revenue was previously recognised using the stage-of-completion method. Under IFRS 15, 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. The timing of such revenue recognition under IFRS 15, regarding rendering of services, is similar to the previous accounting policy of Viohalco, therefore the adoption of IFRS 15 did not have any impact on opening balance of equity.

Identification of performance obligations

For Aluminium, Copper, Steel and Recycling segments, the majority of contracts with customers specify only one performance obligation, which is the production of goods or the production and delivery of goods to the customer. Based on the guidance and requirements of IFRS 15, transportation of products for certain contracts was identified as separate performance obligation.

For Cables and Steel Pipes segments, there are 2 major categories of contracts; those that specify one or two performance obligations in the same way as described above, and those that relate to projects and may specify several performance obligations. In this case, subsidiaries of Viohalco in these segments, recognise revenue during the project, for individual products and services separately if they are distinct – i.e. if a product or service is separately identifiable from other items in the contracts and if a customer can benefit from it.

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 capitalised 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.

As at 1 January 2018, Viohalco recognized contract costs equal to EUR 1.2 million, which relate to fees and commissions associated with contracts for energy projects obtained during the year. Management considered these costs as recoverable.

For additional information about the Viohalco's accounting policies relating to revenue recognition, see Note 5.

B. IFRS 9 Financial Instruments

IFRS 9 sets out requirements for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 Financial Instruments: Recognition and Measurement.

As a result of the adoption of IFRS 9, Viohalco has adopted consequential amendments to IAS 1 Presentation of Financial Statements, which require impairment of financial assets to be presented in a separate line item in the statement of profit or loss. Previously, Viohalco's approach was to include the impairment of trade receivables in operating expenses. For further information on the reclassifications in the comparative period, refer to Note 5.21. Impairment losses on other financial assets are presented under 'finance costs', similar to the presentation under IAS 39, and not presented separately in the statement of profit or loss due to materiality considerations.

The following table summarises the impact, net of tax, of transition to IFRS 9 on the opening balance of retained earnings and NCI. The impact relates to the recognition of expected credit losses under IFRS 9. (for a description of the transition method, see (iv) below)

Amounts in EUR thousands	**Impact of adopting IFRS 9 at 1 January 2018**
Retained earnings	-4,780
Non- controlling interests	-222
Total	**-5,002**

The effect reported in the table above is different from the one reported in the 2018 interim report, since during the year it was identified that the calculation exercise as at 1 January 2018 did not take into consideration all existing information at that time.

Deferred tax asset recognized as at 1 January 2018, due to the change in accounting policy was equal to EUR 370 thousand.

The details of new significant accounting policies and the nature and effect of the changes to previous accounting policies are set out below.

i. Classification and measurement of financial assets and financial liabilities

IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities. However, it eliminates the previous IAS 39 categories for financial assets of held to maturity, loans and receivables and available for sale.

The adoption of IFRS 9 has not had a significant effect on Viohalco's accounting policies related to financial liabilities.

For an explanation of how Viohalco classifies and measures financial instruments and accounts for related gains and losses under IFRS 9, see Note 5.15.

The effect of adopting IFRS 9 on the carrying amounts of financial assets at 1 January 2018 relates solely to the new impairment requirements, as described further below.

The following table and the accompanying notes below explain the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of Viohalco's financial assets as at 1 January 2018.

Amounts in EUR thousands	**Note**	**Original classification under IAS 39**	**New classification under IFRS 9**	**Original carrying amount under IAS 39**	**New carrying amount under IFRS 9**
Forward foreign exchange contracts		Fair value – hedging instrument	Fair value – hedging instrument	2,168	2,168
Future contracts		Fair value – hedging instrument	Fair value – hedging instrument	5,699	5,699
Equity securities	a	Available-for-sale	FVOCI – equity instrument	9,573	9,573
Trade and other receivables	b	Loans and receivables	Amortised cost	516,086	510,862
Cash and cash equivalents		Loans and receivables	Amortised cost	168,239	168,239

a. These equity securities represent investments that Viohalco intends to hold for the long term for strategic purposes. As permitted by IFRS 9, Viohalco has designated these investments at the date of initial application as measured at FVOCI. Unlike IAS 39, the accumulated fair value reserve related to these investments will never be reclassified to profit or loss.

b. Trade and other receivables that were classified as loans and receivables under IAS 39 are now classified at amortised cost. An increase of EUR 5,224 thousand in the allowance for impairment over these receivables was recognised in opening retained earnings at 1 January 2018 on transition to IFRS 9. This decrease is the result of remeasurement solely.

ii. Impairment of financial assets

IFRS 9 replaces the 'incurred loss' model in IAS 39 with an 'expected credit loss' (ECL) model. The new impairment model applies to financial assets measured at amortised cost, contract assets, lease receivables and debt investments at FVOCI, but not to investments in equity instruments. Under IFRS 9, credit losses are recognised earlier than under IAS 39.

The financial assets at amortised cost consist of trade receivables (including contract assets) and cash and cash equivalents.

Under IFRS 9, loss allowances are measured on either of the following bases:

- 12-month ECLs: these are ECLs that result from possible default events within the 12 months after the reporting date; and

- lifetime ECLs: these are ECLs that result from all possible default events over the expected life of a financial instrument.

Viohalco has elected to measure loss allowances for trade receivables and contract assets at an amount equal to lifetime ECLs.

For assets in the scope of the IFRS 9 impairment model, impairment losses are generally expected to increase and become more volatile.

Viohalco has determined that the application of IFRS 9's impairment requirements at 1 January 2018 results in an additional impairment allowance as follows.

Amounts in EUR thousands

Loss allowance at 31 December 2017 under IAS 39	**68,595**
Additional impairment recognised at 1 January 2018	
Trade and other receivables 31 December 2017	5,224
Contract assets recognized on adoption of IFRS 15	148
Loss allowance at 1 January 2018 under IFRS 9	**73,967**

Additional information about how Viohalco measures the allowance for impairment is described in Note 5.13.

iii. Hedge accounting

Viohalco has elected not to adopt the provisions of IFRS 9 regarding the hedge accounting and will continue applying IAS 39. Further information on the relevant accounting policies is disclosed in Note 5.15.

iv. Transition

Transition has been performed as follows:

- Viohalco has applied the exemption allowing not to restate comparative information for prior periods with respect to classification and measurement (including impairment loss) changes. Differences in the carrying amounts of financial assets and financial liabilities resulting from the adoption of IFRS 9 have been recognized in retained earnings and reserves as at 1 January 2018. However, in order to make profit or loss lines comparable, impairment on receivables of the previous period has been reclassified from cost of sales, to the new line "impairment loss on trade and other receivables, including contract assets".

- The following assessments have been made on the basis of the facts and circumstances that existed at the date of initial application.

- The determination of the business model within which a financial asset is held.
- The designation of certain investments in equity instruments not held for trading as at FVOCI.

7. Operating segments

A. Basis for the division into segments

For management purposes, Viohalco is split into eight major strategic reportable segments which operate in different industries:

- Aluminium;
- Copper;
- Steel;
- Cables;
- Steel pipes;
- Real estate development;
- Recycling and
- Other activities

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 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 P&L and Balance Sheet numbers haven been allocated to the reportable segments, according to the nature of their transactions and balances.

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 Bulgaria 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 subsidiaries Fitco S.A. and 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.

Steel: Sidenor Steel Industry, Stomana Industry and their subsidiaries manufacture long, flat and downstream steel products.

Cables: The Cablel® Hellenic Cables Group is 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.

Real estate: Viohalco creates value through the development of its former industrial real estate properties in Greece and Bulgaria.

Recycling: Viohalco's recycling segment trades and processes secondary raw materials, undertakes waste management and environmental operations, and provides services to consumers and corporate companies.

Other: Viohalco also holds investments in smaller companies in other segments, such as ceramic sanitary ware and tiles (Vitrouvit S.A.), Technology and R&D (TEKA, Elkeme) and insurance brokerage.

None of these segments met the quantitative thresholds for reportable segments in 2018 or 2017.

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 at 31 December 2018 and 2017, and for the years then ended.

Revenue and operating profit per segment for 2018 is as follows:

Amounts in EUR thousands	Aluminum	Copper	Cables	Steel	Steel pipes	Real estate	Recycling	Other activities	Total
Total revenue per segment	1,976,733	1,367,499	803,831	1,531,492	684,873	11,751	146,632	90,113	**6,612,924**
Inter-segment revenue	-579,411	-301,998	-329,097	-614,911	-214,699	-3,363	-101,005	-62,254	**-2,206,739**
Revenue per segment after elimination of inter-segment revenue	**1,397,322**	**1,065,500**	**474,734**	**916,581**	**470,174**	**8,388**	**45,626**	**27,860**	**4,406,185**
Gross profit	**149,335**	**77,638**	**40,880**	**69,626**	**33,029**	**3,024**	**14,227**	**9,015**	**396,775**
Operating result (EBIT)	**89,565**	**41,706**	**18,541**	**37,812**	**17,918**	**297**	**273**	**-6,068**	**200,044**
Finance income	392	61	608	1,449	273	0	358	195	**3,335**
Finance cost	-20,001	-18,691	-23,110	-29,194	-10,232	-1,804	-2,438	-365	**-105,834**
Share of profit/ loss (-) of equity-accounted investees, net of tax	322	-1,957	0	-952	653	0	0	0	**-1,934**
Profit/loss (-) before income tax expense	**70,278**	**21,119**	**-3,961**	**9,115**	**8,612**	**-1,507**	**-1,807**	**-6,238**	**95,612**
Income tax expense (-)	-7,654	-11,578	5,733	3,910	1,177	317	-498	-1,166	**-9,760**
Net profit/Loss (-)	**62,624**	**9,541**	**1,772**	**13,025**	**9,789**	**-1,190**	**-2,306**	**-7,404**	**85,852**

Other information per segment for 2018 is as follows:

Amounts in EUR thousands	Aluminum	Copper	Cables	Steel	Steel pipes	Real estate	Recycling	Other activities	Total
Equity-accounted investees	560	15,909	0	5,363	10,234	0	0	0	**32,066**
Other assets	1,168,817	536,579	547,826	873,319	463,591	293,503	41,065	88,918	**4,013,619**
Segment assets	**1,169,377**	**552,488**	**547,826**	**878,682**	**473,825**	**293,503**	**41,065**	**88,918**	**4,045,685**
Segment liabilities	611,776	435,466	513,137	709,128	331,314	59,877	54,309	26,054	**2,741,061**
Capital expenditure	67,459	34,238	44,039	22,580	6,207	14,857	2,620	1,397	**193,398**
Depreciation and amortization	-56,473	-12,025	-14,448	-37,072	-7,618	-4,310	-2,756	-1,082	**-135,783**

Revenue and operating profit per segment for 2017* were as follows:

Amounts in EUR thousands	Aluminum	Copper	Cables	Steel	Steel pipes	Real estate	Recycling	Other activities	Total
Total revenue per segment	1,802,644	1,289,106	674,299	1,198,524	355,276	12,422	222,069	79,442	**5,633,782**
Inter-segment revenue	-596,626	-348,166	-266,328	-433,282	-60,285	-3,263	-156,064	-48,458	**-1,912,471**
Revenue per segment after elimination of inter-segment revenue	**1,206,018**	**940,940**	**407,971**	**765,243**	**294,991**	**9,159**	**66,005**	**30,984**	**3,721,311**
Gross profit	**123,735**	**79,533**	**34,046**	**70,647**	**24,841**	**3,493**	**19,061**	**6,860**	**362,215**
Operating result (EBIT)	**69,260**	**44,537**	**17,452**	**35,956**	**2,332**	**1,298**	**4,179**	**-7,563**	**167,452**
Finance income	489	8	700	395	9	1	11	406	**2,019**
Finance cost	-17,852	-24,551	-22,612	-32,477	-10,893	-1,188	-2,519	-360	**-112,451**
Share of profit/ loss (-) of equity-accounted investees, net of tax	125	-150	0	-560	402	0	0	0	**-181**
Profit/loss (-) before income tax expense	**52,022**	**19,844**	**-4,459**	**3,315**	**-8,149**	**112**	**1,672**	**-7,517**	**56,839**
Income tax expense (-)	-15,485	14,292	594	23,114	6,370	-453	-471	-1,006	**26,956**
Net Profit/Loss (-)	**36,537**	**34,136**	**-3,865**	**26,428**	**-1,779**	**-341**	**1,201**	**-8,523**	**83,794**

Other information per segment for 2017 were as follows:

Amounts in EUR thousands	Aluminum	Copper	Cables	Steel	Steel pipes	Real estate	Recycling	Other activities	Total
Equity accounted investees	448	450	0	4,784	11,274	0	0	0	**16,956**
Other assets	1,055,500	498,346	439,852	860,344	400,298	277,537	59,432	75,825	**3,667,134**
Segment assets	**1,055,949**	**498,796**	**439,852**	**865,127**	**411,572**	**277,537**	**59,432**	**75,825**	**3,684,089**
Segment liabilities	572,471	366,552	396,190	710,855	278,043	42,778	58,600	29,382	**2,454,871**
Capital expenditure	51,756	13,649	17,599	7,945	3,194	10,579	15,869	1,824	**122,414**
Depreciation and amortization	-58,133	-14,052	-13,620	-36,128	-9,156	-4,267	-2,790	-934	**-139,079**

**Re-presented see Note 5.21*

C. Geographic information

Viohalco's segments are managed on a worldwide basis, but operate manufacturing facilities and sales offices primarily in Greece, Germany, United Kingdom, France, Bulgaria, Romania, Serbia, North Macedonia and U.S.A.

The segmental information below is based on the 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

Amounts in EUR thousands	Balance at 31 December 2018	2017
Belgium	1,506	1,568
Greece	1,303,132	1,256,722
Other	479,173	485,343
Total	**1,783,812**	**1,743,632**

Intangible assets and goodwill		
	Balance at 31 December	
Amounts in EUR thousands	2018	2017
Belgium	68	83
Greece	29,223	20,097
Other	3,055	6,352
Total	**32,346**	**26,531**

Investment property		
	Balance at 31 December	
Amounts in EUR thousands	2018	2017
Greece	167,567	158,492
Other	6,143	6,755
Total	**173,710**	**165,247**

8. Revenue

The effect of initially applying IFRS 15 on Viohalco's revenue from contracts with customers is described in Note 5. Due to the transition method chosen in applying IFRS 15, comparative information has not been restated to reflect the new requirements. Viohalco's subsidiaries' operations and main revenue streams are those described in the last annual financial statements. Revenue is derived from contracts with customers and from investment property rental income.

	For the year ended 31 December	
Amounts in EUR thousands	2018	2017
Rental income from investment property	8,388	9,159
Revenue from contracts with customers	4,397,797	3,712,152
Total	**4,406,185**	**3,721,311**

A. Disaggregation of revenue

In the following table revenue from contract 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 7).

	for the year ended 31 December 2018							
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel**	**Steel pipes**	**Recycling**	**Other activities**	**Total**
Primary geographical markets								
Greece	122,943	44,258	127,300	178,010	11,813	7,861	18,000	**510,186**
European Union	879,387	763,890	293,476	527,084	186,502	16,272	7,726	**2,674,337**
Other European countries	94,469	98,986	14,547	162,883	13,494	3,928	735	**389,041**
Asia	78,569	62,075	33,549	43,602	4,328	16,735	448	**239,305**
America	209,831	60,420	3,296	2,530	249,898	829	357	**527,160**
Africa	11,437	31,048	2,444	2,473	4,139	1	63	**51,605**
Oceania	686	4,825	122	0	0	0	532	**6,164**
Total	**1,397,322**	**1,065,500**	**474,734**	**916,581**	**470,174**	**45,626**	**27,860**	**4,397,797**
Timing of revenue recognition								
Revenue recognised at a point in time	1,372,648	1,061,393	371,068	908,176	39,749	43,427	11,855	**3,808,316**
Products transferred over time	24,309	0	101,756	0	430,301	0	0	**556,367**
Services transferred over time	365	4,107	1,909	8,406	124	2,199	16,005	**33,115**
Total	**1,397,322**	**1,065,500**	**474,734**	**916,581**	**470,174**	**45,626**	**27,860**	**4,397,797**

	for the year ended 31 December 2017							
Amounts in EUR thousands	**Aluminium**	**Copper**	**Cables**	**Steel**	**Steel pipes**	**Recycling**	**Other activities**	**Total**
Primary geographical markets								
Greece	113,542	33,071	125,662	152,590	134,999	17,156	20,785	**597,804**
European Union	789,726	655,776	255,304	419,151	67,187	20,580	8,371	**2,216,094**
Other European countries	94,395	108,857	5,726	139,834	3,605	6,098	669	**359,184**
Asia	96,522	65,783	14,678	36,741	36,373	20,324	114	**270,535**
America	89,718	53,139	2,964	40	51,234	1,847	521	**199,463**
Africa	12,423	21,971	3,610	10,570	1,594	0	117	**50,284**
Oceania	9,693	2,344	27	6,317	0	0	407	**18,788**
Total	**1,206,018**	**940,940**	**407,971**	**765,243**	**294,991**	**66,005**	**30,984**	**3,712,152**
Timing of revenue recognition								
Revenue recognised at a point in time	1,201,272	940,519	333,991	759,169	294,991	63,896	16,290	**3,610,129**
Products transferred over time	0	0	71,474	0	0	0	0	**71,474**
Services transferred over time	4,746	421	2,506	6,073	0	2,109	14,694	**30,548**
Total	**1,206,018**	**940,940**	**407,971**	**765,243**	**294,991**	**66,005**	**30,984**	**3,712,152**

Viohalco’s consolidated revenue for 2018 amounted to EUR 4,406 million, 18% higher compared to EUR 3,721 million in 2017, as a result of increase in sales volumes in all core segments. Steel pipes segment reported record sales by marking a significant increase of EUR 175 million, 59% higher compared to prior year. Both aluminum and copper segment saw significant growth in sales volumes that led to increased revenue. The steel segment taking advantage of its recent investments achieved EUR 151 million increase in revenue as a result of higher sales volumes.

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 is 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 increased by approximately EUR 47 million compared to 1 January 2018, due to higher amounts of unbilled receivables. 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 receivables, contract assets and contract liabilities from contracts with customers.

	As at	
Amounts in EUR thousands	**31 December 2018**	**1 January 2018**
Receivables, which are included in 'Trade and other receivables'	427,552	317,285
Contract assets	117,428	70,351
Contract costs	1,980	1,211
Contract liabilities	-77,866	-11,918
Total	**469,093**	**376,929**

Significant changes in the contract assets and the contract liabilities balances during the period are as follows:

Amounts in EUR thousands	**Contract assets**	**Contract liabilities**
Balance at 1 January 2018	0	0
Amounts recognised as a result of change in accounting policy	70,351	11,918
Increases due to unbilled receivables and changes in measure of progress	114,277	0
Revenue recognised relating to downpayments and deferred income balances as at the beginning of the period	0	-11,851
Transfers from contract assets recognised at the beginning of the period to receivables	-68,673	0
New downpayments and deferred income outstanding at year end	0	77,799
Impairment allowance	-93	0
Foreign exchange differences	1,567	0
Balance at 31 December 2018	**117,428**	**77,866**

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 205 million, from which EUR 134 million is expected to be recognised during 2019, EUR 66 million is expected to be recognized between 2020 and 2023 and the rest (EUR 5 million) is going to be recognized after 2023.

C. Contract costs

Viohalco subsidiaries that have recognized contracts costs, expect that fees, commissions & other costs associated with obtaining contracts for energy projects are recoverable.

Therefore, as at 31 December 2018 Viohalco has recorded as contract costs an amount of EUR 2 million, out of which an amount of EUR 108 thousand is classified as non-current assets.
During the year, amortization of contract costs was equal to EUR 16 thousand.

Applying the practical expedient of IFRS 15 paragraph 94, Viohalco recognises incremental costs of obtaining and fullfiling contracts as an expense when incurred if the amortisation period of the assets would be one year or less, i.e. if the initial expected duration of a contract obtained in less than one year.

D. Significant judgements in revenue recognition

In recognizing revenue, Viohalco subsidiaries 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 involving the supply of a product or the performance of a single task or a set of significant integrated tasks are viewed as being a single performance obligation.
- Conracts 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.
- Some contracts with customers involve a variable transaction cost as they include a volume or trade discount based on the total purchases from the customer within a time period. In such case revenue is recognized based on the anticipated purchases from the customer throughout the year, as these purchases 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 transfer 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.

9. Other income and expenses

A. Other Income

		For the year ended 31 December	
Amounts in EUR thousands	**Note**	**2018**	**2017 *Re-presented****
Government grants/subsidies		517	387
Amortization of grants received	29	3,970	3,986
Rental income		1,123	1,529
Foreign exchange gains		105	224
Income from fees, commissions & costs recharged		648	1,670
Damage compensation		4,337	1,992
Gain on sale of PP&E and intangible assets		488	1,143
Income from consulting services		393	379
Reversal of provisions	30	148	231
Reversal of impairment loss of PP&E and investment property		22	149
Gain on sale of EU ETS allowances		9,822	0
Other		2,960	3,354
Total other income		**24,533**	**15,044**

**see note 5.21*

B. Other Expenses

Amounts in EUR thousands	Note	For the year ended 31 December 2018	2017 *Re-presented**
Impairment loss or write-off of PP&E and investment property		2,405	1,341
Production cost not allocated to cost of goods sold		294	605
Loss on sale of PP&E		10	247
Loss on sale of investment property		0	98
Foreign exchange losses		122	112
Damages incurred		1,770	435
Other taxes		812	722
Out-of-court settlement		2,000	0
Consulting fees	13	563	0
Employee benefits		2,050	2,047
Depreciation and amortisation		4,340	4,084
Other		6,150	2,762
Total other expense		**20,516**	**12,453**
Net other income/ expense (-)		**4,018**	**2,591**

**see Note 5.21*

Net other income/expenses for the year ended in 31 December 2018 amounted to a gain of EUR 4 million compared to a gain of EUR 2.6 million during 2017. This variation is mainly attributed to the following:

- EUR 9.8 million gain in the steel segment from sale of EU "Emission Trading System" allowances (EUA's). These allowances were initially allocated to the subsidiaries of Viohalco pursuant to the annual national allocation plans.

- During 2018, Vohalco's subsidiary Hellenic Cables entered into an out-of-court settlement with a factoring company for an amount of EUR 2.0 million. This amount concerns a credit-related loss from a supplier of the subsidiary, shared between the subsidiary and the factor, due to a contract default of the supplier against both counterparties. The out-of-court settlement was wiser than embarking into court proceedings with the factor's Group, as it avoided both legal costs and a lengthy dispute with a long-term partner of Hellenic Cables.

-In February 2018, a small scale fire occured in one of the production facilities of Vohalco's subsidiary Symetal. From the incident, part of the labs suffered damages, leaving the rest of the facilities and the health and safety of the personnel unharmed. In regards to the material damages caused in the facility amounted to EUR 1.5 million (recorded in other expense), Symetal received compensation from the insurance company amounting to EUR 3.8 million (recorded in other income).

-During 2018, certain machinery was written off (EUR 1.2 million), while an impairment loss of EUR 1.1 million decreased the carrying amount of land. For further information on these 2 items refer to Note 18.

C. Expenses by nature

Amounts in EUR thousands	For the year ended 31 December 2018	2017 *Re-presented**
Cost of inventories recognized as an expense	3,188,117	2,624,548
Employee benefits	303,169	265,332
Energy	139,564	122,781
Depreciation and amortisation	131,443	134,995
Taxes - duties	13,990	13,652
Insurance expenses	19,837	17,950
Rental fees	9,357	10,183
Transportation	136,965	121,439
Promotion & advertising	5,494	4,076
Third party fees and benefits	153,279	119,596
Other provisions	162	266
Gains (-)/losses from derivatives	11,294	16,968
Storage and packing	13,097	11,790
Commissions	12,266	13,948
Foreign exchange gains (-)/losses	-223	-5,070
Maintenance expenses	40,883	31,060
Royalties	1,105	700
Consumption of production tools	3,088	4,822
Other expenses	26,944	33,515
Total	**4,209,831**	**3,542,552**

**see note 5.21*

The increase in sales volumes and metal prices during 2018, affected cost of sales and operating expenses which have risen proportionally.

Employee benefits increase compared to previous year is attributed to the increase of employees number to 9,527 (2017: 8,439) throughout all Viohalco segments.

The net gain from foreign exchange differences was EUR 0.2 million (2017: EUR 5 million). The increase in foreign exchange differences is attributed to the fluctuation of EUR versus US dollar and GBP and to the large volume of transactions of Viohalco companies in foreign currency.

The increase in third party fees and benefits, which is mainly subcontractor fees, follows the increase of investment programs and maintenance needs of subsidiaries in order to respond to higher sales volumes.

Higher transportation expenses in 2018 are due to increased sales performed towards the US Market.

The aggregate amount of research and development expenditure recognized as an expense during 2018 amounts to EUR 10 million (2017: EUR 9 million).

10.Net finance cost

Amounts in EUR thousands	For the year ended 31 December 2018	2017
Income		
Interest income	863	459
Foreign exchange gains	2,287	1,361
Dividend income	185	160
Gains on sale of available for sale financial assets	0	39
Finance income	**3,335**	**2,019**
Expense		
Interest expense and related charges	102,110	108,220
Impairment loss on available for sale financial assets	0	111
Interest on finance leases	1,552	1,069
Foreign exchange losses	2,027	2,970
Other finance expense	144	81
Finance cost	**105,834**	**112,451**
Net finance income/cost (-)	**-102,499**	**-110,432**

During 2018 credit spread reductions (approximately 50 bpts) have been implemented in all short and long term facilities to Viohalco companies. On a consolidated level this reduction led to a EUR 6 million decrease of interest expense.

11.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/loss (-) attributable to the ordinary shareholders and weighted-average numbers of ordinary shares outstanding.

A. Profit/loss (-) attributable to ordinary shareholders

Amounts in EUR thousands	For the year ended 31 December 2018	2017
Profit/loss (-) attributable to the owners of the Company	**76,112**	**73,680**

B. Weighted-average number of ordinary shares outstanding

In thousands of shares	2018	2017
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 2018 remains equal with 2017 as no share capital increase occurred during the year.

C. Earnings per share

The basic and diluted earnings per share are as follows:

Earnings per share (in EUR per share)	2018	2017
Basic and diluted	**0.2937**	**0.2843**

12. Employee benefits

Amounts in EUR thousands	Note	2018	2017
Net defined benefit liability		31,624	29,724
Liability for social security contributions	28	10,918	10,056
Total employee benefit liabilities		**42,542**	**39,780**
Non-current		31,624	29,724
Current		10,918	10,056

For details on the related employee benefit expenses, see Note 13.

A. Post-employment plans

The following post-employment plans exist:

Defined contribution plans

All the employees of Viohalco's 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's 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 2018 and 2017 is EUR 31,624 thousand and EUR 29,724 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	Note	2018	2017
Balance at 1 January		**29,724**	**26,868**
Included in profit or loss			
Current service cost		1,436	1,350
Past service cost		80	93
Termination loss		1,636	1,652
Interest cost/income (-)		419	415
	13	**3,572**	**3,510**
Included in OCI			
Remeasurement loss/gain (-)			
Actuarial loss/gain (-) arising from:			
-Demographic assumptions		-261	-46
-Financial assumptions		184	543
-Experience adjustments		885	1,391
		808	**1,888**
Other			
Benefits paid		-2,478	-2,539
Foreign exchange differences		-2	-2
		-2,480	**-2,541**
Balance at 31 December		**31,624**	**29,724**

During the financial year 2018, Viohalco and its companies paid EUR 2.5 million (2017: EUR 2.5 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 1.6 million – 2017: EUR 1.7 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:

	2018	2017
Discount rate	1.59%	1.47%
Price inflation	1.52%	1.52%
Future salary growth	1.64%	1.58%
Plan duration (in years)	12.77	13.32

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:

	2018	2017
Sensitivity 1 (discount rate plus 0.5%) - % Difference in DBO	-6.11%	-6.36%
Sensitivity 2 (discount rate minus 0.5%) - % Difference in DBO	6.22%	6.99%
Sensitivity 3 (salary growth rate plus 0.5%) - % Difference in DBO	6.35%	6.68%
Sensitivity 4 (salary growth rate minus 0.5%) - % Difference in DBO	-5.88%	-6.16%

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	2018	2017
Less than a year	1,715	1,135
Between 1 and 2 years	536	646
Between 2 and 5 years	3,365	2,783
Over 5 years	32,846	28,515
Total	**38,463**	**33,079**

13.Employee benefit expenses

Amounts in EUR thousands	Note	2018	2017
Wages and salaries		239,094	206,312
Social security contributions		51,601	48,144
Defined contribution plans		971	1,182
Defined benefit plans	12	3,572	3,510
Other employee benefits		12,454	10,768
Total		**307,692**	**269,915**
Employee benefits have been allocated as follows:			
Cost of goods sold		212,283	184,650
Selling and distribution expenses		43,474	38,894
Administrative expenses		47,412	41,788
Other expenses	9	2,050	2,047
Capitalised employee benefits in projects under construction		2,473	2,536
Total		**307,692**	**269,915**

The number of employees, as well as their profile and gender, employed by Viohalco companies is presented in the following tables:

2018	18 - 30	30-50	51+	Total
Male	1,037	4,863	2,098	**7,998**
Female	215	1,011	303	**1,529**
Total	**1,252**	**5,874**	**2,401**	**9,527**

	Office employees & professionals	Workers	Management	Total
Number of Employees	2,485	6,121	921	**9,527**

14.Income tax expense

A. Amounts recognised in profit or loss

Amounts in EUR thousands	2018	2017
Current tax	-20,410	-26,333
Deferred tax	10,650	53,289
Income tax expense (-)	**-9,760**	**26,956**

B. Amounts recognised in OCI

2018 *Amounts in EUR thousands*	Before tax	Related tax	Net of tax
Amounts recognized in the OCI			
Remeasurements of defined benefit liability	-808	193	-615
Equity investments in FVOCI - net change in fair value	-395	33	-362
Foreign currency translation differences	-2,164	0	-2,164
Gain / Loss (-) of changes in fair value of cash flow hedging - effective portion	315	183	498
Gain / Loss (-) of changes in fair value of cash flow hedging - reclassified to profit or loss	-7,010	1,415	-5,596
Total	**-10,062**	**1,824**	**-8,238**

2017 *Amounts in EUR thousands*	Before tax	Related tax	Net of tax
Amounts recognized in the OCI			
Remeasurements of defined benefit liability	-1,888	519	-1,369
Foreign currency translation differences	-6,379	0	-6,379
Gain / Loss (-) of changes in fair value of cash flow hedging - effective portion	8,720	-2,010	6,709
Gain / Loss (-) of changes in fair value of cash flow hedging - reclassified to profit or loss	-1,228	604	-624
Gain / Loss (-) of changes in fair value of Available-for-sale - net change in fair value	122	2	124
Total	**-653**	**-885**	**-1,539**

C. Reconciliation of effective tax rate

Amounts in EUR thousands		2018		2017
Profit/loss (-) before income tax expense		**95,612**		**56,839**
Statutory income tax expense rate in Greece		-27,727		-16,485
Non-deductible expenses for tax purposes		-7,127		-4,651
Tax-exempt income		1,233		7,311
Recognition of previously unrecognised tax losses, thin capitalization allowance or temporary differences of a prior period		8,987		46,137
Effect of tax rates in foreign jurisdictions		4,603		2,521
Current-year losses for which no deferred tax asset is recognised		-3,482		-1,868
Tax-exempt reserves recognition		1,007		0
Change in tax rate or composition of new tax		13,635		209
Other taxes		-154		-40
Additional tax charges which resulted from tax authorities' audit		0		-6,500
Derecognition of previously recognised deferred tax assets		-473		-764
Prior year income tax adjustments		-261		1,086
Income tax expense reported in the statement of profit or loss (-) at the effective tax rate	**10%**	**-9,760**	**-47%**	**26,956**

According to Greek laws N. 4334/2015 and N. 4336/2015, the corporate income tax rate for legal entities in Greece is set at 29% for fiscal year 2018 (2017: 29%). According to the new tax law in Greece, 4579/2018, the corporate income tax rate is expected to be reduced by 1% in each of the following 4 years as below:

- 28% in FY 2019,
- 27% in FY 2020,
- 26% in FY 2021 and
- 25% in FY 2022 onwards.

This development had significant effect on deferred taxes , equal to a EUR 13.6 million gain, as at 31 December 2018.

In 2017, subsidiaries of Viohalco (mainly ElvalHalcor S.A, Sidenor S.A. and Sovel S.A) recognized deferred tax assets equal to EUR 46 million, the majority of which relates to tax losses from previous years and to thin capitalization rules. Part of these deferred tax assets have been offset against taxable profits of 2018 and the rest are expected to be offset in the following years. For further information refer to section D of this Note.
Additionally, non-deductible expenses for tax purposes increased by EUR 2.5 million mainly due to non-recognition of deferred tax assets at consolidation level, on gains which resulted (at subsidiary level) from mergers and acquisitions which took place in the current period. Effect of tax rates in foreign jurisdictions, is EUR 2 million higher than in 2017. This variation is due to better results achieved in jurisdictions where the tax rate is lower than in Greece (for example Bulgaria).

In 2017, the Italian tax authorities assessed that the Greek factories (Elvalhalcor and Symetal) which sold their products in the Italian market with the facilitation of Alurame, had a Permanent Establishment in Italy. The factories denied having a PE in Italy and they finally settled for a transfer pricing imputation. Through the agreement the factories achieved to pay the amount in four years, minimizing the effect on their cash flow. The total amount was EUR 6.5 million and it was charged against the factories' profits of 2017.

D. Movement in deferred tax balances

2018

Amounts in EUR thousands	Net balance at 1 January	Recognised in profit or loss	Recognised in OCI	Foreign exchange differences	Change in accounting policy	Other	Net balance at 31 December: Net	Net balance at 31 December: Deferred tax assets	Net balance at 31 December: Deferred tax liabilities
Property, plant and equipment	-140,453	22,212	0	0	0	0	**-118,241**	1,444	-119,684
Intangible assets	694	-71	0	0	0	0	**624**	3,551	-2,927
Investment property	-14,196	639	0	0	0	0	**-13,557**	152	-13,709
Other investments	1,182	-9	33	0	0	0	**1,206**	1,212	-6
Derivatives	-1,075	1,247	1,598	1	0	0	**1,770**	2,597	-827
Inventories	999	-1,663	0	0	-181	0	**-846**	1,581	-2,427
Loans and borrowings	-2,696	172	0	0	0	0	**-2,524**	706	-3,230
Employee benefits	7,392	-411	193	12	0	0	**7,186**	7,269	-82
Provisions / accruals	7,919	139	0	0	342	0	**8,399**	8,561	-161
Contract with customers	0	12,457	0	-145	-6,854	0	**5,459**	6,227	-768
Other items	-1,504	-410	0	-51	5,719	0	**3,753**	4,983	-1,229
Thin capitalisation	33,159	-6,245	0	-1	0	0	**26,913**	26,913	0
Tax losses carried forward	29,052	-17,406	0	2	0	0	**11,648**	11,648	0
Tax assets/liabilities (-) before set-off	**-79,527**	**10,650**	**1,824**	**-182**	**-975**	**0**	**-68,209**	**76,842**	**-145,051**
Set-off tax								-56,649	56,649
Net tax assets/liabilities (-)							**-68,209**	**20,193**	**-88,402**

2017

Amounts in EUR thousands	Net balance at 1 January	Recognised in profit or loss	Recognised in OCI	Foreign exchange differences	Change in accounting policy	Other	Net balance at 31 December: Net	Net balance at 31 December: Deferred tax assets	Net balance at 31 December: Deferred tax liabilities
Property, plant and equipment	-144,319	4,130	0	-4	0	-261	**-140,453**	940	-141,393
Intangible assets	1,127	-430	0	0	0	-3	**694**	3,524	-2,829
Investment property	-13,539	-657	0	0	0	0	**-14,196**	116	-14,312
Other investments	1,213	-33	2	0	0	0	**1,182**	1,188	-6
Derivatives	-140	-650	-1,406	419	0	703	**-1,075**	111	-1,187
Inventories	502	497	0	0	0	0	**999**	1,036	-37
Loans and borrowings	-3,284	588	0	0	0	0	**-2,696**	1,122	-3,818
Employee benefits	6,024	701	519	0	0	149	**7,392**	7,392	0
Provisions / accruals	1,914	6,002	0	0	0	2	**7,919**	7,973	-54
Other items	-1,811	221	0	-26	0	112	**-1,504**	6,211	-7,715
Thin capitalisation	4,683	28,476	0	0	0	0	**33,159**	33,159	0
Tax losses carried forward	14,599	14,443	0	11	0	0	**29,052**	29,052	0
Tax assets/liabilities (-) before set-off	**-133,032**	**53,289**	**-885**	**400**	**0**	**702**	**-79,527**	**91,824**	**-171,351**
Set-off tax								-73,039	73,039
Net tax assets/liabilities (-)							**-79,527**	**18,785**	**-98,312**

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 2018, the accumulated tax losses carried forward available for future use amounted to EUR 445 million (31 December 2017: EUR 579 million). Viohalco's companies have recognised cumulatively a deferred tax asset of EUR 12 million (31 December 2017: EUR 29 million) on tax losses because management considered it probable that future taxable profits would be available against which such losses can be used. EUR 10 million relate to Viohalco subsidiaries located in Greece, EUR 1 million to Bulgarian subsidiaries and the rest EUR 1 million to subsidiaries in other jurisdictions. This deferred tax asset corresponds to losses equal to EUR 46 million (31 December 2017: EUR 116 million).

Based on these estimates regarding the future tax profitability, deferred tax assets have not been recognised in respect of tax losses carried forward for an amount of EUR 399 million (EUR 463 million in 2017). Out of these, tax losses equal to EUR 348 million expire in 2019, while the rest expire between 2020 and 2023.

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 27 million, as at 31 December 2018 (31 December 2017: EUR 33 million).

15.Inventories

Amounts in EUR thousands	**2018**	**2017**
Merchandise	33,938	64,495
Finished goods	350,102	318,042
Semi-finished goods	210,285	134,576
By-products & scrap	45,595	31,812
Work in progress	21,997	52,195
Raw and auxiliary materials, consumables and packaging materials	480,393	404,748
Total	**1,142,309**	**1,005,867**

In 2018, the amount of inventories recognised as expense during the period and included in "Cost of sales" was EUR 3.2 billion (2017: EUR 2.6 billion).

Inventories have been reduced by EUR 9.4 million in 2018 as a result of the write-down to net realizable value (2017: EUR 4.4 million). This amount was charged to profit or loss in "Cost of sales". Besides the write-down, inventories were higher as at 31 December 2018, compared to 31 December 2017, due to increased purchases in order to meet the expected increase in sales quantities.

Inventories with a carrying amount of EUR 188 million are pledged as security for borrowings received by Viohalco's companies (See Note 27).

16.Trade and other receivables

Amounts in EUR thousands	Note	2018	2017
Current Assets			
Trade receivables		455,071	408,593
Less: Impairment losses		-59,069	-53,512
Net trade receivables		**396,002**	**355,081**
Advance payments		9,121	9,752
Cheques and notes receivables & cheques overdue		33,482	31,334
Receivables from related parties	38	33,832	33,533
Tax assets		42,630	46,324
Other debtors		50,529	48,798
Less: Impairment losses		-14,392	-15,083
Net other receivables		**155,203**	**154,659**
Total		**551,205**	**509,740**
Non-current assets			
Other non-current receivables		6,315	6,346
Total		**6,315**	**6,346**
Total receivables		**557,520**	**516,086**

Viohalco and its companies have not concentrated their credit risk in relation to receivables from customers, since they have a wide range and a large number of customers.

A. Transfer of trade receivables

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 of the risk 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.

Amounts in EUR thousands	2018	2017
Carrying amount of trade receivables transferred to banks	152,790	136,609
Carrying amount of associated liabilities	105,822	90,872

The fair value of trade receivables transferred approximates their carrying amount.
As at 31 December 2018 and 2017, 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 27 "Loans and Borrowings".

B. Credit and market risks and impairment losses

During 2010, the subsidiary Corinth Pipeworks S.A. 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 21.7 million as at 31 December 2018), plus legal interest.

Following a series of court proceedings, the Dubai Court of Cassation issued its final judgment in 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 recently 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).

Corinth Pipeworks has recorded in the past an impairment loss of USD 23.1 million (EUR 20.2 million as at 31 December 2018) to reflect the recoverability of that receivable. Since no substantial developments have taken place during 2018, management considers that there is no reason to revise the impairment recorded in the past related to this overdue receivable. 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 31.

17.Cash and cash equivalents

Amounts in EUR thousands	**2018**	**2017**
Cash in hand and at banks	2,898	3,553
Short-term bank deposits	160,778	164,685
Total	**163,676**	**168,239**

Short term deposits have duration of less than 90 days and are available for use.

18.Property, plant and equipment

A. Reconciliation of carrying amount

Amounts in EUR thousands	Land,plants & other buildings	Machinery	Furniture & other equipment	Under construction	Total
Cost					
Balance as at 1 January 2018	**905,652**	**2,436,821**	**64,315**	**76,794**	**3,483,582**
Effect of movement in exchange rates	381	-1,254	20	37	**-817**
Additions	11,345	28,704	3,726	130,568	**174,342**
Disposals	-104	-2,154	-147	-402	**-2,807**
Reclassification to (-) /from investment property	321	0	0	0	**321**
Write offs	-157	-4,379	-201	0	**-4,737**
Reclassifications	14,282	54,682	592	-72,093	**-2,537**
Balance as at 31 December 2018	**931,720**	**2,512,419**	**68,303**	**134,905**	**3,647,348**
Accumulated depreciation					
Balance as at 1 January 2018	**-307,906**	**-1,373,516**	**-53,820**	**-4,708**	**-1,739,950**
Effect of movement in exchange rates	-149	723	-17	0	**557**
Depreciation	-20,576	-103,950	-3,715	0	**-128,240**
Disposals	95	1,541	112	0	**1,748**
Reclassification to/from Investment Property	-5	0	0	0	**-5**
Impairment loss	-1,100	0	0	0	**-1,100**
Reversal of previously recognized impairment loss	0	22	0	0	**22**
Write offs	67	3,168	197	0	**3,432**
Balance as at 31 December 2018	**-329,573**	**-1,472,012**	**-57,243**	**-4,708**	**-1,863,536**
Carrying amount as at 31 December 2018	**602,147**	**1,040,407**	**11,060**	**130,197**	**1,783,812**

Amounts in EUR thousands	Land,plants & other buildings	Machinery	Furniture & other equipment	Under construction	Total
Cost					
Balance as at 1 January 2017	**895,295**	**2,376,215**	**60,761**	**72,653**	**3,404,924**
Effect of movement in exchange rates	-1,146	-6,476	11	836	**-6,775**
Additions	12,026	17,704	3,238	75,314	**108,282**
Disposals	-622	-3,970	-481	-583	**-5,655**
Reclassification to (-) /from investment property	-7,981	0	0	0	**-7,981**
Reclassification to assets held for sale	0	-5,694	0	0	**-5,694**
Write offs	-2	-1,920	-204	-74	**-2,201**
Reclassifications	8,083	60,962	990	-71,352	**-1,317**
Balance as at 31 December 2017	**905,652**	**2,436,821**	**64,315**	**76,794**	**3,483,582**

Accumulated depreciation					
Balance as at 1 January 2017	**-293,832**	**-1,272,089**	**-51,138**	**-4,708**	**-1,621,768**
Effect of movement in exchange rates	554	3,582	111	0	**4,247**
Depreciation	-18,639	-110,583	-3,311	0	**-132,534**
Disposals	300	2,257	389	0	**2,946**
Reclassification to/from (-) investment property	4,835	0	0	0	**4,835**
Reclassification to assets held for sale	0	1,472	0	0	**1,472**
Impairment loss	0	-464	0	0	**-464**
Write offs	0	1,123	201	0	**1,324**
Reclassifications	-1,123	1,187	-71	0	**-8**
Balance as at 31 December 2017	**-307,906**	**-1,373,516**	**-53,820**	**-4,708**	**-1,739,950**
Carrying amount as at 31 December 2017	**597,746**	**1,063,304**	**10,495**	**72,086**	**1,743,632**

"Other reclassifications" line includes transfers of assets which were initially reported in the column "assets under construction" and upon completion, were transferred to the columns that describe their nature. Some of these assets have been transferred to "Intangible Assets". In 2018, "Other reclassifications" also include items which were transferred from inventory to PP&E.

B. Leased Buildings and Machinery

Viohalco's companies lease buildings and machinery under a number of finance leases. Leased equipment secures lease obligations.

The net carrying amount of finance leases is as follows:

Amounts in EUR thousands	**2018**	**2017**
Buildings		
Cost	1,394	1,394
Accumulated depreciation	-476	-407
Net carrying amount	**918**	**987**
Machinery		
Cost	21,171	19,679
Accumulated depreciation	-2,109	-938
Net carrying amount	**19,062**	**18,741**

C. Security

Property, plant & equipment with a carrying amount of EUR 1,323 million are mortgaged as security for borrowings received by Viohalco's companies (see Note 27).

D. Property, plant and equipment under construction

The most important items in property, plant and equipment under construction as of 31 December 2018 concern the following:

- Machinery not yet installed in Oinofyta's aluminium rolling plant,
- Steel segment's projects in Bulgaria relating to improve the quality of SBQs (Special Bar Quality) and increase its capacity as well by installing a quenching and tempering line and a third inspection line with an inline ultrasonic test.
- Productivity and capacity improvement investments in the cables segment's plants which are expected to be completed during 2019.

Capitalized borrowing costs related to property, plant and equipment under construction amount to EUR 2.2 million (2017: EUR 100 thousand), which have been calculated using an average capitalization rate of 3% (2017: 5.3%).
Additions in assets under construction also include capitalized depreciation equal to EUR 152 thousand (2017: EUR 426 thousand) and capitalized employee benefits equal to EUR 2,473 thousand (2017: EUR 2,536 thousand).

E. Transfer to and from investment property

During 2018, no significant amounts were transferred from/to investment property. In 2017 certain properties of Viohalco companies were transferred to investment property (see Note 20), because they will no longer be used for own purposes and are expected to be leased to third parties in the near future. As a result, a reclassification of properties with a carrying amount of EUR 3.3 million was made from property, plant and equipment to investment property.

F. Transfer to assets held for sale

In 2017, machinery owned by the subsidiary of Viohalco, Sofia Med S.A, with EUR 4.2 million net book value, was transferred to current assets held-for-sale, since the company has set a plan for the sale of these assets, within 2019 (see also Note 23).

G. Impairment loss of property, plant and equipment

On 31 December 2018, an impairment test was performed for each Cash Generating Unit (further CGU), for which indications of impairment loss existed as at 31 December 2018. 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 2018, since the recoverable amount of each CGU exceeded the respective carrying amount.
During 2018, certain machinery with NBV equal to EUR 1.2 million (2017: EUR 464 thousand), were written off, since they are no longer used by Viohalco's companies and they are not expected to bring economic benefits in the future since these assets became obsolete.
Also in 2018, an impairment loss of EUR 1.1 million (included in other activities segment) was recorded on the carrying amount of land, because there was no possibility anymore to construct on this specific plot, therefore its value was impaired to zero.

H. 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 2018. 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 2018.

I. Change in estimates

During 2018, Elvalhalcor S.A. amended the useful life of certain machinery since it was concluded that recent investments affected positively the future economic benefits to be realized from existing machinery in combination with the new assets.
The previous range of useful lives of these machinery items was 2 to 25 years and now it has been extended to 2 – 31 years.
The change in accounting estimate resulted in a reduction of the depreciation charge for 2018, equal to EUR 3.6 million. For 2019, the reduction will be EUR 6.2 million, for 2020 EUR 5.8 million and for 2021 EUR 3.7 million.

19.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 2018	**3,132**	**678**	**22,212**	**32,006**	**2,705**	**60,733**
Effect of movement in exchange rates	0	0	102	62	-12	**152**
Additions	0	523	2,865	3,163	113	**6,664**
Disposals	0	0	0	-6	0	**-6**
Reclassifications	0	67	1,710	1,563	-50	**3,289**
Balance as at 31 December 2018	**3,132**	**1,268**	**26,890**	**36,788**	**2,756**	**70,832**
Accumulated amortization and impairment loss						
Balance as at 1 January 2018	**-1,500**	**-501**	**-5,548**	**-25,928**	**-725**	**-34,202**
Effect of movement in exchange rates	0	0	-108	-101	7	**-202**
Amortization for the period	0	-107	-710	-3,191	-75	**-4,083**
Balance as at 31 December 2018	**-1,500**	**-607**	**-6,366**	**-29,220**	**-792**	**-38,486**
Carrying amount as at 31 December 2018	**1,632**	**660**	**20,523**	**7,567**	**1,964**	**32,346**

Amounts in EUR thousands	Goodwill	Development costs	Trademarks and licenses	Software	Other	Total
Cost						
Balance as at 1 January 2017	**3,132**	**498**	**21,176**	**28,017**	**2,894**	**55,715**
Effect of movement in exchange rates	0	0	0	-82	-11	**-93**
Additions	0	181	610	3,161	0	**3,952**
Disposals	0	0	-43	0	0	**-43**
Write-offs	0	0	0	-3	-112	**-115**
Reclassifications	0	-1	469	915	-65	**1,317**
Balance as at 31 December 2017	**3,132**	**678**	**22,212**	**32,006**	**2,705**	**60,733**
Accumulated amortization and impairment loss						
Balance as at 1 January 2017	**-1,500**	**-451**	**-4,873**	**-23,170**	**-1,064**	**-31,058**
Effect of movement in exchange rates	0	0	0	51	10	**60**
Amortization for the period	0	-51	-813	-2,417	-89	**-3,370**
Disposals	0	0	43	0	0	**43**
Write-offs	0	0	0	3	112	**115**
Reclassifications	0	1	95	-396	307	**8**
Balance as at 31 December 2017	**-1,500**	**-501**	**-5,548**	**-25,928**	**-725**	**-34,202**
Carrying amount as at 31 December 2017	**1,632**	**177**	**16,664**	**6,078**	**1,981**	**26,531**

B. Amortisation

The amortization of trademarks & 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 & 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.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 2018)

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, 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 2018). 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 of submarine cables of medium and high voltage. Since the acquisition of the subsidiary, significant investments for the upgrade and expansion of production capacity in producing high-voltage submarine cables took place. Since 2014, the production started as planned. The useful life of the asset is considered indefinite, since the use of these port facilities is for an indefinite period of time, in the context of the significant development of the sector.

ii. Intangible assets recognized for the CGU "Reynolds" (carrying amount of EUR 1.5 million as at 31 December 2018).

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.

E. 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. In order to evaluate the value in use, cash flow projections based on estimates by management covering a five-year period 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 in 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 Fulgor's plant, starting from 2019 based on contracts already awarded.

- Capital expenditure of approx. EUR 37 million in the following 5 years, in order to cover estimated production and capacity needs.
- Compound annual growth rate of revenue from offshore business for the five-year period at ca. 23% attributable to assignment of new projects mainly in Greece and North Europe.
- Profitability per offshore project in terms of EBITDA at ca. 15%-25% of revenue. Estimated profitability per project varies mainly due to different type of cable and technical specifications, geographic region and project's timeframe.
- Compound annual growth rate of fixed operating expenses at ca. 4.1% for the five-year period.

Cash flows after the first five years were calculated using an estimated growth rate of 1.45%, which mainly reflects management's estimates for the growth prospects of the high voltage submarine cable sector. The pre-tax rate used to discount these cash flows is from 11.6% to 9.2% for the five year period and 9.8% for the terminal value and was based on the following:

- Risk free rate was determined according to AAA Eurozone rates in the range of -0.68% to -0.16% for the five years and 0.49% for the terminal value.
- The country risk for operating in Greece determined in the range of 1.2% to 1.6% for the first five years and 1.7% for the terminal value.
- The market risk premium was determined at 5.1%

Despite the fact that the commodity prices for copper and aluminum are part of the assumptions for the impairment test performed, due to the hedging activities undertaken and the customized nature of the products sold by Fulgor, the value of the business unit is not significantly affected by fluctuations in commodity prices. 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 as at December 31, 2018 exceeds the carrying amount of the CGU amounting to EUR 172 million by EUR 292 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	*11.6% to 9.2%*	*+9.7 ppc*
Terminal growth	*1.45%*	*-19.3 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 0.5%, which reflects management's estimates for the growth prospects for the market. The pre-tax rate used to discount these cash flows is 5.9% for the five year period and for the terminal value and was based on the following:

- Risk free rate was determined according to AAA Eurozone rates and has a range from -0.7% for the five years to 0.1% for the terminal value.
- The market risk premium (which includes country risk for operating in France) was determined at 5.1%

Average revenue growth rate for the 5 year period is 3.6%, and the average opex increase percentage is 2%. Average capex equal to EUR 75 thousand.

The results of this test indicated that the recoverable amount as at 31 December 2018 exceeds the carrying value of the CGU amounting to EUR 8.5 million by EUR 4.8 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	*5.9%*	*+2.4ppc*
Terminal growth	*0.5%*	*-3.1ppc*

20.Investment property

A. *Reconciliation of carrying amount*

Amounts in EUR thousands	**2018**	**2017**
Balance as at 1 January	**165,247**	**155,553**
Acquisitions	12,391	10,180
Disposals	0	-178
Reversal of impairment loss	0	149
Transfers from property, plant and equipment	0	3,261
Transfers to property, plant and equipment	-315	-115
Depreciation	-3,612	-3,603
Balance as at 31 December	**173,710**	**165,247**
Gross carrying amount	251,050	238,979
Accumulated depreciation and impairment losses	-77,339	-73,733
Net carrying amount as at 31 December	**173,710**	**165,247**

Investment property comprises a number of commercial 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 2018, Viohalco invested an amount of EUR 12.4 million (EUR 10.2 million in 2017) for the acquisition and improvement of investment properties. The majority of the amount invested refers to the construction works in progress for the completion of two office buildings in Athens and additions in other properties.

B. Measurement of fair value – Accumulated impairment losses
The accumulated impairment loss carried forward amounts to EUR 45.1 million. Based on management's assessment, during the current period, there were neither indications for impairment nor indications for reversal of previously recorded impairment losses. The fair value of investment property held by Viohalco and its subsidiaries in the Real Estate Development sector amounts to EUR 182 million (2017: EUR 171.4 million). Fair values are based on valuations by independent valuers who hold recognised and relevant professional qualifications.

21. Equity-accounted investees

A. Reconciliation of carrying amount of associates and joint ventures

Amounts in EUR thousands	2018	2017
Balance as at 1 January	**16,956**	**17,594**
Share of profit / loss (-) net of tax	-1,934	-181
Dividends received	-395	-299
Effects on movement in exchange rates	-1,581	-581
Additions	15,700	501
Share capital increase	3,320	0
Share capital reduction	0	-78
Balance as at 31 December	**32,066**	**16,956**

B. Financial information per associate and joint venture

2018

Company	Principal place of business	Segment	Associate/JV	Current Assets	Non-Current Assets	Non-Current Liabilities	Current Liabilities	Revenue	Profit or loss from continuing operations	Direct Ownership interest	Ultimate ownership interest
Amounts in EUR thousands											
UACJ ELVAL CONSULTING S.A.	Greece	Aluminum	Associate	133	2	0	-31	144	0	50.00%	45.72%
DOMOPLEX LTD	Cyprus	Steel	Associate	2,774	1,993	0	-3,587	4,716	70	45.00%	45.00%
AO TMK-CPW	Russia	Steel Pipes	Associate	44,813	6,070	-16	-29,981	53,565	1,432	49.00%	39.09%
SMARTREO	Australia	Steel	Associate	49	1,801	-1	-156	1,341	-1,750	50.00%	50.00%
AWM SPA	Italy	Steel	Associate	14,732	7,019	-2,332	-11,845	14,329	-320	34.00%	34.00%
HC ISITMA A.S.	Turkey	Copper	Joint Venture	1,008	465	-5	-29	530	-66	50.00%	45.72%
U.E.H.E.M GmbH	Germany	Aluminum	Associate	9,529	33	0	-8,523	41,013	644	49.00%	44.81%
NEDZINK B.V.	Netherlands	Copper	Joint Venture	26,366	25,275	-21,496	-21,777	84,622	-6,492	50.00%	45.72%

2017

Company	Principal place of business	Segment	Associate/JV	Current Assets	Non-Current Assets	Non-Current Liabilities	Current Liabilities	Revenue	Profit or loss from continuing operations	Direct Ownership interest	Ultimate ownership interest
Amounts in EUR thousands											
UACJ ELVAL CONSULTING S.A.	Greece	Aluminum	Associate	221	3	0	-119	197	20	50.00%	45.72%
DOMOPLEX LTD	Cyprus	Steel	Associate	2,829	2,395	0	-4,115	3,645	-40	45.00%	45.00%
AO TMK-CPW	Russia	Steel Pipes	Associate	26,720	7,622	-14	-11,321	54,135	444	49.00%	39.09%
SMARTREO	Australia	Steel	Associate	853	3,103	-3,101	-1,263	3,891	-1,111	50.00%	50.00%
AWM SPA	Italy	Steel	Associate	9,301	7,137	-2,985	-5,650	6,388	40	34.00%	34.00%
HC ISITMA A.S.	Turkey	Copper	Joint Venture	379	633	-6	-99	1,177	243	50.00%	45.72%
U.E.H.E.M GmbH	Germany	Aluminum	Associate	8,033	73	0	-7,128	36,263	452	49.00%	44.81%

During 2018, ElvalHalcor (subsidiary of Viohalco) acquired 50% of Netherlands-based NedZink B.V. at a cost of EUR 15.7 million in order to establish a joint venture with the aim of developing titanium zinc.

In addition, Viohalco’ s subsidiariesElvalHalcor and Stomana (through its subsidiary-Jodstex), participated in share capital increases of EUR 1.8 million and EUR 1.5 million in HC ISITMA and Smartreo respectively.

Part of the amounts above are owed to the related parties as at 31 December 2018 (see note 38).

Aforementioned financial information is presented considering the following:
(a) There are no 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

UACJ Elval Consulting is a joint establishment between ElvalHalcor and UACJ Corp.. It is active in the promotion of aluminium products to manufacturers of automotive heat exchangers in Europe.

UEHEM 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.

Smartreo manufactures prefabricated reinforcing steel for the Australian market using Synthesis™ in conjunction with other state-of-the-art technologies at a high-tech facility situated in Wacol, Brisbane. The company is a joint establishment between Stomana through its subsidiary (Jodstex) and Thiess, one of Australia's biggest construction companies.

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 in high quality zinc applications.

22.Other investments

The effect of initially applying IFRS 9 in Viohalco's equity securities is described in note 6. Due to the transition method chosen in applying IFRS 9, comparative information has not been restated to reflect the new requirements.

At 1 January 2018, Viohalco designated the investments shown below as equity securities at FVOCI because these equity securities represent investments that the Viohalco intends to hold for the long term for strategic purposes. In 2017, these investments were classified as available for sale – see note 6.

The movement of equity securities, as well as their analysis is presented below:

Amounts in EUR thousands	2018	2017
Balance as at 1 January	**9,573**	**9,291**
Additions	13	400
Disposals	-569	0
Change in fair value through profit or loss	0	-111
Change in fair value through equity	-395	122
Reclassifications	-84	-130
Balance as at 31 December	**8,538**	**9,573**

Amounts in EUR thousands	2018	2017
Listed securities		
-Greek equity instruments	132	130
-International equity instruments	2,511	2,508
-Mutual funds	1,613	2,381
Unlisted securities		
-Greek equity instruments	3,864	4,146
-International equity instruments	398	386
-Other	20	20
Total	**8,538**	**9,573**

23.Assets held for sale

In 2017, machinery owned by the subsidiary of Viohalco, Sofia Med S.A, with net book value equal to EUR 4.2 million, was transferred to current assets held-for-sale from property, plant and equipment since the company had an initial plan for the sale of these assets within 2018. However, due to difficulties in the process of preparing the machinery and the relocation site at a technical level, the sale has been rescheduled for 2019.

The cost of these assets is EUR 5.7 million and the accumulated depreciation is EUR 1.5 million. The value of the assets is presented in copper segment.

The company assigned to an external, independent valuer to determine the fair value of these assets. The valuation technique which was considered the most appropriate was the cost approach. This approach is commonly adopted for specialized plant & equipment particularly and it considers the current replacement costs of replicating the manufacturing facility, including the costs of transportation, installation and start-up.

The most significant unobservable inputs used were the following:
Functional obsolescence < 5%
Economical obsolescence = 10%
Effective life 75% of Actual Asset life.

According to the valuation, the fair value of the assets, less costs to sell, was equal to EUR 5.4 million, which is higher than the carrying amount, therefore the assets were re-classified based on their carrying amount.

24.Derivatives

The following table sets out the carrying amount of derivatives:

Amounts in EUR thousands	2018	2017
Non-current assets		
Forwards	3	2
Future contracts	0	259
Total	**3**	**262**
Current assets		
Forwards	1,425	2,166
Future contracts	5,584	5,440
Total	**7,009**	**7,606**
Non-current liabilities		
Forwards	0	1,281
Future contracts	101	0
Total	**101**	**1,281**
Current liabilities		
Forwards	6,278	5,097
Future contracts	7,220	3,781
Total	**13,498**	**8,878**

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

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 concerns 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, aluminum and zinc). Such hedges are designated as cash flow hedges.
- F-X Forward and F-X 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. F-X Forwards and F-X swaps when used for hedging f-x risk on outstanding receivables and suppliers denominated in foreign currency these instruments are designated under fair value hedging. F-X forwards when used for hedging f-x risk on the forecasted sales of goods or purchase of materials executed in foreign currency f-x forward is hedging instruments designated under the cash flow method.

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 of 31 December 2018 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 P&L statement) within 2019 and some others at a later stage.

Viohalco's companies' results from the hedging activities recorded in the statement of profit or loss are presented for metal future contracts and foreign exchange 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	2018	2017
Gain / loss (-) on future contracts	12,555	-5,096
Gain / loss (-) on FX forward contracts	-7,946	-6,584
	4,609	**-11,680**

Profit or loss related to derivatives used for cash flow hedging and recognized in other comprehensive income (Hedging reserve) as at 31 December 2018 will be recycled to profit or loss during the next financial years.

25.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) Fair value reserve

Fair value reserve is comprised of:

- the hedging reserve which include 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; and
- the cumulative net change in the fair value of the equity securities (2017: available for sale financial assets) until the assets are derecognized (and therefore transferred to retained earnings).

(c) 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.

(d) 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	Fair Value reserve	Special reserves	Tax exempt reserves	Other reserves	Total
Balance as at 1 January 2018	**35,528**	**3,382**	**59,753**	**297,941**	**10,012**	**406,616**
Other comprehensive income	0	-4,733	0	0	0	**-4,733**
Transfer of reserves and other movements	1,902	-3,032	-123	-141	3,925	**2,532**
Acquisition of NCI	16	0	0	9	0	**25**
Change in ownership interests	-64	0	0	0	-5	**-69**
Balance as at 31 December 2018	**37,382**	**-4,384**	**59,630**	**297,809**	**13,933**	**404,370**

Amounts in EUR thousands	Statutory reserves	Fair Value reserve	Special reserves	Tax exempt reserves	Other reserves	Total
Balance as at 1 January 2017	**31,975**	**-1,750**	**58,759**	**294,860**	**11,719**	**395,563**
Other comprehensive income	0	4,972	0	0	0	**4,972**
Transfer of reserves and other movements	1,200	0	943	1,357	-626	**2,874**
Acquisition of NCI	29	0	0	57	0	**85**
Change in ownership interests	2,324	160	51	1,667	-1,081	**3,122**
Balance as at 31 December 2017	**35,528**	**3,382**	**59,753**	**297,941**	**10,012**	**406,616**

Acquisition of NCI in 2017 and in 2018, and change in ownership interests of 2017 are further explained in note 33.

26.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 Earnings before Interest and Tax (EBIT) divided by total Capital Employed, (i.e. equity and 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.

27.Loans and borrowings

A. Overview

Amounts in EUR thousands	2018	2017
Non-current liabilities		
Secured bank loans	209,699	113,559
Unsecured bank loans	24,351	31,039
Secured bond issues	600,298	531,808
Unsecured bond issues	40,454	19,834
Finance lease liabilities	22,004	22,476
Total	**896,806**	**718,716**
Current liabilities		
Secured bank loans	207,275	191,859
Unsecured bank loans	564,262	471,156
Current portion of secured bank loans	46,605	93,509
Current portion of unsecured bank loans	7,337	13,382
Current portion of secured bond issues	67,905	194,340
Current portion of unsecured bond issues	6,084	10,152
Current portion of finance lease liabilities	3,087	2,673
Total	**902,555**	**977,071**
Total loans and borrowings	**1,799,361**	**1,695,787**

Information about the Viohalco's companies' exposure to interest rate, foreign currency and liquidity risk is included in Note 31.

The maturities of non-current loans are as follows:

Amounts in EUR thousands	2018	2017
Between 1 and 2 years	177,602	145,190
Between 2 and 5 years	625,233	499,926
Over 5 years	93,970	73,600
Total	**896,806**	**718,716**

The effective weighted average interest rates of the main categories of loans and borrowings at the reporting date are as follows:

2018	**Carrying amount**	**Interest rate**
Bank loans (non-current)-EUR	275,656	4.10%
Bank loans (non-current)-GBP	7,825	2.41%
Bank loans (current)-EUR	655,916	4.55%
Bank loans (current)-USD	79,699	5.93%
Bank loans (current)-GBP	20,143	3.51%
Bond issues-EUR	714,742	4.25%
Finance lease liabilities-EUR	25,092	6.12%

2017	Carrying amount	Interest rate
Bank loans (non-current)-EUR	239,069	4.89%
Bank loans (non-current)-GBP	12,399	2.02%
Bank loans (current)-EUR	608,222	5.45%
Bank loans (current)-USD	25,549	5.77%
Bank loans (current)-GBP	21,008	3.17%
Bond issues-EUR	756,134	4.43%
Finance lease liabilities-EUR	25,149	6.06%

The majority of Viohalco companies' loans are Euro denominated.

In the third quarter of 2018, the subsidiaries of energy segment (cables and steel pipes) have signed the extension of syndicated bond loans of EUR 86 million initially obtained in 2013, for another 5 years with improved pricing terms, while covenants and collaterals remain largely unchanged.

Moreover, the syndicated bond loans of the steel segment, with an outstanding balance of EUR 244 million as of 31 December 2018 and initial maturity in 2020, were prolonged by the syndication for three years until 2023 with improved pricing, while covenants and collaterals largely remained unchanged.

Additionally, during the last quarter of 2018 ElvalHalcor S.A., after successful negotiations with the Syndication, signed amendments of the existing Syndicated Bond contracts with a current balance of EUR 275 million with a significant reduction in the interest margin. Meanwhile, in 2018 the aluminium division of ElvalHalcor disbursed EUR 70 million from the loan contract with European Investment Bank (EIB), signed during 2017 and part of the EUR 65 million ECA Financing with Commerzbank (around EUR 7.5 million). Both these loans relate to the financing of ElvalHalcor's new EUR 150 million investment program.

Furthermore, in 31 December 2018, the Bulgarian subsidiary Sofia Med signed the renewal of its syndicated loan (EUR 60 million) for an additional seven year period and with EBRD a new EUR 25 million capital expenditure financing facility with similar maturity.

The average interest rate of the outstanding bank loans as at 31 December 2018 was 4.6% (5.4 % as at 31 December 2017).
Property, plant and equipment and inventories of some subsidiaries carry mortgages and liens for a total amount of EUR 1,664 million, as collaterals for long term loans and syndicated loans.
For the bank loans of Viohalco's companies, there are clauses of change of control that provide the lenders with an early redemption clause.
There was no incident in 2018 of breach of covenants of the loans of Viohalco companies.

B. Finance leases liabilities

Finance lease liabilities are payable as follows:

Amounts in EUR thousands	2018	2017
Future minimum lease payments		
Up to 1 year	4,596	4,167
From 1 and 5 years	17,196	16,342
Over 5 years	28,411	30,546
Total	**50,202**	**51,055**
Less: Future finance lease interest charges	-25,111	-25,906
Present value finance lease obligations	**25,092**	**25,149**

C. Reconciliation of movements of liabilities to cash flows from financing activities

Amounts in EUR thousands	Loans and Borrowings	Finance Leases	Total
Balance at 1 January 2018	**1,670,638**	**25,149**	**1,695,787**
Changes from financing cash flows			
Proceeds from loans and borrowings	369,963	0	369,963
Repayment of borrowings & finance lease liabilities	-271,341	-4,801	-276,142
Total changes from financing cash flows	**98,621**	**-4,801**	**93,820**
Other changes			
Capitalised borrowing costs	2,219	0	2,219
New finance leases	0	3,230	3,230
Interest expense	83,342	1,552	84,894
Interest paid	-80,027	0	-80,027
Effect of changes in foreign exchange rates	-560	-2	-562
Total other changes	**4,973**	**4,780**	**9,753**
Balance at 31 December 2018	**1,774,232**	**25,129**	**1,799,361**

Amounts in EUR thousands	Loans and Borrowings	Finance Leases	Total
Balance at 1 January 2017	**1,688,996**	**10,218**	**1,699,214**
Changes from financing cash flows			
Proceeds from loans and borrowings	285,370	0	285,370
Repayment of borrowings & finance lease liabilities	-306,268	-2,650	-308,918
Total changes from financing cash flows	**-20,898**	**-2,650**	**-23,548**
Other changes			
Capitalised borrowing costs	100	0	100
New finance leases	0	16,454	16,454
Interest expense	90,681	1,069	91,750
Interest paid	-87,364	0	-87,364
Effect of changes in foreign exchange rates	-877	58	-819
Total other changes	**2,540**	**17,581**	**20,121**
Balance at 31 December 2017	**1,670,638**	**25,149**	**1,695,787**

28.Trade and other payables

Amounts in EUR thousands	Note	2018	2017
Suppliers		522,170	404,878
Notes payable		42,810	63,123
Down payments from customers		0	11,744
Social security funds	12	10,918	10,056
Amounts due to related parties	38	14,570	2,691
Sundry creditors		19,969	18,452
Deferred income		0	174
Accrued expenses		31,860	30,681
Taxes-duties		27,571	20,908
Total		**669,867**	**562,706**
Non-current balance of trade and other payables		8,324	18,292
Current balance of trade and other payables		661,544	544,414
Balance as at 31 December		**669,867**	**562,706**

The fluctuation in trade and other payables mainly relates to increased purchases of raw materials during 2018 for the ongoing projects and the purchase of materials to serve the expected increase in sales quantities.

29.Grants

Amounts in EUR thousands	Note	2018	2017
Balance as at 1 January		**43,088**	**46,468**
Collection of grants		501	609
Amortisation of grants	9	-3,970	-3,986
Foreign exchange differences		0	-3
Balance as at 31 December		**39,618**	**43,088**

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 of 31 December 2018.

30.Provisions

Non-current

Amounts in EUR thousands	Pending court rulings	Other provisions	Total
Balance as at 1 January 2018	**138**	**4,279**	**4,416**
Foreign exchange differences	0	-8	-8
Additional provisions of the fiscal year	25	0	25
Provisions reversed	-40	-109	-148
Provisions used	0	-213	-213
Balance as at 31 December 2018	**123**	**3,948**	**4,071**

Amounts in EUR thousands	Pending court rulings	Other provisions	Total
Balance as at 1 January 2017	**210**	**3,653**	**3,863**
Foreign exchange differences	0	-37	-37
Additional provisions of the fiscal year	0	1,546	1,546
Reclassifications from / to(-) short term provisions	-72	5	-67
Provisions reversed	0	-231	-231
Provisions used	0	-658	-658
Balance as at 31 December 2017	**138**	**4,279**	**4,416**

Current

Amounts in EUR thousands	Pending court rulings	Other provisions	Total
Balance as at 1 January 2018	**273**	**377**	**650**
Foreign exchange differences	0	-6	-6
Additional provisions of the fiscal year	0	137	137
Provisions used	-141	-102	-243
Balance as at 31 December 2018	**131**	**407**	**538**

Amounts in EUR thousands	Pending court rulings	Other provisions	Total
Balance as at 1 January 2017	**88**	**327**	**415**
Foreign exchange differences	0	-4	-4
Additional provisions of the fiscal year	261	257	518
Reclassifications from / to(-) long term provisions	72	-5	67
Provisions used	-149	-197	-346
Balance as at 31 December 2017	**273**	**377**	**650**

Other provisions mainly relate to to environmental obligations and tax issues which have not been settled yet.

31.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 2018					
Amounts in EUR thousands	**Carrying amount**	**First Level**	**Second Level**	**Third Level**	**Total**
Other investments	8,538	4,256	1,463	2,819	**8,538**
Derivative financial assets	7,012	5,199	1,814	0	7,012
	15,550	**9,455**	**3,277**	**2,819**	**15,550**
Derivative financial liabilities	-13,599	-8,277	-5,322	0	**-13,599**
	1,951	**1,177**	**-2,045**	**2,819**	**1,951**

31 December 2017					
Amounts in EUR thousands	**Carrying amount**	**First Level**	**Second Level**	**Third Level**	**Total**
Other investments	9,573	5,020	1,607	2,945	**9,573**
Derivative financial assets	7,868	5,691	2,177	0	**7,868**
	17,440	**10,711**	**3,784**	**2,945**	**17,440**
Derivative financial liabilities	-10,159	-8,427	-1,731	0	**-10,159**
	7,282	**2,284**	**2,053**	**2,945**	**7,282**

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

Specifically, the carrying amount of loans and borrowings is considered as a good approximation of their fair value as:

- 97% of consolidated Loans and borrowings concern floating-rate debt, which are a very good approximation of current market rates;
- As for fixed-rate instruments (EUR 53 million as of 31 Dec 2018), the fair value test based on current market rates indicates that their fair value also approximates their carrying amount.

The following table shows reconciliation between opening and closing balances for Level 3 financial assets:

Amounts in EUR thousands	Other investments	Financial instruments at fair value through profit or loss
Balance at 1 January 2018	2,945	0
Additions	13	0
Disposals	-56	0
Reclassifications	-84	0
Balance at 31 December 2018	**2,819**	**0**
Balance at 1 January 2017	**3,005**	**9**
Additions	400	0
Impairment loss (-)/ Reversal of impairment loss	-111	0
Reclassifications	-349	-9
Balance at 31 December 2017	**2,945**	**0**

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 value of financial assets is determined by their offer price, while the fair value of financial liabilities is determined by their bid price.

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	Not applicable	Not applicable
	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	Broker quotes	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: 0.9% - Market risk premium: 6.2% - Expected tax expense rate: 28% - WACC for the most significant investment: 6.9%	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 2018 or in 2017.

C. Financial risk management

Viohalco and its companies are exposed to credit, liquidity and market risk due to the use of its financial instruments. This Note sets forth information on their exposure to each one of the above risks, their objectives, the policies and procedures applied to risk measurement and management and Viohalco's Capital Management (note 26). More quantitative particulars on these disclosures are included in the entire range of the Consolidated Financial Statements.

The risk management policies are applied in order to identify and analyze the risks facing Viohalco and its companies, set risk-taking limits and apply relevant control systems. The risk management policies and relevant systems are examined from time to time so as to take into account any changes in the market and the companies' activities.

The implementation of risk management policies and procedures is supervised by the Internal Audit department, 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 and contract assets.

The carrying amount of financial assets represents the maximum credit exposure.

Amounts in EUR thousands	Note	2018	2017
Trade & other receivables	16	557,520	516,086
Contract assets	8	117,428	0
Less:			
Other downpayments	16	-9,121	-9,752
Tax assets	16	-42,630	-46,324
Other non-financial assets		-12,727	-8,182
		610,469	**451,829**
Other investments	22	8,538	9,573
Cash and cash equivalents	17	163,676	168,239
Derivatives	24	7,012	7,868
		179,226	**185,679**
Total		**789,695**	**637,508**

(a) Trade and other receivables

Viohalco companies' exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, the companies' management also considers the factors that may influence the credit risk of its customer base, including the default risk of the industry and country in which customers operate. No client exceeds 10% of consolidated sales and, consequently, commercial risk is spread over a large number of clients.

Viohalco's companies have established a credit policy on the basis under which each new customer is examined on an individual basis in terms of creditworthiness before the standard payment and delivery terms are proposed to such customer. Viohalco's companies review includes external ratings, if they are available, and in some cases bank references. Credit limits are set for each customer, which are reviewed in accordance with current circumstances and the terms of sales and collections are readjusted, if necessary. As a rule, the credit limits of customers are set on the basis of the insurance limits received for them from insurance companies and, subsequently, receivables are insured according to such limits.

When monitoring the credit risk of customers, the latter are grouped according to their credit characteristics, the maturity characteristics of their receivables and any past problems of receivability they have shown. Trade and other receivables mainly include wholesale customers of Viohalco's companies. Any customers characterized as being "high risk" are included in a special list of customers and subsequent sales must be paid in advance. Depending on the background of the customer and its status, Viohalco's companies demand real or other security (e.g. letters of guarantee) in order to secure its receivables, if possible.

Viohalco's companies record an impairment loss that represents its estimate of incurred 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	**2018**	**2017**
Greece	194,839	177,536
Other EU member states	223,017	160,886
Other European countries	65,708	46,790
Asia	28,591	26,388
America	88,404	23,147
Africa	9,561	13,324
Oceania	348	3,757
Total	**610,469**	**451,829**

At 31 December, the ageing of trade and other receivables and contract assets that were not impaired was as follows:

Amounts in EUR thousands	**2018**	**2017**
Neither past due nor impaired	505,659	358,234
Overdue		
- Up to 6 months	77,404	63,646
- Over 6 months	27,406	29,949
Total	**610,469**	**451,829**

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, including underlying customers' credit ratings wheneverthey are available.

Viohalco subsidiaries insure significant portion of their receivables in order to be secured in case of default. As at 31 December 2018, 64% of the balances owed to 3rd parties were insured.

The movement in impairment of trade and other receivables and contract assets is as follows:

Amounts in EUR thousands	**2018**			**2017**		
	Trade & other receivables	**Contract assets**	**Total**	**Trade & other receivables**	**Contract assets**	**Total**
Balance as at 1 January	**68,595**	**0**	**68,595**	**58,011**	**0**	**58,011**
Adjustment on initial application of IFRS 9	5,224	148	5,372	0	0	0
Restated balance as at 1 January	**73,818**	**148**	**73,966**	**58,011**	**0**	**58,011**
Impairment loss recognized	922	97	1,020	14,168	0	14,168
Amounts written off	-1,450	0	-1,450	-1,651	0	-1,651
Impairment loss reversed	-688	-4	-692	-271	0	-271
Foreign exchange differences	859	0	859	-1,663	0	-1,663
Balance as at 31 December	**73,461**	**242**	**73,703**	**68,595**	**0**	**68,595**

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 credit loss experience

combined with forward-looking information in macroeconomic factors effecting the credit risk, such as country risk and customers' industry related risks.
Expected loss rates are updated at every reporting date.
In 2017, an impairment loss of EUR 8.9 million was recognised, concerning a former customer in the Middle-East (see Note 16.B).

The following collateral exists for securing non-insured receivables from customers and contract assets:

Amounts in EUR thousands	2018	2017
Cash collateral	1,158	823
Letter of credit	26,999	23,782
Collateral on property	2,707	840
Personal guarantees	69	0
Payables which can be offset by receivables	10,134	2,450
Other	3,668	4,162
Total	**44,735**	**32,057**

(b) Cash and cash equivalents
Viohalco and its subsidiaries held cash and cash equivalents of EUR 164 million at 31 December 2018 (2017: EUR 168 million). The cash and cash equivalents are held with bank and financial institution counterparties, which are rated from A2 to Caa2 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 subsidiaries will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The approach to manage liquidity is to ensure, as much as possible, that they will have sufficient liquidity to meet their liabilities when they are due, under both normal and stressed conditions, without incurring unacceptable losses or risking damage to their reputation.
In order to avoid liquidity risks, Viohalco subsidiaries aim to maintain the level of their cash and cash equivalents at an amount in excess of expected cash outflows on financial liabilities (other than trade payables) over the next quarter days. They also monitor the level of expected cash inflows on trade and other receivables together with expected cash outflows on trade and other payables.
This excludes the potential impact of extreme circumstances that cannot reasonably be predicted.
Steelmet S.A., Viohalco's subsidiary, provides support services to other Viohalco subsidaries, when agreeing financing terms with credit institutions in Greece and other countries.

Exposure to liquidity risk
Financial liabilities and derivatives based on contractual maturity are broken down as follows:

2018						
Amounts in EUR thousands	**Carrying Amount**	**< 1year**	**1-2 years**	**2-5 years**	**> 5 years**	**Total**
Liabilities						
Bank loans	1,059,527	840,404	59,894	160,328	41,435	**1,102,061**
Bond issues	714,742	93,338	154,493	512,416	58,463	**818,711**
Finance lease obligations	25,092	4,596	4,593	12,603	28,411	**50,202**
Derivatives	13,599	13,498	101	0	0	**13,599**
Trade and other payables	669,867	661,544	4,843	2,348	1,133	**669,867**
	2,482,827	**1,613,380**	**223,924**	**687,695**	**129,442**	**2,654,440**

2017						
Amounts in EUR thousands	**Carrying Amount**	**< 1year**	**1-2 years**	**2-5 years**	**> 5 years**	**Total**
Liabilities						
Bank loans	914,503	786,625	40,926	94,443	24,855	**946,849**
Bond issues	756,134	230,443	125,771	448,644	49,920	**854,778**
Finance lease obligations	25,149	4,167	4,353	11,990	30,546	**51,055**
Derivatives	10,159	8,878	1,281	0	0	**10,159**
Trade and other payables	562,706	545,813	10,789	7,434	1,143	**565,178**
	2,268,651	**1,575,925**	**183,118**	**562,511**	**106,463**	**2,428,018**

Viohalco's companies have syndicated loans that contain certain financial covenants. The ratios most commonly used are "Total liabilities / total equity", "Net debt / total sales" and "Current assets / current liabilities". A future breach of covenants may require the companies to repay the loans earlier than indicated in the above table. Under the agreement, the covenants are monitored on regular basis by Steelmet S.A. and regularly reported to companies' management to ensure compliance with the agreements.

C.3. Market risk

Market risk is the risk that changes in the 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.

All such transactions are carried out through Steelmet S.A. Generally, the companies seek to apply hedge accounting to manage volatility in profit or loss.

(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 mainly EUR, USD and GBP.

Over time, Viohalco's companies hedge the greatest part of its estimated exposure to foreign currencies in relation to the anticipated sales and purchases, as well as to the receivables and liabilities in foreign currency. Viohalco's companies enter mainly into forward contracts with external counterparties so as to deal with the risk of the exchange rates varying, which mainly expire within less than a year from the reporting date. When deemed necessary, these contracts are renewed upon expiry. As the case may be, the foreign exchange risk may also be covered by taking out loans in the respective currencies.

Loan interest is denominated in the same currency with that of cash flows, which arises from the Viohalco's companies' operating activities.

The investments of Viohalco and its companies in their subsidiaries are not hedged, because these exchange positions are considered to be long-term and have been made mainly in EUR.

The summary quantitative data about Viohalco and its companies' exposure to currency risk as reported is as follows.

2018

Amounts in EUR thousands	USD	GBP	BGN	RSD	RON	Other	Total at risk	EUR	Total
Trade and other receivables	78,766	22,116	24,097	2,412	27,198	7,935	162,524	394,996	557,520
Contract assets	47,113	0	0	0	0	0	47,113	70,315	117,428
Loans and borrowings	-79,699	-27,969	-10,199	0	-5,579	-4,510	-127,955	-1,671,405	-1,799,360
Trade and other payables	-57,987	-38,283	-50,126	-571	-12,120	-1,225	-160,312	-509,556	-669,867
Contract liabilities	-719	-5	-1,175	-324	-360	-6	-2,590	-75,276	-77,866
Cash & cash equivalents	40,934	494	5,280	434	1,900	558	49,601	114,075	163,676
	28,407	**-43,646**	**-32,122**	**1,951**	**11,039**	**2,752**	-31,619	**-1,676,851**	**-1,708,470**
Derivatives for risk hedging (Nominal Value)	-97,085	-11,934	0	0	0	-1,251	-110,270	0	-110,270
Exposure	**-68,678**	**-55,580**	**-32,122**	**1,951**	**11,039**	**1,501**	-141,889	**-1,676,851**	**-1,818,740**

2017

Amounts in EUR thousands	USD	GBP	BGN	RSD	RON	Other	Total at risk	EUR	Total
Trade and other receivables	44,991	26,478	14,919	3,533	20,362	9,172	119,455	396,631	516,086
Loans and borrowings	-25,549	-33,407	-3,897	0	-4,339	-21	-67,213	-1,628,574	-1,695,787
Trade and other payables	-51,264	-16,142	-29,056	-656	-12,804	-4,252	-114,174	-448,532	-562,706
Cash & cash equivalents	20,827	1,500	4,973	390	2,066	729	30,485	137,753	168,239
	-10,995	**-21,570**	**-13,061**	**3,267**	**5,284**	**5,629**	**-31,447**	**-1,542,721**	**-1,574,168**
Derivatives for risk hedging (Nominal Value)	-118,710	-12,253	0	0	0	2	-130,961	0	-130,961
Exposure	**-129,706**	**-33,823**	**-13,061**	**3,267**	**5,284**	**5,631**	**-162,408**	**-1,542,721**	**-1,705,129**

"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**	
	2018	**2017**	**2018**	**2017**
USD	1.18	1.13	1.15	1.20
GBP	0.88	0.88	0.89	0.89
BGN	1.96	1.96	1.96	1.96
RSD	118.27	121.34	118.19	118.47
RON	4.65	4.57	4.66	4.66

Viohalco is primarily exposed to changes of Euro against US dollar, pound sterling, DINAR or 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 1.956 BGN/EUR.

Amounts in EUR thousands	Profit or loss EUR Strengthening	 EUR Weakening	Equity, net of tax EUR Strengthening	 EUR Weakening
2018				
USD (10% movement)	-2,494	2,494	3,646	-3,646
GBP (10% movement)	3,946	-3,946	3,946	-3,946
RSD (10% movement)	-784	784	-784	784
RON (10% movement)	-139	139	-139	139
2017				
USD (10% movement)	1,190	-1,190	9,209	-9,209
GBP (10% movement)	2,192	-2,192	2,401	-2,401
RSD (10% movement)	-232	232	-232	232
RON (10% movement)	-375	375	-375	375

(b) Interest rate risk:

Viohalco's subsidiaries during the prolonged low interests period have adopted a flexible policy of ensuring that between 0% and 20% of its interest rate risk exposure is at a fixed rate. This is achieved mostly by borrowing at a floating rate and in certain circumstances by entering into fixed–rate instruments. The interest rate profile of Viohalco's companies' interest-bearing financial instruments, as reported is as follows.

Amounts in EUR thousands	Nominal amount 2018	 2017
Fixed-rate instruments		
Financial liabilities	-52,535	-55,282
Variable-rate instruments		
Financial liabilities	-1,746,826	-1,640,505

Fair value sensitivity analysis for fixed-rate instruments

Viohalco does not account for any fixed-rate financial assets or financial liabilities at fair value through profit or loss, and does not currently use derivatives (interest rate swaps) as hedging instruments under a fair value or cash flow hedge accounting model. Therefore, a change in interest rates at the reporting date would not affect either profit or loss or equity.

Cash flow 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 *Amounts in EUR thousands*	Profit or loss 0.25% increase	 0.25% decrease
2018		
Financial liabilities	-2,707	2,707
Cash flow sensitivity (net)	**-2,707**	**2,707**
2017		
Financial liabilities	-2,881	2,881
Cash flow sensitivity (net)	**-2,881**	**2,881**

(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 2018	1-6 months	6-12 months	More than 1 year	31 December 2018
Forwards					
Assets	563	477	82	3	**563**
Liabilities	-4,082	-2,067	-2,016	0	**-4,082**
Future contracts					
Assets	3,381	3,381	0	0	**3,381**
Liabilities	-7,322	-5,280	-1,940	-101	**-7,322**
	-7,460	**-3,488**	**-3,874**	**-98**	**-7,460**

Amounts in EUR thousands	Carrying amount at 31 December 2017	1-6 months	6-12 months	More than 1 year	31 December 2017
Forwards					
Assets	1,368	1,342	23	2	**1,368**
Liabilities	-6,323	-2,862	-2,181	-1,281	**-6,323**
Future contracts					
Assets	5,699	4,715	725	259	**5,699**
Liabilities	-1,558	-1,558	0	0	**-1,558**
	-814	**1,637**	**-1,432**	**-1,019**	**-814**

The table below provides information about the items designated as cash flow hedging instruments during the year and also as at 31 December 2018.

Amounts in EUR thousands	Nominal Amount	Carrying amount		Line item in the statement of financial position where the hedging instrument is included	Balance 1 January 2018	Changes in the value of the hedging instrument recognised in OCI	Amount reclassified from hedging reserve to profit or loss	Effect of movement in exchange rates	Balance 31 December 2018
		Assets	Liabilities						
Forward foreign exchange contracts	-73,295	563	-4,082	Derivatives (Assets & Liabilities)	-4,955	-435	1,998	-127	-3,520
Future contracts	-18,213	3,381	-7,322	Derivatives (Assets & Liabilities)	4,141	751	-9,008	176	-3,940
	-91,508	**3,944**	**-11,404**		**-814**	**315**	**-7,010**	**48**	**-7,460**

(d) Commodity price risk

The commodity markets have experienced and are expected to continue to experience price fluctuations. Viohalco therefore uses future contracts to minimize exposure to commodity price volatility, when possible. Viohalco subsidiaries have exposures to the following commodities: aluminum, copper, zinc, lead and nickel. In order to minimize the effect of the metal price flunctuations on their results, companies use back to back matching of purchases and sales, or derivative instruments (future contracts).

As of 31 December 2018 and 31 December 2017 the derivative net balance of future contracts as reported in the statement of financial position, per commodity is:

Amounts in EUR thousands	2018	2017
Aluminium	-5,327	2,868
Copper	1,096	1,060
Lead	291	179
Nickel	0	34
Total	**-3,940**	**4,141**

These hedges are designated in a cash flow hedge accounting relationship.

C.4. Risk of macroeconomic and financial environment

Viohalco's 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 in order to minimize the impact of the macroeconomic conditions on their operations.

Macroeconomic environment in Greece

The macroeconomic and financial environment in Greece, where most of Viohalco's subsidiaries are located, is showing clear signs of improvement. The capital controls that are in force in Greece since June 2015 have been loosened further, but still remain in place until the date of approval of the financial statements and they have not prevented Viohalco companies to continue their activities as before. Cash flows from operational activities have not been disrupted.

During 2018, Greece officially exited from the third bailout programme that began in 2015 and its credit rating upgraded by Standard & Poor's during 2018 (from 'B-' to 'B+'). Nevertheless, management constantly assesses any new development in Greek economy and its possible implications on subsidiaries' activities in order to ensure that all necessary and effective measures and actions are taken on time in order to minimize any impact.

Viohalco's subsidiaries' strong customer base outside Greece (88% of revenue) along with their established facilities abroad minimize the liquidity risk which may arise from any remaining uncertainty of the economic environment in Greece.

Brexit

Viohalco has two subsidiaries in the UK; Bridnorth Aluminium which produces lithographic coils, semi-finished coils and electrical strip for transformer windings, and Metal Agencies Ltd, a commercial company which sells ferrous and non-ferrous products in the UK market. Furthermore, other Viohalco's subsidiaries in Greece, Bulgaria and Romania serve customers in the UK directly. There are no raw material purchases in the UK, from non-UK subsdiaries of Viohalco.

The latest development is that European Union leaders have agreed with the United Kingdom to delay Brexit until 31 October 2019. While the negotiations between EU and UK's government are still in progress, the impact on Viohalco's subsidiaries future performance and market position cannot be estimated, at least at the moment and it is fully correlated with the abolition of the subsidiaries' products free trade. Even though Viohalco subsidiaries do not retain a significant position in the UK (6.4% of total revenue), they still take all necessary measures so as to reduce the possible impact. Viohalco subsidiaries are also focusing on implications of custom barriers and non-tariff barriers, that could arise "in case of a hard Brexit". It is also considering the possible effects from any change in customer base as a result of change in demand from UK. Subsidiaries are also assessing the impact of the various exit scenarios on the trade receivables recoverability.

Anti-dumping duty investigations

Regarding duties imposed on steel products imports in the U.S.A., management of Viohalco and subsidiary Corinth Pipeworks follow developments closely and keep the investment community constantly informed through press releases, whenever such communication is deemed necessary. Moreover, it is worth noting that local production of steel pipes of the type exported to the US market is neither sufficient in quantities nor similar in quality. This acts as a containment to any negative effects the imposition of tariffs may have. Corinth Pipeworks anticipates it will remain competitive versus local producers and other importers of large diameter pipes, thanks to strong demand in the USA (increased number of new pipeline projects), the duties being imposed on its competitors and the high quality of products and services offered to its U.S.A. customers.

32.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 2018	Financial interest 2017
AEIFOROS S.A.	GREECE	89.08%	90.00%
AEIFOROS BULGARIA S.A.	BULGARIA	89.08%	90.00%
AL - AMAR S.A.	LIBYA	90.00%	90.00%
ALUBUILD SRL	ITALY	-	100.00%
ALURAME SPA	ITALY	95.13%	95.13%
ANOXAL S.A.	GREECE	91.44%	91.44%
ANAMET DOO	SERBIA	98.62%	97.72%
ANAMET S.A.	GREECE	98.62%	97.72%
ANTIMET S.A.	GREECE	99.96%	100.00%
ATTIKI S.A.	GREECE	75.00%	75.00%
BASE METALS S.A.	TURKEY	71.82%	71.82%
BRIDGNORTH LTD	U.K	75.00%	75.00%
CENERGY HOLDINGS S.A.	BELGIUM	79.78%	79.78%
CLUJ INTERNATIONAL TRADE SRL	ROMANIA	100.00%	100.00%
CORINTH PIPEWORKS S.A.	GREECE	79.78%	79.78%
CPW AMERICA Co	USA	79.78%	79.78%
DE LAIRE LTD	CYPRUS	79.78%	79.78%
DIA.VI.PE.THI.V S.A.	GREECE	92.92%	92.92%
DOJRAN STEEL LLCOP	NORTH MACEDONIA	100.00%	100.00%
ELVAL COLOUR S.A.	GREECE	91.44%	91.44%
ELVAL COLOUR IBERICA S.A.	SPAIN	91.44%	91.44%
ELVALHALCOR S.A.	GREECE	91.44%	91.44%
ELKEME S.A.	GREECE	90.57%	90.57%
ENERGY SOLUTIONS S.A.	BULGARIA	-	95.42%
ERGOSTEEL S.A.	GREECE	91.09%	54.65%
ERLIKON S.A.	GREECE	99.95%	99.95%
ETEM ALBANIA S.A.	ALBANIA	100.00%	100.00%
ETEM BULGARIA S.A.	BULGARIA	100.00%	100.00%
ETIL S.A.	GREECE	100.00%	100.00%
ETEM COMMERCIAL S.A.	GREECE	100.00%	100.00%
ETEM SCG	SERBIA	100.00%	100.00%
ETEM SYSTEMS LLC	UCRAINE	100.00%	100.00%
ETEM SYSTEMS SRL	ROMANIA	100.00%	100.00%
FITCO S.A.	GREECE	91.44%	91.44%
FLOCOS S.A.	GREECE	92.04%	89.85%
FULGOR S.A.	GREECE	79.78%	79.78%
GENECOS S.A.	FRANCE	95.13%	95.13%
HELLENIC CABLES S.A.	GREECE	79.78%	79.78%
HUMBEL LTD	CYPRUS	79.78%	79.78%
ICME ECAB S.A.	ROMANIA	78.66%	78.66%
INOS BALCAN DOO	SERBIA	98.62%	97.72%
IWM S.A.	BULGARIA	89.08%	90.00%
INTERNATIONAL TRADE S.A.	BELGIUM	95.13%	95.13%
JOSTDEX LIMITED	CYPRUS	100.00%	100.00%
LESCO ROMANIA S.A.	ROMANIA	51.86%	51.86%

Subsidiary companies	Country	Financial Interest 2018	Financial Interest 2017
LESCO EOOD	BULGARIA	79.78%	79.78%
METAL AGENCIES LTD	U.K	95.13%	95.13%
METAL VALIUS DOO	SERBIA	98.62%	97.72%
METAL VALIUS LTD	BULGARIA	92.33%	97.72%
METALCO S.A.	BULGARIA	100.00%	100.00%
METALIGN S.A.	BULGARIA	100.00%	100.00%
METALLOURGIA ATTIKIS S.A.	GREECE	50.00%	50.00%
MKC GMBH	GERMANY	95.13%	95.13%
NOVAL S.A.	GREECE	100.00%	100.00%
NOVOMETAL DOO	NORTH MACEDONIA	98.62%	97.72%
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%
PROSAL TUBES S.A.	BULGARIA	100.00%	100.00%
REYNOLDS CUIVRE S.A.	FRANCE	95.13%	95.13%
ROULOC S.A.	GREECE	91.44%	91.44%
SIDEBALK STEEL DOO	SERBIA	100.00%	100.00%
SIDENOR INDUSTRIAL S.A.	GREECE	100.00%	100.00%
SIDERAL SHRK	ALBANIA	99.95%	99.95%
SIDEROM STEEL SRL	ROMANIA	100.00%	100.00%
SIGMA IS S.A.	BULGARIA	100.00%	100.00%
SYMETAL S.A.	GREECE	91.44%	91.44%
SOFIA MED AD	BULGARIA	92.33%	92.39%
SOVEL S.A.	GREECE	92.95%	92.75%
STEELMET CYPRUS LTD	CYPRUS	91.09%	91.09%
STEELMET PROPERTIES S.A.	GREECE	91.09%	91.09%
STEELMET ROMANIA S.A.	ROMANIA	95.13%	95.13%
STEELMET S.A.	GREECE	91.09%	91.09%
STOMANA INDUSTRY S.A.	BULGARIA	100.00%	100.00%
TECHOR S.A.	GREECE	91.44%	91.44%
TECHOR ROMANIA S.A.	ROMANIA	91.44%	91.44%
TEPRO METAL AG	GERMANY	95.13%	95.13%
TERRA MIDDLE EAST AG	GERMANY	95.13%	95.13%
THERMOLITH S.A.	GREECE	62.35%	63.00%
TEKA SYSTEMS S.A.	GREECE	50.01%	50.01%
VEMET S.A.	GREECE	100.00%	100.00%
VEPAL S.A.	GREECE	91.44%	91.44%
VET S.A.	GREECE	79.78%	79.78%
VIANATT S.A.	GREECE	98.62%	97.72%
VIENER S.A.	GREECE	96.45%	96.45%
VIEXAL S.A.	GREECE	97.72%	97.72%
VIOMAL S.A.	GREECE	45.72%	45.72%
VITRUVIT S.A.	GREECE	100.00%	100.00%
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 2018

Acquisition of NCI

During 2018, Steelmet property services S.A. (subsidiary of Viohalco) acquired the non-controlling interest of its' subsidiary Ergosteel S.A. (40%) for an amount of EUR 260 thousand.
There were no other significant transactions within Viohalco during 2018.

Transactions that took place in 2017

The transactions described below had an effect on the holding percentage of several subsidiaries in the above list.

ElvalHalcor S.A. transaction

On 30 November 2017, Halcor S.A. (subsidiary of Viohalco) announced the merger by absorption of the company Elval S.A. (subsidiary of Viohalco) and the change of the trade name to ElvalHalcor S.A.
Through this merger by absorption, a substantial, strongly export-oriented, industrial and financial entity has been formed, in the non-ferrous metals processing sector, listed on the ATHEX.
Before the transaction, Viohalco controlled 100% of Elval's voting rights and 68.28% of Halcor's voting rights. After the merger, Viohalco controls 91.44% of ElvalHalcor's voting rights.
The financial interest of Viohalco to subsidiaries where either Elval S.A. or Halcor S.A. was a shareholder, has changed due to this transaction.

Acquisition of NCI

During 2017, Sidenor S.A. (subsidiary of Viohalco), acquired the non-controlling interests of Etil S.A. (30%) and Sigma S.A. (1%), both subsidiaries of Sidenor S.A.
Other minor acquisitions of non-controlling interests took place in 2017, without significant effect in the consolidated financial statements.

NCI effect

Due to the transactions described above, along with some other minor changes in the structure of Viohalco, an increase in non-controlling interests (NCI) equal to EUR 23 million was recognized in 2017. The respective decrease in equity attributable to owners of the Company was EUR 25 million.

33. Joint operations

Viohalco's subsidiary Hellenic Cables has a 62.52% 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 V.O.F. Tideway - Hellenic Cables, which was set up as a partnership together 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 these joint operations is in the Netherlands and Belgium, respectively.

The joint venture agreements in relation to the VO Cablel VOF and V.O.F. Tideway - Hellenic Cables 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 a joint operations and the Viohalco recognises its direct right to the jointly held assets, liabilities, revenues and expenses as described in note 5.

34.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.

2018

Amounts in EUR thousands	Cenergy	ElvalHalcor	Sidenor	Bridgnorth	Other	Intragroup eliminations	Total
NCI percentage (at parent company level)	**20.22%**	**8.56%**	**0.00%**	**25.00%**			
Non-current assets	455,044	709,808	308,738	78,430			
Current assets	603,390	779,251	303,168	101,803			
Non-current liabilities	214,781	455,667	261,461	4,293			
Current liabilities	640,618	465,147	332,125	74,437			
Net Assets	**203,036**	**568,244**	**18,320**	**101,502**			
Attributable to NCI by the companies	**317**	**9,103**	**28,562**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**202,719**	**559,141**	**-10,243**	**101,502**			
Attributable to NCI by parent Company	**40,990**	**47,862**	**0**	**25,376**			
Carrying amount of NCI	41,307	56,965	28,562	25,376	14,939	-36,274	**130,875**
Revenue	963,797	2,117,789	617,015	289,127			
Profit / Loss (-)	6,931	61,937	11,394	5,671			
Other comprehensive income	-2,890	-2,503	-247	-1,869			
Total comprehensive income	**4,041**	**59,434**	**11,147**	**3,802**			
Attributable to NCI by the companies	**28**	**672**	**1,416**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**4,013**	**58,763**	**9,731**	**3,802**			
Attributable to NCI by Viohalco	**811**	**5,030**	**0**	**951**			
Total OCI of NCI	840	5,702	1,416	951	1,525	-2,072	**8,361**
Cash flows from operating activities	-42,178	93,595	8,954	3,129			
Cash flows from investing activities	-48,662	-105,788	-3,156	-2,755			
Cash flows from financing activities	85,901	4,989	-10,324	726			
Net increase/ decrease (-) in cash and cash equivalents	**-4,940**	**-7,204**	**-4,526**	**1,100**			

2017

Amounts in EUR thousands	Cenergy	ElvalHalcor	Sidenor	Bridgnorth	Other	Intragroup eliminations	Total
NCI percentage (at parent company level)	**20.23%**	**8.56%**	**0.00%**	**25.00%**			
Non-current assets	427,441	654,646	335,517	84,652			
Current assets	456,137	682,820	315,542	81,732			
Non-current liabilities	132,789	363,958	250,551	12,508			
Current liabilities	554,494	464,270	377,026	56,176			
Net Assets	**196,295**	**509,237**	**23,481**	**97,700**			
Attributable to NCI by the companies	**289**	**7,723**	**29,494**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**196,006**	**501,514**	**-6,013**	**97,700**			
Attributable to NCI by parent Company	**39,652**	**42,930**	**0**	**24,425**			
Carrying amount of NCI	39,941	50,653	29,494	24,425	8,833	-30,760	**122,585**
Revenue	719,596	1,863,320	506,068	224,624			
Profit / Loss (-)	-8,661	68,073	19,215	1,526			
Other comprehensive income	-1,307	360	-121	490			
Total comprehensive income	**-9,969**	**68,433**	**19,094**	**2,017**			
Attributable to NCI by the companies	**-212**	**847**	**2,829**	**0**			
Net attributable to the equity holders & NCI of Viohalco	**-9,757**	**67,586**	**16,265**	**2,017**			
Attributable to NCI by Viohalco	**-1,974**	**5,785**	**0**	**504**			
Total OCI of NCI	-2,186	6,633	2,829	504	1,077	902	**9,759**
Cash flows from operating activities	19,826	57,331	-3,828	16,681			
Cash flows from investing activities	-20,231	-30,782	-18,705	-4,067			
Cash flows from financing activities	-413	-301	11,576	-13,780			
Net increase/ decrease (-) in cash and cash equivalents	**-818**	**26,248**	**-10,957**	**-1,165**			

35.Operating leases

A. Leases as lessee

Viohalco and its companies lease buildings, motor vehicles, machinery and equipment under operating lease agreements. The duration of the majority of contracts is between 3 and 5 years, with no purchase option.

(a) Future minimum lease payments

At 31 December, the future minimum lease payments under non-cancellable leases were as follows.

Amounts in EUR thousands	**2018**	**2017**
Less than one year	7,405	3,936
Between one and five years	15,439	7,552
More than five years	2,065	4
Total	**24,908**	**11,492**

(b) Amounts recognized in profit or loss

Amounts in EUR thousands	**2018**	**2017**
Lease expense	7,940	5,098

B. Leases as lessor

Viohalco and its companies in the real estate development sector lease out their investment properties (See note 20).

(a) Future minimum lease collections

At 31 December, the future minimum lease payments under non-cancellable leases were as follows.

Amounts in EUR thousands	**2018**	**2017**
Less than one year	10,379	7,527
Between one and five years	48,402	37,511
More than five years	70,220	65,201
Total	**129,001**	**110,239**

(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	Note	2018	2017
Rental income from investment property	7	8,388	9,159
Direct operating expenses regarding investment properties from which rents are collected		-840	-427
Direct operating expenses that do not generate rental income		-73	-137

36.Commitments

A. Purchase commitments

The below mentioned commitments relate to contracts that Viohalco's subsidiaries have entered into according to their investment plans andare expected to be concluded during the next 3 years.

Amounts in EUR thousands	2018	2017
Property, plant and equipment	30,323	22,629

B. Guarantees

Amounts in EUR thousands	2018	2017
Liabilities		
Guarantees to secure liabilities to suppliers	38,726	43,252
Guarantees for securing the good performance of contracts with customers	120,530	93,788
Guarantees for securing the good performance of contracts with suppliers	168	484

37.Contingent 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.

38.Related parties

A. Equity-accounted investees and other related parties

The following transactionshave been made with equity-accounted investees and other related parties.

Amounts in EUR thousands	2018	2017
Sale of goods/ services		
Associates	79,443	67,263
Joint ventures	14	19
	79,456	**67,283**
Purchases of goods / services		
Associates	6,573	5,763
Joint ventures	1	1
	6,574	**5,764**
Purchase of fixed assets		
Associates	0	336

Closing balances that arise from sales/purchases of goods, services, fixed assets, etc.:

Amounts in EUR thousands	2018	2017
Receivables from related parties:		
Associates	33,811	33,380
Joint ventures	21	153
	33,832	**33,533**
Liabilities to related parties:		
Associates	3,211	2,520
Joint ventures	18	171
	3,229	**2,691**
Contract liabilities to related parties:		
Joint ventures	285	0
	285	**0**

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 & payables.

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 2018 Viohalco's subsidiary ElvalHalcor completed the acquisition of 50% of Netherlands-based Nedzink B.V (through issuance of new shares), for a consideration of EUR 15.7 million to establish a new joint- venture. Following the completion of the approvals phase, the first capital installment equal to EUR 5.7 million was paid. The remaining amount EUR 10 million is included in other liabilities.

In addition, Viohalco's subsidiary ElvalHalcor participated in a share capital increase of EUR 1.9 million in its' joint venture in Turkey HC ISITMA (see note 21). The remaining liability of this transaction is equal to EUR 1.3 million and it is included in other liabilities.

B. Key management personnel compensation

The table below provides an overview of the transactions with Board members and executive management:

Amounts in EUR thousands	**2018**	**2017**
Compensation to BoD members and executives	4,535	3,679

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 2018 and in 2017.

39.Auditor's fees

Viohalco's statutory auditors, KPMG Réviseurs d'Entreprises and Renaud de Borman Réviseurs d'Entreprises, and a number of member firms of the KPMG network, received fees for the following services:

	For year ended 31 December	
Amounts in EUR thousands	**2018**	**2017**
KPMG Réviseurs d'Entreprises		
Audit	293	233
Audit related services	0	7
	293	**240**
Renaud de Borman Réviseurs d'Entreprises		
Audit	10	10
	10	**10**
KPMG Network		
Audit	806	705
Audit related services	0	32
Tax related services	53	216
Other services	72	181
	931	**1,133**
Total	**1,234**	**1,382**

40.Subsequent events

(a) On January 7th, 2019, the Board of Directors of Viohalco's wholly owned subsidiary Etem Bulgaria SA, the extrusion branch of the aluminium segment of Viohalco SA, decided the spin-off of the production of extruded aluminium profiles business and the additional processing of aluminium profiles for the automotive industry business into two subsidiaries of Etem Bulgaria. The aforementioned decision will serve the purposes of an Investment Agreement (the 'Agreement') that Etem Bulgaria has entered into with Gestamp, a leading global Group specialized in the design, development and manufacturing of metal components and structural systems for the automotive industry. As part of the Agreement, two joint ventures will be established which will focus on the extrusion and processing of aluminium profiles for the automotive industry, in which an investment programme will be implemented, in the next three years, for the installation of a new extrusion line and related machinery for further processing of aluminium profiles in Bulgaria.

(b) On February 5th, 2019, the subsidiary ElvalHalcor announced the decision of its' Board of Directors to commence the proceedings of the transformation of the branch in Pogoni-Ioannina, manufacturing plant of all types of coin blanks and rings into a newly founded company limited by shares ("Société anonyme") in accordance with the third section of par. 2 of article 52 of L. 4172/2013, as replaced by article 23, par. 6.c., of L. 4223/2013.

(c) On February 21st, 2019, the U.S. Department of Commerce (the 'DoC') announced its affirmative final determinations in the antidumping duty investigations initiated in early 2018 on imports of large diameter welded pipe from Canada, Greece, Korea and Turkey. Similar determinations about imports from China and India were announced in December 2018. In the Greece investigation, the DoC assigned an antidumping duty rate of 9.96% for Corinth Pipeworks S.A, subsidiary of Viohalco.
On April 16th, 2019 the United States International Trade Commission (ITC) completed and filed its injury determinations in the antidumping and countervailing duty investigations concerning large diameter welded (LDW) pipe from Canada, Greece, Korea and Turkey. Concerning Greece, the ITC determined that an industry in the United States is threatened with material injury by reason of less than fair value imports of LDW line pipe from Greece. On the contrary, it ruled that LDW structural pipe imports from Greece do not cause and are not a threat to cause material injury to the U.S. industry.
As a result of ITC's affirmative determinations aforementioned, the DoC will issue an antidumping duty order on future imports of LDW steel line pipe from Greece at a corrected rate of 10.26%. In contrast, structural pipe from Greece will not be covered by such an antidumping duty order.
It is noted that imports of LDW line pipe from Greece, which were entered prior to the publication date of DOC dumping order, will not be assessed dumping duties – hence, any deposited preliminary dumping duties will be refunded and subsequently, reimbursed to the final customers.

There are no other subsequent events affecting the consolidated financial information.

Auditor's Report on the Consolidated Financial Statements

Statutory auditor's report to the general meeting of Viohalco SA on the consolidated financial statements as of and for the year ended 31 December 2018

In the context of the statutory audit of the consolidated financial statements of Viohalco SA ("the Company") and its subsidiaries (jointly "the Group"), we provide you with our statutory auditor's report. This includes our report on the audit of the consolidated financial statements for the year ended 31 December 2018, as well as other legal and regulatory requirements. Our report is one and indivisible.

We were appointed as statutory auditor by the general meeting of 31 May 2016, in accordance with the proposal of the board of directors. Our mandate will expire on the date of the general meeting deliberating on the annual accounts for the year ended 31 December 2018. We have performed the statutory audit of the Company's consolidated financial statements for 6 consecutive financial years.

Report on the consolidated financial statements

Unqualified opinion

We have audited the consolidated financial statements of the Group as of and for the year ended 31 December 2018, prepared in accordance with International Financial Reporting Standards as adopted by the European Union, and with the legal and regulatory requirements applicable in Belgium. These consolidated financial statements comprise the consolidated statement of financial position as at 31 December 2018, the consolidated statements of profit or loss, profit or loss and other comprehensive income, changes in equity and cash flows for the year then ended and the notes, comprising a summary of significant accounting policies and other explanatory information. The total of the consolidated statement of financial position amounts to EUR 4,045,685 thousand and the consolidated statement of profit or loss shows a profit for the year of EUR 85,852 thousand.

In our opinion, the consolidated financial statements give a true and fair view of the Group's equity and financial position as at 31 December 2018 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 our unqualified opinion

We conducted our audit in accordance with International Standards on Auditing ("ISAs") as adopted in Belgium. In addition, we have applied the ISAs as issued by the IAASB applicable for the current accounting year while these have not been adopted in Belgium yet. Our responsibilities under those standards are further described in the "Statutory auditors' responsibility for the audit of the consolidated financial statements" section of our report. We have complied with the ethical requirements that are relevant to our audit of the consolidated financial statements in Belgium, including the independence requirements.

We have obtained from the board of directors and the Company's 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 matter

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Availability of financing resources, liquidity risk and compliance with covenants

We refer to notes 27 "Loans and borrowings", 31 C.2. "Liquidity risk" and 31 C.4. "Risk of macroeconomic and financial environment" of the consolidated financial statements.

— Description

The Company's subsidiaries have significant non-current and current financial borrowings and are thus highly dependent on financial institutions to support their operations.

During 2018, the negotiations with several banks regarding the conversion of a portion of current borrowings to non-current were concluded.

Management expects that the Group will be able to meet the obligations in respect of the current liabilities with operating cash flows and unutilized credit lines which are in place. If the expectations of management are not met, the Group is exposed to the risk that certain subsidiaries may encounter difficulty in meeting the obligations associated with their financial liabilities.

In addition, various debt agreements contain covenant clauses, which in case of breach, result in creditors obtaining the right to claim early repayment. Failure to comply with these covenants or to obtain a waiver from the creditors would require non-current loans and borrowings to be classified as current liabilities. In addition, the Group would need to find alternative sources of financing to support its operations.

Due to the above, this point was considered as a key audit matter.

— Audit procedures

Our procedures included amongst others:

- Update our understanding of the Group's process and controls to ensure compliance with debt covenants;
- Inspect significant debt agreements to understand their terms and conditions;
- Obtain the Group's calculation of the covenant ratios of the major financing facilities, checking their mathematical accuracy and assessing compliance with the provisions of the respective debt agreements;
- Evaluate the memorandum prepared by management in support of the availability of facilities required to finance the Company's working capital and capital expenditure needs;
- Evaluate the adequacy of the relevant disclosures in the consolidated financial statements.

Board of directors' responsibilities for the preparation of the consolidated financial statements

The board of directors is responsible for the preparation of these consolidated financial statements 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 board of directors determines, is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, 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 financial statements

Our objectives are to obtain reasonable assurance as to whether the consolidated financial statements 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 the users taken on the basis of these consolidated financial statements.

When performing our audit we comply with the legal, regulatory and professional requirements applicable to audits of the consolidated financial statements in Belgium.

As part of an audit in accordance with ISAs, we exercise professional judgement and maintain professional skepticism throughout the audit. We also perform the following procedures:

- Identify and assess the risks of material misstatement of the consolidated financial statements, 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 controls 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 board of directors;
- Conclude on the appropriateness of 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 auditors' report to the related disclosures in the consolidated financial statements 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 auditors' 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 financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation;
- Obtain sufficient 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.

For the matters communicated with the audit committee, we determine those matters that were of most significance in the audit of the consolidated financial statements 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 board of directors' annual report on the consolidated financial statements, the statement of the non-financial information attached to the board of directors' annual report on the consolidated financial statements, and the other information included in the annual report.

Statutory auditor's responsibilities

In the context of our mandate and in accordance with the Belgian standard (revised in 2018) which is complementary to the International Standards on Auditing as applicable in Belgium, our responsibility is to verify, in all material respects, the board of directors' annual report on the consolidated financial statements, the statement of the non-financial information attached to the board of directors' annual report on the consolidated financial statements and the other information included in the annual report, and to report on these matters.

Aspects concerning the board of directors' annual report on the consolidated financial statements and other information included in the annual report

Based on specific work performed on the board of directors' annual report on the consolidated financial statements, we are of the opinion that this report is consistent with the consolidated financial statements for the same period and has been prepared in accordance with article 119 of the Companies' Code.

In the context of our audit of the consolidated financial statements, we are also responsible for considering, in particular based on the knowledge gained throughout the audit, whether the board of directors' annual report on the consolidated financial statements and other information included in the annual report:

- the financial data included in the section "Message from the President of the Board of Directors";
- the section "Condensed Statutory Balance Sheet and Income Statement";
- the section "Alternative Performance Measures";

contain material misstatements, or information that is incorrectly stated or misleading. In the context of the procedures carried out, we did not identify any material misstatements that we have to report to you.

The non-financial information required by article 119 §2 of the Companies' Code has been included in a separate report attached to the board of directors' annual report on the consolidated financial statements, which is a separate section of the annual report. This report on the non-financial information contains the information required by article 119 §2 of the Companies' Code and is consistent with the consolidated financial statements for the same period. The Company has prepared this non-financial information based on relevant frameworks. In accordance with article 148 §1, 5° of the Companies' Code, we do not comment on whether this non-financial information has been prepared in accordance with the frameworks mentioned in the separate report attached to the board of directors' annual report on the consolidated financial statements.

Information about the independence

- Our audit firm and our network have not performed any engagement which is incompatible with the statutory audit of the consolidated accounts and our audit firm remained independent of the Group during the term of our mandate.
- The fees for the additional engagements which are compatible with the statutory audit referred to in article 134 of the Companies' Code were correctly stated and disclosed in the notes to the consolidated financial statements.

Other aspect

— This report is consistent with our additional report to the Audit Committee on the basis of Article 11 of Regulation (EU) No 537/2014.

Zaventem, 24 April 2019

KPMG Réviseurs d'Entreprises
Statutory Auditor
represented by

Benoit Van Roost
Réviseur d'Entreprises

K. 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 Royal Decree of 14 November 2007, the members of the Executive Management, (i.e. Jacques Moulaert, Evangelos Moustakas, Efstratios Thomadakis, Panteleimon Mavrakis) 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 2018, 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.

L. Condensed Statutory Balance Sheet and Income Statement

In accordance with Article 105 of the Belgian Companies Code, the non-consolidated accounts are presented hereafter in a condensed version, which does not include all the notes required by law nor the Statutory Auditor's report. The complete version of the annual accounts, as deposited with the National Bank of Belgium is available at the Company's registered offices upon request. The Statutory Auditor's report on the annual accounts was unqualified.

Statement of financial position

Amounts in EUR thousands	As at 31 December 2018	As at 31 December 2017
Non- current assets	**1,044,615**	**1,048,846**
Start-up costs	566	1,176
Intangible assets	332	470
Property, plant and equipment	80,434	81,694
Financial assets	961,069	963,293
Receivables	2,214	2,214
Current assets	**17,308**	**21,907**
Receivables	8,450	15,261
Cash and cash equivalents	7,736	5,413
Deferred charges and accrued income	1,122	1,234
Total assets	**1,061,923**	**1,070,753**

Equity	**1,058,575**	**1,066,516**
Share capital	141,894	141,894
Share premium	528,113	528,113
Revaluation	21,054	21,054
Reserves	389,365	389,365
Retained earnings	-21,850	-13,909
Liabilities	**3,347**	**4,237**
Non-current payables	131	125
Current payables	2,961	3,939
Accrued charges and deferred income	255	173
Total equity and liabilities	**1,061,923**	**1,070,753**

Statement of Profit or Loss

Amounts in EUR thousands	For the year ended 31 December 2018	For the year ended 31 December 2017
Sales and services	**6,456**	**6,124**
Operating charges	**-13,763**	**-26,816**
Miscellaneous goods and services	-7,550	-6,582
Remuneration, social security and pensions	-1,118	-1,064
Depreciation and amounts written off on start-up costs, intangible and tangible assets	-3,102	-3,668
Other operating expenses	-1,993	-1,225
Other non recurring operating expenses	0	-14,278
Loss of operating activities	**-7,307**	**-20,692**
Finance income	**2,872**	**75,956**
Income from financial assets	2,605	7,552
Income from current assets	1	12
Adjustments to amounts written off financial assets	266	68,392
Finance expenses	**-3,540**	**-3,220**
Debt expenses	-21	-17
Other financial expenses	-4	-4
Amounts written off financial assets	-3,514	-3,198
Profit / loss (-) before income tax expense	**-7,975**	**52,044**
Income tax expense	**34**	**-76**
Profit/Loss (-)	**-7,941**	**51,969**

M. 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.

ABB ABB is a leading global technology company in power and automation that enables utility, industry, and transport and infrastructure customers to improve their performance while lowering environmental impact

Payables days
Ratio Accounts payable/ Cost of goods sold * 365

Receivable days
Ratio Accounts receivable/Revenue * 365

Aramco Saudi Aramco is the state-owned oil company of the Kingdom of Saudi Arabia.

ASTM American Society for Testing and Material

BCC the Belgian Companies Code

Belgian GAAP the applicable accounting framework in Belgium

BG BG Group is an international exploration and production and LNG company.

Board of Directors or Board the Board of Directors of the Company from time to time appointed in accordance with the Articles of Association

BP BP is one of the world's leading integrated oil and gas companies. Provides its customers with fuel for transportation, energy for heat and light, lubricants to keep engines moving, and the petrochemicals products used to make everyday items as diverse as paints, clothes and packaging

BS British Standards

Cheniere Energy Houston-based energy company primarily engaged in LNG-related businesses

Chevron Chevron is one of the world's leading integrated energy companies.

Interest coverage ratio EBITDA/Finance cost

DCP Midstream is an energy company that sits squarely between a growing resource base and expanding petrochemical and energy markets.

Gearing ratioDebt/equity

Denbury Denbury Resources Inc., is an independent oil and natural gas company

DIN Deutsches Institut für Normung

EDF EDF Energy, the UK's largest producer of low-carbon electricity

EEA the European Economic Area

EN European Norm

EN/ISO 17025 General requirements for the competence of testing and calibration laboratories

Enbridge Enbridge, Inc. is an energy delivery company based in Calgary, Canada. It focuses on the transportation, distribution and generation of energy, primarily in North America. As a transporter of energy, Enbridge operates in Canada and the United States, the longest crude oil and liquid hydrocarbons transportation system in the world. As a distributor of energy, it owns and operates Canada's largest natural gas distribution network, providing distribution services in Ontario, Quebec, New Brunswick and New York State

Energy Transfer Energy Transfer is a Texas-based company that began in 1995 as a small intrastate natural gas pipeline operator and is now one of the largest and most diversified investment grade master limited partnerships in the United States. Growing from roughly 200 miles of natural gas pipelines in 2002 to approximately 71,000 miles of natural gas, natural gas liquids (NGLs), refined products, and crude oil pipelines today, the Energy Transfer family of partnerships remains dedicated to providing exceptional service to its customers and attractive returns to its investors.

EPCO Energy Planners Company (EPCO) is an energy management and consultation firm. EPCO works with commercial, industrial, and nonprofit clientele to aid them in better understanding how and where energy is consumed in their facility.

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

Current ratio Current Assets/Current liabilities

Greek Public
Natural Gas
(DEPA) DEPA is the public natural gas supply Corporation of Greece
Corporation

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)

GRTGAZ is the natural gas transmission system operator located in Paris, France. The operated system consists of high pressure gas pipelines.

HVAC & R Heating, ventilation, air-conditioning and refrigeration

IAS International Accounting Standards

IFRS International Financing Reporting Standards, as adopted by the EU

Inventories days
Ratio Inventory/Cost of goods sold * 365

JIS Japanese Industrial Standards

Kinder Morgan is the largest energy infrastructure company in North America.

LSAW Longitudinal Submerged Arc Welded Mill for the production of high-strength offshore and onshore energy pipes

McJunkin MRC Global is the largest distributor of pipe, valve and fitting products and services to the energy and industrial markets. MRC Global serves the oil and gas industry across the upstream, midstream and downstream sectors as well as the chemical and gas distribution market sectors in the USA.

MITE Marubeni Itochu Tubulars Europe PLC- Marubeni-Itochu Tubulars Europe plc was established in 2001 to supply steel tubular products for the Oil and Gas Industry. Marubeni-Itochu Tubulars Europe plc is a subsidiary of Marubeni-Itochu Steel Inc and is headquartered in London, United Kingdom.

National Grid United Kingdom-based utilities company

OGC a leading organisation in the Sultanate's Oil and Gas sector and managing Oman's major natural gas distribution network

OMV is an integrated international oil and gas company. It is active in the upstream (Exploration and Production) and downstream businesses (Refining and Marketing as well as Gas and Power). OMV is one of the largest listed industrial companies in Austria.

OSI Oil States International Inc. oilfield services company with a leading market position as a manufacturer of products for deepwater production facilities and certain drilling equipment, as well as a provider of completion services and land drilling services to the oil and gas industry. Oil States is publicly traded on the NYSE under the symbol "OIS".

PDO Petroleum Development Oman (PDO) is the major exploration and production company in the Sultanate

Pioneer Pipe Inc Pioneer is one of the largest full-service construction, maintenance, and fabrication companies in the Midwest, specializing in general, structural, mechanical, and electrical construction, pipe fabrication and installation, steel fabrication and erection, modular fabrication and assembly, and plant maintenance.

Plains All Plains All American Pipeline is one of the American largest and most admired midstream energy companies in North America. Plains All American Pipeline (Plains) is a publicly-traded master limited partnership that owns and operates midstream energy infrastructure and provides logistics services for crude oil, natural gas liquids (NGL), natural gas, and refined products. It owns an extensive network of pipeline transportation, terminalling, storage and gathering assets in key crude oil and NGL producing basins and transportation corridors, and at major market hubs in the United States and Canada.

RWERWE is one of Europe's five leading electricity and gas companies.

SAE Society of Automotive Engineers

SD Trade Mark

Shell Shell Global is a global group of energy and petrochemical companies

Snam an Italian natural gas infrastructure company. The utility mainly operates in Italy and is one of Europe's leading regulated gas utilities

Socar The State Oil Company of the Azerbaijan Republic (SOCAR) is involved in exploring oil and gas fields, producing, processing, and transporting oil, gas, and gas condensate, marketing petroleum and petrochemical products in domestic and international markets, and supplying natural gas to industry and the public in Azerbaijan.

Spartan Spartan Energy Corp. is an oil and gas company based in Calgary, Alberta. Spartan has operations in central Alberta and in southeast Saskatchewan and maintains a multi-year inventory of oil focused horizontal drilling opportunities.

Quick ratio (Current Assets-Inventory)/ Current liabilities

Spectra Energy Spectra Energy Corp is a S&P500 company headquartered in Houston Texas, that operates in three key areas of the natural gas industry: transmission and storage, distribution, and gathering and processing.

STEG Tunisian Company of Electricity and Gas or STEG is a Tunisian public company non-administrative. Established in 1962, its mission is the production and distribution of electricity and natural gas on the Tunisian territory. STEG is the second largest Tunisian company by its revenues in 2009.

Subsea Subsea7 is a world-leading seabed-to-surface engineering, construction and services contractor the offshore energy industry.

THN Mining profiles

TIGF Transport et Infrastructures Gaz France offer and develop natural gas transport and storage solutions for the European market

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

UPN European Standard channels

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)