



# CFA Institute

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## CFA Institute Research Challenge

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# GVS Group S.p.A



Initiation of Coverage | 13th Feb 2024

**HOLD**

**GVS S.p.A. (GVS.MI)**

Italy, Milan Stock Exchange, FTSE Italia Mid Cap  
Medical Equipment, Supplies & Distribution

**Current Price : 6.12€**  
**Target Price: 7.13€ (+ 16.50%)**  
 Dividend Yield: 0.0%  
 Total Shareholder Return: 16.50%

**MARKET DATA**

Market Cap: 1.07 B€  
 Free Float: 69.76 M  
 Outstanding: 174.76M  
 Traded Shares: 39.92%

**STOCK DATA**

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**GVS vs FTSE Ita Mid Cap vs Stoxx 600 (rescaled) - Exhibit 0**



52 Week Range: 4.00 - 6.45  
 Last 30 Days Average Volume: 83.554

## Investment summary

We initiate our coverage on GVS with a **HOLD** recommendation and a **one year-end target price of 7.13€/share**, implying a **16.50% upside** on the current price (13th Feb 2024), which stands at 6.12€/share. GVS is a leading player in **market niches** with strong barriers to entry, mainly due to regulatory requirements and technological know-how. The Group exploits its **vertically integrated** processes, which can be applied to a vast range of filtering solutions, to develop a **broad and diversified product portfolio**.

### Business description & Industry Overview: an Italian filtering boutique

GVS manufactures and markets liquid, gas and air filter solutions for personal protection, critical environments, medical, energy, and mobility sectors. It operates through a **divisional structure**, based on three main segments (H&LS, E&M, H&S). During the pandemic period, GVS has seen a major increase in sales due to the production of protective reusable masks, which drove the Group to its IPO (19th June 2020), the only one concluded in Italy in that year. The **growth process is driven by M&A (revenue synergies)** and subsequent integrative processes. GVS coordinates production sites crosswise with the three divisions (*cost synergies*). Sectors are highly fragmented with high barriers to entry.

### Financial: Stressful years but great future

GVS has seen robust growth through strategic mergers and acquisitions, with revenues surging at a **17.10% CAGR from FY17 to FY23**. The pandemic further boosted revenues, particularly in Health & Safety, driving a 479% YoY increase in FY20, notably in Europe. This led to a significant **margin increase (+33% YoY EBIT margin in FY20)** and generated substantial free cash flow (€63 million in FY20). Despite challenges such like limited pricing power and internal plant reorganization efforts to enhance profitability (diminishing in maintenance CapEx to 12% in FY25E and FY26E), GVS aims for a **9.7% YoY revenue growth in 2023**. With a focus on debt reduction (**-15.5% YoY E24 Net Debt**) after a period of intense M&As, the company plans to continue strengthening its Healthcare & Life Science division (67.2% of sales 33E), which is the main driver of long term strategy growth.

### Valuation: A game of views

The target price of **€7.13** reflects a detailed analysis of **key drivers, industry trends**, and factors for future growth and profitability. In our **discounted cash flow model**, we anticipate three stages of growth for GVS. Initially, **(1) the reorganization of production plants** in 2025 and reduced interest expenses from club loans debt expiration are expected to bring positive value, with a significant improvement in net cash. Subsequent, **(2) medium-sized acquisitions** in 2027 and 2028 are projected to drive revenue growth, albeit with a slight impact on free cash flow. Finally, **(3) from 2034 onwards**, we discount cash flows at a rate linked to a solid **2% terminal growth rate**. The DCF output was complemented by values derived from a **peer multiple valuation** involving 10 comparable companies. Additionally, we conducted a **principal component analysis** on robust multiples. Furthermore, a **Montecarlo Simulation** was performed on historical revenues and FCFF to provide additional insights and refine our evaluation.

### ESG: Slowly chasing the change

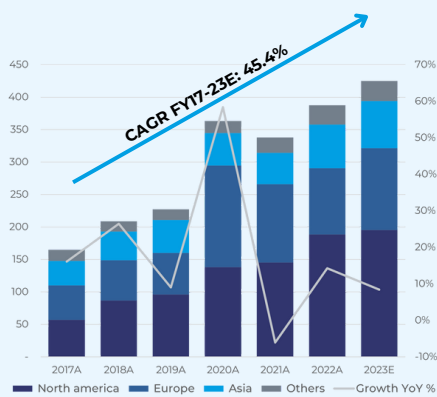
Our final ESG rating for GVS, determined through a proprietary model based on **74 qualitative and quantitative metrics**, stands at a **BB valuation**. Despite the Company's ongoing efforts to address its shortcomings in ESG matters, the absence of a clear sustainability plan with measurable targets (which is however expected to be published in the coming months) is a concern. While there's been progress, especially when it comes to governance, **GVS is urged to expedite its initiatives**, particularly in environmental aspects.

### Investment Risks: a Black Swan - prone company

With **17 M&A operations in 13 years**, GVS managed to expand itself across the globe: China, Mexico, US and Japan are just 4 of the 9 countries in which the Company runs its business. The recent pandemic has played a supportive role for the firm; however, the next **tail event could be lethal**: their leverage buyout strategy may put the company under stress in case of a further interest rate rise, especially given that their loans have leverage-linked covenants.

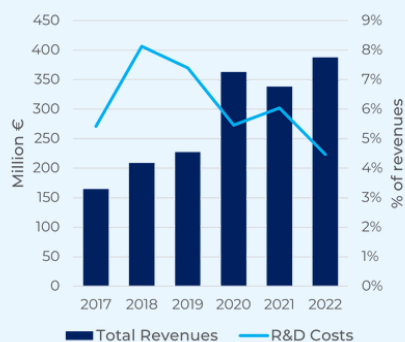


## Historical Revenues, Geographical Breakdown and growth - Exhibit 1



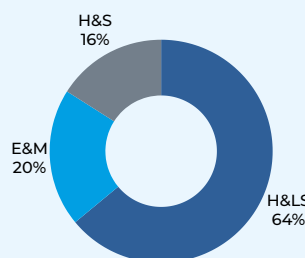
Source: AIDA, company data, team estimates

## GVS's R&D Costs - Exhibit 2



Source: company data, team elaboration

## Revenues breakdown by division 2023E - Exhibit 3



Source: company data

## GVS Key Strategic Guidelines (FY22) - Exhibit 4



Source: company data

## GVS's worldwide distribution of plants and sales offices - Exhibit 5



Source: company data, team elaboration

# Business Description

G.V.S. S.p.A. was founded in 1979 by Grazia Valentini (mother of the current CEO, Massimo Scagliarini) and it is headquartered in Zola Predosa (Bologna, Italy). It is a market leader in the production and distribution of **advanced filter solutions** for the medical, automotive and laboratory sectors, with an historical **molding know-how technology**. In the period between 2017 and 2023, GVS has faced the IPO on FTSE Italia Mid Cap Index, an extraordinary growth for the pandemic and many M&As with a strong **+45.4% Sales CAGR FY17-23E**.

## In light of a new GVS

GVS has gone through two moments (production masks for Covid-19 and 2020 IPO) that are resulting in a gradual dilution of margins caused by post extraordinary COVID effect, **revenues** went from **227.42m€ in FY2019 to 363.30m€ in FY 2020** (Exhibit 1) and flat organic growth. GVS has gone through 3 stages: the IPO that took place in 2020, revenue growth due to protective devices from Covid-19, and the three M&A deals. Up to now (2024) it is in the process of implementing a reorganization of production sites. The current level of debt to EBITDA went from an average over the three-year period 2019-2021 of 0.9466 to 5.5, of 2022. Despite these challenges, GVS S.p.A. aims to transition its Cash Conversion Cycle (CCC) from a cash absorber to a cash producer, targeting a decrease to 141.61 days by 2025 from the current 195.30 days.

## Introduction to business segmentation

**Healthcare And Life Sciences (64% of 23E revenues)** The oldest segment, in which the company has operated since its foundation, is composed mainly of very high-technology filters and plastic components for the medical and laboratory sectors. In the niche of high-technology solutions from healthcare, **GVS is the world's largest producer** (Annex A1 - Product Ecosystem). Starting from nineties the Group pursued growth beyond the filters and plastic components like filters and components to improve care for hospital patients and is a fundamental partner for the biopharma sector and analysis laboratories. The Group has always paid great attention to research, development and innovation of its products and processes (Exhibit 4). **It has shown a strong trend towards development in global markets since its foundation**. In this sector, G.V.S. has indispensable certifications such as CE 690080 HME Devices for Anaesthesia, Respiratory and Critical Care, and CE 839 Sterile Infusion Set and Accessories. **A CAGR of 14.9%** is projected for this sector, which sees revenues doubling in the next 5 years (2028E). **Energy and Mobility division (20% of 2023E revenues)** designs and produces filters and components for the mobility sector and designs and manufactures molecular filters that remove chemicals, environmental contaminants and unpleasant odours from the air. In 2017, the company took over its main competitor in the United States, the Kuss Group, which is based in Ohio and it is specialized in producing and marketing filters for the automotive sector. E&M has an estimated **CAGR of 11.3%** driven by the development of electric mobility. Currently representing approximately 18% of EBITDA, the E&M division is poised for robust organic growth in the foreseeable future, since it was suffering from margin compression due to inflationary aspects. **Health and Safety (16% of 2023E revenues)** division designs and manufactures industrial and commercial respiratory masks and filters. In 2020 and 2021, the division saw a big jump in revenues due to the demand for disposable masks triggered by the COVID-19 pandemic. The estimated **CAGR for H&S is 13.7%**. Second only to Health and Life Sciences. In this division, we experienced a strong performance in personal safety, driven by cross-selling RBP products to GVS customers. By 2020, sales had reached 139€m approaching the 159€m of the H&LS division. Already after the covid we see a decrease of 25.5% in sales. In the 10-year expected volumes are expected to stabilize at 100€m, considering also that Healthcare Air&Gas large client loss and reduction of Covid related order, and small reduction in Air Safety.

## Value and costs drivers

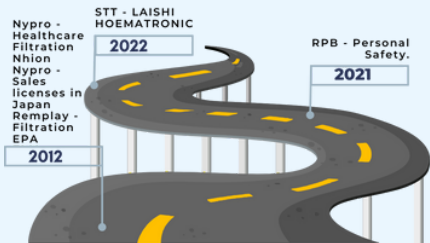
The drop in EBITDA (c. 35€mn, from 106.33 in FY 2021 to 67.43 in FY 2022) recorded in the past two years affects GVS S.p.A.'s value creation (Exhibit 7). **D&A** (given the historical and estimates) will absorb **6.6% of EBITDA** in the 2024E - 2028E periods. It is essential to consider cost of debt, touching leverage of x4.60 in 2022, in progressive deleveraging (Net financial position down to 375€m as of Dec. 31, 2022 due to the control of the NWC and cash generation from operation). The trend of resources invested in R&D (Exhibit 2) sees the peak in the three-year period 2017-2020. Where in 2019, R&D as a percentage of turnover touches 7.39%. Starting in 2020, the implementation of aggressive M&A strategies have reduced the investment to **4.47% of turnover in 2022**.

## Production and Distribution

GVS has **20 locations worldwide and 14 manufacturing facilities** (Annex 3: Manufacturing plants and trading companies) in Italy, UK, Brazil, USA, China, Mexico, Romania, and Puerto Rico (Exhibit 5). GVS is a "**quality-oriented Group**", which for over 40 years, has dedicated great attention to research, development and innovation. R&D plays a pivotal role in the GVS business model because the development of technologies and filtration materials are shared across the three divisions (Annex A1). For instance, a specific R&D project may originate from a business division but later find application across GVS's different end markets, an example it is the **R&D in cross-fertilisation** (Annex A1) valid for both the process and the final product. All specific GVS membrane filters are manufactured in their facilities in North America and Italy, allowing for easy and cost-effective customisations, this a critical competitive advantage granted by the internal production of membranes which allows to satisfy specific OEM's needs. GVS operates in a 27,500 m<sup>2</sup> state-of-the-art manufacturing facility in Sanford (USA), a 6,000 m<sup>2</sup> membrane casting facility in Westborough (USA) and 6,000 m<sup>2</sup> membrane casting facilities in Bologna-Italy (Source: GVS website). It is worth noting that outside laboratories test products to meet FDA regulations and other requirements. As of today, **60% of GVS membranes are produced internally** (Exhibit 5). **More than 80% of 2019 group sales are B2B**, the remaining B2C part, sales are through local distributors. Geographic proximity of distributors is essential for building lasting and reliable relationships with customers (increasing retention). The client base (over 4,600 customers) is extraordinarily diversified and fragmented, with Top 10 clients accounting for - roughly - 31% of group revenues (Source: Investor Relation).

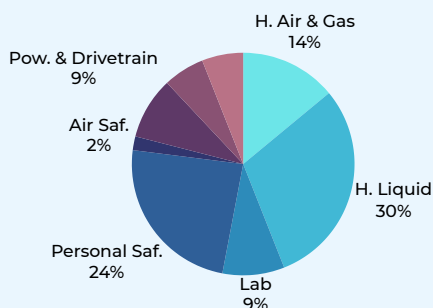


## M&A transactions from the beginnings to the present – Exhibit 6



Source: company data, team elaboration

## Revenues Breakdown (2022A) – Exhibit 7



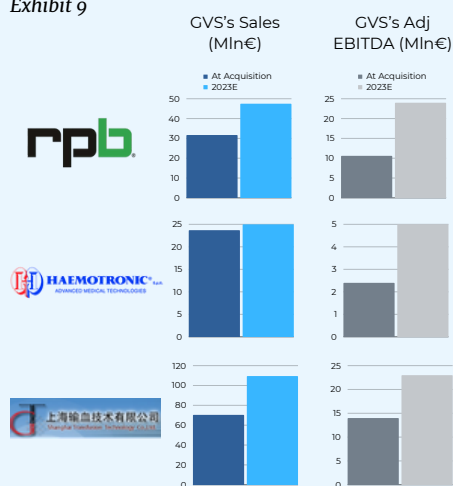
Source: company data, team elaboration

## Examples of GVS's clients – Exhibit 8



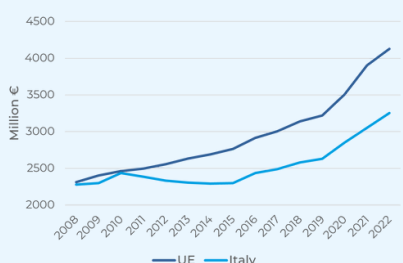
Source: company data, team elaboration

## Sales and EBITDA before and after M&A – Exhibit 9



Source: Sole24Ore

## UE and Italian Health Expenditure – Exhibit 10



Source: Sole24Ore

North America continues to be the primary market, representing 49% of revenues in 2022 and expected to remain around 46% per estimates. Europe follows at 30% of revenues in 2023 estimates, with Asia contributing 17% during the same period.

## Company Strategies

One of the cornerstones of the Group's growth strategy is M&As: **GVS has consolidated 17 companies over the last 12 years** (Exhibit 6). Just in the last two years, via the acquisitions of RPB, STT and Haematronic, GVS has invested 391€mIn, contributing to a top-line growth of 120€mIn but driving Net Debt around 400€mIn in half year. The company is controlled by GVS Group S.p.a., a vehicle owned by two sons of GVS's founder Grazia Valentini: Massimo Scagliarini (51% of the holding - CEO) and Marco Scagliarini (controlling 49%).

**(I) DIVERSIFICATION.** The company wants to diversify sales and sectors to offset cyclicity. There is not a significant predominant customer, but the client base is fragmented. The global medical devices market size was valued at USD 512.29 billion in 2022, and is projected to grow from USD 536.12 billion in 2023 to USD 799.67 billion by 2030. Exhibiting a CAGR of 5.9% during the forecast period (Source: Alira Health Report: The 2023 U.S. MedTech Contract Manufacturing Report, 2022).

**(II) FOCUS ON QUALITY SERVICE AND BRAND REPUTATION.** In the healthcare and automotive segment, the niche market requires very high technology. The company places great emphasis on making its brand associated with quality of service and after-sales. This is the reason for the high premium prices. To enhance leadership, acquisitions are made to pursue growth beyond the R&D in all new appearing applications of technology.

**(III) CROSS SELLING.** In all three segments, the strategy focuses on reputation, accuracy and consistency of the supply, enlargement of product range through M&A to build cross selling synergies, from a single components to pre-assembled kits and tailor-made solutions, and geographical diversification to supply products where clients need them. It is clear that the company does not want to build its business around a few products, but rather studies the market to develop **niche component products** (Eg. **409 products and 1,873 sub-versions in H&LS**) (Annex A7).

## Industry Overview

GVS is definable as unique in terms of competitive positioning and management. A productive and innovative leader in the three sector **Healthcare and Life Sciences, Energy and Mobility** and **Health and Safety**. From an industrial standpoint, the combination of extensive research and development and a **diverse portfolio of products**, alongside robust vertical integration, makes replication exceedingly challenging for competitors, therefore all of these factors contribute to an exceptionally **unique positioning** and a distinctive source of value for the company. The primary focus of the strategic plan, particularly following significant M&A activities, is to develop a new product pipeline across divisions, alongside expanding registrations of recently introduced products in new geographic regions.

### Industrial trends in the three business divisions

The Company operates across three distinct sectors, yet employs shared production platforms and interdisciplinary research and development teams. This approach underscores its unique value creation compared to competitors. Each one of the three is characterized by different competitors, developments and strategies (Annex B1). **(I) Healthcare and Life Sciences** (Exhibit 8): the increasing global focus on healthcare, and the global aging of the population in developed countries imply a future growth and certain positive trend. GVS has the ability to **operate in niches** where it can achieve higher marginality and stable revenues, supported by high entry barriers. Medical care supported by state welfare and private healthcare gives space to possible interesting developments. The world market for medical products is estimated to be worth 536 billion euros at the end of 2021, with a forecasted growth to 633 billion € in 2024, representing a +5.7% average annual growth (source: MedioBanca report). **(II) Energy and Mobility** (Exhibit 8): its the second sector to drive sales, however with a totally different industry than point (I). **Sales growth was of +9.4% from FY21 to FY22**, with EU area inflation at 8.7%. **Strong pricing pressure** and a marked shift toward electric mobility will require GVS to further diversify its product base. With inflationary pressure narrowing GVS's margins, unfortunately GVS cannot follow up on its prices, in order to maintain leadership. **(III) Health and Safety** (Exhibit 8): the big jump in the industry driven by covid-19 pandemic needs will bring trends back to typical ones. With products specifically made for principally B2B channel customers. The manufacturing specificities of products in line with the needs of respirator mask wearers (mainly workers specialized in risky tasks). Product innovation and certification is dominant force, although it detects the market at the last positions on turnover.

### GVS industrial positioning in light of its uniqueness

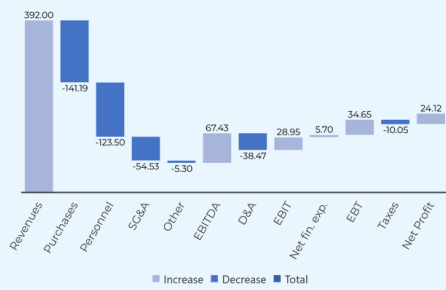
GVS has a **long** history of **positive trend** (+120% sales from 2017A to 2022A- Exhibit 1), despite some aggressive M&As strategies has taken dominance over the former (with Net Debt/EBITDA 5.6 at 2022A), in the following years Strategic acquisitions are paused to facilitate effective integration and the resumption of organic growth and cash generation. The company offers its customers: engineering capability and ability to offer tailor made solutions that competitors are not interested to offer. In the **Health and Lifescience** sector, **brand awareness is one of crucial** traits (expect in the next 2 years CaPex as 7% of sales) importance as the particularity of technical requirements and customer specifications in addition to the highly quality-sensitive sector. A trusted brand is the first step in developing lasting business and sales network developments. GVS in the future years would also like to approach the B2C.

### Competitive positioning

The revenue driving sector, Health Care and Safety accounting for 63% of revenues, requires a level of technology not so easily attainable. Endogenously it has the need for conformity certifications that are difficult to achieve in addition to performance testing of individual products. GVS's competitive positioning appears to be transversely dominant in the sectors in which it operates.

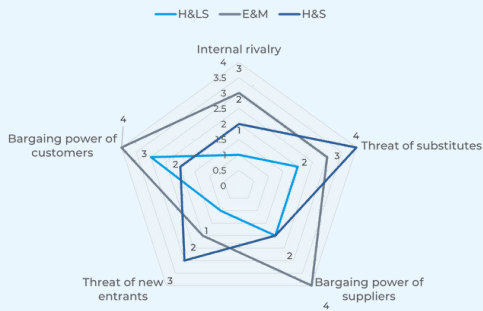
The company is vertically integrated player with full scale filtration platform and proprietary know-how in membrane technology. This unique business system must lead us to analyze competitors not with a holistic view, but in individual products and individual manufacturing achievements (Annex B4: Pestel Analysis).

### Cost Drivers FY22 (Mln€) - Exhibit 11



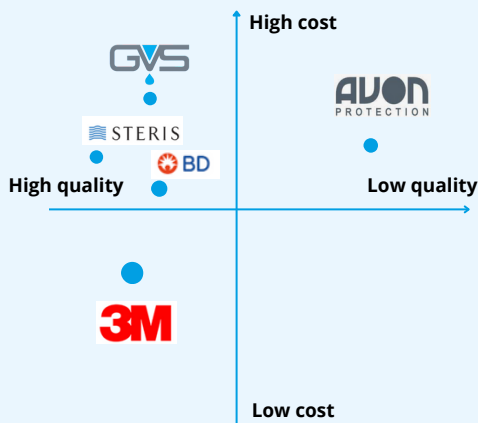
Source: company data, team elaboration

### Radar Graph representation of Porter's Five Forces Model - Exhibit 12



Source: company data, team elaboration

### Four-factor Analysis of Competitors - Exhibit 13



Source: company data, team elaboration

### SWOT Analysis- Exhibit 14

#### Strengths

- Leadership position in structurally growing-niche markets
- Vertical integrated business model, in house production

#### Weaknesses

- Limited size compared to international peers
- High leverage after the recent M&A spree to clients questioned after poor 2022 results

#### Opportunities

- Long track record of M&A deals
- Integration of recent acquisitions to restore normal profitability

#### Threats

- Ability to pass cost inflation to clients questioned after poor 2022 results
- Management track record on guiding the market hit by recent profit warning

Source: company data, team elaboration

- Innovation and Research & Development:** GVS emphasizes innovation and invests significantly in research and development (R&D) to develop advanced filtration technologies and products. This focus allows them to stay ahead of competitors, meet evolving customer needs, and expand into new markets (*Annex B2*).
- Product Diversification and Customization:** GVS pursue a strategy of offering a diverse range of filtration products tailored to specific industries and applications. By providing customized solutions, they can address the unique requirements of different customers and market segments, enhancing their competitiveness and penetration.
- Global Expansion and Market Penetration:** GVS has a strategy focused on expanding its global footprint and penetrating new markets. This may involve establishing partnerships, acquiring companies, or setting up manufacturing facilities in strategic locations to better serve customers and capitalize on emerging opportunities worldwide.
- Quality and Compliance:** Given the critical nature of filtration products, GVS places a strong emphasis on quality control and compliance with industry standards and regulations. Ensuring product reliability, safety, and compliance is essential for maintaining customer trust and meeting regulatory requirements across various markets.
- Customer Focus and Relationship Management:** GVS prioritizes building strong relationships with customers by providing exceptional service, technical support, and value-added solutions. Understanding customer needs and preferences allows them to develop tailored products and services that meet or exceed customer expectations.
- Sustainability and Corporate Responsibility:** GVS integrate sustainability and corporate responsibility principles into its business strategy, focusing on environmentally friendly practices, waste reduction, and social responsibility initiatives. This commitment to sustainability aligns with increasing market demands for eco-friendly products and responsible business practices.
- Continuous Improvement and Operational Excellence:** GVS emphasizes operational excellence and continuous improvement initiatives to enhance efficiency, reduce costs, and optimize processes throughout the organization. This focus on operational excellence enables them to deliver high-quality products and services efficiently while maintaining competitiveness in the market.
- Adaptability and Agility:** In today's rapidly changing business environment, GVS prioritizes adaptability and agility in its strategy. Being able to respond quickly to market shifts, technological advancements, and customer feedback allows them to seize opportunities and mitigate risks effectively.

### Analysis of competitors

By its nature, GVS does not have a single, specific direct competitor (*Annex A2*). For an insight into the industrial evaluation process, three are presented. **(I) Steris plc** has a similar M&A strategy, its revenues from the United States accounted for about 45 percent of total revenues for FY22, as did GVS (49 percent for FY22). The Healthcare segment is focused on sterile processing departments and procedural centers, such as operating rooms, while the Life Sciences one provides a comprehensive portfolio of products and services that support pharmaceutical manufacturing. **(II) Avon Protection PLC** (*Exhibit 13*) is a United Kingdom-based technology company. The Company designs and produces life critical personal protection solutions for the militaries and first responders, with a portfolio that includes chemical, biological, radiological, nuclear (CBRN), respiratory protection products. **(III) Becton, Dickinson and Co.** is a global medical technology company providing innovative solutions that help advance medical research and genomics (*Annex B1*).

### S.W.O.T. analysis

**GVS main strengths** (*Exhibit 14*) are leadership in structurally growing niche markets and its vertical integration, with in house production of products from critical safety. Definitely a long history of profitability. An essential future **opportunity** is the effective integration of M&A operations. If we focus on the single production of specific membranes, filters or masks and in a single industry GVS is much smaller than international competitors (**weaknesses**). The large debt position has significantly lowered company margins and potentially calls for a restructuring. The ability to raise end prices and contain costs (**threats**) will be - together with debt management and M&A integration - a crucial challenge for the strategic future of the company.

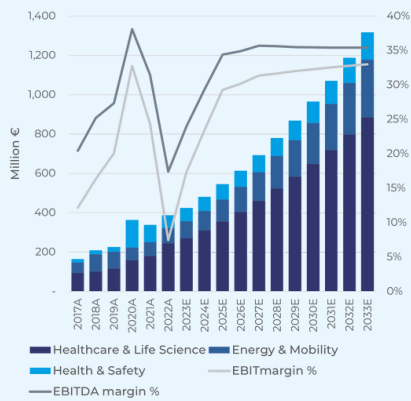
### Forecasting the three business segments

Forecasting specific industries like energy and mobility filtration, as well as air filtration, requires a comprehensive analysis of the myriad factors shaping these sectors. This includes analyzing current market trends and growth drivers in energy and mobility, such as the rising adoption of electric vehicles (*Annex B3*), projected to increase from 3,269,671 units in 2019 to approximately **26 million by 2030** with a **CAGR of 21.1%**. Additionally, it involves evaluating trends in air filtration concerning both indoor and outdoor air quality concerns, regulations, and the escalating demand for clean air solutions (*Annex B2*).

**Monitoring collaborations** and partnerships among filtration companies, energy firms, automotive manufacturers, and other stakeholders in these industries is crucial. Assessing the **potential impact** of these collaborations on product development, market penetration, and business opportunities is essential. Furthermore, considering **macroeconomic factors** like economic growth, inflation rates, and consumer spending patterns can provide insights into the demand for energy, transportation, and air filtration products.

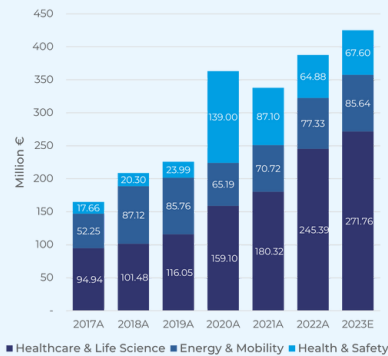
Regarding the **medical devices market**, its growth can be attributed to factors such as the increasing prevalence of chronic conditions, with approximately **6 million** (1.8% of the US population) having experienced heart failures in 2022 according to *Precedence Research 2023*. Rising healthcare expenses and the presence of major manufacturers also contribute to this growth. Additionally, the market is expected to experience inflation, fueled by the emerging trend of wearable medical devices gaining popularity among a broader consumer base.

## Operating Margins by Business Division - Exhibit 15



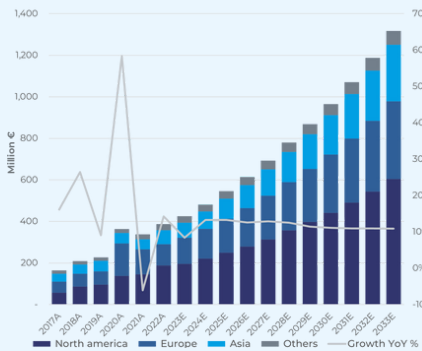
Source: AIDA, company data, team estimates

## Business Division Revenues Breakdown - Exhibit 16



Source: AIDA, company data, team estimates

## Geographical Revenues Breakdown - Exhibit 17



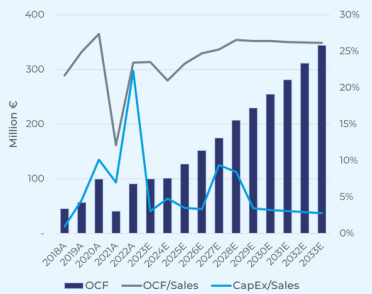
Source: AIDA, company data, team estimates

## Personnel Expenses - Exhibit 18



Source: AIDA, company data, team elaboration

## Cash Flow - Exhibit 19



Source: company data, team estimates

GVS has proven its **ability to expand** continuously its business through a combination of mergers and acquisitions (6 M&A between 2017-2023) (*Exhibit 40*) and internal growth. From 2017 onwards, the company's revenues have experienced remarkable growth, with a **17.10% CAGR in FY17-23** (*Exhibit 15*). This growth signals that GVS is successfully leveraging synergies and developing products, positioning itself well in the market. The favorable effects of the pandemic on Health & Safety revenues (+479% Yoy FY20), particularly in Europe (+145% Yoy FY20), enabled GVS to boost its margin +33%YoY EBITm FY20) (*Exhibit 15*). This improvement in earnings also generated **additional free cash flow** (€63mIn FY20 FCF) (*Exhibit 19*), which was utilized to **distribute dividends** (29% FY20 and 33% FY21 Dividend Payout Ratio) and facilitate the execution of three latest **critical acquisitions** in 2021-2022 (+€136mIn FY21 and +€267mIn FY22 delta of intangible assets). In 2023, GVS aims to bounce back with increased revenue growth (+9.7%YoY Revenues E23), prioritizing the development of **cross-regional synergies**, especially in the H&LS and H&S divisions and improvement of **operational efficiency** (*Exhibit 15*), but **limited pricing power** to offset inflationary increases. Finally, after achieving a significant **reduction in debt** (-15.5% YoY E24 Net Debt) (*Exhibit 21*), we anticipate that GVS will continue its long-term M&A strategy (Source: Company Investor Relation). We expect the company to pursue two new **medium-sized targeted acquisitions** in 2027 and 2028 to fuel further growth (*Annex C7*).

## Revenues Breakdown

In 2023, the company is forecasted to achieve **€425 mln in sales**, primarily driven by the significant expansion of its **Healthcare & Life Science** (H&LS) division strengthened by the acquisitions of **Haemotronic and STT** (Implied acquisition EV/EBITDA of 11x & 9x), it is expected to contribute to **64% of the company's total sales** (+10.7% YoY Revenues E23) (*Exhibit 16*). The establishment of new sales offices in Asia, the development of a comprehensive catalog and collaborations with original equipment manufacturers (OEMs) reflect GVS's strategic ambition to elevate this division as a worldwide cornerstone of its operations. In 2020, the **Health and Safety** (H&S) division witnessed remarkable expansion, accounting for 38% of GVS's sales (*Exhibit 16*). However, it has since seen a decline, now representing only **16% of total sales**. The acquisitions of **RPB** (Implied acquisition EV/EBITDA of 7x) (active masks) and the **Ellipse line** (passive masks) have notably fueled growth in the Personal Safety segment compared to pre-pandemic periods. The H&S division will be utilized as a "**cash cow**," with no plans for expanding the product line. Instead, there will be a focus on maintaining steady revenue growth, potentially driven by **B2C channels** and cross-selling products of reusable marks. The **Energy and Mobility** (E&M) division, being the most recent addition among the three, experienced a significant downturn in 2020 (-24% YoY FY20) (*Exhibit 16*). However, it currently exhibits no indications of future acceleration in growth, the **market appears saturated**, primarily due to European automotive demand. Weak projections for future growth in the electric vehicle market, which could have spurred recovery in this division, coupled with minimal investments by management (20 filters installed on EV cars compared to 10 filters on Internal Combustion Engine (ICE) cars), suggest that this subdivision will remain in a secondary position in the following years (20% of sales E23). Upon analyzing sales distribution by **geographic regions**, it's clear that GVS holds a strong presence in the **USA market (35.9% CAGR FY17-23)**, where it maintains a leading position with €195.5 mln of revenues. The company has pursued global expansion through its cross-selling strategy (*Exhibit 17*). **Europe** represents the second-largest market, experiencing notable growth during the COVID-19 pandemic (+145% Yoy Sales FY20) and now stabilizing at 29.7% of sales in E23 after the acquisition of Haemotronic. **Asia**, the third geographical area (17.1% of Sales in E23), is expected to become increasingly **significant in the future (I Hp)**, thanks to the acquisition of STT for China and the establishment of new commercial offices in India, Malaysia, and Korea (**57.9% CAGR FY17-23E**). The **B2B channel** remains the dominant sales avenue, comprising 74% of sales on average from FY17 to E23, primarily propelled by the H&LS and E&M segments. Meanwhile, the **B2C channel** is expected to grow in the future, accounting for 26% of sales in E27, driven by direct sales of masks from the H&S division (**IV Hp**). The new small to **medium-sized acquisitions (III Hp)**, supported by an increase in **FCFF after extraordinary and financial adjustments** (averaging €47.2 million from FY17 to FY20 compared to €91.845 million on average from 23E to 28E), hypothetically projected for 2027 and 2028, will enhance revenue growth in the H&LS division, this is expected to result in a positive delta of €7 million in 2027 and €9 million in 2028 (*Exhibit 24*).

## Margins and Returns

In 2022, GVS experienced a year of transformations marked by two acquisitions that led to a decline in margins (**17.4% GVS-EBITDAm vs. 29.4% Industry-EBITDAm FY22**) (*Annex C2*). However, GVS is poised to exploit these new synergies in the near future, recovering both revenue generation and operational efficiency (**24.40% EBITDAm 23E**). Key factors influencing **net profit margins** (11.98% of revenues in FY22) include **raw materials** (36.0% of revenues in FY22), **personnel expenses** (31.5% of revenues in FY22), cost of services (13.08% of revenues in FY22), and depreciation and amortization (9.7% of revenues in FY22). The company is currently completing **plant transformations** (eg. Borgocarbonara-Italy, and Monterrey-Mexico), closures (eg. Puerto Rico), and mergers (eg. between Bloomer-USA and Findlay-USA) to **maximize cost savings on operational activities** and **efficient use of tangible assets (II Hp)**. In particular, we have estimated a saving in service cost of €1.87 mln in 2025E onwards, and notably a personnel expenses saving of €15.98 mln in E2025 (moving of some human activities from Italy to Romania, and from USA to Mexico), in response to the decline in **revenue per employee** in 2022 (€ 111.5 k in FY21 vs. €70.5 k in FY22) (*Exhibit 18*). It's worth noting that **D&A increased by 61.4% YoY** in 2022, but this rise is in line with the impact of the new acquisitions. Finally, GVS is a company situated in the middle of the supply chain of **MedTech Contract Manufacturing**, specializing in component products sold in batches, therefore it has limited ability to offset costs through price increases. Management has disclosed that following a **5% price increase in 2023** lagged by one year (vs. UE Consumer Price Index of 9.2% in 2022), they will **not be able to raise prices in 2024 and 2025**. It is unlikely that list prices for products, especially in the B2B business segments of E&M and H&LS, which primarily involve component sales, however, in the B2C segment featuring H&S products, there exists more flexibility to transfer price increases to customers.

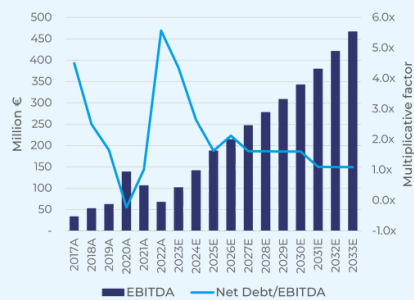


## Cash Flow Dynamics - Exhibit 20



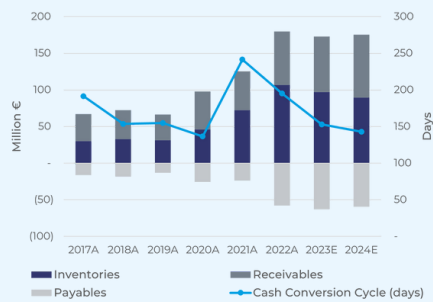
Source: company data, team elaboration

## Net Debt / EBITDA - Exhibit 21



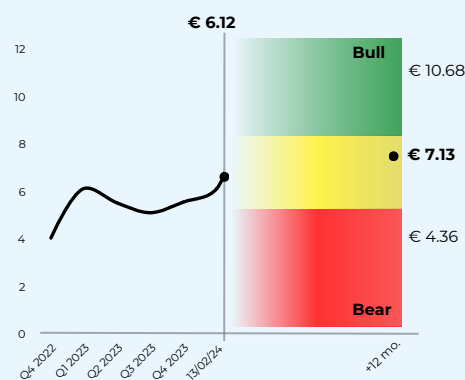
Source: company data, AIDA, team estimates

## Cash Conversion Cycle - Exhibit 22



Source: company data, team estimates

## Bull & Bear Scenario - Exhibit 23



Source: team elaboration

## Scenario Description - Exhibit 24

2028	Bear Scenario	Base Scenario	Bull Scenario
Revenues	712.69	779.82	800.41
EBITDAm %	27.7%	35.6%	37.3%
EBITm %	24.03%	31.7%	33.4%
CapEx%	3.24%	8.44%	8.22%

Source: Refinitiv, company data

## Investments, Cash and Debt

GVS is facing an internal structural changes, **OCF** has experienced a growth with a **14.8% CAGR FY18-23E** and a stable **OCF/Sales ratio of 22.0%** on average after a momentary drop in 2021 (Exhibit 19). The extra **FCFF after extraordinary and financial adj of €65.96 mln in 2020** was used to paying **extraordinary dividends** (29% FY20 and 33% FY21 Dividend Payout Ratio) and to complete in part the three latest M&As. The acquisitions of Haemotronic, STT and RPB have contributed to raising the average investment in **intangible assets**, which accounted for **73.4% of total investments** over the period FY18-FY22 (Exhibit 20), while CapEx was prominent in 2022 (€86.48 million FY22), it is expected to stabilize at consistent levels in the upcoming years (4.39% CapEx/Sales Average 23E-33E). New debt has been contracted to support M&As in the amount of +€154.6 mln in FY2021 and +€262.35 mln in FY2022 (Exhibit 21), indeed with a **5.43 Net Debt/EBITDA in 2022**, GVS is facing a temporary financial stress, however **interest expenses on revenues** are projected to decrease from an average of 4.9% in FY22-FY23 to 2.7% in 25E-33E (Annex C4). The **cash conversion cycle** is anticipated to improve in the coming years as inventory management is enhanced to address accumulation resulting from supply chain disruptions over the past three years (-88 days delta FY21-23E) (Exhibit 22) (Annex C5). The **merger and closure of plants** will not only affect costs but also impact tangible assets, leading to a reduction in **maintenance CapEx to 12% in FY25E and FY26E** compared to the historical average of 16% (Exhibit 19). However, by 2027 and 2028, with the return to optimal debt levels, it is hypothesized that GVS will be able to pursue two **new targeted acquisitions**. This is expected to result in an increase in tangible assets, with maintenance CapEx accounting for 40% in FY27E and FY28E, and an accompanying increase in goodwill by 6%. Over the next two years, GVS will focus on repaying its accumulated debt, supported by its favorable **zero dividend policy**. The **Net Debt/EBITDA** is expected to fall below 2.0 in 2026E, coinciding with the capital repayment of the Club Deal loan (2021) amounting to €150 million, the Club Deal loan (2022) of €230 million, and the Unicredit/Mediobanca mortgage (2020) of €40 million (**D/E from 1.15 in FY23E to 0.72 FY26E**) (Annex C4). The **breakdown of the revenues** is provided in the Annex C7, currently, GVS has seven lines of debt gradually expiring in the following years. Annual interest expenses were calculated using methodologies in accordance with covenants such as net financial indebtedness/EBITDA, Euribor 3-6 months, or fixed rates. Finally, long-term financial debt was introduced starting from 2026E to maintain an efficient utilization of the leverage debt profile (**1.86 Net Financial Debt/EBITDA Avg. 23E-33E**) (Annex 21)(Annex C4).

Economic data	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E
<b>Total Revenues</b>	167.19	211.42	230.59	365.21	343.08	392.03	425.00	481.42	545.44	613.98	693.11	779.82
<b>H&amp;LS</b>	94.94	101.48	116.05	159.10	180.32	245.39	271.76	310.91	355.79	404.49	461.20	524.08
<b>E&amp;M</b>	52.25	87.12	85.76	65.19	70.72	77.33	85.64	97.98	112.12	127.47	145.34	165.16
<b>H&amp;S</b>	17.66	20.30	23.99	139.00	87.10	64.88	67.60	72.52	77.54	82.01	86.58	90.58
<b>Growth YoY %</b>	16.1%	26.5%	9.1%	58.4%	-6.1%	14.3%	8.4%	13.3%	13.3%	12.6%	12.9%	12.5%
<b>EBITDA</b>	33.70	52.66	62.22	138.36	106.33	67.43	101.80	141.33	187.62	214.40	247.32	277.88
<b>As % of Revenues</b>	20.4%	25.2%	27.4%	38.1%	31.4%	17.4%	24.0%	29.4%	34.4%	34.9%	35.7%	35.6%
<b>EBIT</b>	20.09	34.17	45.66	119.00	82.34	28.96	73.73	112.87	159.56	185.42	217.40	246.83
<b>EBIT margin %</b>	12.0%	16.2%	19.8%	32.6%	24.0%	7.4%	17.3%	23.4%	29.3%	30.2%	31.4%	31.7%
<b>Fin. income/expenses</b>	-11.77	-1.88	-1.99	-13.11	7.42	5.67	-26.66	-22.21	-18.18	-23.73	-21.62	-28.77
<b>Net Income</b>	6.03	23.07	33.09	78.08	67.60	24.12	34.28	66.95	104.85	119.60	145.07	161.58
<b>As % of Revenues</b>	3.6%	10.9%	14.4%	21.4%	19.7%	6.2%	8.1%	13.9%	19.2%	19.5%	20.9%	20.7%
<b>ROS %</b>	3.7%	11.0%	14.6%	21.5%	20.0%	6.2%	8.1%	13.9%	19.2%	19.5%	20.9%	20.7%
<b>ROE %</b>	10.4%	32.5%	35.1%	32.2%	22.9%	7.4%	9.5%	15.6%	19.6%	18.3%	18.2%	16.8%
<b>Earning per Share</b>	-	-	0.19	0.32	0.26	0.14	0.20	0.38	0.60	0.68	0.83	0.93
<b>Capex</b>	-2.01	-10.40	-36.75	-23.67	-86.48	-12.97	-23.11	-19.25	-20.47	-65.19	-65.82	-30.15
<b>Inv. in Intangibles</b>	-9.48	-4.35	3.04	-144.36	-284.16	-19.71	-25.09	-9.28	-9.92	-41.79	-38.66	-10.11
<b>Net Fin. Indebtedness</b>	-151.80	-131.78	-103.13	31.62	-107.84	-375.47	-442.35	-373.57	-305.91	-456.11	-400.32	-448.36

Table 1

Source: AIDA, company data, team estimates

## Valuation

### Valuation Methods

We issue a "**HOLD**" recommendation on GVS, with a **1-year forward forecast target price of €7.13**, representing a **16.50% upside** from the price on February 12th, 2023. Our analysis is based on industry and company-specific assumptions outlined earlier with a weighted mean. Our valuation methodology includes a **Discounted cash flow to Firm model** (Annex D7) with the following business as usual scenario: (II Hp) plant transformations, (III Hp) medium-sized acquisitions and (IV Hp) Development of B2C channel; **Price and FCF Montecarlo simulation** (Exhibit 27); **Peer Evaluation Model** (Annex D2) on different significant multiples and Principal Component Analysis (Exhibit 26) (Table 3). Additionally, we conduct **bear and bull scenario analyses, sensitivity analyses**, and utilize **tornado charts** to further enhance our assessment.

### DCF Model

A **multiple stage DFC to Firm model** was built considering the three previous hypothesis will support growth of **19% FCFF CAGR 23E-33E**. In the **first Stage: (II Hp)** Reorganizing of production plants in 2025 and diminishing in interest expenses thanks to expiration of club loans debt will help GVS to bring back on positive value, after three years, the **net change in cash (+ €15.54 mln in 25E vs -€24.67 mln in 23E)**. In the **second stage: (III Hp)** medium-sized acquisitions in 2027 and 2028 will help the growth of revenues (+12.9% Yoy 27E) but also it will slightly impact **FCFF (-51.4% Yoy 27E)**. In the **third stage: (IV Hp)** from 2034 head, we proceed to discount any cash flow with this rate; for the **Terminal Growth Rate g**, we **assumed a solid 2%** linked with the notable ECB target long term inflation rate (Table 2). Regarding the **WACC computation**, we have estimated a **9.12%** discount rate, following the Fama - French 3 factor model. Additionally, we have checked the robustness of our results, via a **probability based sensitivity analysis**: we started with the standard sensitivity analysis in which we have 25 final price values for **25 combination of g and WACC** (Annex 1).

**Probability based – DCF Sensitivity Analysis – Exhibit 25**

STANDARD SENSITIVITY					
WACC\g	0.01	0.015	0.02	0.025	0.03
0.07	11.127	11.89	<b>12.81</b>	13.928	15.328
0.08	9.1569	9.6617	<b>10.25</b>	10.947	11.782
0.09	7.7106	<b>8.06</b>	<b>8.459</b>	<b>8.919</b>	9.4562
0.1	6.6103	6.8602	<b>7.141</b>	7.46	<b>7.8242</b>
0.11	5.7501	5.934	<b>6.138</b>	6.3665	6.6234

PROBABILITY MATRIX					
Marginal Prob	0.075	0.15	0.55	0.15	0.075
0.1	0.0075	0.015	<b>0.055</b>	0.015	0.0075
0.125	0.0094	0.0188	<b>0.069</b>	0.0188	0.0094
0.3	0.0225	<b>0.045</b>	<b>0.165</b>	<b>0.045</b>	0.0225
0.275	0.0206	0.0413	<b>0.151</b>	0.0413	0.0206
0.2	0.015	0.03	<b>0.11</b>	0.03	0.015

Less Likely  More Likely

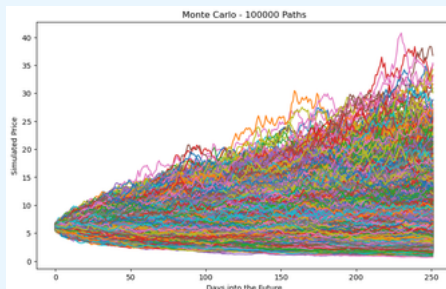
Source: Refinitiv, company data

**Target Price – Exhibit 26**

Method	Result (€)	Weight
DCF	8.46	50%
Peer	9.72	5%
PCA	7.58	5%
MC Prices	6.02	20%
MC DCF	4.17	20%
<b>TARGET : 7.13</b>		

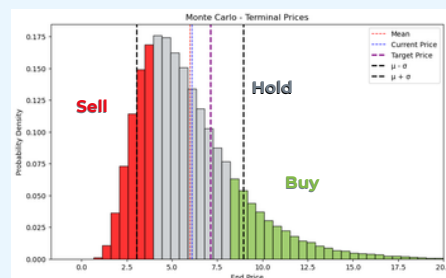
Source: Refinitiv, company data, team elaboration

**Paths of Montecarlo Simulations – Exhibit 27**



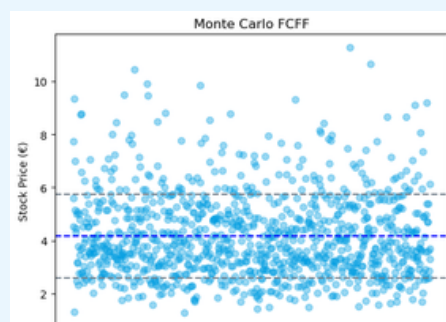
Source: Refinitiv, company data, team elaboration

**Simulated Price Distribution – Exhibit 28**



Source: Refinitiv, company data, team elaboration

**Scatterplot Montecarlo DCF – Exhibit 29**



Source: Refinitiv, team estimation

Then, we have built a **Probability Matrix** (Exhibit 25), which substitutes the joint probability distribution of WACC and g: the column header is the marginal probability associated with the WACC values in the Standard Sensitivity Matrix WACC's column and same hold for g: the values inside the matrix are simply the product of the corresponding marginal probabilities. These represent the **probabilities associated with each outcome** of our sensitivity analysis. Finally, both a **Bull and Bear scenario** were considered (Exhibit 24). In the Bull scenario, the assumption of revenue improvement in Asia (**+20% CAGR 23E-33E Bull Scenario** vs. +14.5% +20% CAGR 23E-33E Base Scenario) was considered, thanks to synergies with STT and the new sales offices (Exhibit 23). Whereas in the Bear scenario, it was assumed that GVS would not be able to improve operations and the two new acquisitions would not be made (**-10.7% EBITm avg 25E-33E with respect to base scenario**) (Exhibit 24).

**Peer Valuation**

Furthermore, we conducted a **peer valuation analysis** utilizing selected comparables that have been divided into the H&LS, E&M, and H&S divisions (Annex D2). The selection process was based on (a) qualitative similarity in product offerings, (b) global distribution strategy, (c) strong brand positioning, and (d) a robust historical track record of M&As. Comparables (Annex D3). Considering the **EV/EBITDA ratio**, it is noteworthy how GVS stands out compared to the industry average (**11.5 GVS EV/EBITDA vs. 16.61 Industry EV/EBITDA**). Given the ongoing structural changes aimed at improving operational efficiency and reducing debt, it is more likely that this multiple will improve, positioning GVS as one of the best in class in terms of using of leveraging financial leverage and operational management. The **Price-to-EPS ratio** is another important indicator, indicating that GVS is generally in line with the average of its comparable companies (**20.84 GVS P/E vs. 22.21 Industry P/E**). However, there may still be potential upside, particularly since the P/E ratio of H&LS is higher than the industrial average (**40.05 H&LS Comparable P/E**). Given that GVS is specifically focused on reinforcing H&LS for its future growth, this presents an opportunity for further upside potential. In conclusion, analyzing Price/Book, Price/Sales, Price/EPS, EV/Sales, and EV/EBITDA ratios, we estimate that GVS is currently undervalued compared to its comparables, with an estimated price of €9.72 with respect with the current price of €6.12. However, given that **GVS is a multi-business company** and comparables have significantly larger market capitalizations, we opted to be conservative in the multiple peer evaluation. Therefore, we assigned it a lower weight compared to the DCF analysis.

<b>Cost of Equity: r_e</b>	<b>10.59%</b>	<b>r_e = r_f + β_m [ERP] + β_s [SMB] + β_v[HML]</b>
Risk free rate: r_f	2.36%	Average of daily returns of 10Y Government Bonds of Euro Zone AAA issuers
Beta Market: β_m	0.9617	Multi Linear Regression of realized weekly GVS returns against ERP, SMB, HML
Beta Size: β_s	0.3110	
Beta Value: β_v	0.5216	
Equity Risk Premium: ERP	8.50%	Average ERP of Stoxx 600 and FTSE Mid Cap (2020- February 2024)
Small - Big Mkt Cap: SMB	-0.018	Average Weekly return of FTSE Small Mid Cap - MSCI Europe Large Cap
High - Low Mkt/Book: HML	0.011	Average Weekly return of MSCI Europe Growth - MSCI Europe Value
<b>Cost of Debt: r_d</b>	<b>8.80%</b>	<b>r_d = r_f + ICR_s + CRP</b>
Interest Coverage Ratio Spread: ICR_s	0.0107	EBITDA/Interest Expenses (Damodaran)
Country Risk Premium: CRP	0.0537	Weighted Average of CRP, based on geographical revenue (Damodaran)
Debt Structure: D/E	0.4134	Current Leverage Ratio
Average Tax Rate: τ	26%	Average Tax Rate paid by GVS (2019 - 2023E)
<b>r_WACC</b>	<b>9.12%</b>	<b>r_WACC = (D/E+D)(1 - τ) r_d + (E/D+E) r_e</b>

Table 2

Source: company data, team elaboration

**Alternative Valuation Methods**

In Addition to the standard DCF and Peer valuation techniques, we thought that simulation approaches can bring valuable insights to the table: specifically, we have performed **Principal Component Analysis** on multiples, **Monte Carlo Simulations on Price Paths** and **Free Cash Flow to Firm** with a **Geometric Brownian Motion** (GBM). Given the imbalanced strenghts and weaknesses of these empirical approaches, we weighted the results based on their **robustness** for the business as usual (for a detailed discussion, see Annex D4).

	PCA on Multiples	MC on Prices	MC DCF
Results	<b>7.58€</b>	<b>6.02 €</b>	<b>4.17 €</b>
Description	PCA is a statistical method for reducing the dimension of a certain data table (in this case the vast range of available multiples) to its essential features, called principal components. These variables maximally explain the GVS price, leading to efficient explanations	Monte Carlo Simulation is a random-based technique used to recreate or forecast the behaviour of a certain process. in our case the process to replicate is GVS stock price. To do so, we have simulated <b>100K paths</b> with <b>252 steps</b> : each simulation represent a daily price.	Monte Carlo Simulation is a random-based technique used to recreate or forecast the behaviour of a certain process. in our case the process to replicate is GVS FCFF. To do so, we have simulated <b>1000 vectors</b> with <b>10 entries</b> : each simulation represent a 10-year DCF model.
Pros	With PCA it is possible to <b>filter out noise</b> -carry variables, which do not help substantially in explaining the change in our target variable (GVS price), but provide just misleading results.	MC is a plug-in, easy and efficient approximation <b>solution method</b> for problems which are not solvable in closed form: given that our process is random, replicability is on average.	MC is a plug-in, easy and efficient approximation <b>solution method</b> for problems which are not solvable in closed form: given that our process is random, replicability is on average.
Cons	PCA cannot handle non-stationary (e.g. with time dependent variance) series, like GVS stock price. However we found that EPS and P to Sales per share forms a cointegrating series (stationary) with GVS.MI.	MC precision relies on the soundness of the assumption used to simulate your target process: with GBM you obtain <b>Gaussian returns</b> , which are in fact <b>Leptokurtic</b> , leading to less <b>fat-tail</b> events w.r.t reality.	MC precision relies on the soundness of the assumption used to simulate your target process: with GBM you obtain <b>Gaussian FCFF changes</b> , which are not so far from the actual distribution, leading to a reliable proxy.

Table 3

Source: company data, team elaboration



S		G	
<b>E</b>	Health and safety 33.67%	Ownership and control 31.83%	
Sustainable product 41.24%	Employment practices 33.67%	BoD and committees 20.45%	
Emission management 29.38%	Product quality mgmt 18.11%	Accounting practices 20.45%	
Energy management 29.38%	Ethics and compliance 14.55%	Business ethics 27.27%	

Source: Bloomberg, Refinitiv, team elaboration

GVS priority SDGs - Exhibit 31

PILLAR	E	S	G	GVS
<b>WEIGHT</b>	40%	30%	30%	100%
<b>SCORE</b>	4.04	4.55	4.90	4.45
<b>RATING</b>	BB-	BB	BB+	<b>BB</b>

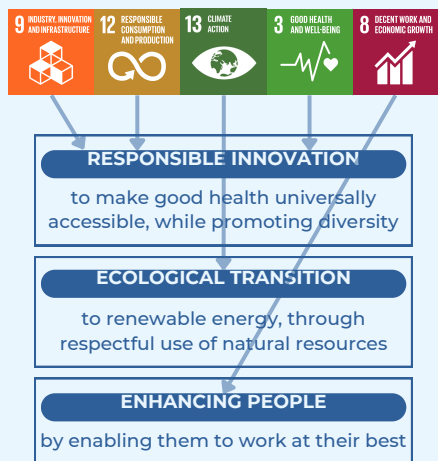
Source: Bloomberg, Refinitiv, team elaboration

Rating conversion table - Exhibit 32

D	C	CC	CCC	B-	B	B+	BB-	<b>BB</b>	BB+
0.5	1	1.5	2	2.5	3	3.5	4	4.5	5
BBB-	BBB	BBB+	A-	A	A+	AA-	AA	AA+	AAA
5.5	6	6.5	7	7.5	8	8.5	9	9.5	10

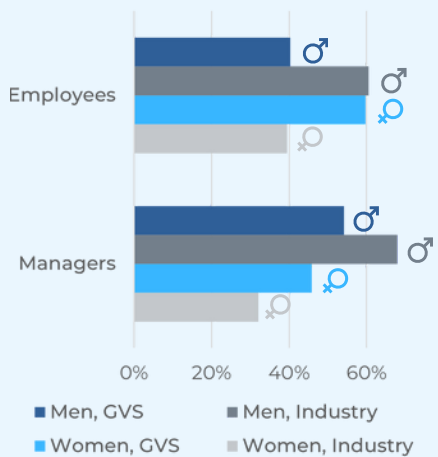
Source: S&P

GVS sustainable strategy and priority SDGs - Exhibit 33



Source: company statements

Gender ratio - Exhibit 34



Source: Refinitiv, company data

# Environmental, Social & Governance

Navigating a realm where the **urgency to enhance ESG factors** is becoming increasingly pressing, exemplified by the European Union, whose framework GVS is subject to (given that its headquarters are in Italy), it is crucial to evaluate companies through this lens as well. The aim of the ESG analysis that follows is, thus, to map the sustainability profile of the Group and to contextualize this profile with respect to the industry. Based on the methodologies of the main data providers and ESG rating agencies (Refinitiv, Bloomberg, MSCI), we developed a proprietary model built up of **74 metrics** (27 Environmental, 24 Social, 23 Governance), both quantitative and qualitative (expressed as true or false), clustered into 3 Environmental, 4 Social, and 4 Governance key factors (*Exhibits 30, 31*) weighted according to their relevance to the Group (*source: Bloomberg, team estimates*), as outlined in the table in *Annex E7*.

Given the highly diversified activities in which GVS engages on a daily basis, the Company was evaluated with respect to a **"synthetic" industry**, composed of the same firms considered for the peer valuation (*Annex D3*), with the addition of Interpump Group S.p.A and Carel Industries S.p.A., in order to diversify the comparative pool by considering also some comparable "Italian champions", and Medtronic PLC. Note that Danaher Corporation was not included in the industry for FY22, due to difficulties in retrieving the needed data.

The final score was determined through a **bottom-up approach**. Initially, scores ranging from 1 to 10 were assigned to each metric by comparing GVS against the industry average and to the best/worst performers within the pool of peers. Specifically, two dimensions were considered in this assessment: the extent to which the industry aligned with the optimal value each metric should assume, and GVS's position with respect to the distribution of the industry. Subsequently, these scores were aggregated at the factor level with equal weighting of the metrics. These numerical values were further combined, according to their weights, at the pillar level and then at a general level (*Exhibit 30, 31*). Finally, the numerical score was converted into its alphanumeric equivalent, following the table outlined by S&P (*Exhibit 32*). The **final score for GVS Group is BB**, which signals that significant efforts are still required in addressing these matters.

## Environmental: BB-

The Group's core business heavily relies on the acquisition of plastic resins and polymers and their transformation into filter materials and, subsequently, into finished filters through proprietary processes. The **environmental impact** of these operations is therefore **paramount** in assessing the Company's overall sustainability performance: in our ESG analysis, the environmental pillar is consequently allocated the highest weight, reflecting the significant influence of these procedures.

Throughout the last years, GVS has been intensifying its actions to tackle environmental challenges, setting its sights on the achievement of **carbon neutrality by 2040** (*source: company statements*). However, the Group still lags behind its peers in addressing indirect GHG emission. Additionally, only nine of the production sites are in possession of the ISO 14001 certification, while the others are in the process of obtaining it and currently rely on alternative procedures to manage environmental aspects. The Company's pursuit of environmental sustainability has been **partially hindered by the recent acquisitions** of new production sites, resulting in increased emissions, waste generation (mostly plastic scraps deriving from the molding processes) and resource usage, relative to revenues; these increases may be attributed to the fact that synergies with the other entities within the Group still have to be optimized.

Positively, the Group has started a process aimed at becoming **less energy-intensive** through various structural and managerial interventions, such as the reuse of thermal energy from industrial activities for space heating purposes (*source: GVS non-financial statement*). Moreover, the Firm's **"local for local" approach** makes products available to customers worldwide, while minimizing logistical movements and the relative environmental impact and costs, starting already from the design phase.

However, despite GVS's commitment to constant improvement in product quality and innovation in the production processes, the Company is still lacking when it comes to the development of sustainable products, nevertheless being in line with the industry average.

A crucial concern is the **absence of specific sustainability targets** in the non-financial statement, which would be instrumental in quantifying the upgrades that the Company still needs to undertake. GVS Group is expected to disclose a sustainability plan in the coming months, which should hopefully represent a step in the right direction toward filling this gap. All these considerations are reflected in the environmental score for GVS, which corresponds to **BB-**, the lowest among the three pillars.

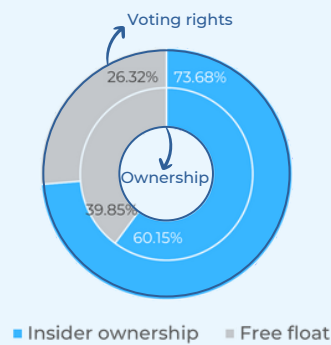
## Social: BB

GVS's sustainable strategy (*Exhibit 33*) revolves around social commitments, specifically mentioned in two out of the three principles.

The proposition of **"responsible innovation"** is all about leveraging GVS's products to contribute to a future where universal access to good health is prioritized and where safety and well-being are key factors, all while promoting **diversity as a catalyst for generating new ideas**. This underscores the importance of fostering an inclusive working environment. For example, the Company boasts the highest percentage of women among all employees, including at the managerial level (*Exhibit 34*), surpassing the peers average (39.50% - 32.09% for managers) by a significant margin. However, increased disclosure is required regarding the gender pay gap: only the manufacturing plant GVS UK seems to have reported on this matter in FY22 (*source: company data*).

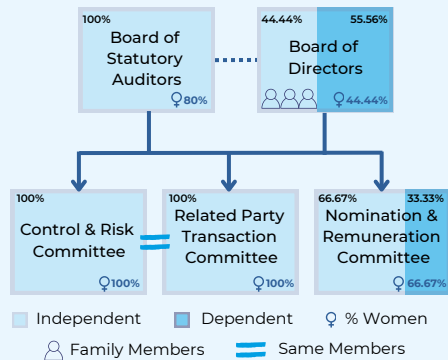
The principle **"enhancing people"** calls for the implementation of initiatives aimed at enabling employees to perform at their best, since the Group considers the value of human resources as an indispensable development tool. A top priority is safeguarding and promoting the health and safety of workers, an area where the Group maintains a strong commitment, largely aligning with industry standards. There are, however, concerning trends to note. For instance, the average training hours per employee saw a severe decline of approximately 33.33% between FY21 and FY22 (*source: Refinitiv*), likely due, once again, to ongoing challenges in optimizing synergies with the recently acquired production sites. Additionally, the Company grapples with an alarmingly high turnover rate, reaching 56.20% for FY22 (*source: Refinitiv*), posing a substantial risk for human capital development.

### GVS governance structure - Exhibit 35



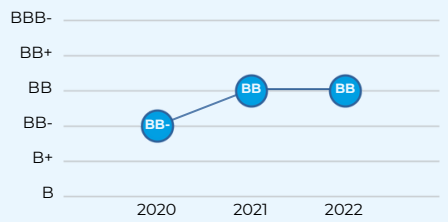
Source: Refinitiv, company data

### Governance committees - Exhibit 36



Source: company data

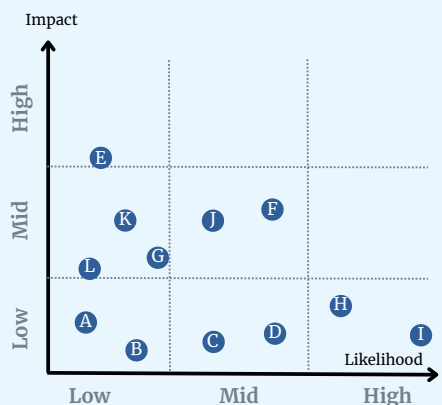
### ESG momentum - Exhibit 37



Source: team estimates, Refinitiv

### GVS main risks - Exhibit 38

MARKET	
A	Inflation
B	Macroeconomic
C	Supply Chain
D	Geopolitical
OPERATIONAL	
E	M&A Integration
F	Debt Repayment
G	Loss of Key Employees
H	Incumbent Competitors
I	Product Quality Standard
FINANCIAL	
J	Liquidity (Stock & Firm)
K	Tax
L	Exchange Rates



Source: company data, team estimates

Another element worth mentioning is the **Code of Ethics for Suppliers**: since 2022, suppliers need to abide by said code to become part of GVS's value chain; GVS reserves the right to verify compliance and to unilaterally terminate any agreement with the supplier in case of breaches. In FY22, only 11% of the new suppliers were screened according to social criteria and 10% according to environmental criteria (source: company data), numbers which are expected to rise in the coming years.

### Governance: BB+

The Group falls within the definition of **"concentrated ownership company"**, according to the Corporate Governance Code for listed companies published by Borsa Italiana S.p.A., which GVS adheres to. In fact, GVS Group S.r.l., controlled by GVS's CEO Massimo Scagliarini, holds 60% of the total share capital and **73.68% of the total voting rights** (source: company data, Exhibit 35), granting the CEO veto power. While this concentration may raise concerns about minority shareholders' interests, especially considering that the vast majority of the peers is characterized by high levels of public ownership, the CEO's track record in the Company and the presence of policies protecting the other shareholders offer reassurance about effective leadership of the Group. Moreover, concentrated ownership ensures stability of the Group, vital for avoiding potential covenant breaches in the bank loan agreements signed in FY21 and FY22, which would trigger the cancellation of any commitment from the financing institutions in the event of a "change of control".

The Board of Directors reflects this ownership structure with a low percentage of independent members (44.44%, considering the BoD that was in office until the approval of the financial statement for FY2022, Exhibit 36, Annex E2). However, It is important to note that a new Board took office in May 2023, with increased independence and a restructuring of governance committees (Annex E3); all members, except the CEO, are now non-executive. These challenges faced by the Company are balanced out by its performance regarding the **remuneration policies**, area in which GVS excels with respect to most of its peers, in both disclosure and compensation schemes. The incentive system outlined in the Remuneration Report for FY22, approved with a 97% majority, link CEO, Executive Directors, and Key Managers' remuneration to ESG KPIs and indicators (10% for short-term and 20% for long-term incentives, company data). This system aims at maximizing performance and raising awareness on each role's importance in achieving company objectives.

### ESG momentum

The past three years have seen GVS make strides in its ESG rating, moving **from BB- in FY20 to BB in FY21 and FY22** (Exhibit 37). Although this improvement may appear modest, especially if compared to the advancements made by the peers, the consistent **upward trend** in the numerical scores it's worth noting. In fact, between FY21 and FY22, while the final rating remained stable, there was a slight increase in the numerical score: the decline in environmental performance, likely due to recent production sites acquisitions, was offset by improvements in social and governance factors, proved also by the receipt of corporate responsibility awards in FY22 for the first time. Since FY22, the Company has intensified its focus on enhancing ESG efficiency. Initiatives such as stakeholder engagement efforts to prioritize ESG concerns (carried out in FY22), investments in innovative products which are expected to be eligible for taxonomy (source: company statements), the BoD restructuring, and the forthcoming sustainability plan, signal the Company's **proactive stance** and lay a solid foundation for anticipated future improvements in GVS's ESG rating.

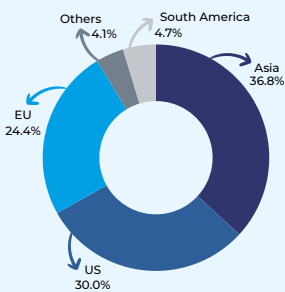
## Investment Risks

In light of GVS's peculiar organizational structure and diversified business segments, we have identified 12 key risks which could potentially affect the Company in the **short-mid term**. These risks can be grouped into 3 main categories: **Market, Operational** and **Financial**. By diving into Exhibit ... it is possible to get a comprehensive view of these risks, divided into their respective groups, and of their impact on the Group.

In the table below, we provide for every risk a concise summary of its potential outcome, supplemented by relevant explanatory data whenever possible, and strategies for mitigation.

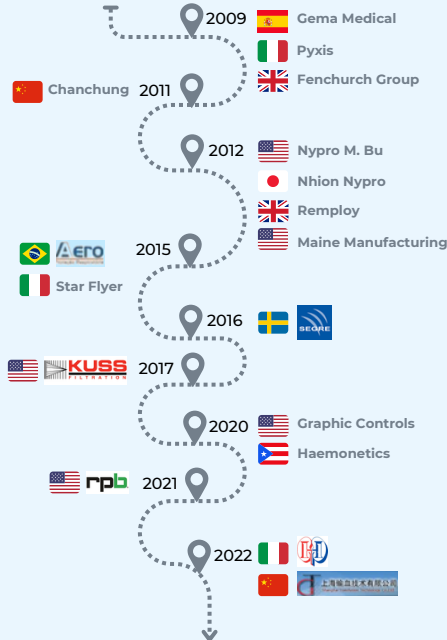
Risk	Impact	Likelihood
<b>Inflation's Impact on Margins:</b> Inflationary pressures can increase the costs of raw materials, labour, and other operational expenditures for GVS. For instance, in January 2023, the rate of change of the Italian Consumer Price Index for the whole nation (NIC) was +0.1% on a monthly basis and +10.0% on an annual basis (from +11.6% in December 2022). Passing this increase in costs onto customers through price adjustments may not be completely feasible for the Company: as a consequence, margins could be squeezed and profitability negatively affected. <b>Mitigation:</b> GVS may need to implement cost-saving initiatives, especially after the completion of 17 M&A in 13 years, negotiate favorable terms with suppliers, and continuously optimize production processes to absorb potential cost hikes.	Not so Unlikely	Low Impact
<b>Macroeconomic Uncertainty:</b> Economic downturns or fluctuations in macroeconomic factors such as GDP (Exhibit 39) growth, consumer spending, and interest rates can influence the demand for GVS's products. During periods of economic uncertainty, customers may delay or reduce their purchases, potentially leading to reduced revenue for GVS or to an extension in its FY23E Cash Conversion Cycle, currently estimated at 153 Days. <b>Mitigation:</b> GVS should leverage its diversified distribution, currently engaged in 9 countries across the world, deploying its portfolio of 13 acquired brands, to better absorb potential shocks.	Unlikely	Not so Low Impact
<b>Supply Chain Bottlenecks:</b> Failure of GVS's suppliers to meet the quality standards outlined by the Group in the "Supplier Code of Conduct", established in 2022, could lead to local supply chain disruptions as the Company's production processes and product deliveries can be severely affected. In general, with a Trade Payables to Receivables ratio of 0.79, negotiation with suppliers seems to be balanced. <b>Mitigation:</b> The Company should maintain close relationships with its suppliers, reinforcing its "local for local" policy. Additionally, GVS may consider diversifying its supplier base or investing in vertical integration to reduce dependence on external suppliers and, consequently, on supply chain disruptions.	Likely	Low Impact

**World GDP 2023 estimate - Exhibit 39**



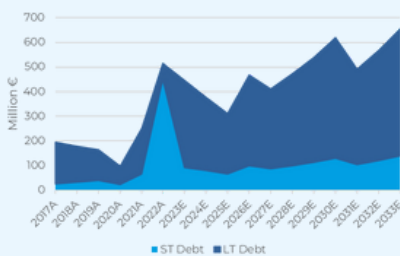
Source: Statista, team elaboration

**GVS M&A over time - Exhibit 40**



Source: Refinitiv, company data, team elaboration

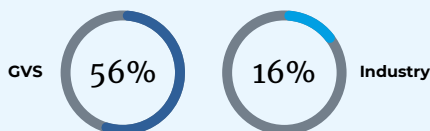
**GVS Total Debt - Exhibit 41**



Source: Refinitiv, team elaboration

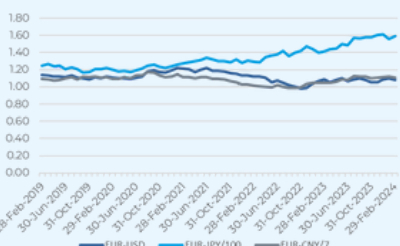
**Employee turnover: GVS vs Industry Average - Exhibit 42**

Employees who have left the company during the year  
Average employees per year



Source: Refinitiv, company data, team elaboration

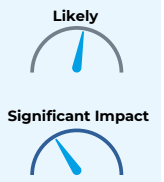
**EUR vs USD, JPY, CNY (rescaled) - Exhibit 43**



Source: Refinitiv, team elaboration

**Geopolitical Risks:** Nowadays, global tensions have escalated, and, as a consequence, trade issues and regulatory changes have assumed increased significance in the world market. This situation is particularly pronounced in China, where the Taiwan dispute is still latent, but potentially ready to unveil. GVS's business operations, including sales, production, and sourcing, can be significantly affected, considering that FY30E revenues from Asia can breach the threshold of 20% of total sales.

**Mitigation:** GVS should closely monitor geopolitical developments, diversify its geographic presence, and maintain open communication channels with relevant stakeholders, in order to anticipate and effectively respond to potential challenges.



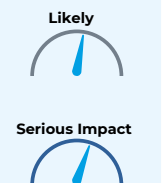
**M&A Integration:** The process of integrating the 17 acquired companies (Exhibit 40) to achieve cost-saving synergies poses operational challenges, such as technology integration complexities, organizational restructuring, and logistical issues. Subpar integration could be dreadful in two main aspects: firstly, missed saving opportunities in production costs; secondly, possible overpayment for the acquired companies.

**Mitigation:** GVS should devise a comprehensive integration plan, allocate adequate resources, and establish clear communication channels to ensure a smooth transition and maximization of the value derived from acquisitions.



**Debt Repayment:** High debt levels on GVS's balance sheet (Exhibit 41) could increase financial risk and constrain the Company's ability to pursue its leveraged buyout strategy, especially in light of its FY23E Interest Expenses to EBITDA ratio of 26.2%. Furthermore, the situation can also be worsened by the fact that the Company's debt is linked to its leverage, potentially leading to a vicious cycle where interest expenses grow because of the leverage, absorbing larger and larger portions of EBITDA.

**Mitigation:** GVS must proceed to deleverage its position in the next 3 to 4 years, aiming to reach at most an Interest/EBITDA ratio of 10%, by maintaining adequate cash reserves and avoiding dividend distributions.



**Loss of Key Figures:** High employee turnover, especially among key personnel, can disrupt operations, diminish productivity, and hinder long-term growth potential, as it can diminish returns on R&D investment. The turnover rate of employees (Exhibit 42) is currently around 56% for GVS, significantly higher than the industry average (based on the industry considered in the previous ESG analysis), highlighting a concerning trend.

**Mitigation:** GVS should implement effective employee retention strategies, including offering competitive compensation packages, fostering career development opportunities, and cultivating a supportive work environment, all aimed at attracting and retaining top talents. Currently, the Group has established a succession plan and a knowledge transfer program, which can help mitigate the risk of losing critical operational knowledge.



**Competition:** Although GVS operates in heavily-regulated niches, characterized also by significant entry barriers, established firms can still try to penetrate the filtration industry, resulting in price pressures, reduced margins, and potential market share erosion for the Group.

**Mitigation:** To maintain its competitive position, GVS should differentiate its products through innovation, continue to invest in R&D, as done in FY22 with 6% of its revenues allocated to this area, and focus on delivering superior value to its customers.



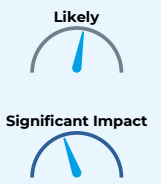
**Product Quality Standard:** Maintaining high product quality standards is critical for GVS to preserve its reputation, comply with regulatory requirements, and meet customer expectations. Any compromise in product quality could lead to product recalls, regulatory sanctions, and damage to the GVS brand (e.g. Phillips respiratory devices).

**Mitigation:** GVS should invest in quality control processes, rigorous testing procedures, and continuous improvement initiatives to ensure consistent product quality across its product portfolio.



**Stock Liquidity:** Since the IPO, the stock has experienced serious downturns, reaching a low of -67.16% on 11 November, 2022. Interestingly, apart from the first two days of trading following the IPO, traded volumes have decreased by two order of magnitudes, except for when the stock price dropped, leading to a general panic selling.

**Mitigation:** GVS should maintain adequate cash reserves, establish credit lines for emergency funding, and closely monitor cash flow projections, in order to sustain a potential buyback program, especially now that the stock is priced under the IPO price, improving shares tradability.



**Tax:** Tax risk encompasses operating in violation of applicable regulation, which can lead not only to legal, but also to financial and reputational repercussions. Despite being a multinational company operating over multiple countries, GVS does not participate in the cooperative compliance regime for large taxpayers outlined in the Italian Decree 12/2015.

**Mitigation:** The implementation of an appropriate tax control framework is essential to control tax risk. Appropriately reporting on fiscal risks, especially to administrative and strategic management, and integrating those risks into the corporate strategy can help control fiscal impacts on investment choices, including at the SBU level (source: Menicacci 2022).



**Exchange Rate:** Exchange rate risk arises from fluctuations in foreign exchange rates (Exhibit 43), which can impact the translation of GVS's foreign revenues, expenses, assets, and liabilities, denominated in 8 currencies, into its reporting currency (e.g., Euro). This can affect GVS's financial results, cash flows, and balance sheet values.

**Mitigation:** GVS may employ hedging instruments such as forwards or swaps to mitigate the impact of currency fluctuations; Alternatively, the Company's current "local for local" strategy can hedge this risk, as long as the Group is able to maintain its bargaining power both with its suppliers and its customers.



Source: company data, team elaboration

Operational

Financial



# A. Business Description

## ANNEX A1: Product Ecosystem

The **Health & Safety** division designs and manufactures filtering devices for personal respiratory protection (PPE) and collective respiratory protection. Nine of GVS's plants have all the necessary manufacturing certifications for the Health & Safety division, ensuring that their products meet the standards required for global distribution. Key approvals in this area include CE marking, valid in Europe, and the NIOSH certification, recognized in the United States. Relative to the **Healthcare & Life Sciences** area, the plants operate with ISO 13485 certifications and are FDA Approved. Many of the products in this division have CE marking or 510k (corresponding to CE, but valid for FDA in the United States), as well as national registrations related to the specific countries where the Group operates. GVS **Energy & Mobility** successfully meets the needs of its clients on an international scale, providing constant support from the development phase, product design, prototype realization, to industrial production, carried out with the most modern and competitive techniques.

**(i) Healthcare & Life Sciences**, GVS is equipped and specialized to develop OEM products in partnerships with several of the most important manufacturers around the world. They give to their customers full assistance throughout all stages of product design and development, from the initial conception of the item according to requested specifications, through to prototype testing and large-scale industrial production. GVS has the right filtration solution for all medical requirements, including: infusions, transfusions, blood treatments, hemodialysis, respiratory therapy. Filtration through a mesh means that the screen will stop particles larger than the mesh size rating. Medical meshes adopted by GVS are medical grade and comply with the very strict international requirements for cleanliness. The screens are composed of monofilaments. Standard material is polyamide (PA6.6) or polyester (PE). Filtration through a mesh is mechanical filtration. Mesh does not have the ability to stop air, except in special situations. Mesh is specified by its mesh size, which is just one of several key characteristics.

**(ii) Health & Safety**. There are 4 main methods of filtration, air filters in heating, ventilation and air conditioning (HVAC) applications air conditioning (HVAC) normally rely on only two of them to capture particulate pollutants: one is "mechanical" type, the other is "electrostatic" type. Choosing the correct filter for a specific application should always consider its operating costs. Generally, the cost resulting from overuse is higher than that of purchasing a new filter. Replace existing filters, such as traditional panel or pocket filters, with filters of the same type immediately may seem like the cheapest option, but in the long run it may be more expensive, due to increased electricity consumption. Replacement with a new filter of the compact type, with a large filter surface area, sometimes without a pre-filter, very often reduces resistance and increases durability, thus the interval between replacements.

**(iii) Energy & Mobility**, product lines for the automotive industry now include chassis systems, powertrain, fuel system management, SCR Urea systems, mechatronics and motor air management. The chassis systems line includes brakes or ABS - antilock brakes systems, TCS - traction control, ESP - electronic stability control and solenoid filters; powertrain technology products consist of transmission, oil, hydraulic and power steering filters; fuel system application products include fuel and diesel injector filters, tank filters, fuel delivery module filters, and pressure regulators; SCR Urea system application products include injector filters, tank filters and purge filters; ventilation products include ventilation membranes, adhesive membrane patches and electric power windows driver filters; air management products consist of air filtration products; mechanical technology products include throttle bodies, valves, shafts and gears; and racing and extreme sports products consist of higher performance fuel and air filters.

The traditional use of standard filtering screens and depth medias, from 10 to 160 micron, allows us to satisfy every request, even for high-speed prototyping. While the strong cross technology that distinguishes the various areas of GVS development guarantees the use of innovative filtering material, from 0.02 to 1000 micron, and advanced design to increase the resistance of the mesh and the efficiency of our products.

	Lines of product	# products	Product Versions	Technology Level
<b>HEALTHCARE LIQUID FILTRATION</b>				
<b>Intravenous Solutions (IV) and Liquid Filters</b>	4	11	84	High
<b>Infusion Disc Filters</b>	1	9	25	High
<b>Mesh and Blood Tubular Filters</b>	3	31	51	High
<b>Bacterial Air Vents</b>	5	19	18	High
<b>Transducer Protectors / Blood Catchers / GAS Venting</b>	2	13	20	High
<b>IV Flow Regulators</b>	1	2	2	High
<b>Leukocyte Filters</b>	1	1	6	High
<b>Luer Connectors</b>	1	20	87	Low
<b>Clamps Closure Devices</b>	4	13	23	Low
<b>Injection Ports</b>	1	8	16	Low
<b>Suspended Spikes</b>	1	3	6	Low
<b>Single &amp; Multi-Way Connectors</b>	1	15	53	Low
<b>IV Drip Chambers</b>	1	1	2	Low
<b>Blood Transfusion Drip Chambers</b>	1	1	2	Low
<b>Hemodialysis Blood Chambers</b>	1	3	6	Low
<b>Blow Molded Chambers</b>	1	3	4	Low
<b>Leukocyte Filter Sets</b>	1	1	4	Low
<b>Total</b>	30	154	409	-
<b>LIFE SCIENCES (LABORATORY)</b>				
<b>Microfiltration Filter Devices</b>	1	8	157	Low
<b>Microbiology</b>	1	5	58	Low
<b>Disc and Sheet Membranes</b>	1	14	695	Low
<b>Air Monitoring</b>	1	4	74	Low
<b>Transfer Membranes</b>	1	5	67	Low
<b>Protein Array</b>	1	3	10	Low
<b>Total</b>	6	39	1061	-

Source: company data, team elaboration



	Lines of products	# products	Product Versions	Technology Level
<b>HEALTHCARE AIR FILTRATION</b>				
Bacterial/Viral Filters   Electrostatic	2	8	42	High
Bacterial/Viral Filters   HEPA	1	2	9	High
HME Filters   Electrostatic & HEPA	1	6	30	High
HME Filter   Electrostatic	1	4	16	High
HME   HME	1	13	45	High
Comfort-Fit   Bacterial/Viral - HMEF - HME	1	3	11	High
HME HUMI-TRAQ Filters   Tracheal HME	1	3	12	High
Gas Delivery   Electrostatic	1	2	2	High
Spirometry   Filters	1	6	8	High
Spirometry   Accessories	1	5	23	Low
Device Filtration: Expiratory - Ventilator Filters   HEPA	1	10	13	High
Device Filtration: Medguard & Sca-Niox Filters	1	4	6	High
Device Filtration: Suctions Filters	1	22	36	High
Device Filtration: Insufflation Filters	1	21	31	Low
Device Filtration: Insufflation Filters   Kits	1	8	13	High
Device Filtration: Smoke Evacuation Filter	1	3	6	High
Device Filtration: Vent Filters	1	7	7	High
Device Filtration: Autoclave Filter	1	4	8	High
Device Filtration: Oxygen Concentrators   HEPA Filters, foam pre-filters and accessories	2	16	16	High
Device Filtration: CPAP/BIPAP   Filter Range   Foam filters	1	69	69	Low
<b>Total</b>	22	216	403	-

Source: company data, team elaboration



F) Rigid air filter, with replaceable filter



I) Mask OV AG P100 NIOSH



G) replacement of filter in critical environments



J) Mask Z-Link Tychem® 4000



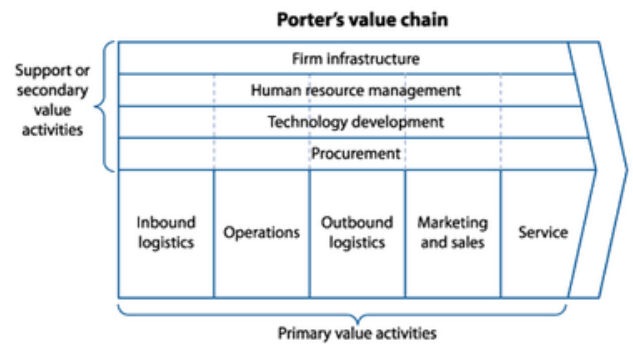
H) FFP3 Mask



K) Sandblasting mask NOVA 2000

## ANNEX A2: Porter Value Chain

**Inbound Logistics:** Procurement of raw materials and components for manufacturing filtration products. Managing relationships with suppliers to ensure timely delivery and quality standards. **Operations:** Manufacturing processes to produce filtration products, including membranes, filters, and related components. Quality control and assurance to maintain high product standards. Research and development to innovate and improve filtration technology. **Outbound Logistics:** Distribution networks to deliver filtration products to customers worldwide. Managing inventory and logistics to ensure products reach customers efficiently. **Marketing and Sales:** Developing marketing strategies to promote GVS's filtration solutions across various industries. Sales activities to engage with customers, understand their needs, and provide tailored filtration solutions. Building and maintaining customer relationships to foster loyalty and repeat business. **Service:** Providing technical support and assistance to customers regarding product selection, installation, and usage. **Support Activities:** Offering aftermarket services such as maintenance, repairs, and replacement parts to ensure optimal performance of filtration systems.



## ANNEX A3: Plant mapping and R&D

**Procurement:** Negotiating contracts with suppliers to obtain favorable terms and pricing for raw materials and components. Ensuring a reliable supply chain to meet production demands and maintain competitiveness. **Technology Development:** Investing in research and development to enhance filtration technology, improve product performance, and develop new products. Collaborating with industry partners, research institutions, and academia to stay at the forefront of filtration innovation. **Human Resource Management:** Recruiting and retaining skilled employees with expertise in engineering, manufacturing, sales, and other relevant areas. Providing training and development programs to empower employees and foster a culture of continuous improvement. **Infrastructure:** Investing in facilities, equipment, and information systems to support manufacturing operations, distribution networks, and business processes. Implementing efficient systems and processes to streamline operations and maximize productivity. By analyzing these aspects of GVS S.p.A.'s operations, you can gain insights into how the company creates value, manages its resources, and maintains its competitive position in the filtration industry.

	Healthcare & Life Sciences	Energy & Mobility	Health & Safety	R&D
Zola Predosa 1 (ITA)	Yes	Yes	No	Yes
Zola Predosa 2 (ITA)	Yes	Yes	No	Yes
Avellino (ITA)	Yes	Yes	No	No
Mirandola (ITA)	Yes	Yes	No	Yes
Borgocarbonara (ITA)	Yes	No	No	No
Sanford (USA)	Yes	Yes	No	Yes
Bloomer (USA)	No	Yes	No	No
Findlay (USA)	No	Yes	Yes	Yes
Westborough (USA)	Yes	Yes	No	No
Detroit (USA)	No	No	Yes	Yes
Shangai (JPN)	Yes	No	No	Yes
Suxhou (JPN)	Yes	No	Yes	No
Morecambe (MEX)	Yes	No	Yes	No
Monterrey (MEX)	Yes	Yes	Yes	No
Reynosa (MEX)	Yes	No	No	No
Montemor (BR)	Yes	Yes	No	No
Ciorani (RO)	Yes	Yes	Yes	Yes
Porto Rico (PR)	Yes	No	No	No

Source: company data, team elaboration

# B. Industry Overview

## ANNEX B1: Porter Analysis

Analyzing GVS S.p.A. using Porter's Five Forces framework can provide insights into the competitive dynamics of the filtration industry and GVS's position within it:

	INDUSTRY
Threat of New Entrants	<p>The threat of new entrants into the filtration industry may be relatively low due to several factors:</p> <ul style="list-style-type: none"><li>• High capital requirements: Establishing manufacturing facilities and R&amp;D capabilities for filtration products can be costly.</li><li>• Economies of scale: Existing companies like GVS may benefit from economies of scale, making it difficult for new entrants to compete on cost.</li><li>• Brand loyalty and customer relationships: Established companies often have strong relationships with customers and brand recognition, creating barriers for new entrants.</li><li>• Regulatory requirements: Compliance with industry regulations and standards can pose challenges for new companies entering the market.</li></ul>
Bargaining Power of Suppliers	<p>Suppliers of raw materials and components used in filtration products may have moderate to high bargaining power:</p> <ul style="list-style-type: none"><li>• Limited number of suppliers: If there are few suppliers of critical materials, they may have more leverage in negotiating prices and terms.</li><li>• Differentiation of inputs: Specialized materials or components may not have many substitutes, giving suppliers more power.</li><li>• Forward integration: Suppliers may have the option to integrate forward into filtration product manufacturing, reducing GVS's bargaining power.</li></ul>
Bargaining Power of Buyers	<p>The bargaining power of GVS's customers, such as companies in healthcare, automotive, and industrial sectors, may vary:</p> <ul style="list-style-type: none"><li>• Large volume buyers: Customers purchasing filtration products in bulk may have more negotiating power, especially if they can switch between suppliers easily.</li><li>• Differentiation of products: If GVS's filtration solutions are highly differentiated or specialized, it may reduce the buyer's power.</li><li>• Switching costs: High switching costs for customers, such as retooling equipment or retraining staff, can reduce their bargaining power.</li></ul>
Threat of Substitutes	<p>The threat of substitutes for filtration products may be relatively low:</p> <ul style="list-style-type: none"><li>• Unique properties: Filtration products often have unique properties tailored to specific applications, reducing the availability of close substitutes.</li><li>• Essential function: Filtration is essential in various industries for maintaining quality standards and regulatory compliance, reducing the likelihood of substitution.</li><li>• High switching costs: Switching to alternative filtration methods or technologies may involve significant costs or risks for customers.</li></ul>
Intensity of Rivalry among Competitors	<p>Competition within the filtration industry may be intense:</p> <ul style="list-style-type: none"><li>• Numerous competitors: There are many players in the filtration industry, ranging from large multinational corporations to smaller regional companies.</li><li>• Price competition: Price competition may be prevalent, particularly for standardized filtration products with low product differentiation.</li><li>• Innovation and differentiation: Companies may compete based on innovation, product differentiation, and technological advancements to gain market share.</li><li>• Industry growth: The growth rate of the filtration industry may influence the intensity of rivalry, with slower growth potentially leading to heightened competition for market share.</li></ul>

Source: team estimates

## ANNEX B2: Filtration Industry Forecast

- 1. Increasing Demand for Clean Water and Air:** Growing concerns about environmental pollution and the need for clean water and air have been significant drivers of demand for filtration products. This trend is expected to continue as governments and industries worldwide prioritize environmental sustainability.
- 2. Expanding Industrial Applications:** Filtration products are used across various industries, including automotive, healthcare, food and beverage, pharmaceuticals, and manufacturing. As these industries grow and evolve, the demand for filtration solutions to maintain product quality and meet regulatory standards is expected to increase.
- 3. Technological Advancements:** Ongoing advancements in filtration technology, such as the development of new materials, membrane technologies, and filtration systems, are driving innovation and expanding the range of applications for filtration products. These advancements enhance efficiency, performance, and sustainability, driving market growth.
- 4. Stringent Regulatory Standards:** Stringent regulations and standards related to air and water quality, food safety, and healthcare have spurred demand for filtration solutions that help industries comply with regulatory requirements. Compliance with regulations and standards is essential for businesses to avoid penalties and maintain public trust.
- 5. Emerging Markets and Infrastructure Development:** Rapid industrialization, urbanization, and infrastructure development in emerging markets are driving demand for filtration products, particularly in sectors such as water treatment, wastewater management, and air pollution control. The expanding middle class and rising disposable incomes in these regions also contribute to increased demand for clean water and air.
- 6. Focus on Health and Safety:** Heightened awareness of health and safety issues, especially in light of public health crises like the COVID-19 pandemic, has increased demand for filtration products for applications such as air purification, medical filtration, and personal protective equipment (PPE).
- 7. Shift Towards Sustainable Solutions:** There is a growing emphasis on sustainability and environmental responsibility, leading to increased adoption of eco-friendly filtration solutions and materials. Companies are investing in research and development to develop sustainable filtration technologies and reduce the environmental impact of their operations.

These trends indicate a positive outlook for the filtration industry, with continued growth expected in the coming years. However, market dynamics can be influenced by various factors, including economic conditions, regulatory changes, technological disruptions, and geopolitical events. Therefore, it's essential to monitor industry developments closely and adapt strategies accordingly to capitalize on emerging opportunities and mitigate potential risks.

## ANNEX B3: Energy & Mobility Industry Forecast







- 1. Rising Demand for Clean Energy:** With increasing global focus on reducing carbon emissions and transitioning towards renewable energy sources, there is a growing demand for filtration solutions in the energy sector. Filtration products are used in various renewable energy technologies such as solar, wind, and hydroelectric power generation to ensure efficient operation and reduce environmental impact.
- 2. Expansion of Electric Vehicles (EVs):** The growing popularity of electric vehicles is driving demand for filtration solutions in the automotive industry. Filtration products are essential for maintaining the performance and longevity of EV components such as batteries, motors, and charging systems. As the adoption of EVs continues to rise, so does the demand for filtration products tailored to electric vehicle applications.
- 3. Stringent Emission Regulations:** Stringent regulations aimed at reducing vehicle emissions are pushing automakers to invest in advanced filtration technologies to meet regulatory standards. Filtration systems play a crucial role in controlling emissions from internal combustion engines, diesel vehicles, and hybrid vehicles, thereby driving demand for emission control solutions.
- 4. Technological Innovations:** Ongoing technological advancements are driving innovation in energy and mobility filtration, leading to the development of more efficient and sustainable filtration solutions. Advancements in materials science, nanotechnology, and filtration technology are enabling the creation of high-performance filters that offer improved efficiency, durability, and environmental sustainability.
- 5. Increasing Focus on Air Quality:** Concerns about air pollution and its adverse effects on public health are driving demand for filtration solutions that improve indoor and outdoor air quality. Filtration products are used in HVAC systems, industrial air purification, and vehicle cabin air filtration to remove airborne contaminants and particulate matter, thereby enhancing air quality and ensuring occupant health and comfort.
- 6. Rapid Urbanization and Infrastructure Development:** Urbanization and infrastructure development in emerging markets are driving demand for filtration products in applications such as wastewater treatment, air pollution control, and industrial filtration. As urban populations continue to grow, so does the need for efficient filtration solutions to address environmental challenges and support sustainable development.
- 7. Focus on Sustainability and Circular Economy:** There is a growing emphasis on sustainability and the circular economy within the energy and mobility sectors, driving demand for filtration products that are eco-friendly and recyclable. Companies are increasingly adopting sustainable practices and investing in environmentally responsible filtration solutions to minimize their environmental footprint and meet sustainability goals.

Overall, the **energy and mobility filtration segment** is expected to experience robust growth driven by increasing demand for clean energy, electric vehicles, emission control solutions, technological innovations, air quality improvements, urbanization, and sustainability initiatives. As the industry continues to evolve, companies that innovate and adapt to changing market demands are likely to thrive in this dynamic and rapidly expanding market.



## ANNEX B4: PESTEL Analysis

**PESTEL** analysis is a strategic framework used to assess the external macro-environmental factors that can influence a business or organization. It stands for Political, Economic, Social, Technological, Environmental, and Legal factors.

	<ul style="list-style-type: none"> <li>Government regulations: Changes in regulations related to environmental standards, health and safety, and product quality can affect GVS's operations.</li> <li>Trade policies: Tariffs, trade agreements, and barriers can impact GVS's international trade and expansion efforts.</li> <li>Political stability: Political instability or unrest in key markets may disrupt business operations and investments.</li> </ul>
	<ul style="list-style-type: none"> <li>Economic growth: The overall economic performance of countries where GVS operates can affect demand for its filtration products.</li> <li>Exchange rates: Fluctuations in exchange rates can impact GVS's costs for raw materials and its competitiveness in international markets.</li> <li>Inflation rates: Changes in inflation rates can affect GVS's pricing strategies and profit margins.</li> </ul>
	<ul style="list-style-type: none"> <li>Demographic trends: Population growth, aging populations, and changes in consumer preferences can influence demand for GVS's filtration products.</li> <li>Health and safety concerns: Increasing awareness of health and safety issues may drive demand for GVS's products, particularly in industries like healthcare and pharmaceuticals.</li> <li>Environmental awareness: Growing concerns about environmental sustainability may lead to stricter regulations and increased demand for eco-friendly filtration solutions.</li> </ul>
	<ul style="list-style-type: none"> <li>Technological advancements: Rapid changes in technology, such as developments in filtration materials and manufacturing processes, can impact GVS's product development and competitiveness.</li> <li>Automation: Automation and digitization in manufacturing processes can improve efficiency and reduce costs for GVS, but may also require investments in technology and workforce training.</li> <li>Intellectual property rights: Protecting intellectual property rights is crucial for GVS to maintain its competitive advantage and prevent unauthorized use of its technology.</li> </ul>
	<ul style="list-style-type: none"> <li>Climate change: Environmental factors such as changes in weather patterns and pollution levels can impact demand for certain filtration products, such as air and water filters.</li> <li>Sustainability initiatives: Increasing emphasis on sustainability may create opportunities for GVS to develop and market eco-friendly filtration solutions.</li> <li>Environmental regulations: Compliance with environmental regulations related to waste disposal, emissions, and resource usage is important for GVS to avoid penalties and maintain its reputation.</li> </ul>
	<ul style="list-style-type: none"> <li>Regulatory compliance: GVS must comply with various legal requirements and standards related to product safety, quality, and environmental protection.</li> <li>Employment laws: Changes in labor laws and regulations can impact GVS's workforce management practices, hiring, and training procedures.</li> <li>Intellectual property laws: Protecting patents, trademarks, and other intellectual property rights is essential for GVS to safeguard its innovations and prevent infringement.</li> </ul>

Source: team estimates

## C. Financial Analysis

### ANNEX C1: Revenues Breakdown

(Mln €)	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
<b>North America</b>	57.09	86.78	96.07	138.29	145.55	188.59	195.50	220.91	249.63	279.59	313.14	356.98	398.03	441.82	490.42	544.36	604.24
% of sales	35%	42%	42%	38%	43%	49%	46%	46%	46%	46%	45%	46%	46%	46%	46%	46%	46%
Growth YoY %	-	52%	11%	44%	5%	30%	4%	13%	13%	12%	12%	14%	12%	11%	11%	11%	11%
<b>Europe</b>	53.20	61.96	63.97	156.47	120.34	102.26	126.05	143.70	163.82	185.12	211.03	232.14	255.35	280.89	308.98	339.87	373.86
% of sales	32%	30%	28%	43%	36%	26%	29.7%	30%	30%	30%	30%	30%	29%	29%	29%	29%	28%
Growth YoY %	-	16%	3%	145%	-23%	-15%	23%	14%	14%	13%	14%	10%	10%	10%	10%	10%	10%
<b>Asia</b>	37.66	44.48	50.99	50.24	48.63	67.15	72.59	83.48	96.00	110.40	126.96	145.37	166.45	189.75	214.42	242.29	272.58
% of sales	23%	21%	22%	14%	14%	17%	17%	17%	18%	18%	18%	19%	19%	20%	20%	20%	21%
Growth YoY %	-	18%	15%	-1%	-3%	38%	8%	15%	15%	15%	15%	15%	15%	14%	13%	13%	13%
<b>Others</b>	16.89	15.68	16.39	18.30	23.62	29.60	30.85	33.32	35.99	38.87	41.98	45.34	48.96	52.88	57.11	61.68	66.61
% of sales	10%	8%	7%	5%	7%	8%	7%	7%	7%	6%	6%	6%	6%	5%	5%	5%	5%
Growth YoY %	-	-7%	5%	12%	29%	25%	4%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
<b>Healthcare &amp; Life Sciences</b>	94.94	101.48	116.05	159.10	180.32	245.39	271.76	310.91	355.79	404.49	461.20	524.08	583.88	648.75	719.71	798.54	885.29
% of sales	58%	49%	51%	44%	53%	63%	64%	65%	65%	66%	67%	67%	67%	67%	67%	67%	67%
Growth YoY %	-	7%	14%	37%	13%	36%	11%	14%	14%	14%	14%	14%	11%	11%	11%	11%	11%
Healthcare & Liquid	54.73	60.07	69.55	80.25	100.11	181.30	200.78	229.71	262.86	298.85	340.74	387.21	431.38	479.32	531.74	589.98	654.08
Healthcare Air & Gas	23.92	23.69	26.31	58.67	48.61	30.03	33.26	38.05	43.54	49.50	56.44	64.14	71.46	79.40	88.08	97.73	108.34
Laboratory	16.29	17.72	20.19	20.19	31.60	34.06	37.72	43.15	49.38	56.14	64.01	72.74	81.04	90.04	99.89	110.83	122.87
<b>Energy &amp; Mobility</b>	52.25	87.12	85.76	65.19	70.72	77.33	85.64	97.98	112.12	127.47	145.34	165.16	185.84	208.56	233.68	261.87	293.22
% of sales	32%	42%	38%	18%	21%	20%	20%	20%	21%	21%	21%	21%	21%	22%	22%	22%	22%
Growth YoY %	-	67%	-2%	-24%	8%	9%	11%	14%	14%	14%	14%	14%	13%	12%	12%	12%	12%
Powertrain & Drivetrain	21.83	38.47	40.43	27.18	29.00	31.18	34.53	39.50	45.20	51.39	58.60	66.59	74.93	84.08	94.21	105.58	118.22
Safety & Electronics	21.49	25.87	20.60	20.60	21.63	22.32	24.71	28.27	32.35	36.78	41.94	47.66	53.63	60.18	67.43	75.57	84.61
Sports & Utility	8.94	22.78	24.73	17.42	20.09	23.84	26.40	30.20	34.56	39.29	44.80	50.91	57.29	64.29	72.04	80.72	90.39
<b>Health &amp; Safety</b>	17.66	20.30	23.99	139.00	87.10	64.88	67.60	72.52	77.54	82.01	86.58	90.58	99.08	108.02	117.53	127.80	138.79
% of sales	11%	10%	11%	38%	26%	17%	16%	15%	14%	13%	12%	12%	11%	11%	11%	11%	11%
Growth YoY %	-	15%	18%	479%	-37%	-26%	4%	7%	7%	6%	6%	5%	9%	9%	9%	9%	9%
Personal Safety	8.13	12.37	13.97	132.93	81.98	59.96	62.48	67.03	71.66	75.80	80.02	83.72	91.57	99.84	108.62	118.12	128.27
Air Safety	9.53	7.93	10.02	6.07	5.11	4.92	5.12	5.49	5.87	6.21	6.56	6.86	7.51	8.18	8.90	9.68	10.51
<b>BtC</b>	34.69	37.30	40.89	178.72	100.25	86.68	102.00	115.54	130.91	153.49	173.28	194.96	225.89	250.99	278.44	308.93	342.50
% of sales	21%	18%	18%	49%	30%	22%	24%	24%	24%	25%	25%	25%	26%	26%	26%	26%	26%
<b>BtB</b>	130.15	171.60	186.53	184.58	237.88	300.92	323.00	365.88	414.54	460.48	519.83	584.87	642.91	714.35	792.48	879.27	974.80
% of sales	79%	82%	82%	51%	70%	78%	76.0%	76%	76%	75%	75%	75%	74%	74%	74%	74%	74%
<b>Total Revenues</b>	164.85	208.90	227.42	363.30	338.13	387.59	425.00	481.42	545.44	613.98	693.11	779.82	868.80	965.33	1,070.92	1,188.21	1,317.30
Growth YoY %	-	26.7%	8.9%	59.7%	-6.9%	14.6%	9.7%	13.3%	13.3%	12.6%	12.9%	12.5%	11.4%	11.1%	10.9%	11.0%	10.9%

Source: AIDA, company data, team estimates

## ANNEX C2: Income Statement

(Mln €)	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
<b>Total Revenues</b>	164.85	208.90	227.42	363.30	338.13	387.59	425.00	481.42	545.44	613.98	693.11	779.82	868.80	965.33	1,070.92	1,188.21	1,317.30
Growth YoY %	16.1%	26.5%	9.1%	58.4%	-6.1%	14.3%	8.4%	13.3%	13.3%	12.6%	12.9%	12.5%	11.4%	11.1%	10.9%	11.0%	10.9%
Purchases of Raw Materials	-46.66	-62.32	-67.88	-88.56	-96.09	-141.20	-141.86	-142.40	-161.34	-181.61	-205.02	-230.67	-256.99	-285.54	-316.78	-351.47	-389.65
<b>Gross Margin</b>	120.53	149.10	162.70	276.65	246.98	250.84	273.38	331.59	387.20	439.05	500.92	563.21	626.23	695.44	771.26	855.75	948.57
Services Costs	-24.61	-22.92	-23.44	-36.22	-35.08	-53.97	-31.00	-30.93	-35.04	-39.44	-44.53	-50.10	-55.81	-62.01	-68.80	-76.33	-84.62
Personnel Expenses	-57.97	-70.65	-73.58	-98.88	-98.60	-123.53	-134.11	-152.00	-172.21	-193.85	-218.83	-246.21	-274.30	-304.78	-338.12	-375.15	-415.91
Other Costs (Savings for Efficiency)	-4.24	-2.87	-3.46	-3.20	-6.97	-5.90	-6.47	-7.33	7.68	8.64	9.76	10.98	12.23	13.59	15.08	16.73	18.54
<b>EBITDA</b>	33.70	52.66	62.22	138.36	106.33	67.43	101.80	141.33	187.62	214.40	247.32	277.88	308.35	342.23	379.42	421.00	466.58
EBITDA margin %	20.4%	25.2%	27.4%	38.1%	31.4%	17.4%	24.0%	29.4%	34.4%	34.9%	35.7%	35.6%	35.5%	35.5%	35.4%	35.4%	35.4%
D&A	-13.38	-18.42	-16.30	-19.03	-23.53	-37.97	-27.64	-27.98	-27.53	-28.39	-29.29	-30.39	-29.63	-29.91	-30.19	-30.58	-30.89
<b>EBIT</b>	20.09	34.17	45.66	119.00	82.34	28.96	73.73	112.87	159.56	185.42	217.40	246.83	278.00	311.55	348.41	389.53	434.74
EBIT margin %	12.2%	16.4%	20.1%	32.8%	24.4%	7.5%	17.3%	23.4%	29.3%	30.2%	31.4%	31.7%	32.0%	32.3%	32.5%	32.8%	33.0%
<b>Net Income</b>	6.03	23.07	33.09	78.08	67.60	24.12	34.28	66.95	104.85	119.60	145.07	161.58	183.15	205.92	235.04	264.78	298.89
ROS %	3.66%	11.05%	14.55%	21.49%	19.99%	6.22%	8.07%	13.91%	19.22%	19.48%	20.93%	20.72%	21.08%	21.33%	21.95%	22.28%	22.69%
ROE %	10.41%	32.48%	35.11%	32.17%	22.89%	7.36%	9.47%	15.61%	19.64%	18.31%	18.17%	16.83%	16.02%	15.26%	14.84%	14.32%	13.92%
<b>Earning per Share (€)</b>	-	-	0.19	0.32	0.26	0.14	0.20	0.38	0.60	0.68	0.83	0.93	1.05	1.18	1.35	1.52	1.71

Source: AIDA, company data, team estimates

## ANNEX C3: Balance Sheet

(Mln €)	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Intangible assets	100.84	100.92	99.85	90.98	227.74	494.85	504.74	519.89	519.89	519.89	551.08	578.63	578.63	595.99	613.87	632.29	651.26
Tangible assets	53.10	50.06	46.61	68.93	77.62	120.40	121.44	122.90	119.46	116.11	156.98	196.54	198.90	201.29	203.70	206.15	208.62
Assets represented by usage rights	5.48	5.92	10.32	8.44	10.42	22.99	26.44	30.41	34.97	40.21	46.24	53.18	61.16	70.33	80.88	93.01	106.96
Non-current financial assets	0.41	0.68	0.54	0.97	1.32	3.75	3.76	3.86	3.87	3.88	4.09	4.26	4.27	4.39	4.50	4.62	4.75
<b>Total non-current assets</b>	167.13	160.46	158.77	173.88	318.73	653.83	658.88	679.20	680.20	682.21	760.11	834.37	845.01	873.97	904.90	937.99	973.48
Inventories	30.14	32.96	31.49	46.05	72.35	106.92	97.16	89.73	92.83	99.51	112.34	126.39	140.81	156.46	173.58	192.59	213.51
Trade receivables	36.98	39.36	35.16	52.08	52.98	72.94	75.68	85.73	97.13	109.34	123.43	138.87	154.72	171.91	190.71	211.60	234.59
Current financial assets	1.15	1.87	3.58	5.03	8.34	4.78	5.26	5.78	6.36	7.00	7.70	8.47	9.31	10.24	11.27	12.40	13.64
<b>Total current assets</b>	120.56	128.67	135.98	238.48	289.84	339.22	194.42	197.99	213.64	233.90	262.17	291.94	322.86	356.92	394.12	435.36	480.63
<b>TOTAL ASSETS</b>	287.69	289.13	294.75	412.36	608.57	993.05	853.30	877.19	893.84	916.11	1,022.28	1,126.31	1,167.87	1,230.88	1,299.02	1,373.35	1,454.11
<b>Total shareholders' equity</b>	57.95	71.04	94.24	242.70	295.35	327.67	361.95	428.90	533.75	653.35	798.42	959.99	1,143.14	1,349.06	1,584.10	1,848.88	2,147.77
Non-current financial liabilities	165.19	143.32	117.64	69.73	180.16	10.99	336.30	279.95	224.41	343.05	296.78	333.45	370.01	410.68	303.54	336.80	373.26
<b>Total non-current liabilities</b>	173.99	151.54	130.50	83.97	201.63	128.81	400.40	332.29	265.67	378.90	334.01	372.33	410.10	453.22	348.73	384.78	424.17
Current financial liabilities	24.56	29.55	36.67	19.67	41.71	438.24	84.08	69.99	56.10	85.76	74.19	83.36	92.50	102.67	75.88	84.20	93.32
Trade payables	16.12	18.48	13.19	25.59	23.82	57.94	62.93	59.36	59.18	60.56	61.53	69.23	77.13	85.70	95.07	105.48	116.94
<b>Total current liabilities</b>	55.75	66.55	70.01	85.69	111.59	536.57	189.06	176.29	167.77	205.10	201.65	226.66	253.00	282.37	277.16	309.91	346.62
<b>Total Liabilities</b>	229.74	218.09	200.51	169.66	313.22	665.38	589.46	508.58	433.44	584.00	535.66	598.99	663.10	735.60	625.89	694.69	770.79
<b>TOTAL LIABILITIES AND SH. EQUITY</b>	287.69	289.13	294.75	412.36	608.57	993.05	951.41	937.48	967.19	1,237.34	1,334.07	1,558.98	1,806.24	2,084.66	2,209.99	2,543.57	2,918.57

Source: AIDA, company data, team estimates

## ANNEX C4: Financial Debt Breakdown

	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Total Financial Debt Outstanding</b>	221.88	449.20	420.38	349.94	280.51	428.81	370.97	416.82	462.52
Additional Long Run Debt	-	-	-	-	-	308.25	147.00	213.13	262.52
<b>Total Interest Expenses</b>	9.77	15.33	24.60	19.46	15.75	21.91	18.73	20.92	5.34
Interest Coverage Ratio	8.43	1.89	1.33	3.30	4.81	4.01	5.41	5.62	-
<b>Interest Rate</b>	0.04	0.03	0.06	0.06	0.06	0.05	0.05	0.05	0.01
<b>2014 Bond Loan (A2) Term Loan Starting Balance</b>	15.00	10.00	5.00	-	-	-	-	-	-
Annual Interest Expenses	2.24	1.72	1.14	-	-	-	-	-	-
<b>2017 Bond Loan (A1) Term Loan Starting Balance</b>	24.00	16.00	8.00	-	-	-	-	-	-
Annual Interest Expenses	1.91	1.72	1.34	0.50	-	-	-	-	-
<b>Club Deal Loan (2022) (B1) Term Loan Starting Balance</b>	-	230.00	230.00	196.65	159.29	115.08	-	-	-
Annual Interest Expenses	-	-	13.32	12.95	7.48	5.23	3.32	-	-
<b>Club Deal Loan (2021) (B2) Term Loan Starting Balance</b>	150.00	150.00	121.50	98.42	73.20	-	-	-	-
Annual Interest Expenses	-	4.07	8.57	6.44	3.64	2.35	-	-	-
<b>Unicredit Mortgage (2020) (B3) Term Loan Starting Balance</b>	20.00	20.00	20.00	20.00	20.00	-	-	-	-
Annual Interest Expenses	5.56	6.53	8.90	8.80	8.00	-	-	-	-
<b>Mediobanca Loan (2020) (B4) Term Loan Starting Balance</b>	20.00	20.00	20.00	20.00	20.00	-	-	-	-
Annual Interest Expenses	0.06	1.29	2.25	2.71	1.60	-	-	-	-
<b>Loans taken out by Haemotronic SpA (2022) (C1) Term Loan Starting Balance</b>	-	16.46	15.60	14.60	7.75	5.19	3.69	3.69	-
Annual Interest Expenses	-	-	0.08	0.07	0.04	0.03	0.02	0.02	-

Source: AIDA, company data, team elaboration, team estimates

## ANNEX C5: Cash Conversion Cycle (CCC)

(Mln €)	2017A	2018A	2019A	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Total Revenues	164.85	208.90	227.42	363.30	338.13	387.59	425.00	481.42	545.44	613.98	693.11	779.82	868.80	965.33	1,070.92	1,188.21	1,317.30
Raw Materials	46.66	62.32	67.88	88.56	96.09	141.20	141.86	142.40	161.34	181.61	205.02	230.67	256.99	285.54	316.78	351.47	389.65
Inventories	30.14	32.96	31.49	46.05	72.35	106.92	97.16	89.73	92.83	99.51	112.34	126.39	140.81	156.46	173.58	192.59	213.51
Receivables	36.98	39.36	35.16	52.08	52.98	72.94	75.68	85.73	97.13	109.34	123.43	138.87	154.72	171.91	190.71	211.60	234.59
Payables	-16.12	-18.48	-13.19	-25.59	-23.82	-57.94	-62.93	-59.36	-59.18	-60.56	-61.53	-69.23	-77.13	-85.70	-95.07	-105.48	-116.94
DIO	235.75	193.05	169.32	189.79	274.82	276.40	250.00	230.00	210.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00	200.00
DSO	81.88	68.77	56.43	52.33	57.19	68.69	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00	65.00
DPO	126.12	108.23	70.91	105.45	90.48	149.79	161.92	152.15	133.89	121.72	109.55	109.55	109.55	109.55	109.55	109.55	109.55
Cash Conversion Cycle (days)	191.51	153.59	154.84	136.67	241.53	195.30	153.08	142.85	141.11	143.28	155.45	155.45	155.45	155.45	155.45	155.45	155.45

Source: AIDA, company data, team estimates

## D. Valuation

### ANNEX D1: Discounted Cash Flow to Firm

(Mln €)	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
<b>EBITDA</b>	141.33	187.62	214.40	247.32	277.88	308.35	342.23	379.42	421.00	466.58
Gross Operating Cash Flow	103.25	137.01	163.96	194.85	221.35	244.29	269.82	297.09	328.38	362.22
Δ WC	-6.19	-14.67	-17.51	-25.95	-21.80	-22.37	-24.27	-26.54	-29.48	-32.45
Δ Other Variations	4.05	4.73	5.31	6.08	7.63	7.61	9.39	10.86	12.57	14.58
CFO	101.11	127.08	151.76	174.98	207.19	229.53	254.94	281.41	311.47	344.35
Capex	-23.11	-19.25	-20.47	-65.19	-65.82	-30.15	-31.24	-32.93	-34.79	-36.87
Investment in Intangibles	-25.09	-9.28	-9.92	-41.79	-38.66	-10.11	-27.52	-28.07	-28.76	-29.39
<b>FCF</b>	52.92	98.55	121.38	68.00	102.71	189.27	196.18	220.41	247.91	278.10
Financial Income and expenses	22.21	18.18	23.73	21.62	28.77	30.92	33.83	31.70	32.87	32.29
Other non cash adjustments	-2.55	-2.45	-2.06	-2.11	-2.13	-2.15	-2.17	-2.21	-2.27	-2.35
<b>FCFF after extraordinary and financial adj</b>	-35.00	15.74	250.54	-6.59	124.88	209.40	218.81	60.72	262.92	298.10
Δ Short Term Debt	-13.37	-13.11	30.50	-10.66	10.15	10.20	11.31	-25.55	9.64	10.55
Δ Equity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Δ Short Term Debt	13.37	13.11	-30.50	10.66	-10.15	-10.20	-11.31	25.55	-9.64	-10.55
Δ Long Term Debt	54.89	53.97	-120.34	44.43	-38.66	-38.71	-42.98	104.64	-35.96	-39.39
Net Change in cash and equivalents	-35.00	15.74	250.54	-6.59	124.88	209.40	218.81	60.72	262.92	298.10
<b>Cash and Equivalents End of period</b>	75.50	91.24	341.78	335.19	460.07	669.46	888.27	948.99	1,211.91	1,510.01
<b>Present Values</b>	21.14	26.98	66.67	69.92	29.63	38.83	81.10	75.55	80.46	84.21
<b>Terminal Value</b>	1,125.72									
<b>Target Price</b>	8.46€									

Source: team estimates

### ANNEX D2: Financial Peer Analysis (Q3 2023)

	Market Cap (Mln€)	EV (Mln€)	Price to Book	Price to Sales	Price to EPS	EV to Sales	EV to EBITDA
<b>Healthcare &amp; Life Sciences (Weighted)</b>	56,421.60	64,720.74	3.00	4.77	25.87	5.39	19.20
Danaher Corp	153,616.69	162,879.66	2.87	5.51	28.87	5.82	18.72
Sartorius AG	21,932.35	27,643.15	5.50	4.96	38.30	7.66	23.92
STERIS plc	17,521.03	20,178.34	3.22	3.88	23.53	4.41	16.25
Becton Dickinson and Co	70,956.92	84,632.37	2.12	3.85	17.67	4.62	18.93
Baxter International Inc	18,081.02	28,270.20	2.36	1.25	12.09	1.96	10.11
<b>Health &amp; Safety (Weighted)</b>	18,322.93	21,957.57	4.65	2.02	11.85	2.12	8.53
3M Co	48,890.56	59,163.94	5.18	1.85	10.69	1.91	7.08
MSA Safety Inc	5,862.46	6,412.21	2.48	3.71	21.98	3.91	16.15
Avon Protection PLC	215.78	296.57	1.47	0.93	19.84	1.29	8.54
<b>Energy &amp; Mobility (Weighted)</b>	26,398.14	32,150.81	5.76	2.87	18.74	2.36	14.10
Donaldson Company Inc	6,929.54	7,355.82	5.94	2.23	18.89	2.37	13.97
Parker-Hannifin Corp	45,866.73	56,945.80	4.85	3.04	18.97	3.26	15.04
<b>Industry (Weighted for Mkt Cap)</b>	33,714.22	39,609.71	3.54	4.40	22.21	4.31	16.61
GVS SpA	760.39	1,075.32	2.43	2.11	20.84	2.83	11.55
<b>GVS SpA Multiple Price</b>			7.76	10.86	3.57	0.66	8.52
<b>GVS Final Peer Valuation Price</b>	9.72€						

Source: companies data, Refinitiv, team elaboration



## ANNEX D3: Peer Group Definition

The table below provides a comprehensive description of the business models of the peers selected for the relative valuation, along with a summary of the key reasons that led us to consider them as suitable peers for GVS.

Group	Company	Business model	Relevance
Healthcare & Life Sciences	<b>Danaher Corp</b>	Danaher Corporation, headquartered in Washington, D.C., is a globally diversified conglomerate that designs, manufactures and markets professional, medical, industrial and commercial products and services. Danaher operates in three main segments: Biotechnology, Diagnostics and Life Sciences. The Biotechnology segment brings expertise, technologies and services to accelerate the development and commercialization of innovative drugs. The Diagnostics segment revolves around harnessing digital data to enable precision diagnostics and improve health outcomes, from local clinics to top clinical care centers. The Life Sciences segment empowers customers to develop innovations, including enhanced synthetic biologics, by offering instruments and consumables to study the building blocks of life, along with reagents and biomarkers. Danaher bases its business system on continuous innovation through sustainable processes, resulting in superior performance, which in turn attracts talents.	Unlike GVS, the Life Sciences division only accounted for around 22% of the total revenues in FY22 for Danaher. Like GVS, they produce membranes, especially after the acquisition of Pall Corporation in 2015. Pall and GVS compete exclusively in infusion and transfusion in the Healthcare Liquid sub-division (H&LS) of GVS. Cytiva, on the other hand, competes with GVS in the Laboratory sub-division.
	<b>Sartorius AG</b>	Sartorius AG is a German supplier of pharmaceutical and laboratory equipment, which helps biotech scientists and engineers to develop and manufacture medications from the first idea to production, simplifying workflows, minimizing human errors and speeding up their research. Sartorius operates through two business segments: Bioprocess Solutions and Lab Products and Services. The former offers integrated solutions for biopharmaceutical manufacture, such as filters for sterilization, single-use bags for cell cultivation and storage of biopharmaceuticals, membrane adsorbers for purification, and filter technology for clarification. The latter provides instruments, consumables and services for laboratories, including filter systems for sample preparation and membrane filter systems for sterility testing of parenterals.	Such as GVS, the divisions focusing on the Life Sciences industry accounts for the majority of the total revenues (for Sartorius, about 85% for FY23E). Sartorius also manufactures membranes, especially for the biotechnology industry, and competes with GVS mainly in the Laboratory sub-division (H&LS): Sartorius has a wider technology coverage with similar product breadth.
	<b>STERIS plc</b>	STERIS plc is an Irish-based medical equipment company specializing in sterilization and surgical products for the US healthcare system; it is operationally headquartered in Ohio, but legally registered in Dublin. It provides products and services that support patient care with an emphasis on infection prevention through segments such as Healthcare, Applied Sterilization Technologies, Life Sciences and Dental. The Healthcare segment is focused on sterile processing departments and procedural centers, such as operating rooms, while the Life Sciences one provides a comprehensive portfolio of products and services that support pharmaceutical manufacturing, primarily for vaccine and other biopharma customers focused on aseptic manufacturing.	For Steris, the revenues deriving from the US were around 45% of the total revenues for FY22, similar to GVS (49% for FY22). Furthermore, just like GVS, they expand thanks to a combination of acquisitions and organic growth.
	<b>Becton Dickinson and Co</b>	Becton, Dickinson and Company is a global medical technology company headquartered in New Jersey. It is engaged in the development, manufacture and sale of a range of medical supplies, devices, laboratory equipment and diagnostic products used by healthcare providers and patients, life science researchers, and others. BD's Medical segment produces an array of medical technologies and devices that are used to help improve healthcare delivery in a wide range of settings, while the Life Sciences segment provides products for the collection and transport of diagnostics specimens, and instruments and reagent systems to detect a broad range of infectious diseases and cancers.	Similarly to the case of GVS, mergers and acquisitions serve as an integral tool for BD in advancing its strategy and enhancing its operations; in fact, in recent years, BD has completed dozens of acquisitions. Such as GVS, BD has a Life Sciences division, with a similar end market as GVS, accounting for about 30% of total revenues for FY22.
	<b>Baxter International Inc</b>	Baxter International Inc., headquartered in Illinois, provides, through its subsidiaries, a portfolio of essential healthcare products that help deliver personalized care to patients, while enhancing workflow efficiency and enabling cost-effective care. Baxter's Medical Products and Therapies segment engages in sales of sterile IV solutions, infusion systems, and surgical hemostat, sealant and adhesion prevention products, among other goods. Its Healthcare Systems and Technologies segment includes connected care solutions and collaboration tools, including respiratory health devices and advanced equipment for the surgical space. Its Pharmaceuticals segment deals with specialty injectable pharmaceuticals, inhaled anesthesia and drug compounding, while its Kidney Care segment with chronic and acute dialysis therapies and services.	Baxter operates in the healthcare sector, and it thus has a similar end market as the Healthcare division (H&LS) of GVS, especially if considering Baxter's products for healthcare professionals.
Health & Safety	<b>3M Co</b>	3M Company is a diversified multinational technology company headquartered in Minnesota. 3M manufactures and markets over 60,000 products under several brands and it operates through four segments: Safety and Industrial, Transportation and Electronics, Health Care, and Consumer. The first one includes automotive aftermarket, closure and masking systems, personal protective equipment, and industrial adhesives and tapes. The second one deals with advanced materials, automotive and aerospace, commercial solutions, and transportation safety. The third one includes health information systems, medical solutions, oral care, and separation and purification sciences. The last one involves home, health and auto care, and stationery and office.	3M competes with GVS on various products, but especially in the Personal Safety sub-division (H&S). While GVS is among the main providers of reusable masks, 3M has a strong focus on single-use masks and has limited incentive to promote a switch to reusable versions of its products.
	<b>MSA Safety Inc</b>	MSA Safety Incorporated, headquartered in Pennsylvania, is engaged in the development, manufacture and supply of safety equipment products and software that protect people and facility infrastructures, through two main geographical segments, the Americas and International. The Company's products are developed employing a combination of electronics, mechanical systems and materials to protect users and the product portfolio includes breathing apparatus, fixed gas and flame detection systems, portable gas detection instruments, industrial head protection products, and firefighter protective apparel. The end markets for MSA's product line encompass fire service, oil, gas and petrochemical industry, construction, industrial manufacturing applications, utilities, mining, and the military.	MSA mainly competes with GVS in the Personal Safety sub-division (H&S). It mainly sells through distributors, as GVS does for its Personal Safety products, but it also sells some products to individuals through hardware and home center retail outlets.
	<b>Avon Protection PLC</b>	Avon Protection PLC is a British technology company that designs and produces life critical personal protection solutions for a diverse customer base of global militaries and first responders, with a portfolio that includes chemical, biological, radiological, nuclear (CBRN), respiratory and head protection products. Its brands include Avon Protection and Team Wendy: the former is a provider of life critical personal protection systems, while the latter is a supplier of helmets and helmet liner and retention systems. Avon holds a market leading position protected by world-leading technologies, high value brands, significant barriers and intellectual property rights.	Avon competes with GVS in the Personal Safety sub-division (H&S). It provides similar products, but they are targeted to a different and more specific customer base than GVS.
Energy & Mobility	<b>Donaldson Company Inc</b>	Donaldson Company, Inc. provides technology-led filtration products and solutions, serving a range of industries and advanced markets. Donaldson, which is headquartered in Minnesota, operates in three main segments: Mobile Solutions, Industrial Products, and Life Sciences. The products from the Mobile Solutions segment include replacement filters for both air and liquid filtration applications, as well as exhaust and emissions. The Industrial Solutions segment consists of Industrial Filtration Solutions products, such as dust, fume and mist collectors and air filtration systems for gas turbines, and of other products targeted to the Aerospace and Defense industries. The Life Sciences segment comprehends micro-environment gas and liquid filtration for food, beverage and industrial processes, bioprocessing equipment.	Donaldson, similarly to GVS, is a vertically integrated filtration company, and produces its own membranes. It competes with GVS mainly in the Safety and Electronics sub-division (E&M), especially with products such as membranes, engine air filters and cabin air filters.
	<b>Parker-Hannifin Corp</b>	Parker-Hannifin Corporation, headquartered in Ohio, is a manufacturer of motion and control technologies and systems, providing precision engineered solutions for a range of mobile, industrial and aerospace markets. Parker's segments include Diversified Industrial and Aerospace Systems. The former is an aggregation of several business units, which manufacture motion-control and fluid power system components for builders and users of various types of manufacturing, packaging, transportation, agricultural, construction, and military vehicles and equipment. This segment offers products, such as aerospace filters and systems and compressed air and gas treatment solutions, among others. The latter produces hydraulic, fuel, pneumatic and electro-mechanical systems and components, which are utilized on domestic, commercial, military and general aviation aircraft.	Thanks to a diversified product portfolio which targets mainly the mobile and aerospace markets, Parker competes with GVS in the Energy & Mobility division.

Source: Refinitiv, companies data, team elaboration

## Principal Component Analysis

The first alternative method we want to address is the **PCA**, which was crucial in terms of dimensionality reduction.

We started with the following KPIs:

- Price to Book
- Book Value per Share
- **Price to Revenue per Share**
- Sales
- Sales Per share
- Price to Diluted EPS
- **Diluted EPS**
- EV to EBITDA
- EBITDA
- Net debt

At the end, we found that the most efficient regression resulted to be:

$$\text{Quarterly VWAP} = \overset{\text{(pval < 0.01)}}{1.7957} \text{ P/R} + \overset{\text{(pval < 0.05)}}{20.2770} \text{ EPS}$$

Adj R<sup>2</sup> = 0.937

## Monte Carlo Simulations

The last two techniques, i.e. the two Monte Carlo Simulations, have in common the fact that both are discrete simulation of the following Stochastic Differential Equation (SDE):

$$\frac{dX_t}{X_t} = \mu dt + \sigma dW_t$$

This SDE represents the **Geometric Brownian Motion (GBM)**, the most used process for stock prices replication. We used this SDE to simulate future price paths of GVS.MI, and different FCF scenarios.

Clearly, the main difference between the two are the parameters  $\mu$  and  $\sigma$ , standing for the drift (i.e. the trend) and the diffusion (i.e. perturbation around that trend).

	Price Paths	FCFF
$\mu$	$-5.815 \cdot 10^{-05}$	37.2768
$\sigma$	0.0296	82.0187

In the Price Paths simulation, the **drift** has been set equal to the historical mean of daily returns, while for the FCFF we have averaged the historical mean for the series of FCFF in FY 2019 - FY 2023E with the mean of our FCFF in the BASE scenario.

Moving to the **diffusion**, in the price simulation we have used the historical standard deviation for GVS.MI stock price, while for the FCFF one we have chosen the standard deviation of the BASE scenario.

For the first approach, we have simulated 100K paths with 252 steps each: this simulation represent **100K future scenarios** (second plot on the right) the mean is **6.02**. The distribution of the terminal prices is plotted in the second graph; the three zones (SELL, **HOLD**, BUY) where chosen as follows: the first third of the plot includes any terminal price **below the 25th percentile** of the simulated prices, while the last third captures every price which is above the **75th percentile** (a different approach uses one standard deviation below/above the realized mean, presented in the graph with the two thick blackline, even more severe thresholds): as it can be seen immediately, the current price is in the HOLD area, as well as the Target Price.

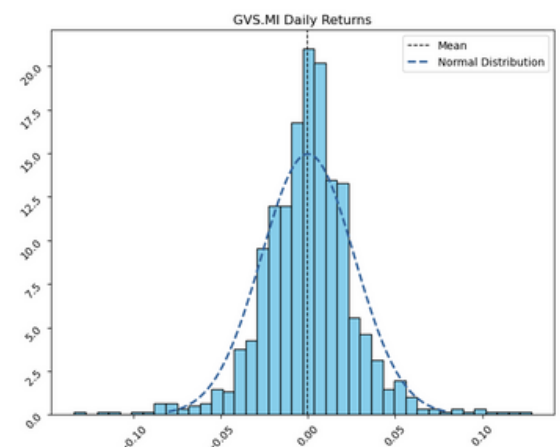
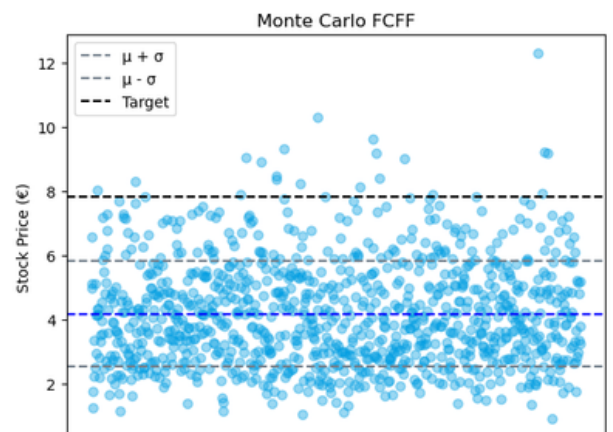
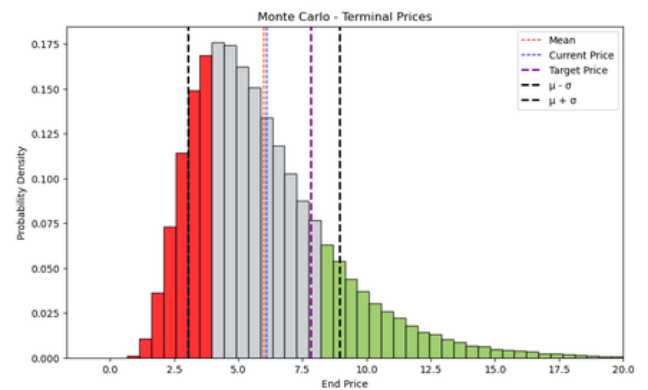
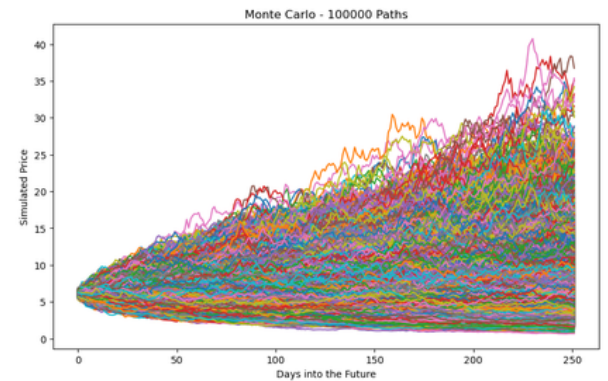
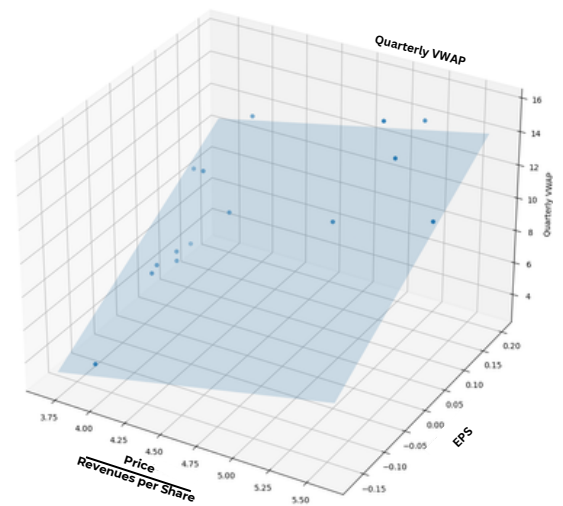
Unfortunately, this simulation assumes Gaussian returns, since they are sampled from a lognormal series of prices. In reality (last plot on the right) returns are leptokurtic, i.e. they have fatter tails than a Gaussian distribution, therefore extreme events are far more likely (**Black swans!**).

On the other hand, the second approach would suggest a different outcome: simulating **100 different DCF** scenarios (each with WACC = 9.12% and g = 2%) it is possible to check that the target price is **well beyond** one standard deviation away from the mean of **4.17€**, suggesting a BUY recommendation. However, this experiment is potentially downwardly biased by the severe FCFF absorption of Financial Debt in FY2023.

## Summary

Given the different range and imbalances of advantages and issues of the presented alternative methods, we have weighted every technique as in the following table

Method	Result (€)	Weight
DCF	8.46	50%
Peer	9.72	5%
PCA	7.58	5%
MC Prices	6.02	20%
MC DCF	4.17	20%
<b>TARGET : 7.13</b>		



# E. Environmental, Social & Governance

## ANNEX E1: Main ESG metrics divided by pillar

Key factors	Metric	Optimal	GVS 2022	GVS 2021	GVS 2020	Industry (2022)	Best (2022)	Worst (2022)
<b>Sustainable product (41.24%)</b>	Policy Sustainable Packaging	TRUE	FALSE	FALSE	FALSE	T = 66.67%, F = 33.33%	TRUE	FALSE
	Policy Environmental Supply Chain	TRUE	TRUE	TRUE	TRUE	T = 83.33%, F = 16.67%	TRUE	FALSE
	Environmental Products	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Eco-Design Products	TRUE	FALSE	FALSE	FALSE	T = 41.67%, F = 58.33%	TRUE	FALSE
	Take-back and Recycling Initiatives	TRUE	FALSE	FALSE	FALSE	T = 33.33%, F = 66.67%	TRUE	FALSE
	Product Environmental Responsible Use	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Renewable/Clean Energy Products	TRUE	FALSE	FALSE	FALSE	T = 16.67%, F = 83.33%	TRUE	FALSE
<b>ENVIRONMENTAL (40%)</b>	Policy Emissions	TRUE	FALSE	FALSE	FALSE	T = 100%, F = 0%	TRUE	TRUE
	Targets Emissions	TRUE	FALSE	FALSE	FALSE	T = 83.33%, F = 16.67%	TRUE	FALSE
	Total CO2 Emissions / Million in Revenue \$	LOW	49.63	49.86	43.66	34.06	4.05	113.35
	Total Waste / Million in Revenue \$	LOW	11.85	12.06	9.05	5.93	1.01	15.66
	Waste Recycled To Total Waste	HIGH	59.17%	48.57%	67.79%	53.09%	78.20%	0.11%
	Total Hazardous Waste / Million in Revenue \$	LOW	1.78	1.90	1.54	0.82	0.08	3.15
	Waste Reduction Initiatives	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	ISO 14000 or EMS	ISO 14000	ISO 14000	ISO 14000	ISO 14000	ISO 14000 = 100%, NO = 0%	ISO 14000	ISO 14000
	Staff Transportation Impact Reduction	TRUE	TRUE	TRUE	FALSE	T = 8.33%, F = 91.67%	TRUE	FALSE
	GHG Emissions Direct, Scope 1 to Revenue USD in million	LOW	11.42	6.91	6.10	13.50	2.86	70.7
GHG Emissions Indirect, Scope 2 to Revenue USD in million	LOW	38.21	42.95	37.56	20.55	1.19	42.65	
<b>Energy management (29.38%)</b>	Resource Reduction Policy	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Water Efficiency	TRUE	TRUE	TRUE	FALSE	T = 83.33%, F = 16.67%	TRUE	FALSE
	Policy Energy Efficiency	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Resource Reduction Targets	TRUE	FALSE	FALSE	FALSE	T = 58.33%, F = 41.67%	TRUE	FALSE
	Targets Water Efficiency	TRUE	FALSE	FALSE	FALSE	T = 50%, F = 50%	TRUE	FALSE
	Targets Energy Efficiency	TRUE	FALSE	FALSE	FALSE	T = 33.33%, F = 66.67%	TRUE	FALSE
	Total Energy Use / Million in Revenue \$	LOW	740.52	642.05	469.86	371.73	102.44	861.37
	Total Renewable Energy To Energy Use in million	HIGH	268389.08	344577.62	183313.03	190872.74	516394.96	34265.48
Total Water Use / Million in Revenue \$	LOW	272.55	184.86	164.15	324.11	35.4	1089.72	
<b>Health and safety on the worksite management (33.67%)</b>	Health & Safety Policy	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Employee Health & Safety	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Supply Chain Health & Safety	TRUE	FALSE	FALSE	FALSE	T = 83.33%, F = 16.67%	TRUE	FALSE
	Health & Safety Training	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Employees Health & Safety OHSAS 18001	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
Injuries To Million Hours	LOW	5.49	9.45	10.10	4.65	1.05	15.95	
<b>SOCIAL (30%)</b>	Training and Development Policy	TRUE	TRUE	TRUE	FALSE	T = 100%, F = 0%	TRUE	TRUE
	Policy Skills Training	TRUE	TRUE	TRUE	FALSE	T = 100%, F = 0%	TRUE	TRUE
	Policy Career Development	TRUE	FALSE	FALSE	FALSE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Turnover of Employees	LOW	56.20%	59.40%	40.00%	16.02%	9.20%	29.45%
	Women Employees	HIGH	59.73%	61.06%	60.04%	39.50%	50.00%	19.26%
	Women Managers	HIGH	45.83%	40.00%	38.53%	32.09%	42.00%	7.81%
	Average training hours	HIGH	18.29	27.44	23.04	21.90	33.00	9.60
	Management Training	TRUE	FALSE	FALSE	FALSE	T = 83.33%, F = 16.67%	TRUE	FALSE
<b>Product quality mgmt (18.11%)</b>	Product Responsibility Monitoring	TRUE	FALSE	FALSE	FALSE	T = 41.67%, F = 58.33%	TRUE	FALSE
	ISO 9000	TRUE	TRUE	TRUE	TRUE	T = 75%, F = 25%	TRUE	FALSE
	Quality Mgt Systems	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
<b>Ethics and compliance (14.55%)</b>	Human Rights Policy	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Child Labor	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Forced Labor	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Human Rights	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Fair Competition	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Community Involvement	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Corporate Responsibility Awards	TRUE	TRUE	FALSE	FALSE	T = 41.67%, F = 58.33%	TRUE	FALSE
<b>Ownership and control (31.83%)</b>	Majority shareholder 30+% of voting shares	FALSE	TRUE	TRUE	TRUE	T = 15.38%, F = 84.62%	TRUE	FALSE
	Stakeholder Engagement	TRUE	TRUE	TRUE	TRUE	T = 83.33%, F = 16.67%	TRUE	FALSE
	Free float share capital	HIGH	39.85%	40.00%	40.00%	86.11%	99.80%	38.34%
	Succession Plan	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Shareholder Rights Policy	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	Veto Power or Golden share	FALSE	TRUE	TRUE	TRUE	T = 0%, F = 100%	FALSE	FALSE
<b>Board of Directors and Committees (20.45%)</b>	Staggered Board Structure	FALSE	FALSE	FALSE	FALSE	T = 16.67%, F = 75%	FALSE	TRUE
	Executive Individual Compensation	TRUE	TRUE	TRUE	TRUE	T = 8.33%, F = 91.67%	TRUE	FALSE
	Policy Executive Compensation Performance	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Executive Compensation ESG Performance	TRUE	TRUE	TRUE	TRUE	T = 58.33%, F = 41.67%	TRUE	FALSE
	Sustainability Compensation Incentives	TRUE	TRUE	TRUE	FALSE	T = 50%, F = 50%	TRUE	FALSE
	Board Attendance	TRUE	TRUE	FALSE	FALSE	T = 16.67%, F = 83.33%	TRUE	FALSE
	Board Gender Diversity, Percent	HIGH	44.44%	44.44%	44.44%	33.17%	57.14%	22.22%
	CEO Chairman Duality	FALSE	FALSE	FALSE	FALSE	T = 66.67%, F = 33.33%	FALSE	TRUE
	Nomination Committee Independence	HIGH	100.00%	66.67%	66.67%	100.00%	100.00%	100.00%
	Compensation Board Committee	TRUE	TRUE	TRUE	TRUE	T = 83.33%, F = 16.67%	TRUE	FALSE
Independent Board Members	HIGH	44.44%	44.44%	44.44%	77.41%	93.33%	42.86%	
Compensation Committee Independence	HIGH	66.67%	66.67%	66.67%	96.67%	100.00%	66.67%	
<b>Accounting and audit practices (20.45%)</b>	Accounting Controversies	FALSE	FALSE	FALSE	FALSE	T = 0%, F = 100%	FALSE	FALSE
	Internal Audit Department Reporting	TRUE	TRUE	TRUE	TRUE	T = 91.67%, F = 8.33%	TRUE	FALSE
	CSR Sustainability External Audit	TRUE	TRUE	TRUE	TRUE	T = 50%, F = 8.33%	TRUE	FALSE
<b>Business ethics (27.27%)</b>	Policy Bribery and Corruption	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE
	Policy Business Ethics	TRUE	TRUE	TRUE	TRUE	T = 100%, F = 0%	TRUE	TRUE

Source: Refinitiv, company data, team estimates



## ANNEX E2: Board of Directors in office up to May 2023

Note that the “Related Party Transaction Committee” is composed of the same members, who sit on the same roles, as the “Control, Risk and Sustainability Committee”.

Full name (Year of birth)	M/F	Office	In charge since	No. of other offices	Attendance	Committee		Background
						Control & Risks	Remuneration	
Grazia Valentini (1942)	F	Non-Executive Chairperson	Mar-87	-	10/10		✓	<ul style="list-style-type: none"> <li>In 1985 she started up the business of manufacturing and marketing filtering systems, with the company GVS di Valentini Grazia e C. s.n.c.</li> <li>Has held various positions and managerial roles in companies of the Group</li> <li>Since 2013, CEO of Grace di Grazia Valentini</li> </ul>
Massimo Scagliarini (1965)	M	Chief Executive Officer	Jul-90	-	10/10			<ul style="list-style-type: none"> <li>More than 35 years of experience in the Group</li> <li>Led the division dealing with the medical sector to become the most successful division of the Group</li> <li>Currently holds various positions and plays managerial roles in most of the companies of the Group</li> </ul>
Marco Scagliarini (1964)	M	Executive Managing Director	Jul-90	-	8/10			<ul style="list-style-type: none"> <li>Has held various managerial roles in GVS and currently holds various positions in companies of the Group</li> <li>Head of the Energy &amp; Mobility division of GVS</li> </ul>
Mario Saccone (1967)	M	Executive Managing Director	Jul-10	-	10/10			<ul style="list-style-type: none"> <li>Degree in Economics and Business (Federico II, University of Naples)</li> <li>Master's degree in Business Administration (Profingest Bologna)</li> <li>Has held positions in various organizational areas of the Group</li> </ul>
Matteo Viola (1974)	M	Executive Managing Director	May-18	-	8/10			<ul style="list-style-type: none"> <li>Degree in Business Administration (University of Parma)</li> <li>Chief Operating Officer of the Group since 2013</li> </ul>
Nadia Buttignol (1977)	F	Independent Non-Executive Director	Jun-20	-	10/10	✓		<ul style="list-style-type: none"> <li>Degree in Business Administration (Bocconi University, Milan)</li> <li>Previous experience at Morgan Stanley, Citigroup, Lazard &amp; Co, Dresdner Kleinworth</li> <li>Manager of the private equity fund Palladio Holding S.p.A.</li> </ul>
Arabella Caporello (1972)	F	Independent Non-Executive Director	Jun-20	1	9/10	Chairperson		<ul style="list-style-type: none"> <li>Degree in Economics and Business (Università Cattolica del Sacro Cuore, Milan)</li> <li>Experience as financial analyst; has held managerial and administrative positions at several companies and private equity funds; has held board positions in various Italian companies</li> </ul>
Alessandro Nasi (1974)	M	Independent Non-Executive Director	Jun-20	7	9/10		✓	<ul style="list-style-type: none"> <li>Degree in Business Administration (University of Turin)</li> <li>Experience as financial analyst; has held managerial and administrative positions in several companies and also within the Group</li> <li>Currently sits on the Boards of Directors of various firms</li> </ul>
Michela Schizzi (1982)	F	Independent Non-Executive Director	Jun-20	-	10/10	✓	Chairperson	<ul style="list-style-type: none"> <li>Degree in Law (La Sapienza University, Rome)</li> <li>LLM in European Law (King's College London)</li> <li>Has held managerial and administrative positions in several firms and within the Group</li> </ul>

Source: company data, team elaboration

## ANNEX E3: Board of Directors in office today

Full name (Year of birth)	M/F	Office	In charge since	Committee		Background
				Control & Risks	Remuneration	
Alessandro Nasi (1974)	M	Independent Non-Executive Chairperson	Jun-20			<ul style="list-style-type: none"> <li>Degree in Business Administration (University of Turin)</li> <li>Experience as financial analyst; has held managerial and administrative positions in several companies and also within the Group</li> <li>Currently sits on the Boards of Directors of various firms</li> </ul>
Massimo Scagliarini (1965)	M	Chief Executive Officer	Jul-90			<ul style="list-style-type: none"> <li>More than 35 years of experience in the Group</li> <li>Led the division dealing with the medical sector to become the most successful division of the Group</li> <li>Currently holds various positions and plays managerial roles in most of the companies of the Group</li> </ul>
Marco Scagliarini (1964)	M	Non-Executive Director	Jul-90			<ul style="list-style-type: none"> <li>Has held various managerial roles in GVS and currently holds various positions in companies of the Group</li> </ul>
Marco Pacini (1971)	M	Non-Executive Director	May-23			<ul style="list-style-type: none"> <li>Honorary degree in Economics (La Sapienza University, Rome)</li> <li>Master's degree in Management, Accounting, and Corporate Finance (University of Turin)</li> <li>Has held the position of CFO in Fiera Milano and UniEuro, and, currently is the CFO of GVS (since Jan 2023)</li> </ul>
Pietro Cordova (1960)	M	Independent Non-Executive Director	May-23	✓	✓	<ul style="list-style-type: none"> <li>Degree in Business Administration (La Sapienza University, Rome)</li> <li>Started his professional life in the banking sector, then joined the Finance departments of several firms, also as Head or Director of the department, and held other managerial positions</li> <li>Currently partner of a consulting firm and member of the BoD of Terago Inc.</li> </ul>
Anna Tanganelli (1981)	F	Independent Non-Executive Director	May-23	Chairperson		<ul style="list-style-type: none"> <li>Degree in Business Administration (Bocconi University, Milan)</li> <li>Has held administrative and managerial positions in various companies, among which the position of CFO of Magneti Marelli</li> <li>Currently CFO and Head of M&amp;A of IREN Group</li> </ul>
Simona Scarpaleggia (1960)	F	Independent Non-Executive Director	May-23	✓	Chairperson	<ul style="list-style-type: none"> <li>Degree in Political Science (LUISS University, Rome)</li> <li>Master's degree in Business Administration (SDA Bocconi)</li> <li>Doctor of Letters Honoris Causa (International University of Geneva)</li> <li>Has held several managerial positions, especially in human resources, at different companies, among which CEO of IKEA Switzerland and EDGE Strategy, and has sat and currently sits on the boards of different firms</li> </ul>
Grazia Valentini (1942)	F	Non-Executive Director	Mar-87			<ul style="list-style-type: none"> <li>In 1985 she started up the business of manufacturing and marketing filtering systems, with the company GVS di Valentini Grazia e C. s.n.c.</li> <li>Has held various positions and managerial roles in companies of the Group</li> <li>Since 2013, CEO of Grace di Grazia Valentini</li> </ul>
Michela Schizzi (1982)	F	Independent Non-Executive Director	Jun-20		✓	<ul style="list-style-type: none"> <li>Degree in Law (La Sapienza University, Rome)</li> <li>LLM in European Law (King's College London)</li> <li>Has held managerial and administrative positions in several firms and within the Group</li> </ul>

Source: company data, team elaboration