A Work Project, presented as part of the requirements for the Award of a Master's degree in Finance from the Nova School of Business and Economics.

Private Equity Challenge: Vidrala as a glass packaging LBO target

Gonçalo Trigo Garcia Rugeroni

Work project carried out under the supervision of:
Professor Fábio Santos

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Abstract: The goal of this thesis is to assess Vidrala as a potential leveraged buyout target. Market and company overviews were performed to evaluate the company´s positioning and financial performance, as well as future trends within the glass packaging industry, the respective end-markets and other packaging solutions. This analysis was used to select the most suitable investment strategies and quantify the resulting business plan in financial terms. Finally, a valuation using several methods was conducted from which a capital structured was designed and potential returns calculated. This part will cover the Business Plan, the Valuation and the Capital Structure

Keywords: Private Equity, Leveraged Buyout, Glass Packaging Market, Vidrala

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Vidrala's presence in a mature market with stable and predictable cash flows makes for a very attractive M&A target

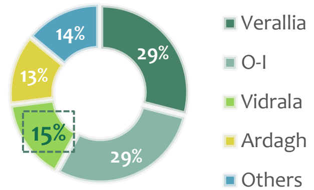
Company Overview

- Founded in 1965, Vidrala currently has **8 factories** spread across **5 countries**, being a dominant player in the Western European Market and serving approximately **1 600 customers**
- The management team has **created a strong player** in the respective geographies **through several successful M&A transactions**
- Vidrala has been showing a **stable and predictable cash flow generation** and a **leverageable balance sheet**

Industry Overview

- Being highly **dependent on the respective end markets**, this industry's main drivers are **population growth, urbanization**, the sustainability trend and the **premiumization** of the end markets, with the latter **increasing the penetration rate of glass** over other packaging options

Main competitors in Western Europe



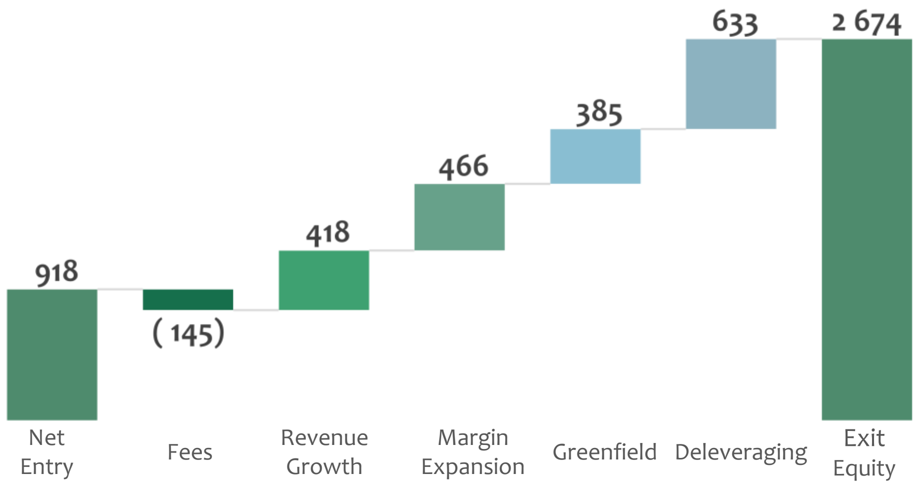
Investment Rationale

- Following the industry trend and company strengths, **M&A consolidation** creates value by **increasing exposure in key geographies** and **diversifying product portfolio**
- Leveraging the company's focus on **automation** and **increasing usage of cullet** allows to increase EBITDA margins of the company
- Using excess cash to **develop factories in glass net importing countries** adds more value than deleveraging further

Entry

- **Entry will be priced at 7.5x EBITDA**, according to the relative valuation. Overall, the acquisition of Vidrala and its target Zignago Vetro plus banking and due diligence fees results in a cost of **€ 2.67Bn**
- The capital structure is composed by **66% of debt and 34% of equity**, optimizing returns and respecting covenants
- Management team will represent **10%** of the institutional investment contributing with **€ 6.3M**, twice its fixed annual salary

Value Creation (in million €)



Exit

- The exit is planned for 2025. Entry multiple, acquisition leverage and operating model yield the following returns:

	Money Multiple	IRR
Inst. Investors	2.8x	23.6%
Mang. Team	20.9x	83.7%

- The **exit strategies** considered most suited for the deal are **IPO** due to deal-size and **Strategic Sale** due to potential synergies and consolidation trend

By investing in strategic acquisitions Vidrala has become one of the main players in the Western European market

Company profile

- Vidrala is **a leading producer of glass containers** for the **food & beverage industries**
- It also **provides packaging services** such as beverages filling and logistic activities, which account for less than 10% of revenues
- Sales by product segment in 2019:

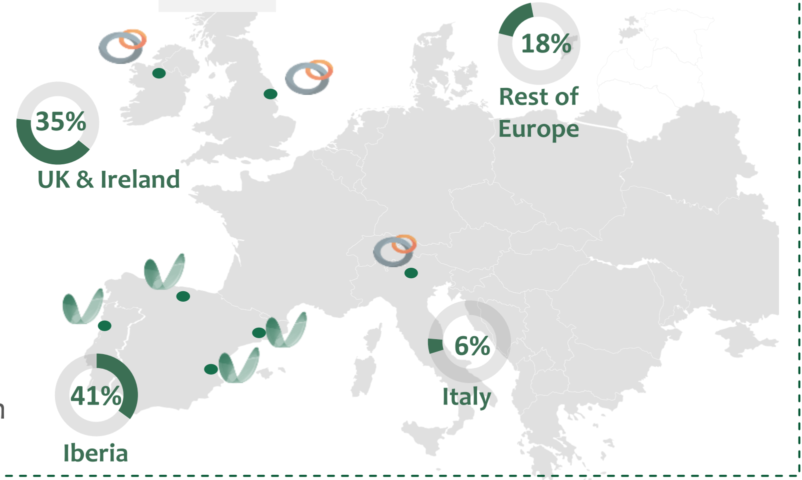
Wine	Beer	Food	Spirits	Soft Dtinks	Others
35%	30%	10%	9%	9%	7%

- Its strategy is to be the European low-cost producer, always **focused on customers** and **competitiveness**, through **sustainable** and **cost-efficient** processes

Outreach and sales by region

It currently operates through:

- **8 factories** in
- **5 countries**, producing around
- **8 billion containers** per year
- Serving **1 600 customers** and
- Retaining **15%** of the Western European market



1965-1967	1967-1981	1981-1998	1998-2003	2003-2015	2015-2019
25,000 tons	130,000 tons	450,000 tons	805,000 tons	950,000 tons	1,600,000 tons
1965 – The company was installed in Llodio, (Alava – Spain) in 1965 **1966** - Creation of Vidrierías de Álava S.A. Its manufacturing activity began in 1966 with one furnace, two machines **1967 –** Begins exporting	**1977**- Beginning of press & blow production of light bottles makes Vidrala the technological leader of the national market **1981**- Transformation of furnaces, generating **an energy saving of 50%,** maintaining productive capacity. Corporate name changed to Vidrala S.A.	**1985 - Vidrala's shares** were launched on the stock market **1989** - Crisnova, a 100% subsidiary of Vidrala, started its activity in Caudete **1995 - Third Aiala's furnace** was built up **1998 - Second Crisnova´s furnace** came into operation	**2001** - Approval of the Strategic Plan of corporate growth **2003 – Beginning of Internationalization process:** Entry into Portuguese market with acquisition of Ricardo Gallo Vidro de Embalagem	**2005 –** Acquisition of a new plant in Spain and entry in **Italian** Market through acquisition of a factory **2007 –** Entry into **Belgian market** through acquisition of La Manufacture du Verre **2015 –Entry into UK and Ireland** markets through the acquisition of Encirc Limited	**2015 –**Vidrala becomes 4th largest European player, and offers a complete range of services **2017** - Acquisition of a new factory in Portugal (Santos Barosa) **2019 –** Sale of La Manufacture du Verre, ending the presence in the Belgian Market

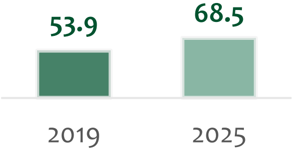
- Production Capacity - Establishment - Organic Growth - Acquisitions

Sources: Company´s Published Reports

Considering market trends, glass will have an important role in the future of packaging

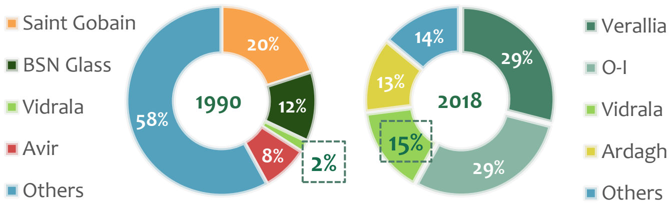
Glass bottles and containers Market

Global market size (in billion €)



- **It is expected to grow at a CAGR of 4.1%** between 2020 and 2025
- **Asia pacific is the biggest market ,** followed by **Europe**, where Germany, France and Russia account for a significant part of the revenues
- The market is competitive and increasingly concentrated

Main competitors in Western Europe



- The majority of glass packaging consumption is made by the **alcoholic beverages industry**, with beer contributing with the greatest volume

Key Trends

Increasing concerns about the environment are leading consumers towards more **sustainable choices** Glass is 100% recyclable	**Premiumization** People are looking for higher quality products, and do not mind paying a premium Glass allows for attractive design	Healthier consumers demand **healthier products** Glass has no affinity, guarantees quality

Growth Drivers

- Increasing urban population and purchasing power
- Growing demand for alcoholic beverages, especially for beer
- Growing number of policies to reduce the use of plastics
- Increasing wine trade
- Fast growing pharmaceutical and cosmetics segments

Value Chain

SUPPLIERS → PACKAGING MANUFACTURING → PRODUCTS MANUFACTORING → DISTRIBUTION → RETAIL

KEY PLAYERS

CIRCULAR ECONOMY

USER

RECYCLING

COLLECTION AND TREATMENT

CULLET

Glass Discarded in Production

Municipal Waste Collection

Sources: Statista, Company's publications, Mordor Intelligence, Passport, The European Container Glass Confederation, McKinsey

Net importers of glass in Eastern Europe and North Africa represent the best opportunities for a greenfield expansion

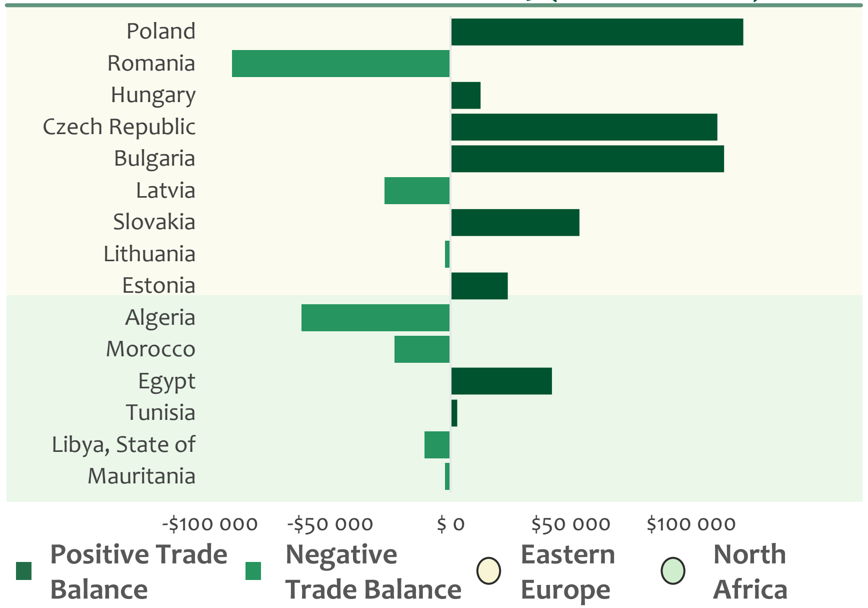
Entering New Markets

End Markets size (in million €) and growth

	Western and Central Europe*	North Africa	Eastern Europe	Northern Europe
Alcoholic drinks	208 530	3 221	57 215	32 728
CAGR 2019-2023	*2.5%*	*6.5%*	*4.4%*	*2.3%*
Non-Alcoholic drinks	137 137	18 501	19 400	10 440
CAGR 2019-2023	*2.5%*	*11.5%*	*6.3%*	*3.3%*
Food	639 913	131 212	323 516	81 077
CAGR 2019-2023	*1.9%*	*8%*	*2.4%*	*1.7%*
Beauty and personal care	58264	9 861	19 000	6 021
CAGR 2019-2023	*1.9%*	*3.1%*	*2.7%*	*2%*
OTC Pharmaceuticals	101 533	1 249	3 594	1 278
CAGR 2019-2023	*3.7%*	*2%*	*3.1%*	*3.1%*

* Does not include Portugal, Spain nor Italy

Glass Trade balance in 2019 (USD thousand)



Trade balance of the countries allow us to deepen our analysis regarding which markets to entry, since it shows us where demand is larger than what is being produced by the local producers

- In Eastern Europe: **Romania and Latvia** seem to be the regions where there is greater room for more producers
- Regarding North African countries, there seems to be a lot of opportunities: Algeria, Morocco and Libya. However, in these countries a thorough analysis regarding **political and economical stability** needs to take place

Why Beauty and Personal care?

Mainly driven by **consumer spending**, the market is growing as beauty products increasingly make part of daily routines. High growth opportunities, especially for **prestige and luxury products**, account for 25% of revenues. In UK, Italy and Spain, where Vidrala already operates, the share of people that buys these products is **28%, 22%** and **21%**, respectively

People are looking for **visually appealing, sustainable and more natural products**, with a packaging that allow them to see its quality

Why Pharmaceuticals?

Increasing consciousness about health and access to health care are driving the demand for pharmaceuticals up, particularly in middle income countries where it is growing at a faster pace

Countries where Vidrala currently operates have **high access to medicine**. Glass is one of the **main packaging solutions** for medicine and drugs, allowing the products to keep their properties and contributing to sustainability

Sources: Trade Map, Statista

vidrala

M&A Activity is boosting growth and margins

1
- Vidrala has been actively participating in M&A by acquiring manufacturing sites in strategical locations
- In 2015 Vidrala acquired its **UK & Ireland divisions** which added over **€ 300M** in revenue. Organic growth rate was 2.3%
- In 2017 Vidrala completed another acquisition, **Santos Barosa** in Portugal, adding over **€ 140M** in revenue
- In 2019 the **Belgium site was sold** to Carlyle Group Owned, Saverglass
- Vidrala's strategy focuses on **cost optimization** and **product mix diversification**

2
- The acquisition of the UK & Ireland divisions hurt Vidrala's margins as these divisions had **significantly higher costs** compared to others. In 2015, UK & Ireland had EBITDA margins close to 18% while other segments had close to 21%, with the **Iberian Peninsula being the most profitable** at circa 30%. Currently, UK has margins closer to 25%

3
- Energy consumption, specifically, electricity and natural gas represent one of the largest cost drivers as this industry is **very energy intensive**
- Sales expense refers to **storage and transportation** costs regarding its logistic services, another large standalone cost driver

4
- Employee Expenses and External Services (more specifically, maintenance and Insurance) are the **two least variable** captions when analysing a fixed vs variable cost basis
- Overall, of 2019 costs, 31.1% of the total costs are considered **Fixed Costs**

Vidrala's Income statement key captions 2012-2019

in Million €	2012	2013	2014	2015	2016	2017	2018	2019
Revenues	**458**	**474**	**469**	**803**	**774**	**823**	**955**	**1 011**
Organic Growth Rate	N/A	*3.5%*	*(1.0%)*	*2.3%*	*(3.7%)*	*(3.8%)*	*16.1%*	*5.8%*
Inorganic Growth Rate	N/A	*0.0%*	*0.0%*	*69.1%*	*0.0%*	*10.2%*	*0.0%*	*0.0%*
COGS	(156)	(157)	(164)	(304)	(279)	(277)	(318)	(320)
Gross Profit	**301**	**317**	**304**	**499**	**495**	**546**	**637**	**691**
Gross Margin (%)	*65.8%*	*66.8%*	*64.9%*	*62.2%*	*64.0%*	*66.4%*	*66.7%*	*68.4%*
Employee Expenses	(100)	(100)	(96)	(166)	(166)	(175)	(190)	(198)
Other Expenses	(102)	(106)	(102)	(178)	(162)	(181)	(204)	(207)
Other EBITDA Adjustments	2	3	1	(3)	5	(1)	(2)	(25)
Adjusted EBITDA	**102**	**114**	**107**	**152**	**172**	**190**	**242**	**262**
EBITDA Margin (%)	*22.2%*	*24.1%*	*22.8%*	*18.9%*	*22.2%*	*23.1%*	*25.3%*	*25.9%*
NOPAT	**46**	**58**	**50**	**57**	**75**	**86**	**121**	**135**
NOPAT Margin (%)	*10.0%*	*12.2%*	*10.6%*	*7.1%*	*9.6%*	*10.4%*	*12.6%*	*13.4%*

1

in Million €	2018	2019
Revenues	**955**	**1 011**
Iberian Peninsula	567	597
UK & Ireland	334	351
Italy	54	63
Rest of European Union	–	–

3

in Million €	2018	2019
Other expenses	**(204)**	**(207)**
External Services	(46)	(45)
Electricity	(54)	(51)
Sales Expenses	(88)	(93)
Taxes	(6)	(5)
Other Operating expenses	(9)	(13)

Sources: Vidrala's annual reports

Vidrala has the highest ROA among its peers

1

- The period between 2014 and 2019 shows a declining trend in the cash conversion cycle of the firm. The component that has contributed more towards this trend is **the decline in the holding period**, meaning the firm took less time to sell its inventories. There was also **an upward trend on the Payable period** since as the company scales up, it has more bargaining power with its suppliers
- Regarding Vidrala´s position compared to its peers, it is observed that smaller players like Zignago Vetro and Vetropack have the worst cycles

2

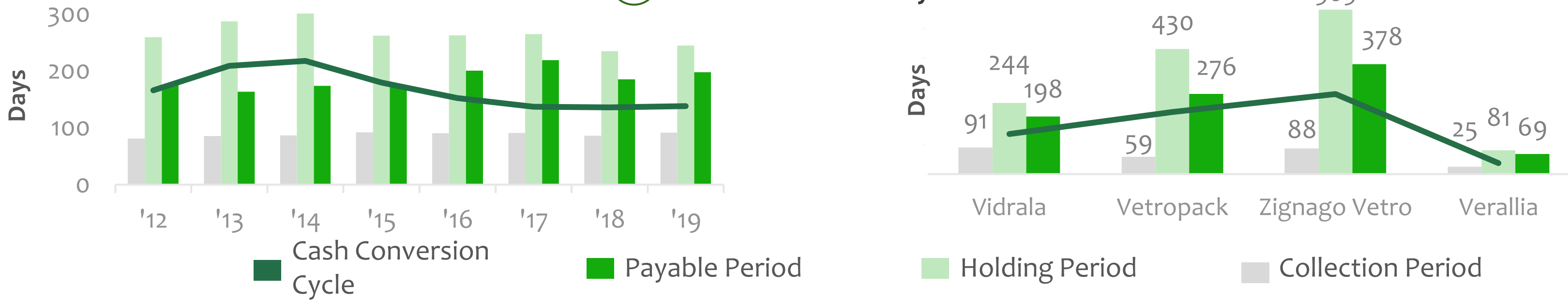
- In the last 5 years there was an increase in the Return on Assets of the company. This happened due to **improvements in the efficiency** translated in the operational margins but also, because of a positive trend in the capacity **of generating more sales with the assets of the company***
- The second graph shows that Vidrala presented in 2019 the biggest ROA. When looking at the Asset turnover, it is seen that the best companies were Verallia and Vetropack. However, in the operational margin these 2 players are not as good

3

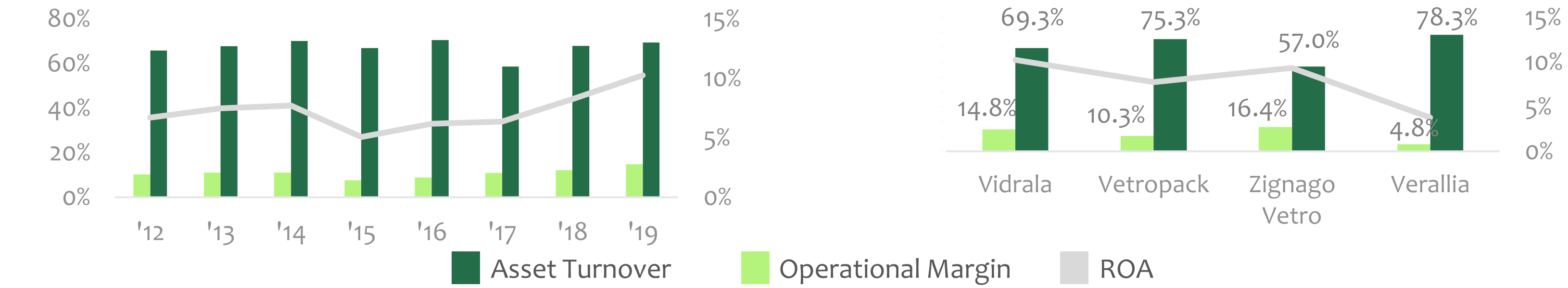
- The Return on Equity also shows an up-warding trend. This happened because although there has been a deleveraging of the company in the last 3-4 years, **the increases on Return on Assets more than compensated this negative trend in leverage**
- Verallia is the player with the lowest return on assets and the highest ROE, which is driven by the highest level of leverage within its peers

*The decline in Asset turnover in 2017 happened due to the acquisition of Santos Barosa, since it increased significantly the amount of assets the company had

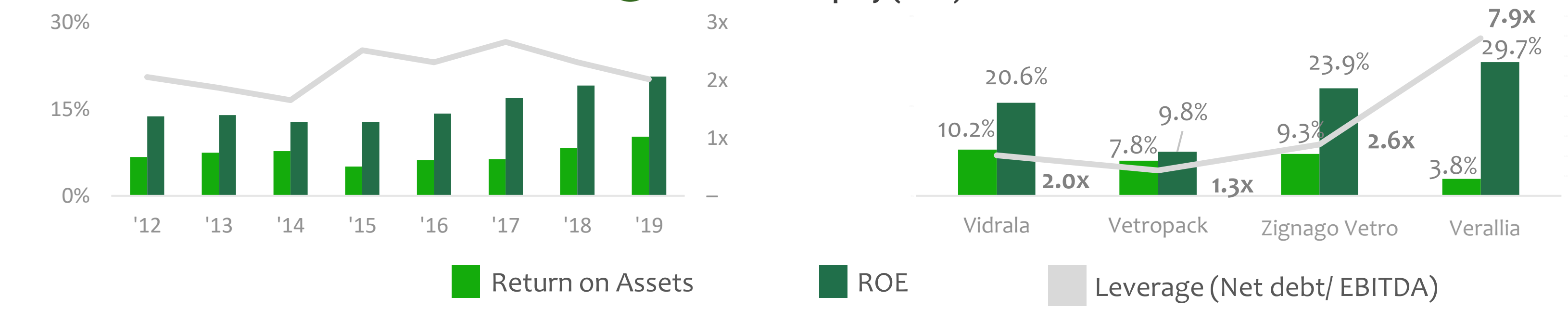
1 Cash Conversion Cycle



2 Return on Assets (ROA)



3 Return on Equity (ROE)



Sources: Vidrala's annual reports

Buy-and-Build, Operational improvements and Greenfield development are the most adequate strategies to create value for Vidrala

Deal Rationale

Strong Financials	Experienced Team	M&A Track Record	Consumer Trends
- Vidrala has a **leverageable Balance** Sheet with large assets to collateralize - Vidrala's **strong and predictable cash flow** generation allow M&A Activity - Good **competitive positioning** with large customer portfolio	- Management team has **high tenure** in the company with **deep industry knowledge** - Focus on **operational improvements** through M&A and it is observable in **revenue per employee** levels	- Two large **acquisitions in the past** 5 years with **successful integration and operational improvement** - Focus on product **portfolio diversification** and margins **optimization**	- General perception of **Glass as a safe** packaging material - **Premiumization** of beverages increases demand for glass packaging - Increasing consumer demand for **environmentally sustainable products**

Value Creation Strategies

Buy-and-Build

Horizontal Integration

Rationale

- Use Vidrala's high & stable FCF generation and Management Team's experience to **acquire targets in strategical geographies** and **diversify product portfolio**
- **Continue to consolidate the western Europe market position**

Synergies

- Increase of Automation
- Decrease of Sales Expenses
- Increase in usage of recycled glass
- Increase presence and improvement of Vidrala's division in Italy
- Increase product portfolio and new end market

Operational Improvements

- Continuation of the **automation trend**, in line with company´s **investment in R&D,** in areas such as robotics and big data, that until now have translated into the **highest revenue per employee among competitors**

- Savings in energy and COGS will be driven by: **increase in usage of cullet, increased use of renewable sources** and possible **recovery of heat to be re-used in the production process** (TASIO UE project)

Greenfield Development

- Building a new plant can bring several opportunities to grow. Vidrala will be able to **capture an important fraction of the market,** taking advantage of its experience and **efficiency to outperform current players**
- Adrian Curry, Encirc's general manager, has **experience in setting plants from scratch** and can contribute with his expertise

Plan A consists of acquiring Zignago Vetro, due its product portfolio and strong positioning in Western Europe

vidrala

Acquisition plans

Plan A – Zignago Vetro

Zignago Vetro is the best acquisition target for Vidrala since it checks most criteria the company defined in 2015 when acquiring Encirc:

- Customer diversification
- Different Product-Mix weights
- Consolidation of the **Western Europe market**
- Usage of higher cullet rates **due to already existent vertical integration**

In addition, Zignago Vetro has a more complete product portfolio than Vidrala, adding:

- Cosmetics and Perfumery
- Specialty Glass Containers

Zigango's presence in Italy can also be **leveraged to improve the overall performance of the group's operations in that country**

Zignago's ownership of joint ventures Vetri Speciali and Vetreco, 50 and 30% respectively, are not considered since these targets are not strategically fit

Plan B – Vetropack

If for any reason the acquisition of Zignago Vetro fails a Plan B is considered

Most criteria also check for Vetropack however, **with less influence in the Western Europe Market**

Vetropack also has a larger product portfolio than Vidrala:

- Pharmaceutical Packaging

Plan C – Smaller acquisitions

If the acquisition of Vetropack is not possible smaller acquisitions should be considered according to the **established criteria**

Note that probably these companies will not have recycled glass providers, and so**, in this case vertical integration should also be considered**

Why Zignago over Vetropack?

There are three main reasons to choose Zignago over Vetropack:

- **Core Markets**

Zignago Vetro has presence in a Western European Market where Vidrala is not (France)

- **Potential Deal Size**

Vetropack has a much larger EBITDA than Zignago (€ 170M vs € 79M) which would bring higher risk to the deal, albeit Zignago's EBITDA is still relevant

- **Better EBITDA margins**

Zignago Vetro has already better margins than Vetropack

Criteria for Other Targets

In case both deals fail it is important to define some criteria so that the deal succeeds:

Tier 1:

- Presence in Western Europe
- Product-Mix
- Operational Margins

Tier 2:

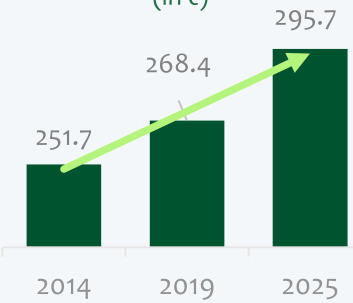
- Deal size or combined size of the companies acquired
- Cullet utilization rate
- Speed of the Due Diligence Process

Moreover, **vertical integration can also be considered** in order to increase the cullet utilization rates. One example could be **Eurovetro*,** which is only, 20 minutes away from Vidrala's facilities in Italy

Sources: Vidrala, Zignago Vetro, Vetropack, Eurovetro, Google Maps **Notes:** *Company profile in the appendix

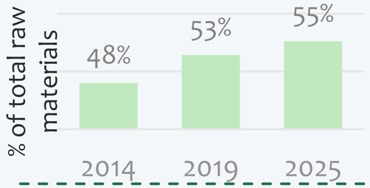
Automation and integration of big data will be the main operational improvements behind the increase in EBITDA margin

Revenue per employee
(in €)



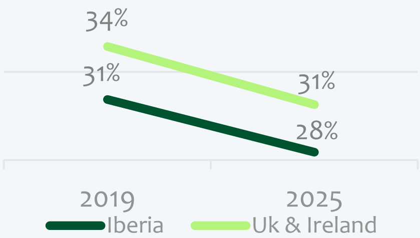
- Maintain the path of automation and digitalization of the production process with inclusion of robotics and bid data into making the production process as efficient as possible
- From 2014 to 2019, the company increased the ratio of revenue per employee from € 251.7 to € 268.4. In the upcoming years, the companies' investment in R&D will be maintained and push the **Vidrala Academy towards the goal of achieving a revenue per employee of € 295.7**
- This obviously **directly impacts the personnel expenses** and consequently key performance ratios such as the EBITDA margin

Rate of Cullet Inclusion



- As a member of the FEVE association, Vidrala has **committed to increase the % of cullet in its production process**. This will allow the company to **decrease the costs associated with electricity and raw materials** and to increase the capacity of each furnace, since the duration of the melting process also decreases with the usage of cullet*

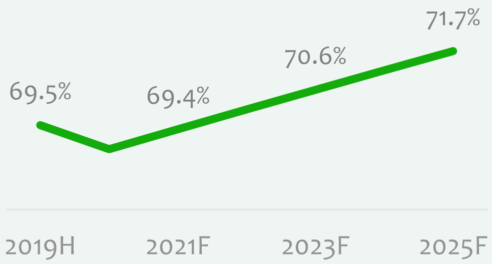
COGS as % of Revenue



- Investments are planned with the goal of increasing efficiency and consequently **reduce the weight of the raw materials in the cost structure** of the company. The investments in furnace upgrades promise to bring marginal decreases in the % of COGS relative to sales along the next years. At the same time, Investments in the UK & Ireland region are expected to push this segment of the company closer to the margins of the rest of the group and decrease the weight of the COGS to around 30% of revenues

In order to be able to achieve these improvements, Vidrala will have to keep investing in technology. This way, beyond the expansion capex, the levels of capex will be 16% higher (the average for the last 3 years) than the level of maintenance capex that is considered equal to depreciation

Vidrala Gross Margin



Vetropack Gross Margin 2019

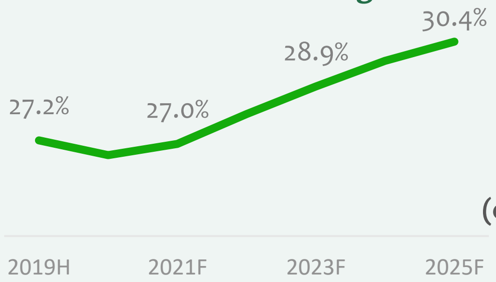
85.9%

Zignago Vetro Gross Margin 2019

82.1%

The efforts to include of Cullet and furnace upgrades will cause an increase on the gross margin of Vidrala, moving progressively closer to the gross margins of certain competitors/ targets of similar size to Vidrala

Vidrala EBITDA Margin



Vetropack Ebitda Margin 2019

23.3%

Zignago Vetro Ebitda margin 2019 (excluding joint ventures)

26.5%

The continuous investment regarding the integration of robotics and big data in the production process will continue to increase the revenue per employee and **will positively impact the EBITDA margin of the company**

Sources: *Research Gate, Impact of Glass Cullet on the Consumption of Energy and Environment in the Production of Glass Packaging Material

Although the industry is going through a consolidation proccess, Romania is suited for a greenfield development due to its glass trade balance, market size and growth

Investment and Timing

Investment required
€ 134.6 million

Construction of the plant will start in the **beginning of 2021**

Years until plant starts producing
1 year

Production capacity in

1st Year	2nd Year	3rd Year
50%	**70%**	**100%**

Investment and Timing

The location chosen to build the new plant was

2 Furnaces

300+ Employees

Criteria

- Romania is a **net importer of glass containers**
- It is an Eastern European country, giving Vidrala the oportunity to benefit from **big markets with higher growth rates**
- Its **proximity** to several other countries in this region that Vidrala may serve as well: Moldavia, Ukraine, Bulgaria, Serbia and Hungary
- **Lower** labor, land and production **costs**
- **Low tax rate**

Assumptions

Revenue- average revenue per furnace was used and an **assumption regarding the number of furnaces to build** was made according to the demand identified by the group according to the size of the market, growth rates and trade balance

Gross PP&E per plant- Average of the current GPP&E per furnace was used. Although **land might be cheaper in Romani**a, there is great uncertainty about other possible investments

Net Working Capital- Worst captions of last 4y of Vidrala were assumed as a starting point, with **improvements taking place over the years**

Employee Expenses- Calculated **according to Average Hourly manufacturing costs** in Romania (Eurostat), evolving according to inflation throughout the years. Contributions to Benefit plans calculated according to Vidrala standards

Key Financials

Millions of €	2021	2022	2023	2024	2025	2026
Revenues	-	53.2	85.1	109.6	113.0	117.4
Gross Profit	-	27.9	50.7	76.1	79.1	82.5
Gross margin	-	52.4%	59.5%	69.4%	70.0%	70.3%
EBITDA	-	9.2	27.1	48.7	51.0	53.5
EBITDA Margin (%)	-	17.3%	31.8%	44.4%	45.1%	45.6%
EBIT	-	(0,2)	17,6	39,2	41,6	44,1
EBIT Margin (%)	-	(0.4%)	20.7%	35.8%	38.3%	39.1%
NOPAT	-	(0.2)	14.8	33.0	34.9	37.0
∆ in Net Working Capital	-	(13.2)	(7.5)	(5.7)	(0.2)	(0.4)
CAPEX	(134.6)	(9.5)	(9.5)	(9.5)	(9.5)	(9.5)
FCF	(134.6)	(13.4)	7.3	27.2	34.7	36.6

Sources: Vidrala Annual Report, Glass International, Eurostat, IMF

The acquisition of Zignago Vetro will give exposure to other geographies and end markets

in Million €	2018H	2019H	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	CAGR
Iberian Peninsula	567	597	583	609	632	652	669	682	697	712	727	3.2%
UK & Ireland	334	351	344	362	376	388	398	408	416	425	433	3.5%
Italy	54	63	61	64	67	68	70	71	72	74	75	3.1%
Greenfield Expansion	–	–	–	–	53	85	110	113	117	122	127	28.6%
2 Zignago Vetro	–	–	–	–	332	342	350	357	364	371	378	2.5%
Total Revenue	955	1 011	988	1 035	1 460	1 536	1 597	1 632	1 667	1 703	1 741	10.6% 1
% Growth		*5.8%*	*(2.3%)*	*4.7%*	*41.1%*	*5.2%*	*4.0%*	*2.2%*	*2.2%*	*2.2%*	*2.2%*	

1 Organic Growth

The CAGR for total revenue is forecasted to be 10.6%. This percentage is however influenced by the acquisition of Zignago Vetro. The **organic growth CAGR on the revenues is estimated at 3.3%**, following the growth rates of the overall glass container packaging market. Although the market is projected to incur in a 2.3% decline in 2020 due to Covid-19, it bounces back in the following years, returning to similar growth rates as the ones presented before the pandemic

The Volume forecast for glass containers were calculated considering glass usage trends and with an optimization method of 2 coefficients which were multiplied by:

GDP growth (%)

Urban Population (Millions)

The Price forecast was based on historical relationship identified between the evolution of prices in end-markets and the evolution of prices in glass containers. The premiumization trend identified in the market analysis was also considered

End- markets

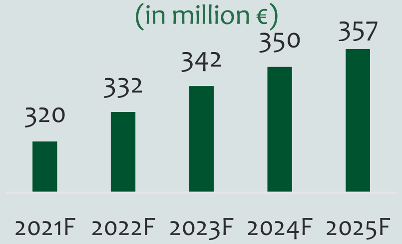
Glass Containers

2 Uplift from Zignago Acquisition

Geographical Position

Product Diversification

Revenue
(in million €)



The jump in total revenue verified in 2022, occurs due to the **integration of Zignago Vetro in the group**. This uplift in revenues consolidates Vidrala as one of the biggest players in the European glass container industry. It also allows Vidrala to **gain exposure to a new end market: cosmetics and personal care**. Additionally, the company will consolidate its position in Italy, enter the Polish market and benefit from the sales division of Zignago Vetro in the US to increase the **number of products that it exports**

Sources: IMF, Passport, World Bank **Notes:** *1) CAGR from 2020-2025, except for the line of expansion plan (2022-2025); **2) Full methodology in Slides **28 & 29.**

1

The largest caption in the Employee Benefit expense is the Salary and Wages. All captions depend on the number of employees and a defined value per employee. Regarding the number of employees, the driver is the **revenue per employee**, expected to keep increasing. This is because there is an expectancy that **Vidrala's technological improvements increase automation**. For **Zignago**, due to synergies with Vidrala, revenue per employee is expected to increase at a 3.5% yoy rate. However, in 2025 it is modelled to be about 45% of the number of Vidrala. The cost per employee increases at expected inflation. Gross Margin for the whole company is expected to increase from 68.8% to 74% from 2020 to 2025

2

Other expenses are mainly composed by **sales expenses, electricity** and **external services** (rents, insurance, etc.). There are synergies regarding sales expenses with Zignago Vetro. These synergies are obtained due to assumed **improvements in logistics and transportation costs** (since geographies of both players overlap)

3

Organic EBITDA is expected to **grow at a 6.9% CAGR**, while with the Add-ons contributions is expected to grow at a 16.4% CAGR

Add-ons EBITDA is expected to account for roughly **58%** (€ 144M out of € 247M) of the EBITDA growth from 2020 to 2025

vidrala

Consolidated EBITDA margins are expected grow by 4.6pp by 2025

in Million €	2018H	2019H	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	CAGR*	
Gross Profit	652	703	680	718	1,053	1,115	1,174	1,208	1,238	1,270	1,301	12.2%	
Vidrala	652	703	680	718	752	783	811	836	857	879	901	4.2%	
Add-ons	–	–	–	–	300	332	363	372	381	391	400	7.4%	
Employee Benefit	(191)	(198)	(199)	(207)	(300)	(305)	(309)	(314)	(319)	(324)	(330)	9.5%	
Vidrala	(191)	(198)	(199)	(207)	(212)	(216)	(220)	(224)	(228)	(233)	(238)	2.4%	1
Add-ons	–	–	–	–	(88)	(89)	(89)	(90)	(90)	(91)	(92)	0.8%	
Other Expenses	(222)	(231)	(222)	(231)	(355)	(369)	(375)	(383)	(390)	(396)	(403)	11.5%	
Vidrala	(222)	(231)	(222)	(231)	(233)	(240)	(239)	(244)	(249)	(251)	(256)	1.9%	2
Add-ons	–	–	–	–	(122)	(130)	(136)	(139)	(142)	(145)	(148)	4.5%	
Organic EBITDA	239	275	264	280	307	327	352	368	380	395	407	6.9%	
Add-ons EBITDA	–	–	–	–	91	113	138	144	149	155	161	16.4%	3
Total EBITDA	239	275	264	280	398	440	490	511	529	550	568	14.2%	
Margin	*25.1%*	*27.2%*	*26.7%*	*27.0%*	*27.2%*	*28.7%*	*30.7%*	*31.3%*	*31.8%*	*32.3%*	*32.6%*		

Exit Year - 2025

At exit, the EBITDA margin of the whole group is estimated to be 31.3%

However, due to the operating model assumptions, this value is expected to increase until 32.6% in 2028

From 2020 to 2025 EBITDA almost doubles

Organic EBITDA is expected to grow at a 6.9% rate. At exit this value is expected to be €368M

It is predicted an increase in gross profit that has a significant overall impact in total EBITDA growth in the investment period

Electricity/sales cost decreases due to Vidrala's targets of cullet; however, such decrease is not particularly relevant given the researched information. (always above 5% of sales – for Vidrala's original facilities)

Notes: Add-ons are composed by Zignago and the Greenfield Investment.*From 2020 (2022 Add-ons) to 2025

1 Depreciation is **assumed to be kept constant as a percentage of Gross Property Plant and Equipment** (except work in progress). In 2022, it increases steeply after starting the greenfield development and Zingano's acquisition takes place

2 Impairments are a non-recurring expense and thus **assumed to be zero** in the future

3 Considering Spain's tax rate of 25%, Vidrala's effective tax rate of 21.7% in 2019, and the fact that other countries where Vidrala will operate have lower corporate tax rates, the chosen tax rate was **23%**

4 As a result of COVID-19, **NWC decreases by 3.8% in 2020** and **increases sharply in 2022** due to the acquisition of Zignago and the operations in Romania. However, for the remaining years it **increases at a lower rate**. This is mainly explained by lower days in inventories (a reduction of 1.7% per year) achieved through synergies, automation and improving management systems

5 The graph on the right, shows the composition of NPP&E and CAPEX excluding the investment in the acquisition. Expansion capex is used in 2020 and 2021 to **invest in 2 new furnaces in Ireland's facilities** (€ 28M per year) and to **build the new plant in Romania** (€ 135M). Between 2022 and 2028 there is just maintenance capex, including the investment made to improve operations, which adds 16% above Vidrala's depreciation

vidrala

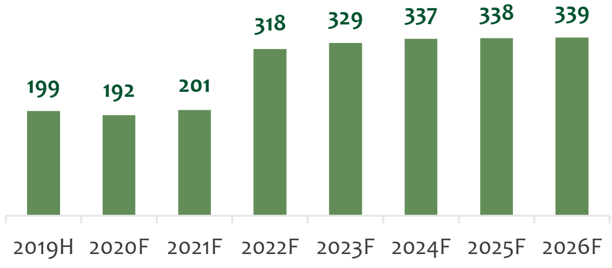
With EBITDA growth, decreasing changes in NWC and constant levels of CAPEX, the FCF grows at a CAGR of 17.8%

in Million €	2018H	2019H	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	CAGR
Total EBITDA	239	275	264	280	398	440	490	511	529	550	568	14.2%
Amortization & depreciation	(88)	(91)	(90)	(92)	(151)	(152)	(154)	(155)	(156)	(157)	(158)	11.5%
Vidrala	(88)	(91)	(90)	(92)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	1.5%
Add-ons	–	–	–	–	(58)	(58)	(58)	(58)	(58)	(58)	(58)	0.0%
Impairments	(4)	(6)	–	–	–	–	–	–	–	–	–	
EBIT	147	178	174	188	246	288	336	357	374	393	410	15.5%
EBIT Margin (%)	15.4%	17.6%	17.6%	18.2%	16.9%	18.7%	21.1%	21.9%	22.4%	23.1%	23.6%	4.4%
Income tax (Adj.)	(32)	(39)	(40)	(43)	(57)	(66)	(77)	(82)	(86)	(90)	(94)	15.5%
Changes in NWC	(28)	(17)	8	(9)	(23)	(11)	(8)	(1)	(1)	(1)	(1)	
OCF	180	219	231	227	318	363	405	428	442	458	472	13.1%
CAPEX	(102)	(107)	(118)	(255)	(167)	(168)	(169)	(170)	(172)	(173)	(174)	7.6%
Free Cash Flow (excl.acquisitions &cash)	78	112	113	(27)	152	195	236	258	271	285	298	17.8%
Free Cash Flow (inc. acquisition)	78	112	113	(626)	152	195	236	258	271	285	298	17.8%

NWC

Net Working Capital evolution
(in million €)

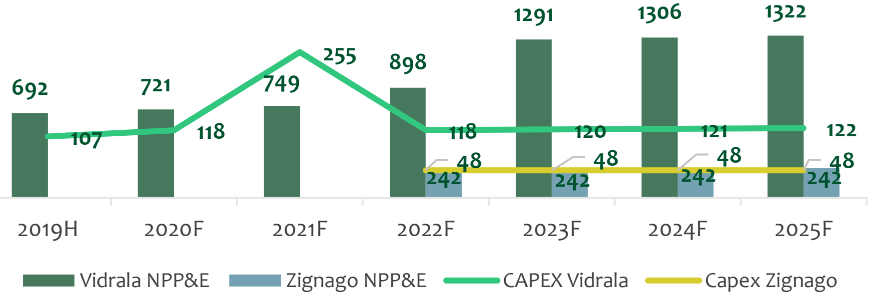
4



CAPEX

NPP&E and CAPEX
(in million €)

5

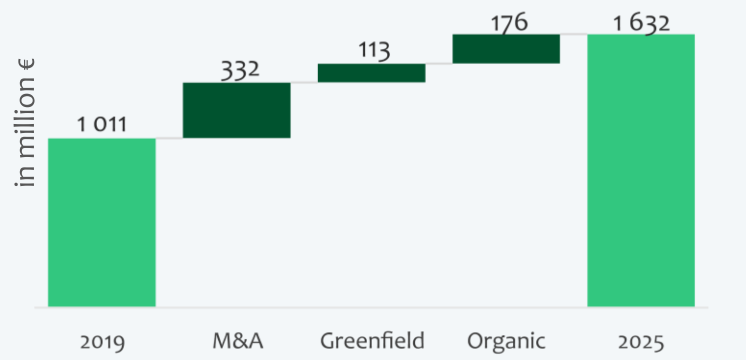


Sources: KPMG

Notes:*From 2020 (2022 Add-ons) to 2025

The Business Plan forecasts an additional € 621M in Revenue and € 247M in EBITDA

Top Line



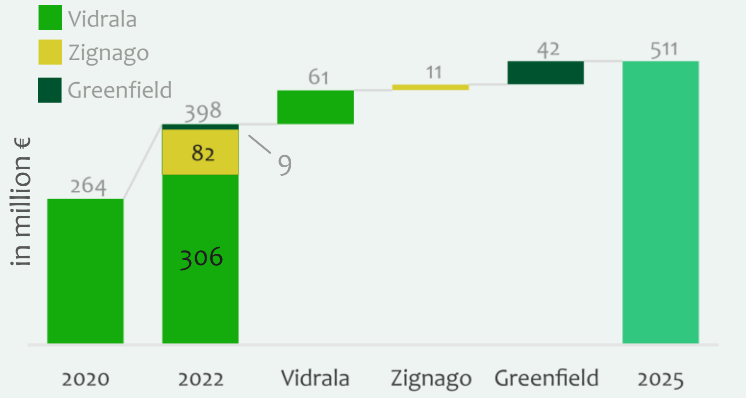
Organic Growth

- GDP Growth and share of Urban population are the **main growth drivers**
- Premiumization of alcoholic beverages increase demand for glass

Inorganic Growth

- Acquire an additional **€ 332M in 2022** in Europe to expand presence in Italian market and add exposure to the Pharmaceutical & Cosmetics end markets as well as other European Countries
- Leverage targets' connections with cullet providers to increase share of recycled glass

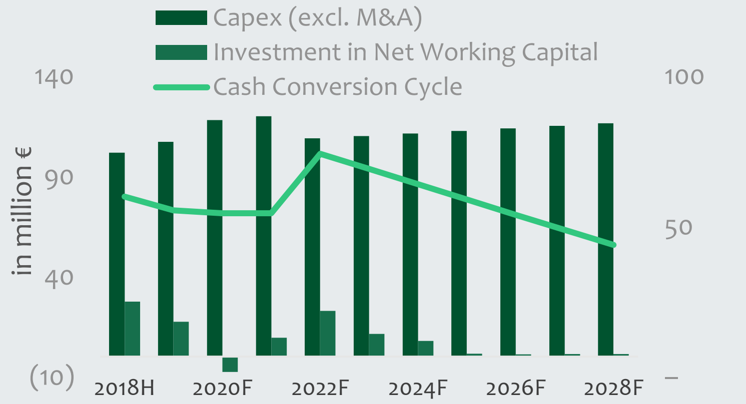
Bottom Line



Margin Uplift

- Main source of EBITDA Margin expansion comes from **COGS** as acquiring companies who use more recycled glass allow for lower COGS and accelerate the glass production process
- By using a higher share of recycled glass in the manufacturing process, Vidrala **reduces Electricity costs** as glass takes less time in the furnaces to be complete
- Finally, by introducing Vidrala's significantly more automated process to its target, it allows to **reduce Employee Expenses** in the acquired targets

Expansion



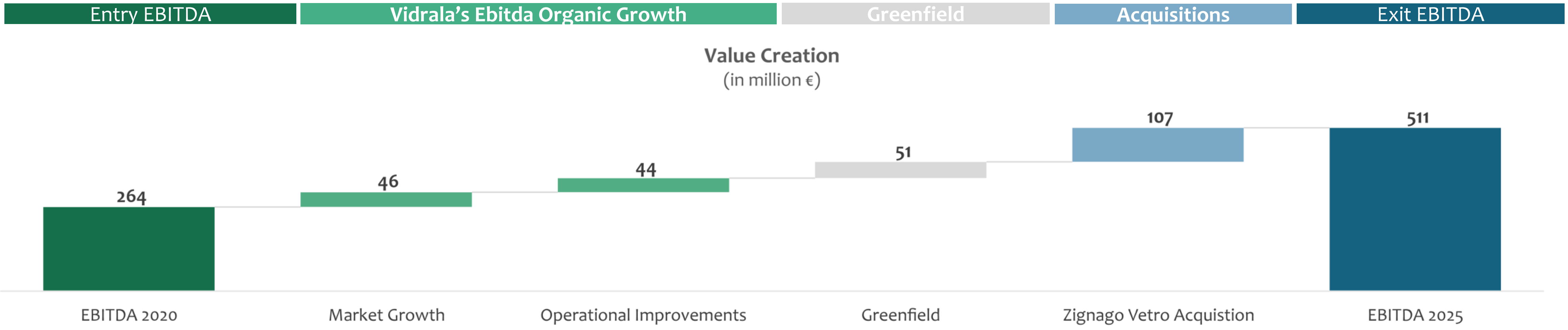
Capex

- Maintenance CAPEX is **expected to remain at historical levels**, with a slight increase for Vidrala's current schedule

Net Working Capital

- Investment in Net Working Capital is expected to follow the historical **correlation with company growth**
- Furthermore, **inventory synergies** are expected to be introduced by increasing the business scale. Using a conservative forecast of a 2.5% yoy improvement, CCC is expected to **decrease down to 44 days in 2028**

Acquisition of Zignago Vetro is the main driving force for the increase in EBITDA



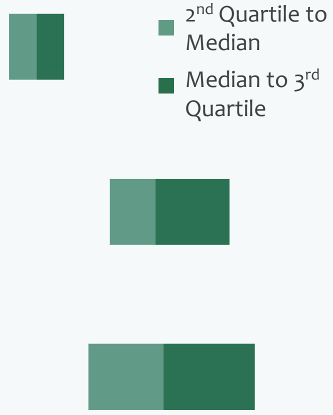
From 2020 to 2025, EBITDA grows at a CAGR of 14.1% reaching € 511.2 M. The EBITDA margin improves **4.6 percentage points** from 26.7% in 2020 to 31.3% in 2025. Regarding absolute values, the exit **EBITDA in 2025 is 1.94x the EBITDA of 2020**. The main drivers of the expected increase are the **acquisition of Zignago Vetro, while other determinants were almost equally important**

- The **€ 46.3M increase** in EBITDA that comes **from market growth** is very significant. With rising consumption trends towards the use of glass, Vidrala's **current markets** are expected to grow at a **CAGR of 3%** between 2020 and 2025, contributing for almost **20% of the EBITDA difference**
- Operational improvements also play an important role **(€ 43.7M)**. The focus will be continuing **to leverage Vidrala's high level of automation**, as expenses with personnel are one of the main costs, and betting on the **use of more cullet** to reduce energy and material consumption by a 2% minimum

- The greenfield development is expected to be **working at full capacity by 2025** and to contribute with an EBITDA of around € 51M. Assuming the project goes according to projections, it accounts for around **21% of the difference in EBITDA** between 2020 and 2025
- The acquisition of **Zignago Vetro is the the main driver of EBITDA growth.** Not only does the company contribute with an **EBITDA of € 92.6M** by 2025 but it also adds an **extra value of € 14.1M** since **it causes an uplift of Vidrala´s existing facilities in Italy, and reduction in sales expenses due to overlapping services**

Combining several valuation methodologies resulted in a multiple of 7.5x, which correspond to an enterprise value of € 2Bn for Vidrala

Method	Vidrala´s Entry multiple and Enterprise Value
LBO Valuation **7.6x** 7.3x-7.9x	
Share Price **8.9x** 8.4x-9.7x	
DCF model **8.9x** 8.1x-9.9x	
Past Transactions **7x** 6.2x-7.5x	
EV/EBITDA cycle **7.7x** 5.8x-9.8x	
EV/EBITDA **7.9x** 6.8x-10.4x	

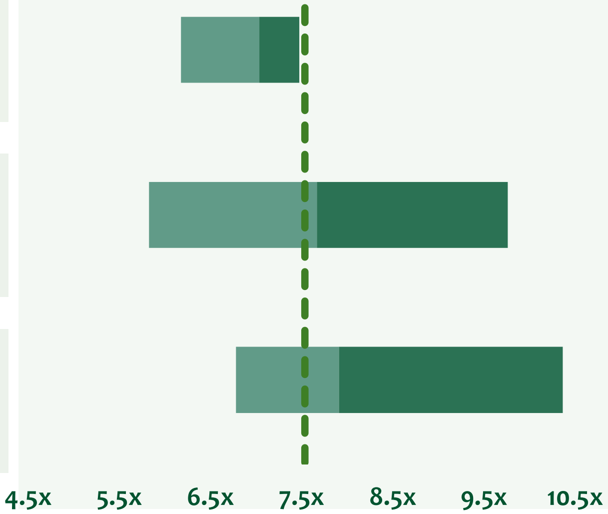


Entry Multiple

7.5x

Vidrala's entry EV

€ 1.99Bn



Methodology

Reality Check

LBO Valuation

The LBO method **reflects the entry multiple** that by considering the exit proceeds **allows the fund to obtain the target return** (20%-30%)

Share Price

The share price analysis is a **reality check** for the entry multiple as it reflects the company's market value. To perform this valuation, **data from the last two years** was used

DCF Model

For the DCF model valuation, it is considered Vidrala's predicted **free cash flows without synergies**, a WACC of 6.5% (Bloomberg Estimate) and a perpetual growth rate of 0.5%, which are then used for sensitivity

Relative Valuation

Past Transactions

This method includes information from **8 past transactions from the last 6 years**, which were considered relevant for our valuation. However, it is important to stress that some **deals' sizes were smaller** than the current one

EV/EBITDA Cycle

This method was used in order to understand how the multiple has **been evolving over time.** For this purpose, the next twelve months EV/EBITDA multiples from the last 10 years were retrieved

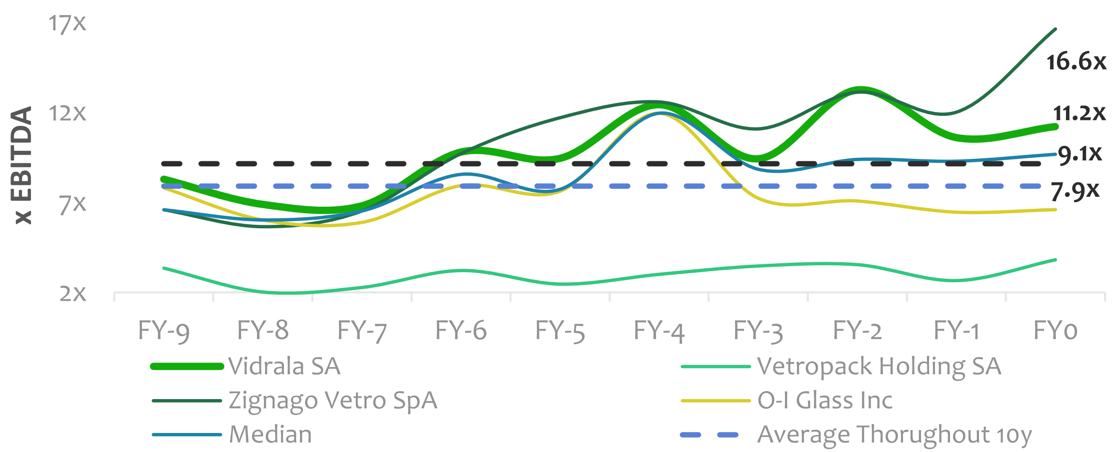
EV/EBITDA

Current next twelve months EV/EBITDA helps measuring the enterprise **value of peers in relative** terms. It does not take into consideration the capital structure, reflecting mainly the **operational performance**. Vidrala and Zignago Vetro's multiples are way **above the average of 7.9x (10.2x and 11.2x** respectively). While these companies may be more competitive and should have an above the average entry multiple, it does **not seem reasonable** to assume their current trading multiples to enter in the project

Sources: Bloomberg, Eikon Reuters

Past Transactions and trading EV/ EBITDA multiples of comparable companies indicate Vidrala´s current trading multiple could be inflated

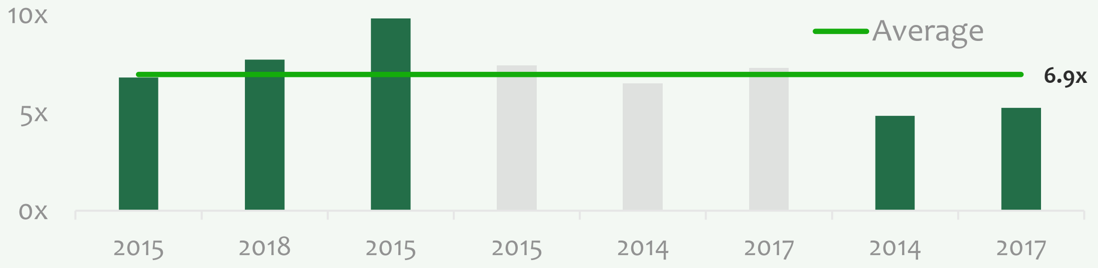
EV / EBITDA cycle



- The graph presented above shows that Glass Container Industry **has been presenting an increase in the EV/ EBITDA multiple over the last 10 years**. However, when compared to the yearly median, the average of the last 10 and the average of the last 3 years, the multiples of Vidrala and Zignago Vetro are much higher
- For this reason and as previously mentioned, the multiples used as an Input for the LBO model were below the current trading multiples of both companies. There are 2 main reasons behind this rationale:
  - The first is the fact that all selected comparable firms operate in the same industry, with a similar geographical market, product portfolio and operating margins
  - The second, is the fact that with the current trading multiples it would be **significantly more difficult to obtain returns close to the ones that are presented in the Private Equity Industry**

Past Transactions

- Past M&A transactions were selected based on information available in Bloomberg, Reuters and other public sources. Due to the limited information of transactions for this specific industry (regarding EV, EBITDA values) and the criteria regarding **geographic markets, deal size and years to the present,** for the last 5 years only 8 transactions were taken into consideration
- The average multiple of these transactions was **6.9x EBITDA.** Outlined below with a grey colour are also 3 specific transactions since they are closer to the deal sizes considered for the LBO



Year	Target Name	Acquirer Name	EV (in million €)	EV/EBITDA
2018	Santos Barosa	Vidrala	252.7	7.7x
2017	Drujba Glassworks AD	BA Vidro SA	187.9	5.2x
2017	Anchor Glass	BA Glass, CVC	**1 040**	7.3x
2015	Encirc	Vidrala	408.6	6.8x
2015	Centor US	Gerresheimer	725	9.8x
2015	Verallia	Apollo Global Management	**2 950**	7.4x
2014	Verallia North America	Ardagh Group	**1 220**	6.5x
2014	Anchor Glass	KPS	435	4.8x

Sources: Bloomberg, Reuters

Apollo's acquisition of Verallia is a good "reality check" for the Capital Structure used in the LBO model

Credit Rating for Vidrala

- Although there is no agency's rating for **Vidrala**, an estimation was made based on Standard & Poor's credit rating criteria, current information available for peers and implied rating of A from Eikon's Model

Current Combined Credit Risk Eikon Reuters Model - A

Model summary	
In Developed Europe	**92**
Probability of Default	**0,05%**
Structural Model	**88**
Text Mining Model	**94**
SmartRatios Model	**77**

Current Qualitative Classification

	S&P Criteria	
Business risk	Industry cyclicality	**Intermediate**
	Country risk	**Very low**
	Competitive risk	**Low**
Financial risk	Leverage	**Low**
	Net Debt/Ebitda	**1.1x**

Changes			
Industry cyclicality	=	Unchanged	Intermediate
Country risk	↑	Entry in Eastern Europe	Low
Competitive risk	=	Unchanged	Low
Leverage	↑	Significant amount of debt used	High
Net Debt/Ebitda			6.9x

Final Credit Risk Estimation

BB

Debt Market Analysis - Past Acquisitions of Verallia

APOLLO → **Acquires** → verallia

As a point of reference, it is useful to look at Apollo Global Management's acquisition of Verallia, a glass container company operating in Europe and South America.
The debt structure and multiples were considered as **benchmark for Vidrala's LBO** as can be seen in the following tables

Details	
Date	June 2015
EV	€ 2.9B
EBITDA	€ 400M
Multiple	7.4x
Lenders	Credit Suisse, Deutsche Bank, BNP Paribas, JP Morgan, Nomura, Société General, UBS

Debt Structure	Value	EBITDA x	% of Total
Total Debt	**€ 2.2B**	**5.5x**	**75%**
Senior Debt	€ 1.7B	4.1x	56.9%
Sub. high yield bonds	€ 370M	0.9x	12%
Undrawn Loans	€ 200M	0.5x	6.1%

Sources: Thomson Reuters, Eikon Reuters, Standard & Poor's

vidrala

Entry debt is assumed to account for 66% of the capital structure, representing 5.12x the EBITDA for the both firms

1 Vidrala is assumed to be acquired for **€ 1.99Bn** at the end of 2020 and Zignago Vetro one year later for **€ 598.6M**, with the same entry multiple of 7.5x. Adding 3.36% in fees, it results in a **total investment of € 2.67Bn**

2 Taking into consideration the capex requirements for the project and the future cash flow generation, the capital structure is expected to be composed by **65.7% of debt** and **34.3% of equity (5.12x the Sum of EBITDA of Vidrala and Zignago).** These figures show lower leverage when compared with deal of Apollo which took place in 2015

3 Considering the entry levels of each company separately: Vidrala is acquired with **63.6% of Debt** and **36.4% of Equity**, while Zignago Vetro is acquired with **72% of Debt** and **27% of Equity**

4 The Management Team receives **ownership of 10%** of the Ordinary Shares. For that, they pay **2x their fixed component of the annual salary** at entry (to guarantee they have "skin in the game"). The Institutional Investors figure is computed maintaining the price paid per % of ownership equal to the management team. The Fixed Return Instrument accounts for the rest of the equity and has a **hurdle rate of 10%**. The second capital call is done through an FRI in order not to dilute the Management Team

Sources of Funds (2)

Debt	In million €	EBITDA Vidrala x	% of Total
Vidrala			
Senior debt	1 054.3	**5x**	**39.5%**
Subordinated debt	263 .6	**1x**	**9.9%**
Zignago Vetro		EBITDA Zignago x	
Senior debt	436.7	**5.5x**	**16.3%**
Total debt	**1 754.6**		**65.7%**

(3)

Equity	In million €	EBITDA Vidrala x	% of Total
Vidrala			
FRI	692.7	**2.63x**	**25.9%**
Ordinary Equity	63.2	**0.2x**	**2.4%**
Inst. Investor	56. 9		
Sweet Equity	6.3		
Zignago Vetro		EBITDA Zignago x	
FRI	161.9	**2.04x**	**6.1%**
Total Equity	**917.8**		**34.3%**
TOTAL SOURCES	**2 672.4**	**7.79x**	**100%**

(4)

Uses of Funds (1)

Enterprise Value	In million €	% of Total Uses
Vidrala EBITDA 2020	263.6	
Zignago EBITDA 2021	79.4	
Entry Multiple	7.5x	
Total EV	**2 585.6**	**96.64%**

Fees	In million €	% of Total Uses
DD Fees	25.9	1.0%
Advisory Fees	25.9	1.0%
Banking Fees	35.0	1.36%
Total Fees	**86.8**	**3.36%**
TOTAL USES	**2 672.4**	**100%**

Notes: A more detailed version of Sources in Uses is available in Slide 35 (Additional Considerations)

The chosen debt structure allows to optimize returns and respect covenants with some headroom

Capital Structure					
In Million €	Amount	Type	Maturity	Interest	% of Total uses
Debt					
Senior debt					
Term Loan A	263.6	Amortised	6	3.12%	9.9%
Term Loan B	527.1	Bullet	7	3.73%	19.7%
Term Loan C	263.6	Bullet	8	4.32%	9.9%
Term Loan D	158.8	Amortised	6	3.12%	5.9%
Term Loan E	277.9	Bullet	7	3.73%	10.4%
Subordinated debt					
Mezzanine	263.6	Bullet	9	5.72% (PIK 6%)	9.9%
Total Debt	**1 754.6**				**65.7%**
CAPEX Facility	**97.6**				
Total Equity	**917.7**				**34.3%**

Debt Structure

Senior debt

- **Term loan A** has a maturity of 6 years, interest rate of 3.12% and is amortised until its expiration
- **Term Loan B** has a bullet payment in 7 years and an interest rate of 3.73%
- **Term Loan C** is also a bullet loan, with 8 years maturity and pays 4.32% of interest
- **Term loan D** has a maturity of 6 years and an interest rate of 3.12% and is amortised until its expiration
- **Term Loan E** has a bullet payment in 7 years and an interest rate of 3.73%

Subordinated debt

- Mezzanine represents 10.6% of the funding and has a PIK element of 6% and a cash element of 5.72%

- There is also a **capex facility,** drawn in 2021, which helps to fund € 97.3M of the expansion capex associated **mainly to the Greenfield –** funding 60% of that capex expense

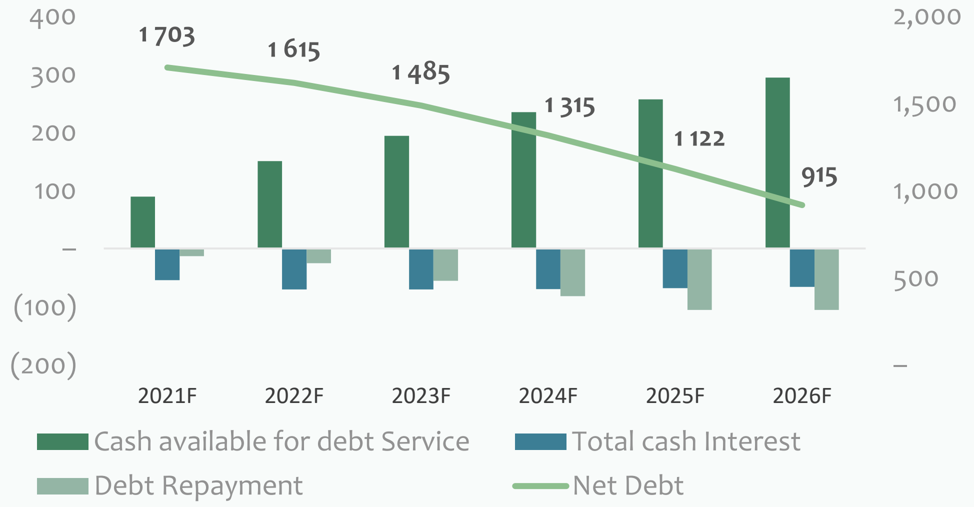
Interest Rates

The interest rates used correspond to the yields of corporate bonds with a BB rating, depending on maturity. This rating was decided based on Eikon Reuters credit model for Vidrala's current capital structure, current information available for peers and an estimation based on Standard & Poor's credit rating criteria

Sources: Eikon Reuters

Leverage levels were chosen to maximize returns while respecting covenants with reasonable headroom

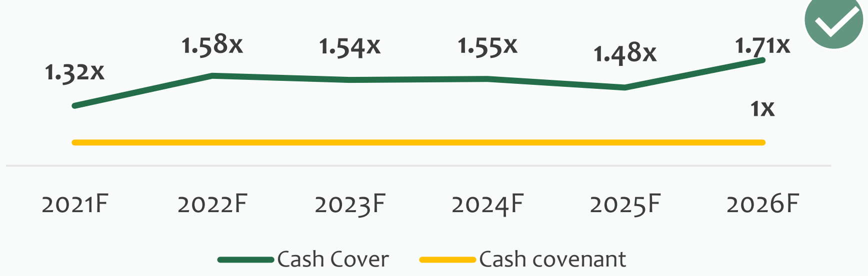
Debt outstanding and payments (in million €)



- This graph shows that every year, the CFs generated from the operating model are **sufficient to comply with Debt Service**. Note that in the Interest payments, it is not included the PIK component, since it is a non-cash expense
- Debt repayments are modeled to increase throughout the years with a significant debt repayment in 2027, however, 2 years after expected exit
- Cash Available for debt service presented includes drawdown and repayment of the capex facility

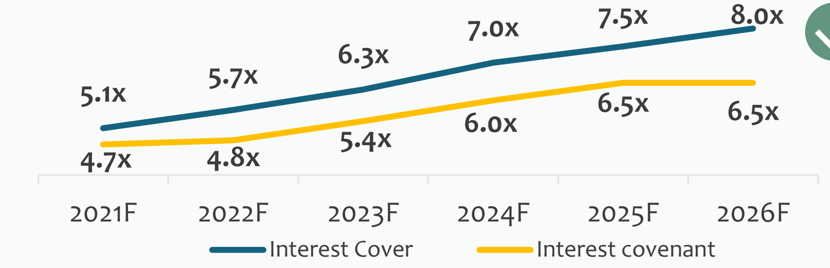
Credit Statistics

Cash Cover



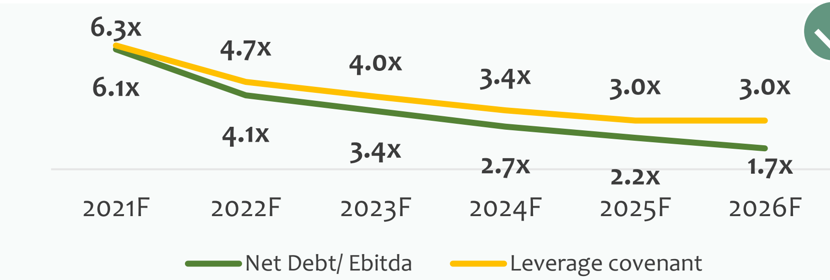
Cash cover is **always above** its covenant of **1x.** In all the featured years there is a considerable amount **of headroom until the covenant is breached**

Interest Cover Ratio



With a minimum interest cover ratio of **5.1x**, Vidrala's EBITDA will be **more than able to pay the interest expenses** between 2021 and 2026

Net Debt/EBITDA



The **gap** between the leverage covenant and estimated Net Debt/EBITDA **increases over time** as debt is repaid and EBITDA increases

The chosen capital structure allows to optimize returns and respect covenants with some headroom

Capital Structure Scenarios

In million €	No Recapitalization	Leverage Aggressive	Base Case
Debt			
Senior debt			
Term Loan A	263.6	316.3	263.6
Term Loan B	527.1	474.4	527.2
Term Loan C	263.6	395.4	263.6
Term Loan D	-	158.8	158.8
Term Loan E	-	317.6	277.9
Subordinated debt			
Mezzanine	263.6	263.6	263.6
Total Debt	**1 317.8**	**1 926.1**	**1 754.6**
CAPEX Facility	**456.8**	**97.6**	**97.6**
Total Equity	**747.1**	**749.7**	**917.7**
Return for Investors			
IRR	**15%**	**30%**	**23.6%**

Capital Structure Scenarios

No Recapitalization

- In the scenario with no recapitalization, the capex facility "takes the role" of Term Loans D and E in funding Zignago´s Acquisition. However, due to the size of the company, the level of Excess of Cash in the BS and CF of 2021 , it would not be enough to fund the rest of acquisition (cash cover breached). This is the reason why recapitalization is the best solution for operating model

Covenats	2021F	2022F	2023F	2024F	2025F	2026F
Cash Cover	-	0.90x	1.10x	1.19x	1.38x	2.45x
Cash covenant	1.0x	1.0x	1.0x	1.0x	1.0x	1.0x
Interest Cover	5.1x	7.3x	7.9x	8.9x	9.4x	9.9x
Interest covenant	3.7x	4.9x	5.7x	6.8x	7.8x	7.8x
Net Debt/ EBITDA	6.7x	4.4x	3.7x	2.9x	2.4x	1.9x
Leverage covenant	4.7x	3.5x	2.9x	2.4x	2.0x	2.0x

Leverage Aggressive

- The capital structure allows to reach higher returns. However, in this case headroom is lower, increasing the risk of default. Debt structure is similar to the Base Case but has a greater weight, accounting for 72% of the overall structure

Covenants	2021F	2022F	2023F	2024F	2025F	2026F
Cash Cover	1.12x	1.38x	1.34x	1.34x	1.30x	1.51x
Cash covenant	1.0x	1.0x	1.0x	1.0x	1.0x	1.0x
Interest Cover	4.3x	4.8x	5.3x	6.0x	6.4x	6.8x
Interest covenant	4.0x	4.1x	4.6x	5.1x	5.5x	5.5x
Net Debt/ EBITDA	7.2x	4.9x	4.1x	3.4x	2.9x	2.4x
Leverage covenant	7.4x	5.6x	4.9x	4.2x	3.8x	3.8x

Assuming an Exit in 2025, the Institutional Investors are expected to obtain a money multiple of 2.8x and an IRR of 23.6%

Exit Waterfall (in million €)

- After an Investment period of 5 years, the Exit is planned for 2025. At this point the sum of the **EV and Cash adds up to € 3.9Bn**
- At Exit, fees were considered lower in percentage of the Total deal since there are lower due diligence requirements, banking and advisory fees. The total amount of Debt which is still left to amortize from both Debt calls is close to **€ 1.1Bn**, and there is still a total of approximately **€ 2.7Bn** left to be distributed to the Fund and the Management Team. The ordinary shares were distributed at exit according to a 90/10 split (10% to the management team)

Institutional and Management Returns

- **Institutional Investors:** The institutional investors enter the deal with a total of € 911M, divided into FRI (€ 855M) and Ordinary Shares (€ 57M). At exit, the institutional investors are expected to get a total of **€ 2.5Bn**, yielding a **MM of 2.8x and an IRR of 23.6%**
- **Management Team:** The management team pays a total of € 6.3M for 10% of the Ordinary shares. After 5 years they are expected to receive € 132M. The payoff to the management team is expected to yield an **IRR of 83.27% and a money multiple of 20.9x**. The 2nd capital call to acquire Zignago (€ 162M) is done with a Fixed Return Instrument to **avoid dilution Management team**

Money Multiple

Exit Multiple	2024	2025	2026
7.0x	2.19x	2.54x	2.88x
7.5x	2.43x	**2.79x**	3.14x
8.0x	2.67x	3.04x	3.40x

IRR

Exit Multiple	2024	2025	2026
7.0x	22.7%	21.3%	19.9%
7.5x	26.0%	**23.6%**	21.7%
8.0x	29.1%	25.8%	23.3%

	Entry Proceeds	Recap.	Exit Proceeds
Inst. Investors			
Fixed Return Instrument	€ 693M	€ 162M	€ 1 353M
Inst. Investor Shares	€ 57M		€ 1 189M
Returns Management			
Sweet Equity	€ 6M		€ 132M

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Due to the deal size IPO and Strategic Sale are the most relevant exit strategies

	Advantages	Disadvantages	Potential Buyers	Relevance
IPO	• Both Vidrala and the main acquisition targets are already Publicly traded • Deal size won't cause any strain in taking company public	• Higher degree of uncertainty of returns due to being dependent on market conditions	BME X BOLSAS Y MERCADOS ESPAÑOLES	
Strategic Sale	• Follows trend of industry consolidation • Interesting target due to high degree of automation from Vidrala • Evidence of cross-continent M&A activity in this sector (CVC with BA Glass)	• Possible red flag from competition authorities due to excessive industry concentration • Higher difficulty to find buyers when compared with IPO	O-I ArdaghGroup	
Secondary Buyout	• Private Equity activity with highest dry-powder level in history ($2.5Tn) • Attractive target with stable cash flows and recent greenfield development at exit • Ability to partner with strategic buyer	• Deal size excludes many buyers, creating a large necessity for a club deal • Negotiations can lower the possibility of returns derived from multiple arbitrage	CVC CAPITAL PARTNERS APOLLO THE CARLYLE GROUP	
Sale in Parts	• Potential due to competitive concentration in western Europe • Clients may wish to vertically integrate some factories	• Loss of Synergies already present and obtained from acquisitions • Difficulty/work needed to find a buyer for each part	O-I ArdaghGroup GERRESHEIMER verallia BA Heineken	

Notes: Heineken included since in a company report is mentioned to be a client both in Great Britain and in Continental Europe

Individual Reflection

Glass Packaging Industry

- During the screening process, several companies were considered to conduct the leveraged buyout. Due to its strong and predictable cash-flows, the high level of fixed assets to use as collateral of debt and the healthy revenue growth rates we decided to proceed our Work Project with Vidrala. During our analysis of the company, the operational efficiency and the M&A track record of the Management team showed us once again that this was a good target to proceed our project
- Vidrala is inserted in the Glass Container industry which, in the last years has been going through a consolidation process. Players such as Vetropack, BA Glass or even Vidrala have been acquiring smaller players in both Eastern and Western Europe. The result is that nowadays 5-6 companies dominate almost 80% of the European market.
- There also other very interesting trends happening in the glass container industry. On one hand, stakeholders in this industry are aware that one of the biggest ecological advantages of glass is that it is endlessly recyclable/reutilized. In this context, almost all players in the glass packaging industry created/joined FEVE* with the purpose of: achieving a collection rate of used glass packaging of 90% by 2030, increasing the % of cullet integrated in the production process of all producers- closing the loop of between consumption, production and recycling. On the other hand, the industry has recognized that from a sustainable point of view, its biggest setback is that the production process is energy intense and so it is looking for cleaner sources of energy ("Furnace of the Future" using up to 80% green electricity) and creating heat recovery processes to reduce its carbon footprint (ex: TASIO project by Vidrala)
- On top of this, and as a consequence of the consolidation process, big players such as Vidrala have embraced the new trends in manufacturing and are making big investments in order to incorporate big data, machine learning, and artificial intelligence in its production processes aiming to be the most efficient player in the market

Private Equity Outlook

- Regarding the Private Equity industry, it has shown in recent years that the glass container industry is suited for leveraged buyouts. In 2015, Apollo Global Management bought Verallia, a French producer, and in 2016 CVC bought Anchor Glass Container Corporation in partnership with BA Glass. The consolidation trend explains partly why PE funds are showing interest in some of these players. Private equity funds not only bring capital, but they also bring know-how (both on financial and industry level) and connections which are an essential part of success in M&A transactions and integration processes
- Regarding COVID and its impact in the PE industry, it is safe to say that investment in new companies is likely to slow on the sort-term horizon overall. However, that might also vary depending on the region of the planet- for example, some Asian countries such as China which were the first in and out of the pandemic, might be able to recover faster than regions such as Europe which is still suffering a lot as a consequence of the virus. In this region, the focus instead of being in new investments is likely to be in stabilizing the current portfolio of companies, and adapting the business strategy to the current adverse scenario that the world is facing
- As a result of all the uncertainty created by the pandemic it is expectable that the levels of dry powder will continue high and in line with what was observed in 2020

***FEVE-** Federation of European manufacturers of glass containers for food and beverage and flacons for perfumery, cosmetics and pharmacy markets

11. Additional Considerations

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Volume is assumed to be positively correlated with real GDP and Urban Population

Data

- In order to understand the trends regarding the market volumes where Vidrala is, or is planning to be, the data regarding real GDP, urban population and units of glass containers sold (for food, beverages, beauty & personal care) was gathered for 19 countries*
- Containers data was retrieved from Passport for the years 2014 to 2019
- Real GDP is used so that there is no influence of the price level in the volume predictions
- Note that, at this point, it is not believed that there will be any major change in beverages market. Therefore, it is highly speculative to guess any major changes in the market share of each company
- Another driver is changing in consumer trends, however, data for this value is not available and proxies are not clear

Results

- Total volume in these segments from 2014 to 2019 grew at a **0.81% CAGR**, while according to the model, the market will grow at a **1.28% CAGR**
- IMF predictions about the GDP growth indicate **a sharp decrease in 2020 output followed by a recovery**
- Urban population is expected to increase in most countries

Methodology

- The main intention of these calculations is to obtain an estimate of the market growth for the following years
- By using the annual percentual change in these variables (real GDP, urban population and glass containers) the goal was to obtain a coefficient, such that, glass containers volume was explained by the change in real GDP and urban population:
  - **Δ (glass containers volume) p.p. = Δ (real gdp) p.p. * c_1 + Δ (urban pop.) p.p * c_2**
- In order to reach these coefficients, the Solver function was used with the goal of minimizing the average of the absolute difference between the estimated growth and the growth the occurred between 2014 and 2019. The Solver function in Excel was used with following constraints:
  - $C_1 >= 0.2$
  - $C_2 >= 0.1$
  - Average of each countries' individual **yearly error between observed and modeled below 3%**
  - Each countries' individual **yearly error below 7%**
- In the end, only 2 constraints are binding: 2015 values for Romania and Ireland
- To get the yearly market growth, the expected growth in the GDP and Urban Population variables are multiplied by the obtained coefficients **and an increase of 0.5 pp to consider eco-friendly trends in the packaging industry**
- Those coefficients are assumed to **remain constant** during the estimation period and to be equal among countries
- Note that due to lack of availability of past data, other methodologies, such as OLS, would have one the one hand, high variances and, on the other hand, there would be omitted variable biases especially due to the missing of consumer tastes variables

Sources: IMF, Passport, World Bank *** Countries:** Austria, Belgium, Croatia, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Switzerland, Ukraine and UK

Glass packaging industry is expected to capture half of the relative increase in end-market prices

Data

- Four main data groups are used in order to get estimates for price changes: First, data regarding **price evolution of end-markets** and **glass packaging market values** . Second, Vidrala's target´s **product mixes** were collected. For Vidrala there is also a **country mix** estimate based on GDP
- In order to understand the trends regarding the **market prices** Vidrala is, or is planning to be, the data regarding end market price changes and market value of glass packaging market was gathered for 15 countries: Austria, Belgium, Czech Republic, Denmark, France, Germany, Greece, Ireland, Italy, Netherlands, Poland, Portugal, Spain, Switzerland and the UK
- **Product mix** considered the following categories of products: Beer, Spirits, Wine, Cider, Non-Alcoholic Beverages, Food, Beauty & Personal Care and Over the Counter Pharmaceuticals
- Another driver identified for prices is the trend of **premiumization,** i.e., more expensive products and/or more expensive packaging. However, for this there is no specific data nor available proxies

Methodology

- The main intention of these calculations is to obtain an estimate of the price growth for the following years
- The first step in forecasting the price growth was collecting the forecasted prices of the end markets in which the company is present or is expected to be present. Since the forecast of the end-markets collected from Statista were only until 2025, from those years on an average of 3 years before the COVID pandemic was assumed
- After this, an assumption was made regarding the product mix of both Vidrala and the target companies- Zignago Vetro and Vetropack. The product mixes were assumed to be similar to the historical information that was available for each of the companies
- After this we analyzed the historical end-market price evolution vs the glass container evolution. Since there seemed to be an established relationship between the 2 components, an average was computed of 5y to the past and assumed for the future

	Vidrala	Zignago Vetro	Vetropack
Product Mix	The initial product mix is assumed constant. From 2022, a 5% of Beauty and personal care is included and kept constant in the Iberian Peninsula and UK and Ireland and increases throughout the years in Italy. Greenfield includes the beauty and personal care and pharmaceuticals segments	Beauty and personal care weight is determined by the revenue with luxury frangances' containers and the rest of the product mix is assumed to have a similar composition to Vidrala	The mix is assumed to be similar to Vidrala's but contains the Pharmaceuticals segment
Country Mix	It is made a weighted average using the Real GDP of each country for the Iberian Peninsula and UK and Ireland	Italy is 60% according to revenue breakdown. The rest is split between Poland (20%) and France (20%)	The mix was made according to the revenue breakdown

Sources: Statista, Marketline, IMF

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The acquisition of Vetropack will allow exposure to other geographies and end-markets

in Million €	2018H	2019H	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	Cagr
Iberian Peninsula	567	597	583	609	632	652	669	682	697	712	727	3.2%
UK & Ireland	334	351	344	362	376	388	398	408	416	425	433	3.5%
Italy	54	63	61	64	67	68	70	71	72	74	75	3.1%
2 Greenfield Expansion	–	–	–	–	53	85	110	113	117	122	127	28.6%
Vetropack	–	–	–	–	678	705	729	752	777	803	830	3.5% 1
Total Revenue	955	1 011	988	1 035	1 806	1 898	1 975	2 026	2 080	2 135	2 192	15.4%
%Growth		*5.8%*	*(2.3%)*	*4.7%*	*74.5%*	*5.1%*	*4.1%*	*2.6%*	*2.6%*	*2.7%*	*2.7%*	

1 Organic Growth

The CAGR for total revenue is forecasted to be 15.4% . This percentage is however influenced by the acquisition of Vetropack. The **organic growth CAGR of revenue was around 3.3%**, following the growth rates of the overall glass container packaging market. Although the market is projected to incur a 2.3% decline in 2020, it bounces back in following the years and returning to the similar growth rates presented before the pandemic

The Volume forecast for glass containers were calculated considering glass usage trends and with an optimization method on 2 coefficients which were multiplied by an Eco-friendly trend identified in the market analysis were also considered

GDP growth (%) **Urban Population** (Millions)

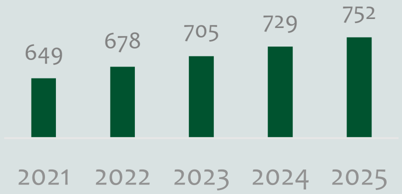
The Price forecast was based on historical relationship identified between the evolution of prices in end-markets and the evolution of prices in glass containers. The premiumization trend identified in the market analysis was also considered

End- markets **Glass Containers**

2 Uplift from Acquisitions

Geographical Position **Product Diversification**

Revenue Uplift



The jump in total revenue verified in 2022, occurs due to the **integration of Vetropack in** the Vidrala group. The acquisition allows Vidrala to **gain exposure to a new end market: cosmetical and personal care**. Finally, this acquisition allows Vidrala to gain exposure to wide range of geographical markets where it still doesn´t operate- specifically in Eastern Europe - and that have shown some of the most interesting growth rates in Europe

Sources: IMF, Passport, World Bank **Notes: *1)** CAGR from 2020-2025, except for the line of expansion plan (2022-2025); ****2)** Full methodology in Appendix **28 & 29.**

1

The largest caption in the Employee Benefit expense is the **Salary and Wages**. All captions depend on the number of employees and a defined value per employee. Regarding the number of employees, the driver is the **revenue per employee**, expected to keep increasing. This is because there is an expectancy that Vidrala's technological improvement increases automation. For **Vetropack**, revenue per employee is expected to slowly increase at a 3.5% yoy rate. (Same assumption as with Zignago's)

2

For Vidrala, other expenses are mainly composed by sales expenses, electricity and external services (rents, insurance, etc.). Sales expenses and electricity are calculated as a function of **sales.** The ratio with sales is assumed to be the same as in 2019. For Vetropack, the caption is modelled to be a percentage of sales (same ratio as 2019). However, more than é 60M are recorded as "Other administrative and operating expenses" – which should be analyzed further if plan B is pursued

3

Organic EBITDA is expected to grow at a 6.4% CAGR, while with the Add-ons contributions is expected to grow at 12.4% CAGR

Comparing to plan A, the EBITDA margin does not increase as much, however, organic EBITDA increases more

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EBITDA margins are expected to be lower at exit if compared with PLAN A's

in Million €	2018H	2019H	2020F	2021F	2022F	2023F	2024F	2025F	2026F	2027F	2028F	CAGR*
Gross Profit	652	703	680	718	1 361	1 438	1 513	1 561	1 609	1 658	1 709	18.1%
Vidrala	652	703	680	718	752	784	813	839	862	885	909	4.3%
Add-ons	–	–	–	–	608	654	700	722	747	773	800	5.9%
Employee Benefit	(191)	(198)	(199)	(207)	(379)	(386)	(392)	(399)	(407)	(415)	(423)	14.9%
Vidrala	(191)	(198)	(199)	(207)	(212)	(216)	(220)	(224)	(228)	(233)	(238)	2.4%
Add-ons	–	–	–	–	(167)	(170)	(173)	(175)	(178)	(182)	(185)	1.7%
Other Expenses	(222)	(231)	(222)	(231)	(519)	(541)	(560)	(574)	(590)	(606)	(622)	20.9%
Vidrala	(222)	(231)	(222)	(231)	(239)	(245)	(251)	(256)	(261)	(265)	(270)	2.9%
Add-ons	–	–	–	–	(281)	(296)	(309)	(319)	(329)	(340)	(352)	4.3%
Organic EBITDA	239	275	264	280	301	323	343	359	373	386	400	6.4%
Add-ons EBITDA	–	–	–	–	161	188	218	229	240	251	263	12.4%
Total EBITDA	239	275	264	280	462	511	561	587	613	638	663	17.4%
Margin	*25.1%*	*27.2%*	*26.7%*	*27%*	*25.6%*	*26.9%*	*28.4%*	*29.0%*	*29.5%*	*29.9%*	*30.3%*	

1

2

3

Exit Year - 2025

At the exit year the EBITDA margin of the whole group is modeled to be at 29% (2.3pp less than Plan A)

However, due to the operating model assumptions, this value is expected to increase until 30.3% in 2028

From 2020 to 2025 EBITDA more than doubles

Organic EBITDA is expected to grow at a 6.4% yoy rate At exit this value is 359M

It is predicted an increase in gross profit that has a significant overall impact in total EBITDA growth in the investment period – even higher than plan A's

Notes: Add-ons are composed by Vetropack and the Greenfield Investment.*From 2020 (2022 Add-ons) to 2025

1 Depreciation is assumed to be kept constant as a percentage of gross Property plant and equipment (except work in progress). In 2022, it increases steeply after starting the greenfield development and Vetropack's acquisition takes place

2 Impairments are a non-recurring expense and thus assumed to be zero in the future

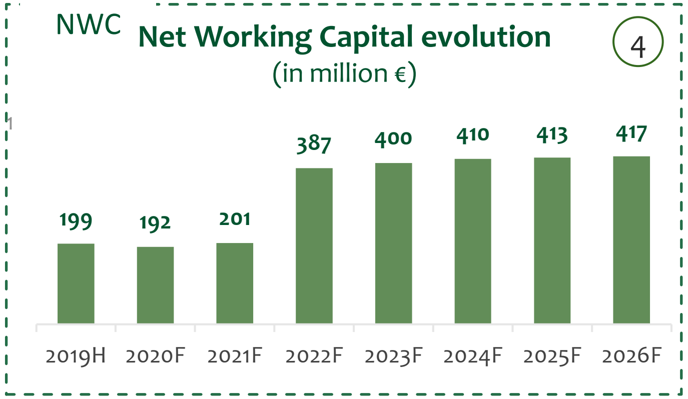
3 Although Vidrala's effective tax rate was 21.7% in 2019, considering Spain's tax rate of 25% and the fact that other countries where Vidrala will operate have lower corporate tax rates, the chosen tax rate was 23%

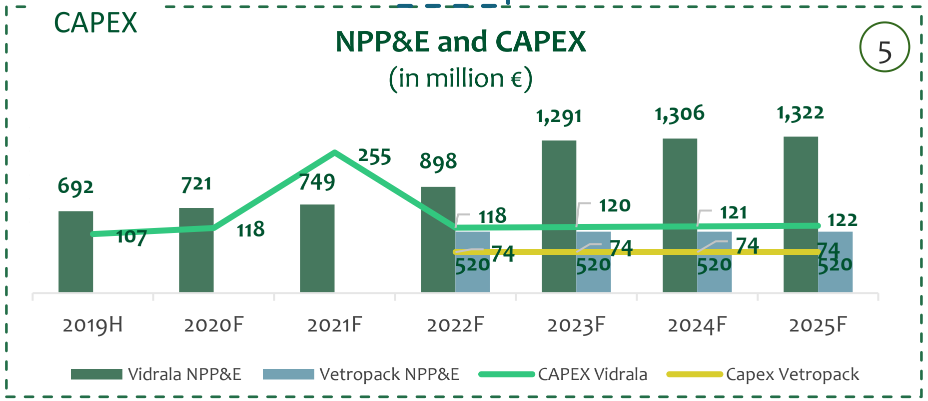
4 As a result of COVID-19, NWC decreases by 3.8% in 2020 and increases sharply in 2022 due to the acquisition of Vetropack and the operations in Romania. However, for the remaining years it increases at a lower rate. This is mainly explained by lower days in inventories (a reduction of 1.7% per year) achieved through synergies, automation and improving management systems

5 The graph on the right, shows the composition of NPP&E and CAPEX excluding the investment in the acquisition. Expansion capex is used in 2020 and 2021 to invest in 2 new furnaces in Ireland's facilities (€ 28M in each year) and to build the new plant in Romania (€ 135M). Between 2022 and 2028 there is just maintenance capex, including the investment made to improve operations, which adds 16% above Vidrala's depreciation

With EBITDA growth, decreasing changes in NWC and constant levels of CAPEX, the FCF grows at a CAGR of 19.5%

in Million €	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	CAGR*
Total EBITDA	239	275	264	280	462	511	561	587	613	638	663	17.4%
Amortization & depreciation	(88)	(91)	(90)	(92)	(178)	(179)	(180)	(181)	(182)	(183)	(184)	15.0%
Vidrala	(88)	(91)	(90)	(92)	(94)	(95)	(96)	(97)	(98)	(99)	(100)	1,5%
Add-ons	–	–	–	–	(84)	(84)	(84)	(84)	(84)	(84)	(84)	0.0%
Impairments	(4)	(6)	–	–	–	–	–	–	–	–	–	
EBIT	147	178	174	188	285	332	381	407	431	455	479	18.5%
EBIT Margin (%)	*15.4%*	*17.6%*	*17.6%*	*18.2%*	*15.8%*	*17.5%*	*19.3%*	*20.1%*	*20.7%*	*21.3%*	*21.9%*	
Income tax (Adj.)	(32)	(39)	(40)	(43)	(66)	(76)	(88)	(94)	(99)	(105)	(110)	18.5%
Changes in NWC	(28)	(17)	8	(9)	(25)	(13)	(10)	(3)	(3)	(4)	(4)	
OCF	180	219	231	227	372	421	463	491	510	529	549	16.2%
CAPEX	(102)	(107)	(118)	(255)	(193)	(194)	(195)	(196)	(198)	(199)	(200)	10.7%
Free Cash Flow (excl.acquisitions &cash)	78	112	113	(27)	179	227	268	294	312	331	349	21.0%
Free Cash Flow (inc. acquisition)	78	112	113	(1 123)	166	212	251	276	294	313	332	19.5%

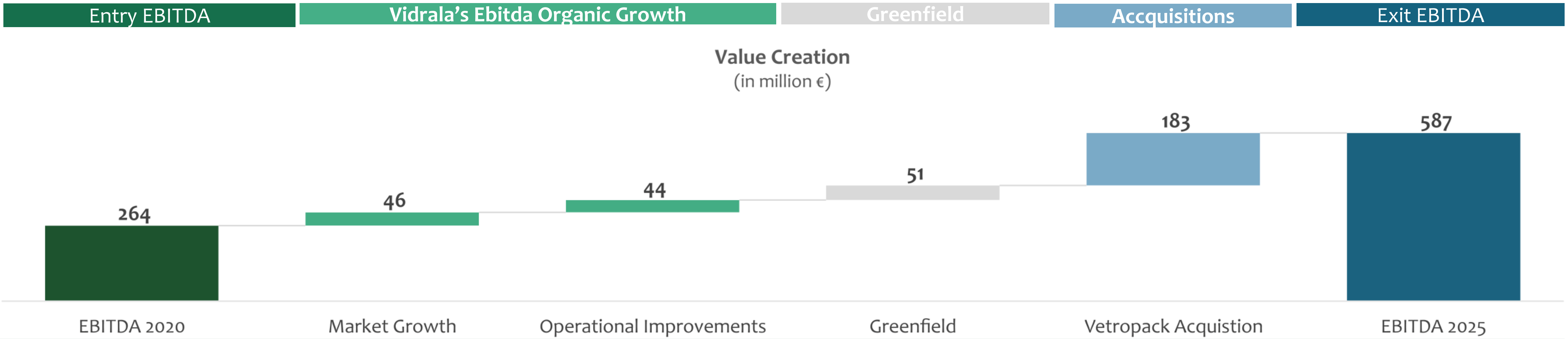




Sources: KPMG

Notes:*From 2020 (2022 Add-ons) to 2025

Acquisition of Vetropack is the main driving force for the increase in EBITDA



From 2020 to 2025, EBITDA grows at a CAGR of **17%** reaching **€ 587M**. The EBITDA margin improves **2.3 percentage points** from 26.7% in 2020 to 29% in 2025. Regarding absolute values, the exit **EBITDA in 2025 is 2.22x the EBITDA in 2020**. The main drivers of the expected increase are the **acquisition Vetropack, while the other determinants were almost equally important**

- The **€ 46.3M increase** in EBITDA that comes **from market growth** is very significant. With rising consumption trends towards the use of glass, Vidrala's **current markets** are expected to grow at a **CAGR of 3%** between 2020 and 2025, contributing for almost **14% of the EBITDA difference**

- Operational improvements also play an important role **(€ 43.7M)**. The focus will be continuing **to leverage Vidrala's high level of automation**, as expenses with personnel are one of the main costs, and betting on the **use of more cullet** to reduce energy and material consumption by a 2% minimum

- The greenfield development is expected to be working at full capacity by 2025 and to contribute with an EBITDA of around **€ 51M**. Assuming the project goes according to projections, it accounts for around 16% of the difference in EBITDA between 2020 and 2025

- The acquisition of **Vetropack is the the main driver of EBITDA growth.** Not only does the company contribute with an EBITDA of € 177.5M by 2025, but it also adds an extra value of € 4.4M, since **it causes an uplift in the Gross Margin of Vidrala´s existing facilities** and consequently of EBITDA

Capex above depreciation is modelled to create medium term value for Vidrala's current operations

1 It is modeled that some operational improvements are the direct result of capex expenditures. In addition to the maintenance capex, assumed to be equal to depreciation, there are other capex types such as: operational and expansion. The operational capex is the average percentage historical maintenance capex which is higher than depreciation that has been increasing automation. The expansion capex refers to the two furnaces that Vidrala currently has projected to UK & Ireland

2 These COGS and Employees Expense are the ones **assumed in the operating model**. First in the latest years, there has been a significant decrease in the revenue per employee ratio which could be attained with such CAPEX and following the R&D&I projects that Vidrala already participates in. Secondly, the furnaces upgrades in Ireland and the ones that Vidrala has been making in Iberia are assumed to be kept (by spending more capex than depreciation)

3 In order to control if such assumptions are being too optimistic/pessimistic a cost/benefit analysis was performed. By keeping the revenue per employee levels of 2019 constant from 2021 onwards (2020 not included since it is assumed that due to Covid-19 the number of employees would not decrease) and by assuming a more conservative trend in COGS as % of revenue, a net benefit was obtained. Note that these would just be the direct impacts, given that, networking capital would be slightly affected by the decrease in COGS

in Million €	2020	2021	2022	2023	2024	2025	2026	2027	2028
Revenue	998	1 045	1 085	1 119	1 148	1 173	1 197	1 222	1 247
2 **With modeled improvements**									
COGS*	(305)	(313)	(319)	(322)	(324)	(324)	(328)	(331)	(335)
Employees Expense	(199)	(207)	(212)	(216)	(220)	(224)	(228)	(233)	(238)
3 **Conservative**									
COGS	(305)	(319)	(332)	(323)	(331)	(339)	(346)	(353)	(360)
Employees Expense	(199)	(208)	(219)	(230)	(239)	(249)	(259)	(270)	(281)
Savings COGS		6	13	1	8	14	18	22	25
Savings Employees		1	7	13	20	25	30	36	42
1 Capex for these improvements	(28)	(28)	(15)	(15)	(15)	(16)	(16)	(16)	(16)
Net Benefit/(loss)	(28)	(21)	5	(1)	12	24	33	42	51

Assumption - Drivers	*in Million €*	2020	2021	2022	2023	2024	2025	2026	2027	2028	
	With modeled improvements										
	Revenue per employee model - Vidrala	265	270	277	285	293	299	304	310	316	
	COGS Iberia**	31.4%	30.4%	29.9%	29.4%	28.9%	28.4%	28.4%	28.4%	28.4%	2
	COGS UK & Ireland	34.5%	34.5%	33.6%	32.8%	31.9%	31.1%	30.4%	29.6%	28.9%	
	Conservative										
	Revenue per employee (2019) - Vidrala	265	268	268	268	268	268	268	268	268	3
	COGS Iberia	31.4%	31.4%	31.4%	30.0%	30.0%	30.0%	30.0%	30.0%	30.0%	
	COGS UK & Ireland	34.5%	34.5%	34.5%	32.0%	32.0%	32.0%	32.0%	32.0%	32.0%	

Notes: UK & Ireland + Iberia only. COGS as % of revenue

Entry debt will account for 66% of the capital structure, representing 5.12x the EBITDA for both firms

Sources of Funds

Debt	In million €	EBITDA Vidrala x	% of Total
Vidrala			
Senior debt			
Term Loan A	263.6	**1x**	**9.9%**
Term Loan B	527.1	**2x**	**19.7%**
Term Loan C	263.6	**1x**	**9.9%**
Subordinated debt			
Mezzanine	263.6	**1x**	**9.9%**
Zignago Vetro	In million €	EBITDA Zignago x	% of Total
Senior debt			
Term Loan D	158.8	**2x**	**5.9%**
Term Loan E	277.9	**3.5x**	**10.4%**
Total debt	**1 754.6**		**65.7%**

Equity	In million €	EBITDA Vidrala x	% of Total
Vidrala			
Fixed Return Instrument	692.7	**2.63x**	**25.9%**
Ordinary Equity	63.2	**0.2x**	**2.4%**
Institutional Investor	56.9		**2.1%**
Sweet Equity	6.3		
Zignago Vetro	In million €	EBITDA Zignago x	% of Total
Fixed Return Instrument Zignago	161.9	**2.04x**	**6.1%**
Total Equity	**917.7**		**34.3%**
TOTAL SOURCES	**2 672.4**	**7.79x**	**100%**

Uses of Funds

Enterprise Value	In million €	% of Total EV
Vidrala		
EBITDA 2020	263.6	
Multiple	7.5x	
Enterprise Value	**1 987**	
Total debt	363.7	
Cash	130.2	
Net Debt	233.5	
Equity Value	**1 753.5**	
Zignago Vetro		
EBITDA 2021	79.4	
Multiple	7.5x	
Enterprise Value	**598.6**	
Total EBITDA	**342.9**	
Total EV	**2 585.6**	
Fees		
Due Diligence Fees	25.9	1.0%
Advisory Fees	25.9	1.0%
Banking Fees	35	1.36%
Total Fees	**86.8**	**3.36%**
TOTAL USES	**2 672.4**	

Core Bibliography

- Feber, D., Nordigården, D., & Varanasi, S., "Winning with new models in packaging", McKinsey & Company, 9 May 2019, https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/winning-with-new-models-in-packaging
- Lewis, George. "Vidrala Invests €21 Million in Spanish Furnace Upgrade." *Glass International*, 6 Nov. 2020, https://www.glass-international.com/news/vidrala-invests-21-million-in-spanish-furnace-upgrade
- Morris, Greg. "Construction of Arglass Container Glass Plant Set to Start." *Glass International*, 9 Aug. 2019, https://www.glass-international.com/news/construction-of-arglass-container-glass-plants-to-start
- Ruckin, Claire. "Apollo Borrows $2.5 Billion to Finance Verallia Buy | Reuters." *U.S.*, Reuters, 11 June 2015, https://www.reuters.com/article/us-verallia-loans-idUSKBN0OR1BH20150611
- IMF. 2020. "World Economic Outlook (October 2020)" Retrieved from IMF Database https://www.imf.org/external/datamapper/NGDP_RPCH@WEO/OEMDC/ADVEC/WEOWORLD
- Antunes, Sara. "Compra Da Santos Barosa Torna Vidrala Maior Que a BA Vidro Na Ibéria - Indústria - Jornal de Negócios." Negócios: Cotações, Mercados, Economia, Empresas, Jornal de Negócios, 22 June 2017, https://www.jornaldenegocios.pt/empresas/industria/detalhe/bpi-compra-da-santos-barosa-torna-vidrala-maior-que-a-ba-vidro-na-iberia.
- Market Line. 2020. "Containers & Packaging Global Industry Data" Retrieved from Marketline https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/FullReport/containers-packaging-global-industry-data-321444
- Mordor Intelligence. 2020. "Europe Glass Packaging Market | Growth, Trends, and Forecasts (2020 - 2025)" Retrieved from Mordor Intelligence https://www.mordorintelligence.com/industry-reports/europe-glass-packaging-market.
- Euromonitor International. 2020. "Glass Packaging in Western Europe 2019" Retrieved from Passport Database https://www.portal.euromonitor.com
- Statista. 2020. "Consumer Market Outlook- Alcoholic Drinks". Retrieved from Statista Database: https://www-statista-com.eu1.proxy.openathens.net/outlook/10000000/100/alcoholic-drinks/worldwide#market-revenue

Core Bibliography

- Statista. 2020. “Consumer Market Outlook- Non-Alcoholic Drinks” Retrieved from Statista Database: https://www-statista-com.eu1.proxy.openathens.net/outlook/20000000/100/non-alcoholic-drinks/worldwide.
- Statista. 2020. “Consumer Market Outlook- Food”, Retrieved from Statista Database: https://www-statista-com.eu1.proxy.openathens.net/outlook/40000000/100/food/worldwide.
- Statista. 2020. “Consumer Market Outlook- OTC Pharmaceuticals”. Retrieved from Statista Database: https://www-statista-com.eu1.proxy.openathens.net/outlook/18000000/100/otc-pharmaceuticals/worldwide.
- Statista. 2020. “Consumer Market Outlook- Beauty & Personal Care”. Retrieved from Statista Database: https://www-statista-com.eu1.proxy.openathens.net/outlook/70000000/109/beauty-personal-care/united-states.
- Trade Map. 2019.“List of supplying markets for the product imported” Retrieved from TradeMap https://www.trademap.org/Country_SelProductCountry.aspx?nvpm=1%7c642%7c%7c%7c%7c7010%7c%7c%7c4%7c1%7c1%7c1%7c1%7c1%7c2%7c1%7c1%7c1
- The European Container Glass Confederation. 2020. https://feve.org/.
- Vetropack. 2020. https://www.vetropack.com/en/vetropack/investor-relations/financial-reports/.
- Vidrala. 2020. Annual Report (2012-2019). https://www.vidrala.com/en/investors/general-information/.
- Vidrala. 2020. Vidrala On Business and Financial Situation (2018-2019). https://www.vidrala.com/en/investors/general-information/.
- World Bank. 2020. “Population Estimates and Projections” Retrieved from World Bank Database https://databank.worldbank.org/reports.aspx?source=Health%20Nutrition%20and%20Population%20Statistics:%20Population%20estimates%20and%20projections#.
- Zignago Vetro. 2020. https://zignagovetro.com/en/financials/