

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.

Quadpack Industries: A PE approach to the Cosmetic Packaging Market – Company, Competitive & Financial Overview

Sebastião de Castro Vilhena Taira

Work project carried out under the supervision of:

Inês Simões Lopo de Carvalho Spratley

17-12-2021

Abstract

This Work Project presents the investment opportunity, in the form of a leveraged buyout, from a Private Equity's perspective of Quadpack Industries. The firm in question, operates in the cosmetic packaging industry as a trading and manufacturing company of beauty packaging products. This paper comprises two sections, the first being a group analysis of the proposed LBO deal that looks at the company and market, proposed value creation strategies and a breakdown of returns. The second section, scrutinizes the company's top management team, value chain and M&A historical record, as well as provides a deeper analysis on Quadpack's financial statements.

Keywords:

Private Equity Challenge; LBO; Valuation; SWOT Analysis; COVID-19 impact; Financial Analysis; Cosmetic Industry; Packaging

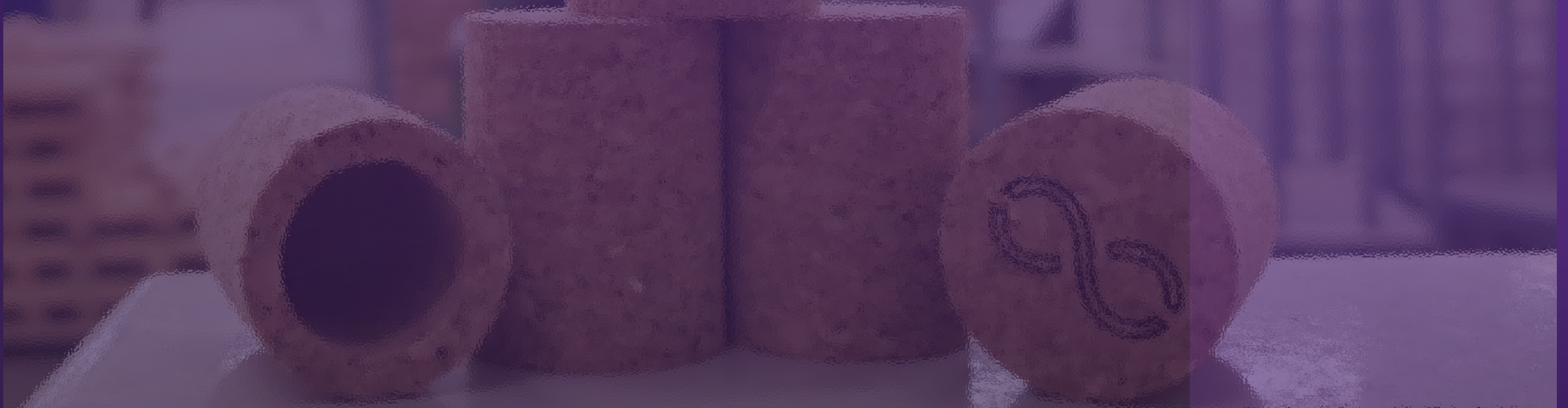
Acknowledgments:

I would like to extend my gratitude to Mr. Carlos Pagés, Quadpack's Head of Corporate Strategy, for agreeing to meet with us, in his own free time, to clarify queries we had regarding the firm. I would also like to thank Ms. Inês Lopo de Carvalho, our advisor, for providing us with invaluable guidance throughout this Work Project.

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

1

Group Section





60% of Quadpack is acquired with €43.7m equity requiring an extra €17.8m in 2023 for an add-on. After 6 years a 3.3x MM and 24.5% IRR are predicted

Company Overview

Quadpack is one of the **top-10 European cosmetic packaging companies**. It supplies brands such as L'Oréal, Chanel and LVMH. The Group was **founded in 2003 and in 2016** went public **through an IPO** on the French Stock exchange.

- Quadpack's business is based on **four main operations**. (i) Manufacturing (ii) Sourcing (iii) Product design (iv) Product development
- The company was founded in **Spain**, but has now operations in **three different continents**: North-America, Europe and Asia-Pacific
- 60% of the firm is **owned and controlled by the CEO and founder Tim Eaves**
- The company has a successful history of **acquiring and integrating businesses**

Value Creation

Internationalization + Buy and Build – Leverage existing, weak presence (East Hill) in the North American region with the acquisition of a local manufacturing company to reinforce market positioning, knowledge and client base

Product Diversification and Development – Expand portfolio mix by entering the glass packaging market, an industry with good margins and high potential growth. Since glass is a capital-intensive product, the proposed strategy relies on designing and developing the product while outsourcing production. Relationships with strategic partners are to be reinforced to remain at the forefront of innovation

Operational & ESG Implementations – Employee efficiency will be raised with automation and hiring policy revisions, Cash Conversion Cycle lowered with contract changes and improved inventory usage, as well as ESG issues addressed throughout

Market Overview

- ❖ The packaging market is highly **dependent on the cosmetics' market** performance
- ❖ Market valued between **€20b and €23b**, in 2020
- ❖ Estimates attribute a **CAGR of 5.1%** between 2021-2026
- ❖ Industry heavily impacted by lockdown (**decrease in market size circa 8%**)
- ❖ Changing market trends due to **premiumization of products, E-commerce and sustainability**

Deal Rationale

Strong financial profile – High sales growth (20% CAGR in the 5 years preceding Covid-19) and stable EBITDA margins

Skilled management team and human capital – Experienced management team in the industry. Strong engineering and design team

Historical acquisitions – Successful integration of acquired businesses. Synergies have been one of the main growth drivers

Attractive growth and expanding market – High growth forecasts by industry specialists (5.1% CAGR between 2021-2026)

Exit Strategy

An entry **EV of €99.76M** was calculated for our entry implying an **EBITDA multiple of 10.69x**. No multiple arbitrage is expected at exit, **6 years** after the acquisition, with **EV of €352.5m**. The investment yields a **money multiple (MM) of 3.3x** and an **IRR of 24.5%** for the fund, whereas for the management it results in a **26.5x MM** and an **IRR of 72.7%**. The fund will acquire **60% of the company** and run the company alongside the CEO, who will keep **the remaining 40%**. The investment will require an **initial €35.5m debt** plus an **add-on facility of €22.8m**. For the exit itself, a **trade sale** was deemed the **optimal strategy**

Management Proceeds (€ 000)	2022F	2023F	2024F	2025F	2026F	2027F
Equity-in	500	500	500	500	500	500
Exit Equity	1 362	1 888	7 907	9 694	11 472	13 270
Management Returns	2.7x	3.8x	15.8x	19.4x	22.9x	26.5x
Investor Proceeds (€ 000)	2022F	2023F	2024F	2025F	2026F	2027F
Fund Equity-in (60%)	43 675	61 487	61 487	61 487	61 487	61 487
Co-investor Equity-in (40%)	29 117	40 991	40 991	40 991	40 991	40 991
Fund Exit Equity	55 777	64 198	135 366	158 450	181 599	205 145
Co-investor Exit Equity	37 185	42 798	90 244	105 633	121 066	136 763
Institutional Returns	1.3x	1.0x	2.2x	2.6x	3.0x	3.3x

Company Overview | Quadpack at a glance



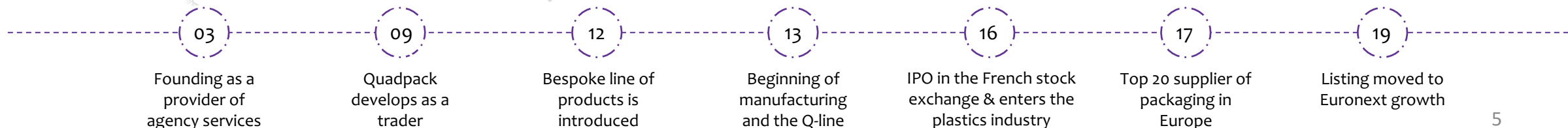
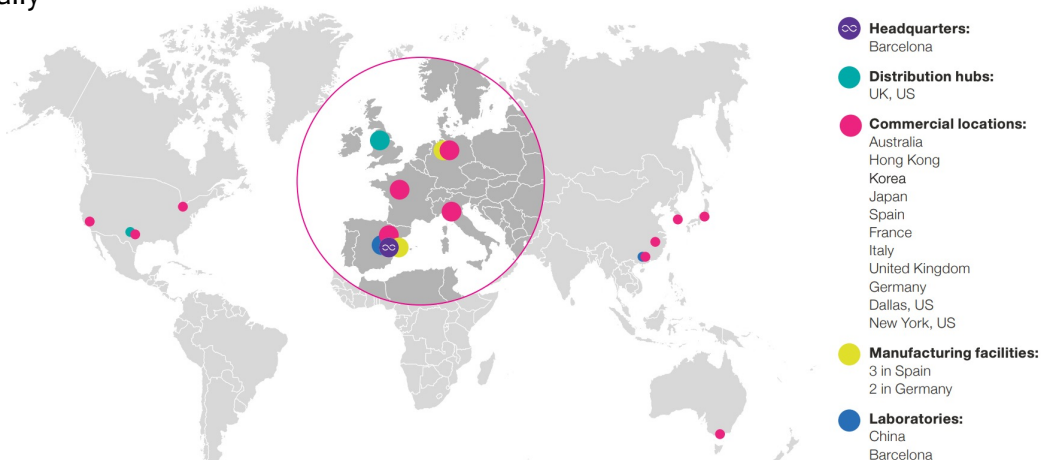
Quadpack is a Spanish designer, producer and supplier of packaging for cosmetic products, a top 10 player in the market selling mostly in Europe

A brief history

Quadpack is a company who offers packaging products for the cosmetics industry. Since its inception in 2003 it has acted as an intermediary by outsourcing their clients' orders to capable third-party manufacturers. In 2013, through acquisitions, the Group expanded its business model to also include in-house manufacturing, as well as own product development; working mainly with wood and plastic products and their respective decorations to offer high end and luxury solutions

By the end of 2020, Quadpack had 532 employees, of which 420 are located between Spain and Germany, with circa 1,000 clients worldwide including 30 of the world's top 100 beauty brands. This placed the group as one of the top 10 European cosmetic packaging suppliers

Quadpack is headquartered in Barcelona, Spain, yet operates in 11 different locations globally



Key figures

	FY19A	FY20A	FY21E
Sales (€)	131.0m	102.0m	120.0m
Adj. EBITDA (€)	13.1m	6.5m	9.9m
Average FTEs	427	545	552

Current business model

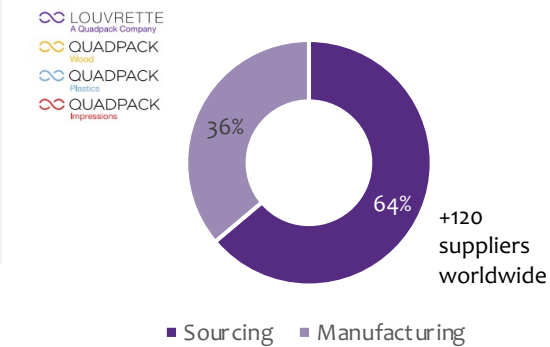
Sourcing (2 subdivisions)

- Quadpack analyses its manufacturing partners' portfolio and selects a set of products it wants to include in its catalogue (does not take part in development, only acts as an intermediary)
- Develops custom-made products in partnership with suppliers which are then delivered to clients (takes part in the development process)

Manufacturing (5 facilities)

- In-house development and manufacturing of Quadpack's exclusive product portfolio mainly composed of wood and plastic components

Category of Products

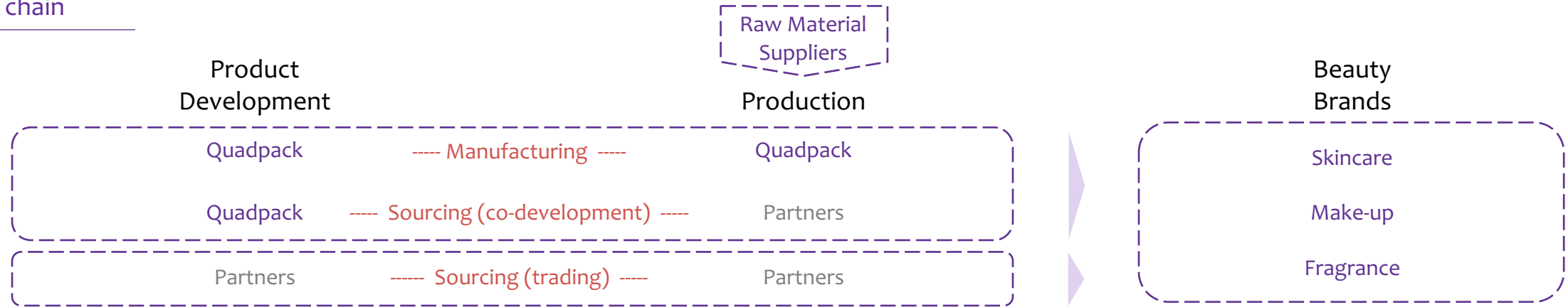


Company Overview | Business Model and Value Chain Breakdown



Quadpack implements a hybrid model supporting both in-house and outsourced production selling to a vast customer network

Value chain



Quadpack and its competitors' added value begins with product development which includes:

Design: In this step, early ideas for new products are laid out. Quadpack specifically studies aesthetic trends (even ones unrelated to cosmetics) to draft new packaging component concepts

Prototyping: With software, these ideas are modelled into actual packaging components giving a preview of final aesthetics. The viability of aspects such as manufacturing and durability is assessed

Quality control and testing: Early samples are tested to further assess production viability and to define needed adjustments for the final design

Package Development: Combining components to create final complete packages

As for production, most competitors practice an exclusively in-house model. Quadpack provides this through its **Manufacturing division** which includes:

- Wood for producing wood-based components
- Plastics for injection-molded components
- Impressions for decorations

Quadpack's **sourcing division** sells products made in the factories of **120+ partners (low dependency on individual or few suppliers)**. Sourced goods can be:

- **Co-developed**, where Quadpack manages product development and partners solely manufacture
- **Traded**, developed and produced by partners with Quadpack simply intermediating smaller manufacturers and large beauty brands

Focusing mostly on the high end and luxury spectrum, Quadpack serves **+1000 clients** including **30 of the top 100** beauty brands worldwide such as:



Clients take care of filling (in-house or outsourced) and placement in stores such as own-brand ones, perfumeries or even supermarkets

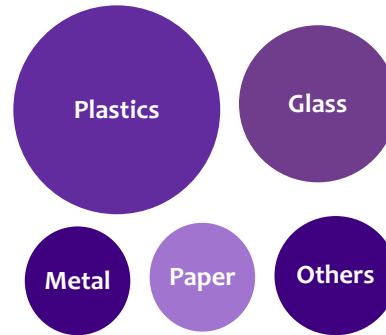
In 2019 the **two largest customers combined** generated around **23% of sales (€30m)** showing there is **little dependance on one/few customers**

Increasing premiumization and introduction of new technologies challenge widely used materials, and project future growth prospects to a 5.1% CAGR

Analysis

- In 2020, the cosmetic packaging market was estimated to be **worth between €20 billion and €23 billion¹** with forecasts pointing to a **5.1% CAGR, during 2021-2026²**
- As a **B2B industry**, cosmetic packaging is **highly dependent on the performance of its underlying market (cosmetics)**. Thus, both end-user products and packaging behave in tandem
- Most packaging brands **offer complementary services to support the client's activities, such as labelling, warehousing and transportation**. These solutions add to the firm's value proposition as it saves beauty brands warehouse space and cuts administrative costs, all the while keeping finished products close to the markets
- As previously mentioned, a very tough 2020 **compromised cosmetic market performance and, as such, the packaging subsector**. The unfavorable landscape from recurring lockdowns and safety protocols lead to an industry slowdown by changing habits and spending patterns alike
- Under these conditions, some beauty brands **stocked up on inventories in order to meet online demand**. Finding and serving these proved crucial in **limiting the damage** caused by the pandemic

Material Breakdown (2020)²



Packaging Formats and Materials

- **Plastic is the most widely used material** in the packaging manufacturing industry, **representing 50%-60%** of all available market products;
- Being **shatterproof, lightweight and durable** makes plastic the perfect alternative to glass (mostly used in fragrances). Moreover, firms are reducing the quantity of plastic raw-material used in production, making it more cost-efficient
- However, rising awareness is pressuring firms to include sustainable options and features in their offering. This has forced companies to explore biodegradable plastics, cork and wood as alternatives to standard low-cost materials
- Packaging is offered in a **plethora of shapes and formats, with tubes dominating the market**. Whilst bottles and jars are not hard to come by, companies have been capitalizing on the **convenience and portability** that small tubes offer

Trends and Drivers

Premiumization of markets

Packaging must be pleasing to the eye, especially in the beauty industry. To conquer the most exquisite of tastes, cosmetic brands will have to work hand in hand with manufacturers to redesign glamorous collections

3D-printing technology

This technology allows clients to preview the output before placing the production order, thus cutting costs and enhancing output visualization

E-commerce

Online shopping challenges required establishing distribution channels and more strict stock management. Manufacturers who can promptly respond to shortages will guarantee a place among top suppliers

Sustainable fashion

Customer preferences for organic materials will impact company strategy in choosing raw materials and force adaptations in the supply chain

Impact on Packaging



Strengthened relationships with partners



Focus on strategic planning



Enhanced client experience

Market Overview | Geographies, Regulations and Competition



3 regions comprise 80% of the market, each with its own singular traits. Regulations and intense competition make for greater entry barriers

Regional Markets¹

Europe	North America	Asia-Pacific
<ul style="list-style-type: none"> ➤ 5 countries alone generate more than 60% of market value for all segments – Germany, Italy, France, Spain and UK. Coincidentally, these economies suffered the most during 2020, explaining the region’s poor performance ➤ As in the past decade, the market is expected to grow at a moderate pace (fully recovered by 2024) ➤ Europe is known for its fashion awareness, brand loyalty, refined taste for products and the demand for high-quality products (high standards) ➤ Free movement of goods and services is a considerable advantage that reduces lead times and cross-border transport costs which allows establishing regional assembly lines 	<ul style="list-style-type: none"> ➤ The US generates more than 80% of the region’s total value, in a market shared with Canada and Mexico (none of them holds more than a 10% share) ➤ In recent years, only make-up products have shown strong growth, outpacing other segments. Moving forward, out of the 3 major regions the North American market is expected to show the most stable and consistent performance ➤ Thanks to the similarity in buyer’s tastes and given that most value is created in a single country, brands can implement one action plan to reach most clients ➤ Covid-19 exposed the region’s over-reliance on sourcing models. In order to reduce operational risk, businesses are increasingly adopting manufacturing models 	<ul style="list-style-type: none"> ➤ It is the largest region, totaling 43% of global sales. China, Japan and Korea are the biggest consumers generating 70% of market value ➤ Key regional economies, such as China and Korea, are still struggling to battle the pandemic, forcing governments to constantly change restrictions. This scenery makes short-term prospects unattractive ➤ Due to growing middle-class, western influences, and rising incomes, the market presents the most long-term growth potential ➤ Profitability could be hampered by the market’s heterogeneity which forces firms to adapt to each submarket. With some clients focusing on price and others on quality, a balance must be struck

Competition²

➤ Information regarding 2 market players and a close Quadpack competitor presented below:

	Aptargroup 	 SILGAN HOLDINGS INC.	PSB INDUSTRIES
Financials	€1.46b Sales (in Personal Care) 10% EBITDA Margin	€5.57b in Sales 14% EBITDA Margin	€150m in Sales 15% EBITDA Margin
Industries	<ul style="list-style-type: none"> ✓ Pharma ✓ Personal Care ✓ Food 	<ul style="list-style-type: none"> ✓ Pharma ✓ Personal Care ✓ Food 	<ul style="list-style-type: none"> ✓ Cosmetics

Laws and Regulations

- With firms implementing internal strategies to tackle single-use plastics and improve recyclability, there is still a gap between “what must be done” and “what is being done”. To solve this gap, governments have laid out waste-management and production guidelines
- However, certain implementation issues need to be addressed:
 - Most emerging economies are yet to have the necessary infrastructure that enables them to meet these guidelines
 - Recyclable alternatives do not match the convenience of multi-plastic goods
- A swift answer to these issues will make rules easier to adopt and even more effective

Implications for packaging



Invest in technology and product R&D



Work on solutions with partner brands

¹MarketLine Reports, ²Orbis, Annual Reports

Quadpack was affected by Covid-19 like the rest of the industry, with sales falling by 22% in 2020, but activity is expected to almost fully recover in 2021

One-offs

- The cosmetics industry suffered a considerable blow with the pandemic due to the **temporary altered consumer purchasing behaviour**
- As a B2B business, due to the lower demand for cosmetic and beauty products, **Quadpack's clients accumulated inventories** in 2020. This is especially true for the Group's case where two big customers that made up almost €30 million in revenue in 2019 placed almost no orders in 2020 as per the management. **Orders for these clients have normalized in 2021** and the group expects to return to "business as usual" by Q2 of 2022
- In 2020, due to the pandemic, **supply chains became heavily burdened** which resulted in a longer operating cycle of around 3-6 months, meaning that **2021's financials** for the first quarter were still **heavily influenced by Covid-19**. This is especially relevant for Quadpack due to its sourcing nature

Quadpack's main clients' 2020 numbers³

Company ¹	CHANEL		L'ORÉAL		SHISEIDO		LVMH <small>MOÏT HENNESSY • LOUIS VUITTON</small>	
	2019	2020	2019	2020	2019	2020	2019	2020
Year								
Sales	\$12.3b	\$10.1b	€29.9b	€28.0b	¥1,132b	¥921b	€6.84b	€5.25b
YoY	-17.6%		-6.3%		-18.6%		-23.2%	
EBITDA/ Operating Profit ²	\$3.5b	\$2.0b	€5.6b	€5.2b	¥169b	¥71b	€0.7b	€0.08b
YoY	-41.4%		-6.1%		-57.8%		-88.2%	

¹Sales for these companies represent their fragrance and cosmetics division

²L'Oreal and LVMH report operating profit

³Values obtained from company annual reports

2021 new and improved business model

Following a conversation with the Head of Strategy for Quadpack, Mr. Carlos Pages, it became apparent that 2020's hardships also presented an opportunity for learning

Margins

- Quadpack was heavily focused on growth and as a result margins were slimmer than market leaders for the historical period. From 2020 onwards the company's focus is on achieving a much more efficient business model, with better margins. It is estimated for FY21 that revenue, will grow circa 20% and the group intends to reach better gross margins in order to achieve an EBITDA close to that of the main players (around 13-15% of sales)

Manufacturing focused

- Looking at Quadpack's structure and positioning, due to its established logistics chain, by becoming more manufacturing oriented it will have more power within the industry to be more selective with its existing clients. This also applies to potential new customers – **sacrificing possible volume of sales in favour of larger margins**

Operations

- Operational improvements will also be achieved as in 2020, the Group realized that it was incurring in a substantial amount of costs with travelling and other non-essential expenses that are expected to change for the better post-Covid.



Despite still being in the integration process due a late October 2021 acquisition, Covid-19 has not halted the Group's expansion plans. Proven inorganic M&A strategies to propel business activity have thus persisted

Historical Financials | Income Statement Analysis



The company's EBITDA grew at a 9.1% CAGR and its margin was mostly maintained even as the company shifted towards more in-house production

Income Statement

Currency: € 000	2016	2017	2018	2019	2020	2021E
Sourcing Revenue	63 139	82 966	91 753	100 768	65 131	79 427
% Share	90%	91%	88%	77%	64%	66%
Manufacturing Revenue	6 954	7 775	12 906	30 256	36 856	40 917
% Share	10%	9%	12%	23%	36%	34%
Net sales	70 092	90 741	104 660	131 025	101 986	120 343
% Growth		29%	15%	25%	-22%	18%
Variation in stocks	281	144	960	889	(2 102)	-
Consumption of goods	(39 886)	(54 785)	(62 424)	(76 216)	(53 034)	(65 837)
Adj. Gross Margin	30 488	36 100	43 196	55 698	46 850	54 507
% Sales	43%	40%	41%	43%	46%	45%
Sales/Production employee cost	(4 842)	(7 263)	(8 404)	(11 353)	(15 133)	(15 920)
# Employees	158	230	270	356	461	477
€ Average cost	31	32	31	32	33	33
Variable External Services	(8 480)	(9 100)	(10 511)	(14 881)	(9 620)	(12 034)
% Sales	12%	10%	10%	11%	9%	10%
Adj. Direct Margin	17 165	19 737	24 281	29 464	22 097	26 552
% Sales	24%	22%	23%	22%	22%	22%
Administrative Employee costs	(3 667)	(3 489)	(6 663)	(9 225)	(8 457)	(9 207)
# Employees	34	46	50	71	84	80
€ Average cost	108	76	133	130	101	115
Other indirect costs	(7 447)	(8 084)	(8 443)	(8 127)	(7 945)	(8 009)
% Sales	11%	9%	8%	6%	8%	7%
Adj. EBITDA	6 052	8 164	9 175	12 112	5 695	9 336
% Sales	9%	9%	9%	9%	6%	8%

Comments

- 1 Quadpack's astounding revenue growth has been driven by both expansions in its sourcing supplier web as well as acquisitions which allowed it to expand manufacturing capacity
- 2 Gross margin reflects what portion of sales the company retained after raw material expenses and was, on average, 42.6%
 - 2019: Increase of 2p.p. resulted from the rise in the weight of the manufacturing division in which greater added value is brought to the value chain demanding higher margin
 - 2020: conversely gross margin rose 3p.p, complemented by a strategic refocus towards high margin clients versus the previous target of increasing sales / market share
- 3 Employee costs have increased over the years driven by the increasing revenues, especially those from the manufacturing division
 - 2020: average employees per year increased despite the regression in net sales due to fully incorporating acquisitions from 2019 even with Covid-19 related temporary layoffs
- 4 Variable External Services showed slight decreases proportionally to sales lowering 3p.p
 - 2020 displayed this effect the most aggressively consistent with the previously mentioned strategic change towards cost optimization and margin improvements
- 5 Direct margin shows how much of sales the company managed to keep after its direct expenses presented a slight regressing pattern over the years from 24% to 22%
- 6 Other indirect costs include fixed external services, differences on exchange and other taxes varying between 6% and 11% of sales and displaying benefits from economies of scale
- 7 All in all, EBITDA grew 26% per year excluding 2020 or decreased 2% with it. Sales to EBITDA conversion was stable at around 9%, once again excluding 2020

Source: Annual reports

Note: Values prior to and including 2017 are pre IFRS-EU accounting standard reporting

Interest in investing in Quadpack derives from a sound historical evolution and the value creation potential of various actionable strategies

Deal Rationale

Strong Financial Profile



- CAGR of 20% in the 7 years before Covid-19 and stable EBITDA margin
- Hybrid model enhances Quadpack's ability to deliver a tailored solution that meets customers' demands

Skilled Management Team and Human Capital



- An experienced top level management team in the packaging industry as well as in M&A and strategy
- Strong internal engineering and design teams that provide an invaluable complementary skillset to the company

Historical Acquisitions



- Proven historical record of successful integration of acquired companies like Technotraf, Louvrette & Inotech
- Acquisition synergies have been the main complement to growth for the last 5 years

Attractive Growth and market opportunities



- Optimistic industry growth forecasts by specialists. Estimates attribute a CAGR of 5.1% during 2021-2026
- Market trends such as increasing health awareness, "premiumization" of packaging and the exponential sales rise from online distribution channels

Value creation strategies

A

Internationalization + Buy-and-Build

- An already established sourcing network in North America will be complemented by a manufacturing division in the region established through a strategic acquisition, leveraging executives' expertise with past successful M&A ventures,

Product Diversification

- Quadpack will broaden its product portfolio through innovative sourcing partnerships
- Glass packaging will be similarly introduced, benefiting from Quadpack's product development capabilities and client relations with outsourced production

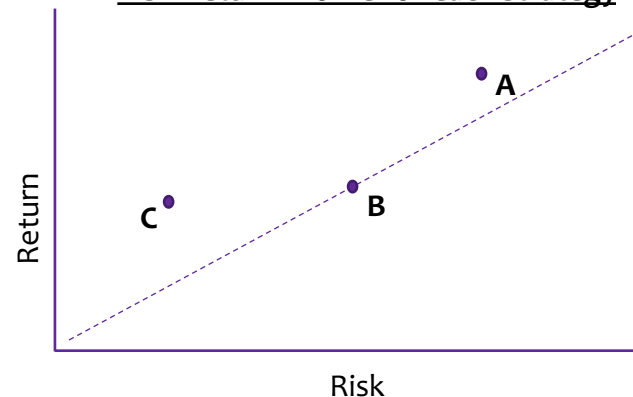
B

General Operational Improvements & ESG Implementations

- Employee efficiency will be raised with automation and hiring policy revisions
- Lower Cash Conversion Cycle due to contract changes and better inventory usage
- ESG performance will improve through a variety of implementations

C

Risk-Return Profile for each strategy



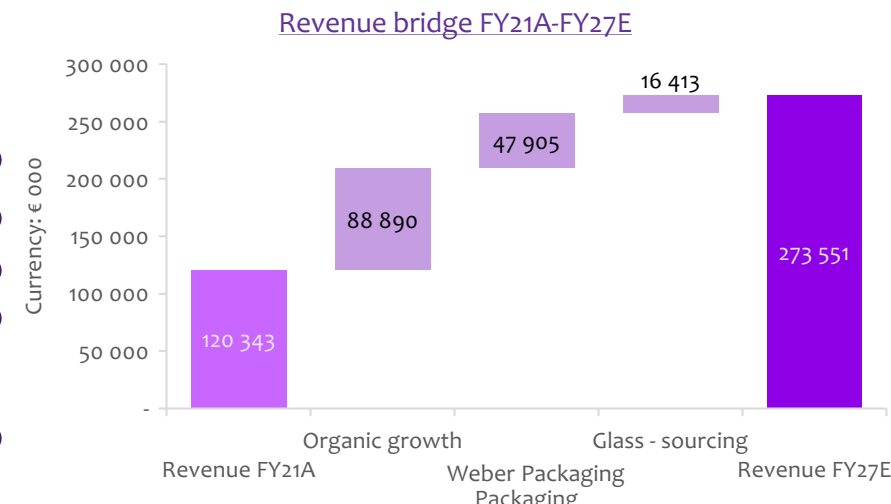
Quadpack at exit

- A highly present player in North America and Europe offering short lead times
- A company with strong focus on ESG compliance, sustainability and innovation
- A firm with a well developed hybrid model with more partnerships, product variety, and streamlined operations

Implementing the existing business' revenue growth strategies will allow these to grow at a CAGR of 10% over the holding period beating the market

Base Case: Revenue forecast

Currency: € 000	2016	2017	2018	2019	2020	2021E	2022F	2023F	2024F	2025F	2026F	2027F
Sourcing Revenue	63 139	82 966	91 753	100 768	65 131	79 427	84 914	89 767	95 452	100 455	104 617	106 709
% Share Existing Business	90%	91%	88%	77%	64%	66%	63%	60%	58%	56%	54%	51%
Manufacturing Revenue	6 954	7 775	12 906	30 256	36 856	40 917	49 870	59 844	69 120	78 929	89 118	102 524
% Share Existing Business	10%	9%	12%	23%	36%	34%	37%	40%	42%	44%	46%	49%
Existing Business Net Sales	70 092	90 741	104 660	131 025	101 986	120 343	134 785	149 611	164 572	179 384	193 734	209 233
% Growth	n.a.	29%	15%	25%	-22%	18%	12%	11%	10%	9%	8%	8%
American expansion – Manufacturing									37 679	41 070	44 356	47 905
Glass - sourcing							1 361	2 278	6 255	9 186	12 531	16 413
Total Sales	70 092	90 741	104 660	131 025	101 986	120 343	136 146	151 889	208 507	229 640	250 621	273 551
% Growth	n.a.	29,5%	15,3%	25,2%	-22,2%	18%	13%	12%	37%	10%	9%	9%
Adj. Gross Margin	30 488	36 100	43 196	55 698	46 850	54 507	62 412	70 508	101 939	112 767	123 595	135 894
% Sales	43%	40%	41%	43%	46%	45%	46%	46%	49%	49%	49%	50%



Current Business Model

1 We intend to make full use of Louvrette's capacity to increase in-house production and reduce dependence on sourcing partners, reflected in the increase of manufacturing revenue

Decoration will become more relevant within the business and focus will also be given to exclusive partnerships that generate good margins

2 The company's dynamic, hybrid model and continued product development, are fundamental in order to maintain above market growth rates of 8% at the end of the holding period

The portfolio expansion of products in co-production with Sulapac, an innovative microplastics-free products patented in 2018 and are internationally recognize, puts Quadpack in a privileged position in the sustainable packaging market which expects a **CAGR of 10.3%** from 2021 to 2027¹

Quadpack's exclusive partnerships with Yonwoo, Brivaplast and Apollo gives the Group the competitive advantage necessary to cement its position as a top 10 competitor in the market – the partners' products' markets are expected to grow at a faster pace (CAGR 6% until 2027²) than the cosmetic packaging market

American Expansion and Glass Sourcing

3 The first-year revenue gain from Weber's acquisition (in 2024) is limited due to the expected inefficiencies of integration, which are in line with the past M&A experiences. The initial growth rate will be 9% from the absorption of previously outsourced orders and will then stabilize in line with the growth expectation of Quadpack

4 The entrance into the glass market will be conservative and converge to the share that glass products have in the global cosmetic packaging market. This will establish Quadpack in the premium fragrance market by taking advantage of partnerships with glass manufacturers

Margins

5 The evolution of Adj. Gross margins reflects the strong emphasis that the Group will give to manufacturing, especially with Weber's acquisition, allowing for improved margins inherent to the manufacturing business model

The forecasted glass sourcing activity will also provide a basis for the growth in margins, consistent with the previous evolution of gross margins given manufacturing share versus sourcing

Finally, a significant margin growth will stem from a focus on product development be it in-house or with exclusive partners

¹Market Research Future

²Grand View Research

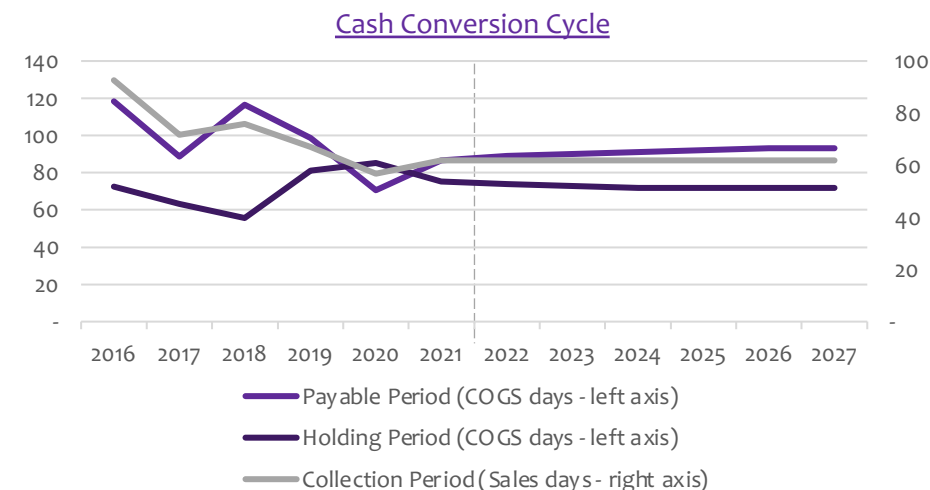
Business plan | Operational Costs & Cash Expenditures Forecasting



Personnel Costs will grow over the years slower than sales. Cash Flows will improve with NWC optimizations despite high maintenance costs.

Base Case: EBITDA evolution

Currency: € 000	2016	2017	2018	2019	2020	2021E	----- Holding Period -----					
							2022F	2023F	2024F	2025F	2026F	2027F
Gross Margin	30 488	36 100	43 196	55 698	46 850	54 507	62 412	70 508	101 939	112 767	123 595	135 894
% Sales	43%	40%	41%	43%	46%	45%	46%	46%	49%	49%	49%	50%
Direct Margin	17 165	19 737	24 281	29 464	22 097	26 552	29 595	32 985	49 133	53 593	57 922	62 374
% Sales	24%	22%	23%	22%	22%	22%	22%	22%	24%	23%	23%	23%
EBITDA	6 052	8 164	9 175	12 112	5 695	9 336	11 386	14 569	25 294	28 003	30 537	32 993
% Sales	9%	9%	9%	9%	6%	8%	8%	10%	12%	12%	12%	12%
Income tax		(1 299)	(1 353)	(1 421)	817	(384)	(1 017)	(1 964)	(3 705)	(4 642)	(5 525)	(6 332)
Investment in NWC		(1 762)	1 746	(515)	2 200	(410)	(1 658)	1 753	(1 698)	(2 727)	(2 653)	(3 276)
Maintenance CAPEX		(382)	(573)	(1 118)	(1 471)	(1 790)	(2 090)	(2 380)	(3 280)	(3 670)	(4 070)	(4 530)
Operating Cash Flows	2 756	8 335	8 971	8 132	8 132	6 752	6 621	11 978	16 610	16 965	18 288	18 854
Growth CAPEX / divestments (+)		(10 499)	(3 545)	(10 113)	(3 903)	(2 961)	(3 286)	(2 795)	(5 095)	(4 297)	(3 770)	(2 984)
2024 add-on cost							(57 090)					
Capital Cash Flows	(14 242)	8 569	(43 534)	4 494	3 791	3 335	(47 907)	11 516	12 668	14 518	15 870	



Other Expenses

Consistent with the investment thesis production employee numbers will grow at a slower pace than manufacturing sales throughout the holding period from optimizations to factory operations and an increased investment towards automation

Similarly, sales and administration employee efficiency will be brought closer to historical highs being improved upon over 2 years (2022-2023) with the fund's help in monitoring hiring numbers to optimize total sales per worker

Cost per worker will evolve from 2020 onwards at the historical period's average rate of +1.75% per year

Variable external services will be maintained relative to sales with other indirect costs remaining constant

Net Working Capital

Net Working Capital will evolve as per the evolution of the Cash Conversion Cycle, the days it takes Quadpack to perform its usual trade cycle

The Cash Conversion Cycle is then further broken down into the Payable, Holding, and Collection periods. These will be optimized over the holding period, brought closer to historical bests through selective contract renegotiation as well as improved inventory management as per our investment thesis

This optimization of the Cash Conversion Cycle will thus lower the Working Capital needs of the company improving its cash generation profile by reducing its investment needs. When the Cash Conversion Cycle stabilizes so will Net Working Capital relative to sales

Capex

Based on the company's claims on current factory utilization, growth Capex predictions were set to support the future period's revenue growth, especially those from the manufacturing segment, the more capital intensive of the two

Maintenance Capex will rise throughout the holding period since, as revenues grow, the higher the cash needed to maintain said level of revenues. Conversely, as growth slows down, maintenance Capex converges closer to depreciation

Regarding depreciation, this expense will decrease relative to PPE over the holding period similarly to the historical trend. This happens since depreciation rates assume conservatively low asset life, inflating these expenses the greater the expansion in recent years

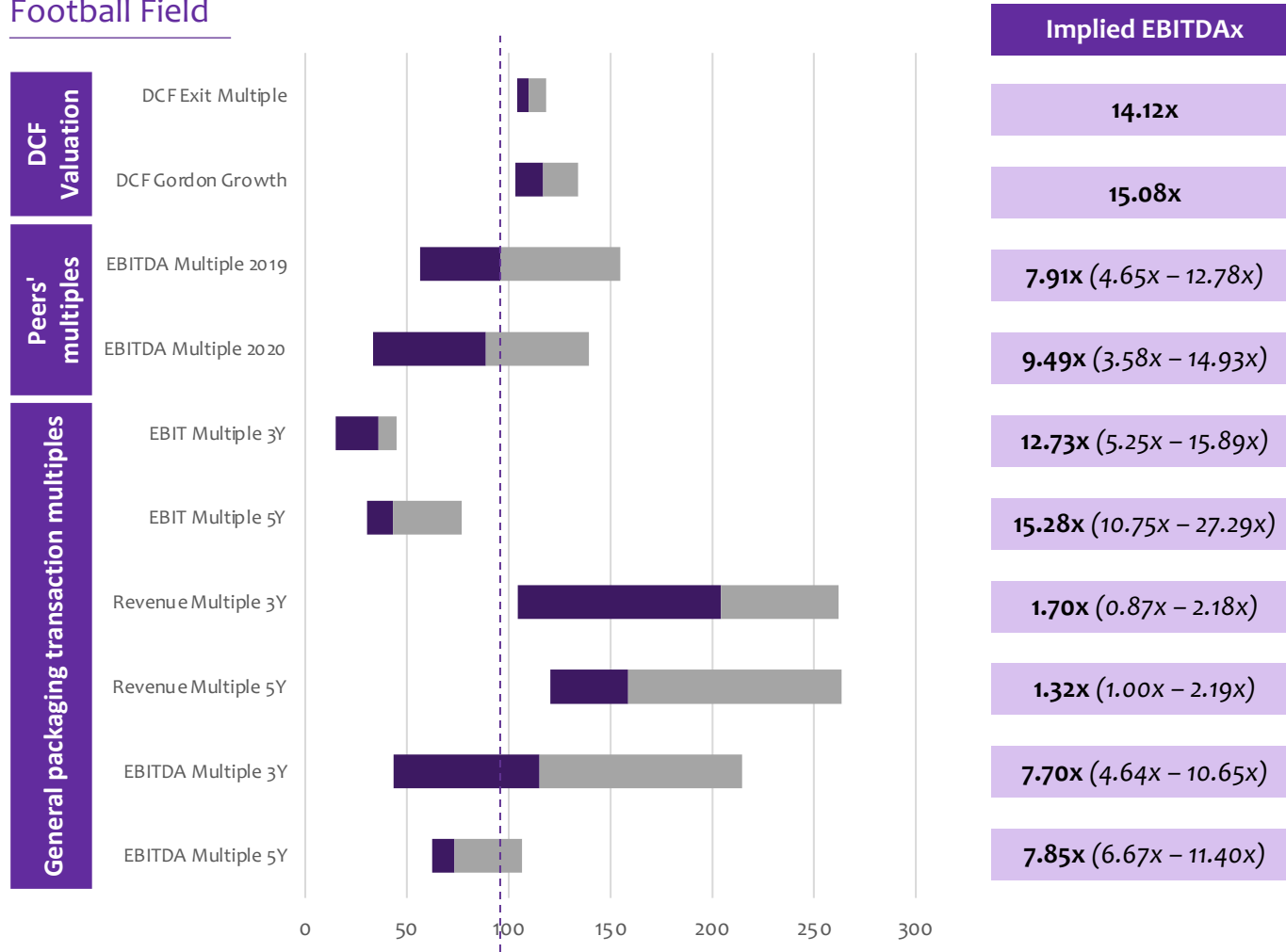
* Excludes certain one-off historical items; certain less relevant lines were omitted

Valuation | Value at entry



A €99.76m EV at entry implying 10.69x EBITDA multiple will be initially financed with Net Debt at 3.2x EBITDA. An add-on facility is also extensively used

Football Field



€99.76m EV assumed at entry
(assuming 2021's estimated EBITDA - €9.34m)

10.69x Implied EBITDAx

Debt terms

Net Debt / EBITDA	TA*	TB*	TC*	Repayment Period	Rate
1.5x	2.6%	3.3%	4.1%	5 years	1.5%
2x	2.8%	3.5%	4.3%	6 years	2.0%
2.5x	3.0%	3.7%	4.5%	7 years	2.5%
3x	3.2%	3.9%	4.7%	8 years	3.0%
3.5x	3.4%	4.1%	4.9%	9 years	3.5%

* base rate + 12m EURIBOR; final debt terms highlighted

Note: Net Debt / EBITDA considers debt of lower or equal seniority

Facility	Type	Issue	Maturity
Type A*	Amortizing	End of 2021	6 years
Type B	Bullet	End of 2021	7 years
Type C	Bullet	-	Not used
Add-on Facility	Amortizing	End of 2023	8 years

* Average life of 4.5 years, 75% the term of the facility

Debt Structure

Debt Type	Scenario 1	Scenario 2	Scenario 3
Type A	18 672 (2.0x)	16 805 (1.8x)	11 203 (1.2x)
Type B	20 540 (2.2x)	18 672 (2.0x)	14 004 (1.5x)
Type C	0 (0.0x)	0 (0.0x)	0 (0.0x)
Add-on Facility*	14 272 (25%)	22 836 (40%)	31 399 (55%)
Fund Returns**	3.2x / 24.3%	3.3x / 24.5%	3.3x / 23.6%

* % funded in parenthesis; ** Base Case

Capital Structure | Sources and Uses and management incentives



The CEO co-invests alongside the fund over the 6-year holding period also contributing towards the end of 2023 add-on purchase

Sources and uses table

Sources	Value	EBITDAx	%	Uses	
					Value
Senior Debt				EBITDA 2021	9 336
Type A	16 805	1.8x	15.5%	Entry Multiple	10.7x
Type B	18 672	2.0x	17.2%	Enterprise Value	99 759
				Accounting Equity	38 088
Fixed Return Instrument				Net Debt	37 264
1 Fund	37 975	4.1x	34.9%	Acquisition Goodwill	24 407
Co-investor	25 317	2.7x	23.3%		
Ordinary Equity				3 Cash kept in the company	6 017
Fund	5 700	0.6x	5.2%		
Co-investor	3 800	0.4x	3.5%	4 Due Diligence Cost	1 995
2 Sweet Equity	500	0.1x	0.5%	4 Arrangement Fees	998
Total Sources	108 769	11.7x	100%	Total Uses	108 769

Sources	Value	EBITDAx	%	Uses	Value
5 Add-on Facility	22 836		40%	Estimated EBITDA 2023	4 749
Equity Issue	29 687		52%	Entry Multiple	12.0x
Accumulated Cash use	4 567		8%	Webber EV	57 090

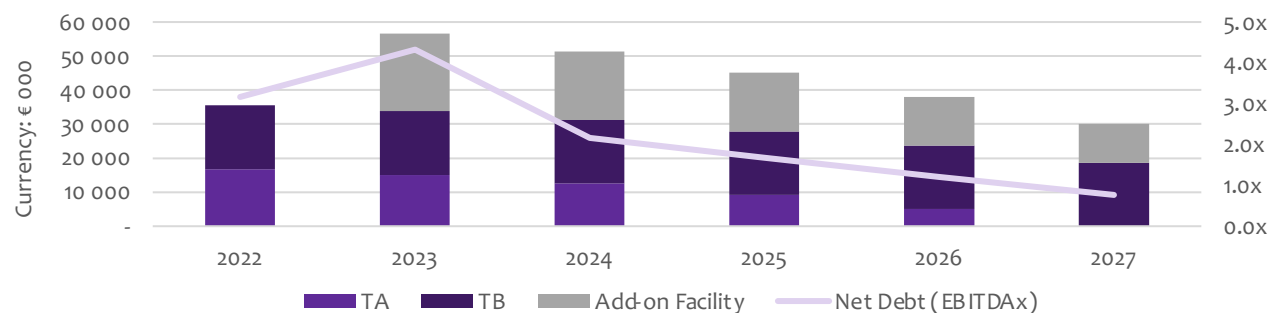
Comments

- 1 Quadpack is currently 60% held by Tim Eaves, its CEO, who drove the company since inception to its success. The other 40% are free floating
We are acquiring 20% of the company from Tim Eaves and delisting the remaining keeping the other 40%. As such we bring Tim along with a 40% share to run the company, while the fund maintains control with 60%
Mr. Eaves will be persuaded to go through with the deal as he gets an early partial cash-out and additional management support setting in motion the possibility for him to one day fully exit the company with high returns. Tag along and drag along clauses are included to facilitate a smooth exit
- 2 5% of ordinary shares will then be awarded to other 3 key managers*. The amount each contributes with is based on yearly salaries. Their returns improve the better Quadpack performs and hence the better the fund's exit

	Bank Case	Base Case	Investment Case
Management Returns	16.2x	26.5x	39.4x

- 3 Circa 5% of 2021's sales were kept in the company as operational cash and as contingency in case 2022 results go according to our worst expectations, presented in the bank case, in which there is a slight cash loss for the year
- 4 Due Diligence and Arrangement Costs will be paid as per typical Private Equity transactions relative to Quadpack's Enterprise Value at entry
- 5 For the add-on acquisition both the fund and its co-investor will inject around €30m into the company along with a €23m debt facility and €5m of existing cash to fund the Webber purchase. This add-on's price is set using a previous acquisition by Quadpack as a proxy, that of Louvrette in 2019. This transaction was used as a comparable since Louvrette, same as Webber but contrasting with Quadpack, also only features a manufacturing segment.

Debt Evolution

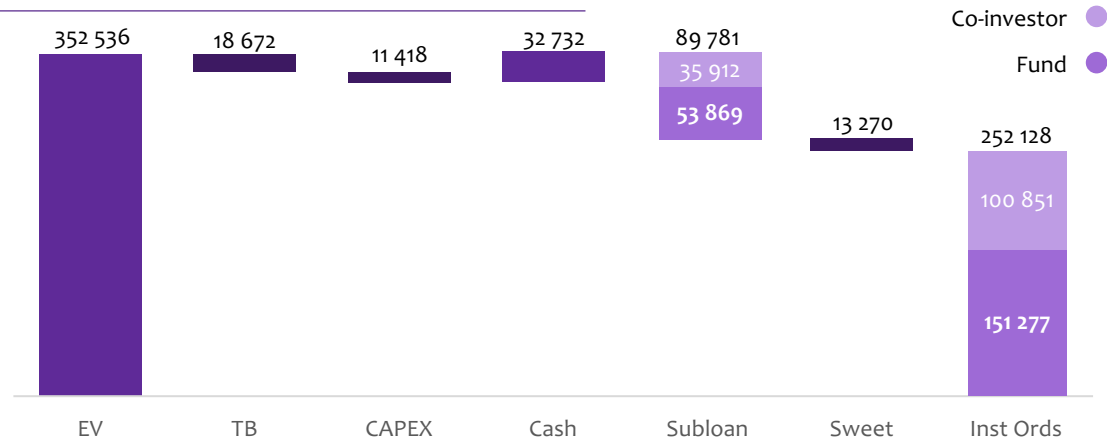


Returns | LBO Model and Credit Statistics



The LBO model predicts a 3.3x Money Multiple (MM) and a 24.5% IRR for the Base Case scenario with the fund's exit in 2027 (6 year holding period)

Base Case: Exit Waterfall & Returns



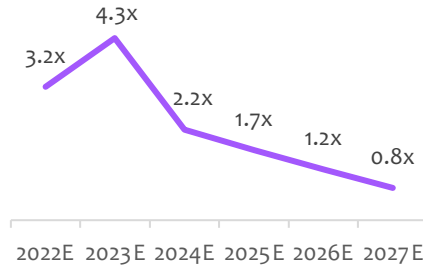
- When exiting in 2027, the **EBITDA is estimated to be at €32.9 million**
- We assumed **no multiple arbitrage**, meaning the exit multiple is **10.7x EBITDA**
- **EV at exit is €352.5 million** with an Equity total share value of €355.2 million

Management Proceeds (€ 000)	2022F	2023F	2024F	2025F	2026F	2027F
Equity-in	500	500	500	500	500	500
Exit Equity	1,362	1,888	7,907	9,694	11,472	13,270
Management Returns	2.7x	3.8x	15.8x	19.4x	22.9x	26.5x
Investor Proceeds (€ 000)	2022F	2023F	2024F	2025F	2026F	2027F
Fund Equity-in (60%)	43,675	61,487	61,487	61,487	61,487	61,487
Co-investor Equity-in (40%)	29,117	40,991	40,991	40,991	40,991	40,991
Fund Exit Equity	55,777	64,198	135,366	158,450	181,599	205,145
Co-investor Exit Equity	37,185	42,798	90,244	105,633	121,066	136,763
Institutional Returns	1.3x	1.0x	2.2x	2.6x	3.0x	3.3x

- The investment yields a **MM of 3.3x for investors** and an **IRR of 24.5%**
- **For management**, the investment results in a **26.5x MM** and an **IRR of 72.7%**

Bank Case: Expected Covenants

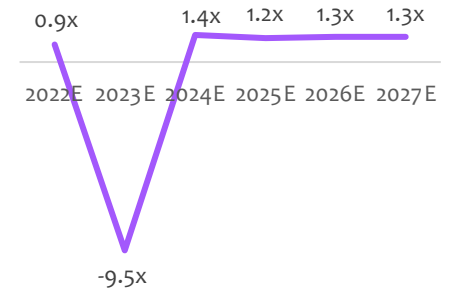
Net Debt/EBITDA



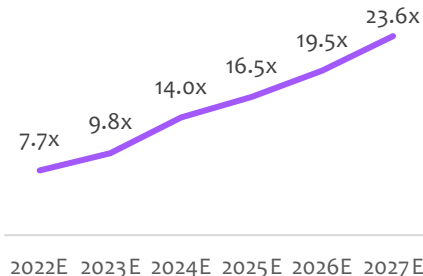
- A growing EBITDA with regular debt repayments supports the observed downward trend
- The expected effect that the **CAPEX Facility has on the ratio in 2023 is then offset by the increase in EBITDA** resulting from the North American add-on

Cash Cover

- A **1-year grace period will be negotiated for 2022** to give the fund leeway for initial improvements avoiding a covenant breach (only predicted in bank case)
- The **cover for 2023** accounts for Webber's acquisition on December 31st, but **does not consider the issuance of equity** which will offset the effect on the cashflows



Interest Cover



- The leap in 2024 follows from an increase in **EBITDA** resulting from the acquisition offsetting higher interest
- Interest payments decrease throughout the holding period as debt is amortized and the facility repaid

Due diligence – Risk assessment



Though a plethora of due diligence analysis is essential, a focus in commercial and financial DD assesses the key red flags to this investment's success

Areas		Detailed Analysis	Red Flags
Commercial DD	Business Model	<ul style="list-style-type: none"> Identify key stakeholders and how they affect performance (dependence) 	<ul style="list-style-type: none"> Significant share of revenues dependent on a handful of customers
	M&A Target	<ul style="list-style-type: none"> Inquire Weber's management to obtain relevant financial information to confirm / adjust model assumptions and assess willingness to be acquired Evaluate possible and feasible production and distribution lines in the region 	<ul style="list-style-type: none"> Inability to follow through with the acquisition and difficulties integrating Overestimation of synergies from the acquisition
	New Markets	<ul style="list-style-type: none"> Deeper analysis of the glass market costs, benefits and potential for growth Analyse revenue cannibalization from introduction of new products Evaluate the infrastructure needed to support new products 	<ul style="list-style-type: none"> Cosmetic glass market potential and estimated gains from it may be too optimistic Quadpack's current business model may have to be adjusted to suit the glass supply chain
	Competitive Environment	<ul style="list-style-type: none"> Deeper analysis of peer's performance to set short-run target benchmarks Design an action plan that is flexible to competitor's decisions 	<ul style="list-style-type: none"> Hard to analyse peers performance for cosmetics market only (hard to set benchmark) Competitors may take advantage from using supply chains established for other sectors
Financial & Reporting DD		<ul style="list-style-type: none"> Improve understanding of the CAPEX, investment in NWC elements and the allocation of Provisions and Other account balances Analyse the potential impact of Covid-19 on the financial ratios and EBITDA Review fair value of assets to identify "hidden" impairments 	<ul style="list-style-type: none"> Firm cash generation profile, and thus debt repayment capabilities and return origination, heavily depend on CAPEX / NWC Under or overestimation of EBITDA value at entry (2021)
Environmental DD		<ul style="list-style-type: none"> Assess compliance with environmental matters for each product type Analyse Quadpack and partner's emissions Validate company operational clean energy sources 	<ul style="list-style-type: none"> Negative publicity can drive existing customers away as well as affect the Group's ability to acquire new clients Violation of permitted emissions quotas and any associated expenses

Exit options



Out of the considered options, a trade sale offers the best mix of high likelihood and sale price given synergy potential and the competition landscape

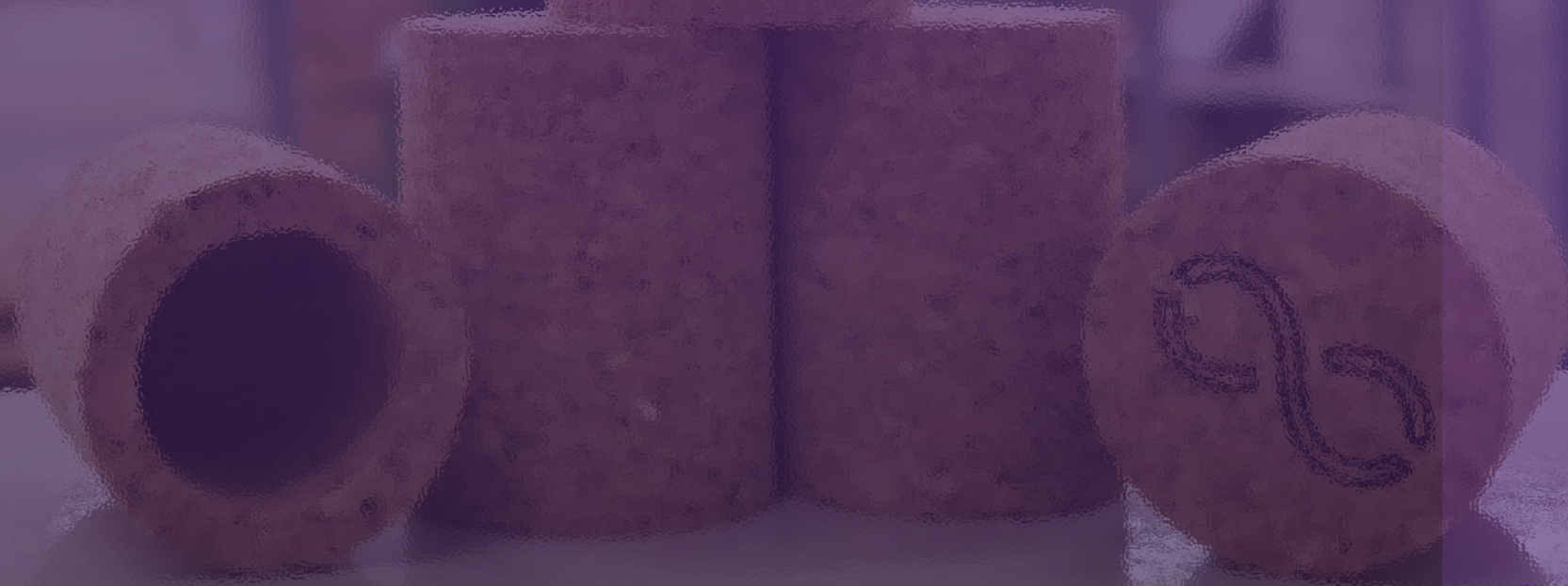
	Trade Sale	Secondary Buyout	Sale in parts	IPO																
	Sale to industry market players	Sale to another PE fund	Sale of each business unit individually	Relist the company in a Stock Exchange																
Pros	<p>The packaging market has many strong companies with the financial resources to acquire and integrate Quadpack</p> <p>The acquirer will benefit from synergies thus having a higher ceiling on how much it is willing to pay</p>	<p>Industry with high consolidation potential to be carried out by PE firms</p> <p>Faster and smoother to execute due to acquirers being used to these processes</p> <p>Very likely since most transactions analysed had a financial firm as acquirer</p>	<p>Allows for smaller / more focused bidders to also participate in the process elevating competition between them</p> <p>Once again acquirers benefit from synergies and are thus willing to pay higher prices</p>	<p>Despite lacking synergies, an IPO may have the most upside as it allows the more parties to bid for the company</p> <p>Can leverage past experience in IPO and give investors the bounce back feeling</p>																
Cons	<p>Probably a slower and heavier process under heavy price negotiation since the acquirer is not a financial company who is used to dealing with such transactions</p>	<p>Expected lower offers due to synergistic potential not being guaranteed</p> <p>Financial buyers are more used to valuing companies and will probably be more aggressive on pricing</p>	<p>Longer process with added difficulties due to having to find several buyers</p> <p>Potential loss of synergies from splitting the business destroying value and thus lowering offers</p>	<p>An IPO is very timely and costly, having to deal with intermediaries which leads to high fees</p> <p>High level of uncertainty from dependence in market conditions</p>																
Possible Buyers																				
	<table border="1"> <tr> <th>Likelihood</th> <th>Expected Return</th> </tr> <tr> <td>★★★★★</td> <td>★★★★★</td> </tr> </table>	Likelihood	Expected Return	★★★★★	★★★★★	<table border="1"> <tr> <th>Likelihood</th> <th>Expected Return</th> </tr> <tr> <td>★★★★★</td> <td>★★★★★</td> </tr> </table>	Likelihood	Expected Return	★★★★★	★★★★★	<table border="1"> <tr> <th>Likelihood</th> <th>Expected Return</th> </tr> <tr> <td>★★★★★</td> <td>★★★★★</td> </tr> </table>	Likelihood	Expected Return	★★★★★	★★★★★	<table border="1"> <tr> <th>Likelihood</th> <th>Expected Return</th> </tr> <tr> <td>★★★★★</td> <td>★★★★★</td> </tr> </table>	Likelihood	Expected Return	★★★★★	★★★★★
Likelihood	Expected Return																			
★★★★★	★★★★★																			
Likelihood	Expected Return																			
★★★★★	★★★★★																			
Likelihood	Expected Return																			
★★★★★	★★★★★																			
Likelihood	Expected Return																			
★★★★★	★★★★★																			



At exit Quadpack will be a relevant player in the high-end American and European cosmetic packaging market, with innovative and sustainable products, present in the glass market, and offering low lead times, all through a strengthened supply partner web and well-optimized operations. Top competitors will offer the best exit aiming to internalize such qualities, create synergies, and consolidate their position in a still highly fragmented market

2

Individual Section



The group has 4 experienced and important C-level executives crucial to Quadpack's current success and defining the firm's future vision

C-level executive team



Tim Eaves – Chairman of the Board, CEO and Co-Founder

Has worked in the industry for over 25 years. He oversees the strategic vision and direction of the company, having been an integral part of every strategic acquisition as well as their integration.



Bardo Bevelander – CFO

Arrived in September 2019 from Gallencium health where he had the role of CFO since June 2017. His current focus is to ensure that a stable financial structure, to enable the group to keep growing inorganically whilst also maintaining an above-average organic growth.



Fabrice Revert – COO

Joined the group in March 2020 after being COO for Sephora. Mr. Revert, besides having worked in Albéa, the leader of the cosmetic packaging market, also enacted the role of COO in other competitors such as HCT and Maesa. He has a vast industry knowledge and was crucial in defining the strategic vision for the upcoming 5 years.



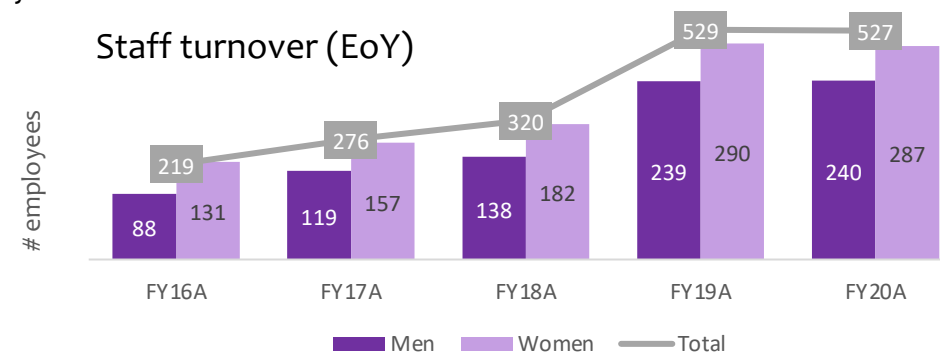
Marcela Buitraga – CCO

Started as a Director of Business Unit in 2005, becoming Sales Director in 2013 for the Southern European market and was promoted to her current position in 2015. As Chief Commercial Officer she is in charge of sales and projects to that effect, as well as planning for the future strategy of the company.

Staff

In 2020, one of the main priorities of the Group was the wellbeing of their employees, due to Covid-19, be it physical or mental. It paved the way for a restructure of the Asia-Pacific workforce and the creation of several committees whose purpose is to ease and facilitate the communication between employees and the executive team

- Spain and Germany have a combined 420 out of the 532 FTEs employed in 2020 majorly in manufacturing facilities
- Invest heavily in training across all levels of staff. In 2019 they had invested in 3,539 hours, mainly directed for the commercial area. In 2020 these training hours dropped to 829 due to Covid-19
- Staff turnover rose to 12% in 2020 from 8% in 2019; of those 12%, 7% were voluntary
- A furlough scheme (lay-off) was put into place in 2020 due to the pandemic applying to 223 employees



Board of Directors

- An experienced board of directors, especially in the fields of M&A, strategy and overseas operations, that have an important role in advising top management
- Efforts are being made to create a more diverse and independent board, by recently appointing the first female independent member as of April 2021

Quadpack offers supplementary added value services to its clients, part of the solution it seeks to provide to the cosmetic packaging industry

Additional Services

Additional services were recently introduced by Quadpack to strengthen its value proposition to its customers while diversifying its revenue sources. These contribute towards making the company less substitutable simultaneously reducing bargaining power over it. These include:

Stocking & Warehousing: Quadpack offers space renting for just-in-time assembly and decoration providing a lower time to market. This is especially relevant for customers wanting to synchronize timely product deployment with strong marketing campaigns or seasons in which sales can be overwhelming, for example, Christmas.

Logistics: When providing this service Quadpack handles shipment, tracking and customs as well as duties for its clients. Additionally, they manage transportation route optimization as per the clients' preferences accounting for factors such as fuel consumption and production deadlines. Finally, Quadpack prepares contingency plans for its clients in order to mitigate events such as delayed deliveries or missing items.

Full-service: When Quadpack provides full-service options to its customers it becomes responsible for a much more significant portion of the value chain. As such, in addition to its usual role, it tackles all responsibilities from the packaging design stage to delivering the packaging already filled wherever it is most convenient for the client, be it a warehouse or at a storefront.

A New Sales Channel

On a final note, it is important to mention a new **sales' channel** which has recently been pushed for with Quadpack's introduction of a **B2B e-commerce** section in its website. In doing so, the company makes it much more convenient for potential clients to assess Quadpack's offer. For example, it is now possible to experiment with various packaging component combinations beforehand: colours, materials and finishes, all in an intuitive 3D browser app.

The opportunity

Quadpack realized that, traditionally, the larger players in the industry, the top 3 with around 29% market share, have been the best at delivering:

- Low price
- Low time to market
- Supply stability
- Product quality
- Innovation capabilities

However, Quadpack noticed that smaller players had the upper hand regarding customization, a key aspect to beauty brands for whom being seen as the most premium and unique among your competitors is a crucial sales driver

Quadpack recognized the need to have someone deliver the best of both worlds, aiming to become a big player in the industry without sacrificing product variety

The solution

Initially Quadpack became a pure trading company, leveraging many suppliers to ensure high supply and product variety while reducing supply chain related risks all benefiting from its great customer relations

Business grew steadily but soon the company started realizing it was impossible to scale the trading model further since customers and suppliers were becoming too big to make use of an intermediary. Additionally, the position of a trader was much more fragile since it was not backed by production capabilities

As such, Quadpack started developing its own in-house manufacturing to continue growing. Opting for a mostly inorganic growth path, this is an on-going process which despite its very high investment needs is proving successful for the company

Extensive M&A activity throughout the Group's lifetime, resulting in the consolidation of various companies to complement in-house capabilities

New Markets

Quadpack began their M&A activity in 2013 with the acquisition of **Technotraf Wood Packaging**. The purpose was three-fold:

New business model

To create and develop the hybrid model of being able to both source and manufacture, which became the competitive advantage over most of the players

Product development

Start to develop their own products as this grants them a bigger presence in the market as opposed to being a pure intermediary between clients and suppliers

Risk diversification

Progress towards a business structure that is less dependable on supply chains as well as shifting towards a more sustainable and diversified business, by reducing their exposure to their suppliers

In 2014 **Krampak** was also acquired to complement the creation of their own product portfolio. This acquisition improved their ability to offer clients customizable products as this Spanish company offered **decoration services**. It also allowed for a greater service offering, an important first step in creating the current brand image tailored to a more premium client-base.

The most recent acquisition made by Quadpack with the purpose of industry penetration was **Rinoplast** in 2016 which expanded their production capabilities as well as product range and offering. This strategic move enabled them to start producing plastic-based packaging in-house. It allowed the Group to specialize in injection molding activities used in high-end acrylic jars for the cosmetic industry.

¹The integration of the company is still in process

New Geographies and Partnerships

Besides establishing offices in other countries, the Group has also taken an inorganic approach to expand internationally to improve their ability to meet the market needs

2011

Quadpack created a joint venture along with **Yonwoo**, a manufacturing company in South Korea specialized in airless technology to develop Yonwoo Europe. It allowed Quadpack to increase its sourcing ability, decrease the operating cycle and increase sales volume, especially within Europe. They have also partnered in developing new award-winning products focusing on airless packaging and ampoules.

2016

Quadpack merged with **Collcap Group Ltd.**, a UK packaging provider that specialized in plastic and glass tubes for the cosmetic industry. Quadpack leveraged Collcap's positioning within the UK market and their Asian sourcing partners for the purpose of acquiring more market share, as well as increase their sourcing for the APAC region.

2017

Quadpack acquired **East Hill Industries LLC**, which has since become the Group's center of distribution for the North American region. The purpose of this acquisition was to slowly expand their operations overseas, by taking advantage of in-house decoration and a sourcing partner in Mexico to deliver their products to the region.

2019

Louvette and the cosmetics division of **Inotech** were both acquired in 2019. The former was mainly bought for their manufacturing capabilities in order to reduce lead times, whilst the latter was strategically acquired for their innovative products designs, due to their bi injection blow molding technology.

2021

Quadpack has recently acquired **Stefan Wicklein Kunststoffveredelung GmbH**¹, a company specialized in decoration that provides full hot stamping print. This makes the Group one of the few competitors that offer such service and as decoration accounts for circa 20% of the products' market price, the acquisition will ideally complement the firm's margins and in-house capabilities.

Historical Financials | Top line historical analysis – Revenue and it's growth drivers



The company's revenues grew at a CAGR of circa 20% over the past 7 years (Pre-Covid) heavily driven by both organic and inorganic growth

Sales and services by segment

Currency: € 000	2015	2016	2017	2018	2019	2020
Sourcing	48 690	62 098	80 096	91 753	100 768	65 131
% Total Sales	89%	89%	88%	88%	77%	64%
Manufacturing (Wood)	3 241	4 501	5 653	9 754	14 254	9 250
% Total Sales	6%	6%	6%	9%	11%	9%
Manufacturing (Plastics)		1 704	1 305	2 216	14 829	26 563
% Total Sales		2%	1%	2%	11%	26%
Manufacturing (Decorations)	584	749	817	936	1 173	1 043
% Total Sales	1%	1%	1%	1%	1%	1%
Services (now in sourcing)	2 357	1 041	2 870			
% Total Sales	4%	1%	3%			
Sales and services	54 873	70 092	90 741	104 659	131 024	101 987
YoY (%)	n.a.	28%	29%	15%	25%	-22%

Sales and services by geography

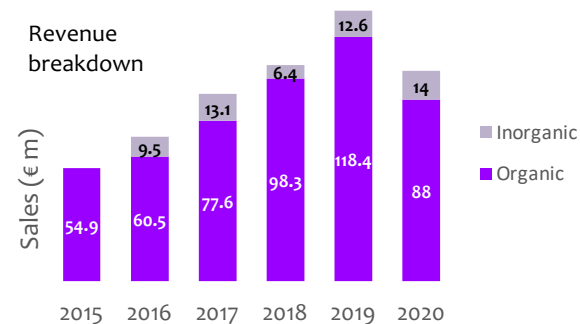
Currency: € 000	2015	2016	2017	2018	2019	2020
Spain	13 732	20 545	16 695	20 748	20 474	15 874
% Total Sales	25%	29%	18%	20%	16%	16%
Other EU countries	39 137	43 757	62 376	59 031	92 158	61 678
% Total Sales	71%	62%	69%	56%	70%	60%
Rest of the world	2 003	5 790	11 670	24 881	18 392	24 434
% Total Sales	4%	8%	13%	24%	14%	24%

Source: Annual reports

Notes: Values prior to and including 2017 are pre IFRS-EU accounting standard reporting

Strategy

- From Quadpack's early days, the focus was primarily on sourcing and ever since it introduced *in-house* manufacturing, it has been able to mitigate its supply chain risk, as well as implement a business strategy that is more balanced and less dependable
- The main growth driver of revenues stems from its proved capability of acquiring and integrating other businesses such as Technotraf and East Hill – the former has allowed Quadpack to diversify its portfolio through Quadpack Wood, whilst the latter introduced the group into the North American Region
- More importantly, over the last 3 years, besides drastically increasing the numbers of suppliers which has expanded Quadpack's sourcing capacity, represented with the increases in sourcing revenue, Quadpack has been able to increase its manufacturing through the acquisitions of German's Inotech's packaging division and Louvrette. These investments have given Quadpack the flexibility within Europe to respond to the increasing demand for its existing products, which is portrayed by the growing numbers for sales within the Europe area. As a result of the integration of the aforementioned businesses, Quadpack experienced a significant increase in manufacturing revenue in 2019 and 2020
- Complementing the inorganic growth, through the integration of existing know-how from these businesses as well as investment in new technology and innovation, the company has also been able to expand the product portfolio, creating sustainable increases in revenue



Historical Financials | Remaining Financial Statement Items – Income Statement (I/III)



As the company grew its manufacturing segment, with added debt and fixed assets came increasing depreciation expenses and interest payments

Income Statement

Currency: € 000	2016	2017	2018	2019	2020	2021E
Adj. EBITDA	6 052	8 164	9 175	12 112	5 695	9 336
% Sales	9%	9%	9%	9%	6%	8%
Normalizations	1 728	(1 966)	(660)	(87)	891	-
Own work capitalized	362	-	16	60	797	
Other operating items	153	(1 973)	46	25	32	
Impairments & provisioning	700	0	(805)	(1)	(645)	
Financial Income	52	14	20	16	17	
Other results	461	(7)	63	(187)	690	
EBITDA	7 780	6 198	8 515	12 025	6 586	9 336
Depreciation of fixed assets	(1,557)	(1,910)	(2,863)	(5,589)	(7,355)	(6,519)
% PPE	38%	34%	35%	22%	31%	29%
EBIT	6 223	4 289	5 652	6 436	(769)	2 817
% Sales	9%	5%	5%	5%	-1%	2%
Interest Payments	(270)	(288)	(647)	(1,125)	(1,382)	(1,382)
% Debt	3%	2%	5%	2%	2%	2%
EBT	5 953	4 000	5 005	5 311	(2 151)	1 435
% Sales	8%	4%	5%	4%	-2%	1%
Income tax	(1 670)	(1 299)	(1 353)	(1 421)	817	(384)
Implied tax rate	28%	32%	27%	27%	38%	27%
NI	4 283	2 701	3 652	3 890	(1 334)	1 051
% Growth		-37%	35%	7%	n.a	n.a.
% Sales	6%	3%	3%	3%	-1%	1%

Source: Annual reports

Note: Values prior to and including 2017 are pre IFRS-EU accounting standard reporting

Comments

- 1 In this slide we see the details of each normalized item in our analysis. In all lines but that of financial income we see erratic behavior clearly unlinked with the evolution of the company's core business performance, adding to the reasoning to exclude these items from our analysis. As for financial income, this item despite not showing erratic behavior clearly stems from revenue sources other than the company's core activities.
- 2 We also use this slide to take a closer look at EBIT which has been maintained at 5% of revenues in the years before the pandemic. This, just like EBITDA margin, shows that the improvements in gross margin brought by increasing manufacturing have been mostly offset by other costs netting little to no improvements relative to the bottom line.
- 3 Now including interest payments, which fluctuated between 2% to 5% of the company's financial debt, we reach EBT. Despite the absolute expense in interest payments rising in the last two years due to debt issuance, the stable and low value of interest payments relative to debt at 2% suggests that lenders deem investing in Quadpack a low-risk activity.
- 4 The implied tax rate has been on average 28,6% (excluding 2020 with negative EBT)
- 5 Holistically the company displayed a lukewarm evolution:
In all years but 2020 sales rose significantly. The company developed manufacturing offsetting this segment's higher employee costs with gross margin gains and fixed cost dilution thus maintaining EBITDA margin. However, depreciation and interest payment rises ultimately hindered net income which was at its highest all the way back in 2016.
Still, this segment's development, has allowed Quadpack to have a more cemented and thus less replaceable place within the industry. This has been especially important since the company has begun struggling to scale its sourcing segment due to suppliers starting to become too large to make use of intermediaries.

Historical Financials | Remaining Financial Statement Items – Capital Uses (II/III)



The company made very large investments in years of acquisitions which displayed negative capital cash flows contrasting with non-acquisition years

Balance Sheet & Cash Flows

Currency: € 000	2016	2017	2018	2019	2020	2021E
PPE	4 103	5 536	8 183	25 091	23 680	22 480
Intangible Assets	5 873	13 411	12 019	38 478	37 908	37 340
Other Fixed Assets	785	2 284	3 505	347	82	82
Total Fixed Assets	10 761	21 231	23 707	63 916	61 670	59 902
Clients*	17 788	17 842	21 721	24 058	15 860	20 406
Suppliers	(12 932)	(13 307)	(19 937)	(20 602)	(10 256)	(15 603)
Inventories	7 908	9 481	9 518	16 953	12 383	13 594
State and other public entities	(1 356)	(1 157)	(632)	54	189	189
Other	(2 523)	(2 212)	(1 769)	(3 222)	(3 135)	(3 135)
Net Working Capital*	8 885	10 647	8 901	17 241	15 041	15 451
Days of Revenue (365)	46	43	31	48	54	47
Total Invested Capital	19 646	36 878	32 608	81 157	76 691	75 353
Currency: € 000	2016	2017	2018	2019	2020	2021E
EBITDA		6 198	8 515	12 025	6 586	9 336
Income tax		(1 299)	(1 353)	(1 421)	817	(384)
Investment in NWC*		(1 762)	1 746	(515)	2 200	(410)
Maintenance CAPEX		(382)	(573)	(1 118)	(1 471)	(1 788)
Operating Cash Flows*		2 756	8 335	8 971	8 132	6 754
2019 acquisitions ΔNWC		-	-	(7 825)	-	-
Growth CAPEX		(10 499)	(3 545)	(10 113)	(3 903)	(2 963)
2019 acquisitions CAPEX		-	-	(37 725)	-	-
Non-core investments		(1 499)	(1 221)	3 158	265	-
Capital Cash Flows*		(9 242)	3 569	(43 534)	4 494	3 791

Source: Annual reports

Note: Values prior to and including 2017 are pre IFRS-EU accounting standard reporting

Comments

- 1 The company's fixed assets grew extensively in 2017 and 2019 related with the acquisition of East Hill Inc first and then that of Inotech and Louvrette. Fixed Assets include:
 - PPE which is mostly comprised of plant and machinery followed by land and buildings
 - Intangible assets are mostly encompassed of goodwill and intangibles imported from acquirees including rights of use, patents, licenses, trademarks and computer software
 - Other fixed assets includes net investments in group companies and associates, other financial investments, and net deferred taxes. Variations in cash flows related to these items are reported as non-core investments
 - 2 Within Net Working Capital it is possible to identify that inventories spiked in 2017 with East Hill's acquisition. Similarly, clients and suppliers accounts rose considerably in 2018 explained by the conclusion of its integration.
In 2019 clients and inventory accounts are especially noteworthy, jumping with that year's acquisitions. Finally, it is important to add that in 2020 changes in recognition practices rebalanced the clients and suppliers accounts.
 - 3 In the end we reach the company's total Invested Capital, a measure of a company's assets net of operational liabilities, the items at its disposal to run its business and generate returns. These grew mostly inorganically with small divestments being common in the years following an acquisition.
On the cash flow side, we are left with Capital Cash Flows, a metric of how much money was generated before any interaction with debtholders and shareholders. The figure varies a lot with acquisition years resulting in very negative cash-flows (2017 and 2019) but the remaining yield good values stemming from always encouraging operational cash flows.
- * Values exclude a €5M missed payment in 2017 from client Kiko who was near bankruptcy. The value was fully recovered in 2018.

Historical Financials | Remaining Financial Statement Items – Capital Sources (III/III)



The company's net debt increased considerably with recent acquisitions. Though liquidity issues are not expected financial autonomy was heavily hit

Balance Sheet & Cash Flows

Currency: € 000	2016	2017	2018	2019	2020	2021E
Debt and debt-like items	8 571	20 647	17 797	51 296	62 487	62 487
Financial liabilities	8 417	14 432	12 861	47 224	58 947	58 947
Provisions & Accrued liabilities	154	152	101	125	606	606
Rental obligations	-	6 063	4 835	3 947	2 934	2 934
Cash and equivalents	7 697	2 669	9 231	9 699	22 814	25 223
Net Debt ¹	873	17 978	8 566	41 597	39 673	37 264
Adj. EBITDAx	0.1x	2.0x	0.8x	3.2x	6.1x	4.0x
Share capital & premium	7 376	7 377	7 377	17 633	21 979	21 979
Reserves & Result	11 346	13 345	16 314	18 162	15 635	16 686
Others	(676)	(2 409)	(178)	(816)	(1 078)	(1 078)
Non-controlling interests	727	589	530	4 580	502	502
Total Equity ²	18 773	18 902	24 043	39 559	37 038	38 089
Total Sources of Capital ³	19 646	36 880	32 609	81 156	76 711	75 353

Currency: € 000	2016	2017	2018	2019	2020	2021E
Capital Cash Flows		(14 242)	8 569	(43 534)	4 514	3 791
Interest Payments ¹		(288)	(647)	(1 125)	(1 382)	(1 382)
Debt issuance (reimbursement) ¹		12 076	(2 850)	20 699	11 191	-
Debt from 2019 acquirees ¹		-	-	12 800	-	-
Cash Flows to Equity		(2 454)	5 072	(11 160)	14 323	2 409
Dividends ²		(1 350)	(1 050)	(1 200)	-	-
Other Changes in Equity ²		(1 222)	2 539	12 826	(1 187)	-
Cash Flow change ³		(5 026)	6 561	466	13 136	2 409

Source: Annual reports

Note: Values prior to and including 2017 are pre IFRS-EU accounting standard reporting; values in 2017 and 2018 include a €5M client delayed payment

Comments

¹ In order to get a more insightful perspective on the company's financial position, debt includes other obligations which we considered debt-like items net of cash. This represents how much the company would still have to pay its lenders after using all its cash to do so.

This figure now sits at an almost all time high at 4.0x EBITDA, reflecting the cost and imported debt from the aggressive inorganic growth in 2019. Still, in absolute terms, Net Debt has been falling since 2019, the last year with no pandemic to drag EBITDA down, when Net Debt to Adjusted EBITDA was at a much more manageable 3,2x. The cash flow impact from this is clearly seen in the bottom table in the debt issuance line and the consequently rising interest payments.

Financial Liabilities specifically include debt with financial institutions, leasing obligations, derivatives and others. These increased largely in 2017 and 2019 as the company raised money to finance acquisitions. Still, the company's current liabilities are covered by the company's cash (cash ratio >1) and so short-term liquidity problems are not expected.

² Looking at equity we see it rising through the years though by a lot less than net debt. This led the net debt to equity ratio to rise from a meager 4.65% in 2016 all the way to 115% in 2020, reflecting a rapid decline in the company's financial autonomy. Shareholder compensation and other interactions with equity are reflected in cash flows as dividends and other changes in equity, respectively.

Share capital and share premium rose significantly in 2019 when the company issued a large number of shares to help finance acquisitions from that year. Additionally, the company raised additional capital in 2020 to finish payments related to said acquisitions.

³ With this we reach the company's total sources of capital used to finance its invested capital that grew especially with acquisitions. In the cash flow statement, we end with the final cash change for the company which was kept positive in the most recent years due to large debt and equity issuances offsetting acquisition costs.

Market Overview | Competitors

Competitors range from big international companies serving several industries and markets to smaller more specialized players

Company	Aptar ⁽¹⁾		DS Smith ⁽¹⁾		SILGAN HOLDINGS PLC ⁽¹⁾		LUMSON ⁽²⁾ Cosmetic Packaging Industries		PSB INDUSTRIES ⁽¹⁾		QUADPACK ⁽¹⁾	
	Pharma Personal care Home Food & Beverage		Consumer goods Personal care Food & Beverage Industrial		Pharma Personal care Home Food & Beverage Garden		Pharma Cosmetics		Cosmetics		Cosmetics	
Geographical Reach	Europe North America APAC South America		Europe North America APAC North Africa		Europe North America APAC South America		Europe North America		Europe North America		Europe North America APAC	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Sales (€)	1.19b	1.14b	7.49b	6.98b	3.96b	4.34b	88.9m	103m	202m	150m	131m	101m
Gross Margin	36%	37%	53%	52%	16%	17%	n.a.	n.a.	50%	48%	43%	46%
EBITDA Margin	13%	10%	16%	13%	12%	14%	18%	15%	10%	4%	10%	6%
EV/EBITDA ⁽²⁾	14.1x	16.6x	9.4x	7.0x	8.8x	9.0x	n.a.	n.a.	3.8x	1.7x	10.5x	12.9x

Main Players

Peer Competitors

Analysis

- AptarGroup's Sales and EBITDA Margins were adjusted for the Personal Care segment to improve the comparison. However, the same was not possible for the Gross Margin as there was no COGS breakdown per segment
- DS Smith, Silgan Holdings and Lumson do not provide information by industry. Hence, all data relates to their overall activity
- Nonetheless, some comparisons can be drawn:
 - There was a general decrease in sales, with firms operating in the Food & Beverages industry benefiting from the economic landscape
 - There is room to improve margins as Quadpack is still below one of the industries main players in both Gross and EBITDA margins
 - Quadpack weathered the pandemic hit better than its closest peer (PSB Industries) who employs the same manufacturing-sourcing business model as Quadpack, with a smaller emphasis on sourcing

Individual Essay | The importance of due diligence (DD) during the Covid-19 pandemic



The Covid-19 has brought to light new needs that must be addressed in the due diligence process that can be crucial in the success of an M&A deal

Personal reflection

The PE Challenge has been an enriching experience, that has allowed me to implement the knowledge that I acquired throughout my Master's degree. It has also forced me to explore new tools, approaches and methods in a fast-paced field that requires a steep learning curve, where I aspire to build a future career in. Alongside the technical skillset developed, having worked with three other students has largely contributed to my transversal soft-skills such as, communication, teamwork and time-management, that will surely be a cornerstone of my future endeavours. This is especially important considering the inherent difficulties of having led a full time job as a transaction diligence analyst, meanwhile embracing the PE Challenge. The lessons learned from this semester have enticed me to reflect on the importance of due diligence, especially in the Covid-19 reality.

Private equity funds are recognized as being the best firms at conducting acquisitions, generating value and consequently achieving higher returns. Value creation strategies, historical track records and market analyses are fundamental for a deal to be realized, and culminate in a singular, expansive, and complex activity: Due Diligence.

The Past and the Present

Pre Covid-19, financial statements, market trends or laws and regulations were often enough to comfortably assess a company and its environment. Today, a more exhaustive due diligence must be done, focusing also on financial and commercial aspects, as well as legal and governmental considerations. The “checklist” remains, but it is crucial to understand that the value each “tick box” holds is ever more important. When assessing the current reality in the attempt to predict future firm value, it is imperative to realize how this pandemic has forced due diligence to change. A clear example of this is the impediment to the due diligence process created due to the restrictions regarding travelling, which make it hard to visit the factory or headquarters of a target company. From a financial or tax perspective, this change has resulted in an almost exclusive use of data rooms, where documents are shared, which when compared to in-person interactions, slows down the M&A process.

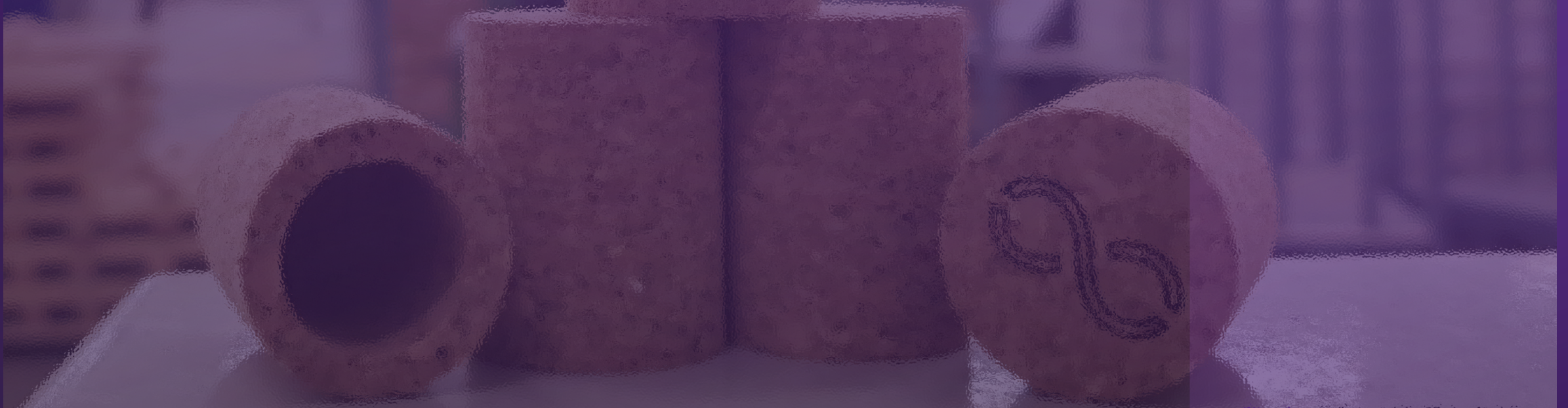
Areas of Focus Going Forward

The recent focus given to quality of earnings at a financial level and its conclusions, have been determinant in M&A deals. The ability to filter extraordinary revenue or costs, has become even more important, but the real question became: how much of these extraordinary variances are permanent and which are temporary due to pandemic? Similarly, commercial and operational due diligence have gained a particular weight comparatively to other areas. Market trends and consumption behaviour have changed dramatically; e-commerce for example has gained a substantial preponderance within the economy – an established firm with a successful brick and mortar business model may lose significant market share if it cannot adapt at a considerable rate. This extends itself to due diligence in government action, as a country that faces a constant shift in policies regarding Covid-19 can affect supply chains, resulting in added risk for the target firm's activities.

Effects on Performance and Key Insights

How does due diligence affect performance of deals? Professor Douglas Cumming and Simona Zambelli (2014) conducted a study that attempted to “quantify the time-value of due diligence”. Despite the sample comprising of exclusively Italian PE investments, it was proved that there was a statistically significant positive correlation between the due diligence conducted by internal managers of the fund and investee performance. Consequently, the first 3 years of the investment yielded better results for ROA and EBITDA/sales. Due diligence is hence associated with improved results, and extrapolating this data into the present time, where uncertainties are at an all time high, makes it an integral part of any deal. Taking the time to conduct a thorough due diligence on target firms, despite slowing down the process, is beneficial, more often than not, giving the fund greater confidence, especially in shorter-planned investment periods.

Bibliography



References

Reports

Albéa Group. 2019. "Protecting Beauty Driving Sustainability." https://www.albea-group.com/sites/default/files/albea_sustainability_report_oct2019.pdf.

AptarGroup. 2020. "A Year of Resiliency - Adapting to Make Your Life Better." https://s24.q4cdn.com/576740213/files/doc_financials/2020/ar/Aptar-2020-Annual-Report.pdf.

Capstone Partners. 2021. "Online Shopping Drives Packaging Demand." Packaging Industry Update. May 2021. https://www.capstonepartners.com/wp-content/uploads/2021/05/Capstone-Partners-Packaging-MA-Coverage-Report_May-2021.pdf.

Carrier, Johann. "2019/20 Results + Company Contact Resilient But Not Totally Immune To The Crisis." Invest Securities. July 2, 2020. <https://www.quadpack.com/packbase/11582627/13051758-SABGRHCF/f/2020%20-%20Analysts%20Report.PDF>.

Carrier, Johann. "Update Report - A Repackaged Manufacturing Division After Two Acquisitions." Invest Securities. December 17, 2019. <https://www.quadpack.com/packbase/11582627/12807229-JTQGRZ/f/2019%20-%20Analysts%20Report.pdf>.

Cumming, Douglas, and Simona Zambelli. 2014. "Due Diligence and Investee Performance." https://www.efmaefm.org/0efmameetings/efma%20annual%20meetings/2014-Rome/papers/EFMA2014_0323_fullpaper.pdf

DS Smith. 2021. "Annual Report 2021". <https://www.dssmith.com/investors/annual-reports>.

European Parliament and Council Directive 94/62/EC on packaging and packaging waste" (1994) Official Journal L365, p. 10.

Kennedy, Venus, Luiz Barosa, João Rabelo. 2020. "Covid-19: Impacts on the due diligence process and best practices". Deloitte. Accessed on December 13, 2021. <https://www2.deloitte.com/content/dam/Deloitte/br/Documents/strategy/Deloitte-Covid-19-Mergers-Due-Diligence.pdf>

MarketLine. "Containers & Packaging in Asia-Pacific." Industry Profile, March 2021. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/asia-pacific-containers-packaging-137870>.

MarketLine. "Containers & Packaging in North America." Industry Profile, March 2021. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/north-america-containers-packaging-137869>.

MarketLine. "Fragrances in Asia- Pacific." Industry Report, April 2020. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/asia-pacific-fragrances-108266>.

MarketLine. "Fragrances in Europe." Industry Profile, April 2020. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/europe-fragrances-108271>.

MarketLine. "Fragrances in North America." Industry Profile, April 2020. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/north-america-fragrances-108281>.

References

MarketLine. "Make-Up in Asia-Pacific." Industry Profile, May 2020.

MarketLine. "Make-Up in Europe." Industry Profile, May 2020.

MarketLine. "Make-Up in North America." Industry Profile, May 2020.

MarketLine. "Skincare in Asia-Pacific." Industry Profile, May 2020. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/asia-pacific-skincare-101651>

MarketLine. "Skincare in Europe." Industry Profile, May 2020. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/europe-skincare-101656>.

MarketLine. "Skincare in North America." Industry Profile, May 2020. <https://advantage-marketline-com.eu1.proxy.openathens.net/Analysis/ViewasPDF/north-america-skincare-101666>.

Martin, Ludovic. "FY 2020/21 - Annual Results an Entry Point to Play the Recovery." Invest Securities. June 1, 2021. <https://www.quadpack.com/packbase/11582627/13366734-DEKPNVDD/f/INVEST%20SECURITIES%20-%20FLASH%20QUADPACK%20-%20010621%20GB.pdf>.

PSB Industries. 2021. "Rapport Financier." https://www.psb-industries.com/app/uploads/2021/02/PSB_Rapport_financier_2020_OPTI.pdf.

Quadpack Industries. 2017. "QUADPACK INDUSTRIES, S.A. and Subsidiaries - Consolidated Annual Accounts and Management Report for the fiscal year ended on 31 January 2017." <https://www.quadpack.com/packbase/11582627/12686024-OMSOYOWD/f/QUADPACK%20INDUSTRIES%20CONS.%2031%2001%202017%20MEM%20-%20ENGLISH.PDF>.

Quadpack Industries. 2018. "QUADPACK INDUSTRIES, S.A. and Subsidiaries - Consolidated Annual Accounts and Management Report for the financial year ended on 31 January 2018." <https://www.quadpack.com/packbase/11582627/12686025-KKDPYNOG/f/QUADPACK%20INDUSTRIES%20CONS%20%2031%2001%202018%20EN.pdf>.

Quadpack Industries. 2019. "2019: Corporate Presentation September 2019." <https://www.quadpack.com/packbase/11582627/12806596-PJEBNTFO/f/Investor%20Relations%20PPT%20September%202019%20-%201.pdf>.

Quadpack Industries. 2019. "Half-year Financial Report as of 31st July 2019." <https://www.quadpack.com/packbase/11582627/12863823-TPEBOBTM/f/Quadpack%20-%20Half%20Year%20Financial%20Statements%20-%2031st%20July%202019.pdf>.

Quadpack Industries. 2019. "Hello! We are Quadpack - 2019 Annual Report." <https://www.quadpack.com/packbase/11582627/13051792-TRWJFLFN/f/Quadpack%20Annual%20Report%202019.pdf>.

Quadpack Industries. 2019. "QUADPACK INDUSTRIES, S.A. and Subsidiaries - Consolidated Annual Accounts and Consolidated Management Report for the financial year ended 31 January 2019." <https://www.quadpack.com/packbase/11582627/12728878-HAMBTIZD/f/QUADPACK%20INDUSTRIES%20CONS.%2031%2001%202019%20EN.pdf>.

Quadpack Industries. 2020. "2019 results propel Quadpack into the Top 10 European beauty packaging providers." [https://www.quadpack.com/packbase/11582627/13044631-EKRTMOIR/f/\(EN\)%202019%20Results-Relevant%20event.pdf](https://www.quadpack.com/packbase/11582627/13044631-EKRTMOIR/f/(EN)%202019%20Results-Relevant%20event.pdf).

References

Quadpack Industries. 2020. "Half-year Financial Report as of 31st July 2020." <https://www.quadpack.com/packbase/11582627/13125461-TJJMVGPY/f/Quadpack%20Half-Year%20report%20%202020.pdf>.

Quadpack Industries. 2020. "Hello! Impact Report 2020 - Helping to build a more sustainable world." <https://www.quadpack.com/packbase/11582627/13388813-WPYBFDVL/f/Quadpack%20-%20Impact%20Report%202020.pdf>.

Quadpack Industries. 2020. "QUADPACK INDUSTRIES, S.A. and Subsidiaries - Consolidated Annual Accounts and Consolidated Directors' Report for the year ended January 31, 2020. Includes Audit Report on the Consolidated Annual Accounts." <https://www.quadpack.com/packbase/11582627/13044632-SRODRVN/f/QUADPACK%20INDUSTRIES,%20S.A.%20GRUPO%202019-20%20EN.pdf>.

Quadpack Industries. 2020. "Quadpack's H1 2020 results: resilient profitability in a difficult environment." <https://www.quadpack.com/packbase/11582627/13128501-RHVBMARX/f/QP%20H1%202020%20results%20RE%20EN.pdf>.

Quadpack Industries. 2021. "Half-year Financial Report as of 31st July 2021." [https://www.quadpack.com/packbase/11582627/13523330-XWXDENG1/f/Quadpack%20Half%20Year%20Report%20-%202021%20\(EN\).pdf](https://www.quadpack.com/packbase/11582627/13523330-XWXDENG1/f/Quadpack%20Half%20Year%20Report%20-%202021%20(EN).pdf).

Quadpack Industries. 2021. "QUADPACK INDUSTRIES, S.A. and Subsidiaries - Auditor's Report, Consolidated Annual Accounts and Consolidated Directors' Report for the year ended 31 January 2021." <https://www.quadpack.com/packbase/11582627/13359601-TWIYWBPJ/f/CCAA%20QP%20INDUSTRIES%20CONSO%202020-2021%20EN.pdf>.

Silgan Holdings Inc. 2021. "2020 Annual Report." <https://silganholdingsinc.gcs-web.com/static-files/16eee89f-b45c-4058-b594-0cd0424bdfa8>.

Databases

Aswath Damodaran. 2021. "Data: Current". Retrieved from Damodaran Online: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datacurrent.html.

MSCI. 2021. "MSCI World Index (EUR)." Retrieved from MSCI: <https://www.msci.com/documents/10199/890dd84d-3750-4656-87f2-1229ed5a5d6e>

Euro Area Statistics. 2021. "Bank interest rates – Loans." Retrieved from Euro Area Statistics: <https://www.euro-area-statistics.org/bank-interest-rates-loans?cr=eur&lg=en&page=1&template=1>

Websites and Articles

Automat. "Why Is the Skincare Market Growing at Such Breakneck Speed?" Automat. Accessed September 30, 2021. <https://automat.ai/resources/skincare-market-growth/>.

Berg, Peter, David Feber, Anna Granskog, Daniel Nordigarden, and Suku Ponshe. "The Drive toward Sustainability in Packaging--beyond the Quick Wins." McKinsey & Company, January 31, 2020. <https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/the-drive-toward-sustainability-in-packaging-beyond-the-quick-wins>.

References

- Biron, Bethany. “Beauty Has Blown up to Be a \$532 Billion Industry - and Analysts Say That These 4 Trends Will Make It Even Bigger.” Business Insider. July 9, 2019. <https://www.businessinsider.com/beauty-multibillion-industry-trends-future-2019-7>.
- Euromonitor International. “Skin Care in Asia Pacific,” May 2021. <https://www.euromonitor.com/skin-care-in-asia-pacific/report>.
- European Commission. “Packaging Waste.” European Commission. Accessed October 10, 2021. https://ec.europa.eu/environment/topics/waste-and-recycling/packaging-waste_en.
- Forbes Business Insights. “Skincare Market Size, Share & Covid-19 Impact Analysis, by Product (Creams, Lotions, Powders, Sprays, and Others), Packaging Type (Tube, Bottle, Jar, and Others), Gender (Men and Women), Distribution Channel (Cosmetic Stores, Supermarkets/ Hypermarkets, Online Channels, and Others), and Regional Forecasts, 2021 – 2028.” Forbes Business Insights. August 2021. <https://www.fortunebusinessinsights.com/skin-care-market-102544>.
- Fortune Business Insights. “Makeup Market Size, Share & Covid-19 Impact Analysis, by Product (Powder, Gels, Lotions, and Others), Application Area (Lips, Eyes, Face, and Others), Distribution Channel (Supermarkets/Hypermarkets, Exclusive Brand Stores, Online/e-Commerce Channels, and Others), and Regional Forecast, 2021-2028.” Fortune Business Insights, November 2021. <https://www.fortunebusinessinsights.com/makeup-market-102587>.
- Gerstell, Emily, Sophie Marchessou, Jennifer Schmidt, and Emma Spagnuolo. “How Covid-19 Is Changing the World of Beauty.” McKinsey & Company. May 5, 2020. <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/how-covid-19-is-changing-the-world-of-beauty>.
- Grand View Research. “Airless Packaging Market Size, Share & Trends Analysis Report By Application (Personal & Home Care), By Product (Bags & Pouches, Bottles & Jars), By Material (Glass, Plastic, Aluminum), By Region, And Segment Forecasts, 2020 – 2027.”. Grand View Research, August 2020. <https://www.grandviewresearch.com/industry-analysis/airless-packaging-market>.
- Grand View Research. “Perfume Market Size, Share: Industry Trends Report, 2019-2025.” Grand View Research, June 2019. <https://www.grandviewresearch.com/industry-analysis/perfume-market>.
- IMARC Group. “Cosmetic Packaging Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026.” IMARC Group, September 2021. <https://www.imarcgroup.com/cosmetic-packaging-market>.
- IMARC Group. “Face Makeup Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026.” IMARC Group. Accessed September 28, 2021. <https://www.imarcgroup.com/face-makeup-market#:~:text=We%20expect%20the%20global%20face,4%25%20during%202021%2D2026>.
- IMARC Group. “Perfume Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2021-2026.” IMARC Group. Accessed September 28, 2021. <https://www.imarcgroup.com/perfume-manufacturing-plant>.
- Koons, Eric Stefan Kandelin. “Government Regulations of Cosmetic Packaging in the USA and the EU.” Desjardin Metal Packaging, April 14, 2019. <https://www.desjardin.fr/en/blog/government-regulations-of-cosmetic-packaging-in-the-usa-and-the-eu>.

References

- Market Research Future. “Sustainable Packaging Market to Reach USD 470.3 Billion by 2027 - Report by Market Research Future (MRFR).” GlobeNewswire, June 25, 2021. <https://www.globenewswire.com/en/news-release/2021/06/25/2253076/0/en/Sustainable-Packaging-Market-to-reach-USD-470-3-billion-by-2027-Report-by-Market-Research-Future-MRFR.html>.
- Mordor Intelligence. “Cosmetic Packaging Market - Growth, Trends, COVID-19 Impact, and Forecasts (2021 - 2026).” Research and Markets. January 2020. https://www.researchandmarkets.com/reports/5239278/cosmetic-packaging-market-growth-trends-covid?utm_source=GNOM&utm_medium=PressRelease&utm_code=74rt75&utm_campaign=1515887%2B-%2BGlobal%2BCosmetic%2BPackaging%2BMarket%2B%282021%2Bto%2B2026%29%2B-%2BGrowth%2C%2BTrends%2C%2BCOVID-19%2BImpact%2C%2Band%2BForecasts&utm_exec=jamu273prd.
- Mordor Intelligence. “Glass Packaging Market: Growth, Trends, Covid-19 Impact, and Forecasts (2021 - 2026).” Accessed September 15, 2021. <https://www.mordorintelligence.com/industry-reports/glass-packaging-market>.
- Norton Rose Fulbright. “Due Diligence in the Time of Covid,” January 2021. <https://www.nortonrosefulbright.com/en/knowledge/publications/ce966575/due-diligence-in-the-time-of-covid>.
- Patel, Kison. “Private Equity Due Diligence: How to Conduct It Properly.” DealRoom, November 6, 2021. <https://dealroom.net/blog/private-equity-due-diligence>.
- Quadpack Industries. “Quadpack Closed Industries 2017 with EUR 90.7m Turnover and 29% Growth.” Actusnews Wire, July 24, 2018. https://www.actusnews.com/fr/quadpack/cp/2018/07/24/quadpack-industries-closes-2017-with-eur-90_7m-turnover-and-29-per-cent-growth.
- Quadpack Industries. “Brivaplast Mascaras: Making the Formula Work,” April 3, 2012. <https://www.quadpack.com/assets/11034239/brivaplast-mascaras-making-the-formula-work/?action=downloadpdf>.
- Qorpak. “Federal Packaging Regulations in the US: National Requirements.” Qorpak. Accessed October 10, 2021. <https://www.qorpak.com/pages/packaging-regulations-united-states>.
- Redding, Marie. “Key Insights on Lip Color & Mascara Packaging.” Beauty Packaging, March 2, 2021. https://www.beutypackaging.com/issues/2021-01-01/view_features/key-insights-on-lip-color-mascara-packaging/%20-%20mascara.
- Schuetze, Arno. “Private Equity's Falling out of Love with Plastic Packaging.” Reuters, May 20, 2021. <https://www.reuters.com/business/sustainable-business/private-equitys-falling-out-love-with-plastic-packaging-2021-05-20/>.
- Urbanowicz, Nicole. “Quadpack's 3 Mesh Foamer Boosts Rich Foam Volume.” Global Cosmetic Industry, August 28, 2015. <https://www.gcimagazine.com/packaging/news/21854649/quadpacks-3-mesh-foamer-boosts-rich-foam-volume>.

References

U.S. News. “Top 10 Countries for Technological Expertise, Ranked by Perception.” U.S. News, May 18, 2021. <https://www.usnews.com/news/best-countries/slideshows/top-10-countries-for-technological-expertise-ranked-by-perception>.

V.G. “Quadpack Continues to Invest in Its Production Unit.” Premium Beauty News, August 29, 2016. <https://www.premiumbeautynews.com/en/quadpack-continues-to-invest-in,10183>.

V.G. “Quadpack Partners with Inotech to Boost Packaging Innovation and Product Offer.” Premium Beauty News, September 17, 2019. <https://www.premiumbeautynews.com/en/quadpack-partners-with-inotech-to,15576>.

Journal, Wall Street. “TMBMKDE-10Y | Germany 10 Year Government Bond Price & News.” Dow Jones & Company. Accessed December 6, 2021. <https://www.wsj.com/market-data/quotes/bond/BX/TMBMKDE-10Y>