

# SPOTLIGHT

## **Acquiring a Taste – Trends and Momentum in the Flavors & Fragrance Industry**

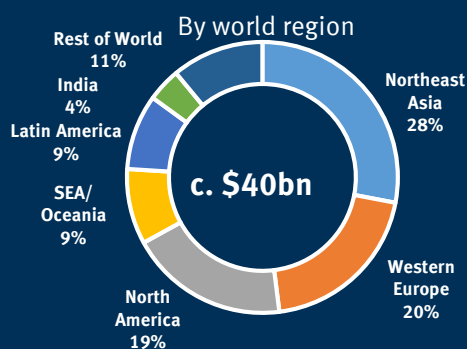
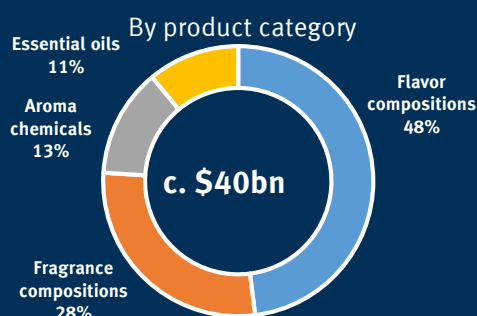
- Sector overview
- Mega trends
- Deal activity



November 2023

The market for Flavors & Fragrances had a size of \$42.6bn<sup>1</sup> in 2021, growing at a rate of 3.6%<sup>1</sup> p.a. until 2026, driven by increased demands in luxury, health, and overall lifestyle quality in Asia and Africa

### Worldwide F&F demand in 2021



Stifel chemicals team members have deep knowledge of F&F ingredients across key end-markets.



**Amit Joshi**  
Managing Director  
London  
P: +44 2034 651132  
M: +44 7796 199365  
E: amit.joshi@stifel.com



**Dr. Bernd Schneider**  
Managing Director  
Frankfurt  
P: +49 6978 808390  
M: +49 1511 6230617  
E: bernd.schneider@stifel.com



### Introduction

Flavors & Fragrances are specialized chemicals either of natural or synthetic origin, evoking certain taste and smell notes. Products have been used for centuries – the early Egyptians used perfumed balms during religious ceremonies – although the industry surged in the 20<sup>th</sup> century with the emergence of technology facilitating the extraction of essential oils from plants.

### Industry Landscape

Today, worldwide consumption of F&F products amounts to > \$40bn per annum, growing annually at c. 3.5%. The industry has consolidated significantly: in 1985, 23 companies accounted for approximately 57% of F&F product sales globally; in 2020, the 7 largest companies held an estimated 57% of worldwide product sales. Consolidation has continued apace, as seen in the mergers of IFF with DuPont Nutrition & Biosciences (2021) and DSM with Firmenich (2023).

In spite of this, a long tail of F&F producers persists, producing specialized products that serve local tastes. The majority of F&F houses worldwide have < \$100m in annual sales, confining operations to domestic or regional markets. This is seen most prominently in the Indian F&F market, where > 1,000 domestic F&F manufacturers account for < 50% of India's compositions market.

### Products

#### Essential Oils & Natural Extracts

Essential oils and natural extracts represent the key ingredients in production of F&F compositions. Orange essential oil is the volume leader with production of 60-70kt annually, followed by corn mint oil, eucalyptus, lemon and peppermint. Roughly 200 – 250 products account for the balance of production.

Regional strengths vary across essential oils. Brazil is the global leader in orange, while India is a major supplier in mint, Argentina is a leader in lemon, the US leads in peppermint and spearmint and China leads in anise, cassia, citronella and eucalyptus.

### Essential Oils – Regional Production Focus





## Key Industry Trends (1/3)

### Plants Based Foods & Alternative Proteins

- In 2019, Firmenich launched a portfolio of “Smart Protein” solutions addressing challenges in flavour release, texture control and ingredient inter-reaction;
- In 2021, Firmenich opened a SmartProteins Innovation Hub in Singapore
- In 2022, Symrise launched its Protiscan™ technology, offering customers the ability to characterize raw material profiles through rapid, multidimensional screening of volatile substances

### Standardization

- International corporations (e.g. Starbucks, McDonald's) are increasingly using standardized flavour ingredients to provide a truly global consumer experience

### Aroma Chemicals

Aroma chemicals consist of a group of > 4,000 individual substances used in F&F compositions, although few are used in quantities larger than 500 tons per year. Most chemicals are synthetic. In 2021, terpenes / terpenoids and benzenoids accounted for over two thirds of aroma chemical consumption volumes. Northeast Asia, in particular China, accounted for c. 40% of global consumption.

### Key Industry Trends

#### Plant Based Foods & Alternative Proteins

Alternative proteins and development of supporting technologies in dry extrusion, wet extrusion, 3D printing, moulding, cultured meat and biomass fermentation has been a major growth area. For sustainability and health-related reasons, consumers are moving away from orthodox meat to new proteins. Key players have

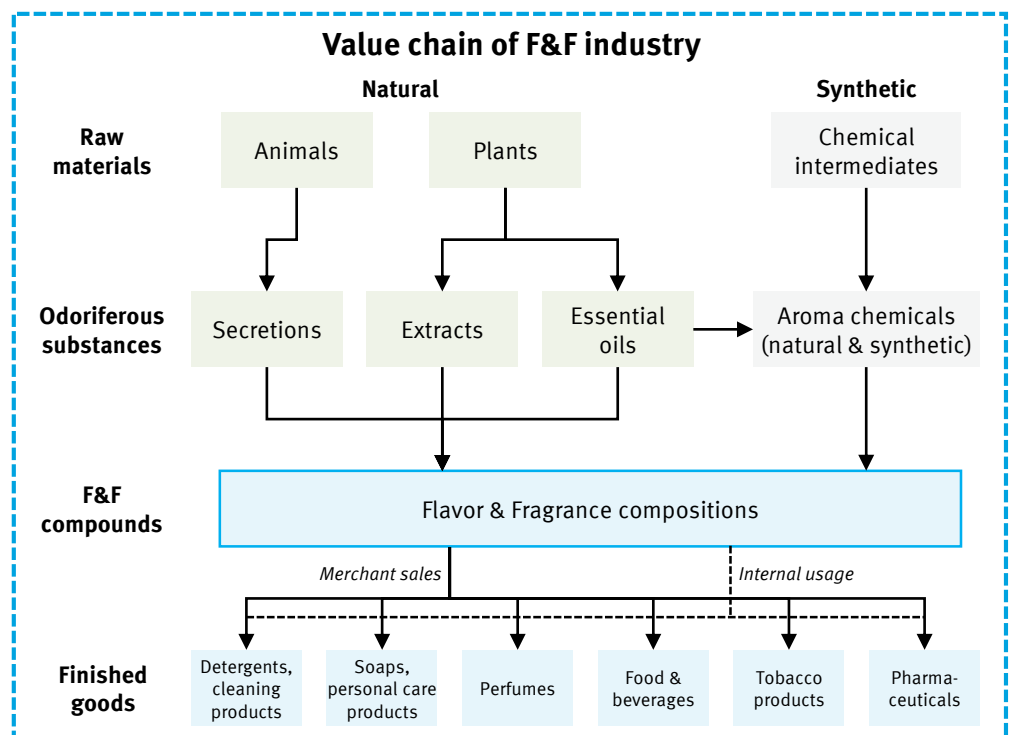
invested heavily in technologies enhancing meat flavour profiles in plant-based proteins.

### Natural Ingredients

Key industry players report that the pandemic heavily accelerated the movement of consumers towards natural products and ingredients. Consumer surveys indicate the younger customers are driving a trend towards “natural” food & cosmetic choices that are minimally processed, sport clean labels with an ethical and transparent supply chain

### Sustainability

The industry-wide investment in expanding portfolios of natural flavors & fragrances has been accompanied by a push for greater transparency in supply chains, and a reduction in environmental footprint. Manufacturers are taking greater steps to protect rare / endangered plant species and preserve biodiversity.



## Key Industry Trends (2/3)

### Natural Ingredients

- In 2021, Firmenich utilised novel proprietary technology extracting odorants from biomass cells through electromagnetic vibration to launch a new range of pure, 100% natural extracts in its Firgood™ collection;
- In 2023, Symrise launched a new range of diana food™ bioactives, composed of natural bioactives including collagen type I and vitamins C & A, sourced from fruits;
- In 2023, IFF launched AURIST™ AGC, based on advanced biotechnology to create a novel class of biobased polysaccharides, for use in hair care products;
- Overall, even though an increasing number of even highly complex ingredients can be chemically synthesized at competitive prices, the trend is to return to naturally derived ingredients instead of synthesized ingredients

### M&A Activity

Recent years have seen a number of large-scale transformational deals within the F&F market segment. Deals have been driven by several factors.

#### 1. Full Service Offering

The ability to combine delicate F&F profiles with end ingredients and ensure reliable, consistent product offerings has taken on greater importance, as manufacturers grapple with novel challenges in health foods and natural ingredients. Offering the taste of meat in a plant-based product, for example, becomes easier if one also manufactures the nutritional component of the product itself. Likewise, release of fragrances in laundry detergent is simpler if you are also manufacturing active ingredients such as enzymes within the detergent itself.

This was a major driver behind IFF's merger with DuPont's Nutrition & Biosciences business in 2021, enabling IFF to combine its leadership in taste & scent with DuPont N&B's #1 positions in cultures, enzymes and probiotics.

Post-merger, the combined business is capable of delivering integrated solutions almost entirely in-house.

The push for a full-service offering was additionally seen in the merger of equals between DSM and Firmenich. Following DSM's sale of its high performance polymers business and subsequent transition to a dedicated health, nutrition & biosciences player, the merger with Firmenich was a logical next-step adding global #1 positions in F&F ingredients, fine fragrances and natural ingredients to the DSM portfolio.

#### 2. Natural Ingredients

Selective bolt-ons adding unique portfolios of natural ingredients has likewise represented a major area of activity in recent years. Clariant's acquisition in 2021 of Beraca Ingredientes secured access to a range of fully-certified organic natural plant extracts, vegetable oils and minerals. In 2023, Givaudan further acquired a range of biomanufactured molecules from Amyris, accelerating expansion of its Active Beauty Business.

### Key transactions in the sector

Target	Buyer	Date	EBITDA Multiple	Strategic Rationale
		Feb-23	n/a	US expansion, acquisition of competitor
		Feb-23	n/a	Divestment of Flavor Specialty Ingredients to a PE
		Dec-22	n/a	Divestment of Savory Solutions Group to a PE
		Dec-22	30.1x	Merger in enzyme/flavor chemicals
		Jul-22	c. 12.5x	Acquisition of major cacao/chocolate player
		May-22	c. 28.7x	Merger between two major F&F players
		Feb-22	n/a	Expansion into Asian cosmetics additive space



### Key Industry Trends (3/3)

#### Sustainability

- In 2021, Clariant acquired 70% of Beraca Ingredientes, a supplier of essential oils, clays, butters and bioscrubs sustainably harvested from Brazilian biomes
- In 2021, Firmenich partnered with French vertical farming start-up Jungle in a world-first, to produce sustainably sourced lily of the valley extract for fine perfumes;
- In 2023, DSM-Firmenich launched EcoScent Compass®, a next-generation science-based impact measurement tool for eco-fragrance design, spanning 45 fragrance and 20 ingredients claims;
- With increasing global awareness for health - functional ingredients (e.g. vitamins) will become more and more part of F&F compositions

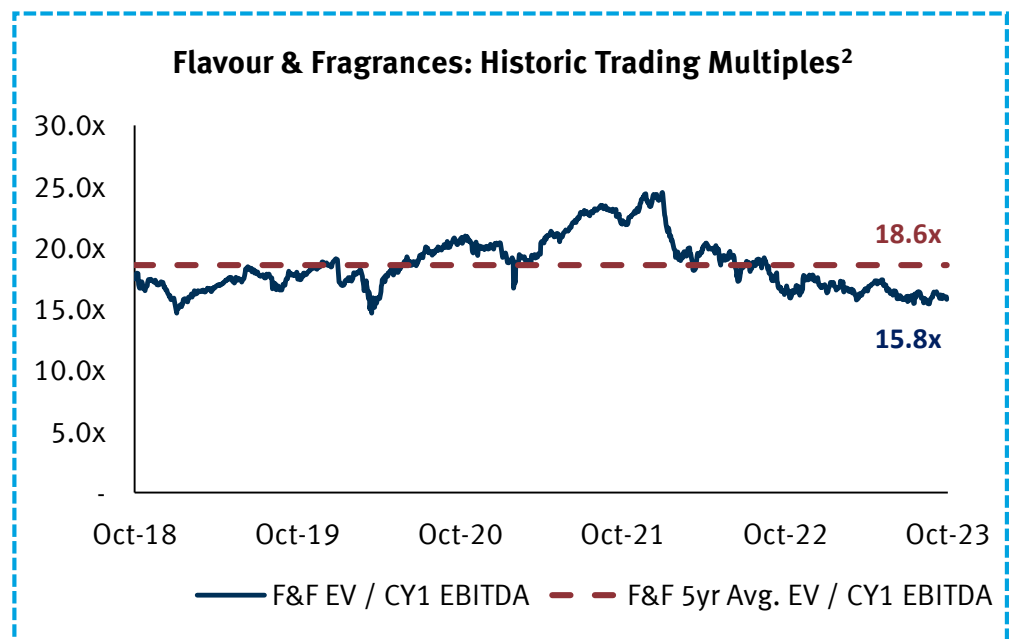
### 3. Portfolio Streamlining

The flurry of transformational M&A the F&F space saw in 2020-22 has been followed by a focus on portfolio rebalancing and optimisation, as some businesses seek to reduce significant debt burdens while capitalising on relatively high transaction multiples. IFF's \$900m sale of its Savory Solutions Business at c. 14x LTM EBITDA, combined with the \$220m sale of its Flavor Specialty Ingredients Business, are prime examples. With Q2 leverage still at 4.5x, and customer destocking expected through 2H23, further divestments of Protein Solutions and Lucas Meyer Cosmetics are expected in the medium term.

### Valuations: Key Players

While elevated versus the market as a whole, trading multiples for key F&F players have been challenges in the past c. 18 months and currently stand c. 15% below their historic 5-year average.

Significant customer destocking following an accumulation of inventories has been the primary driver behind a recent fall in multiples. In the previous downturn in 2008/09, major ingredients players saw between 2 and 4 quarters of volume declines, trading weakness and a customer trade-down to value offerings. While US and European FMCG inventories have unwound sharply, a significant improvement in consumer outlook will be necessary for multiples to rise again.



All major F&F companies have engaged in large-scale corporate development to diversify their product bases

Movement goes both up-/down-stream and horizontally in order to profit from market trends such as changing customer demands and higher raw material costs



### Valuation:

In general, the valuation of F&F players is higher than most other chemicals businesses due to their exposure to the higher margin luxury and nutrition markets.

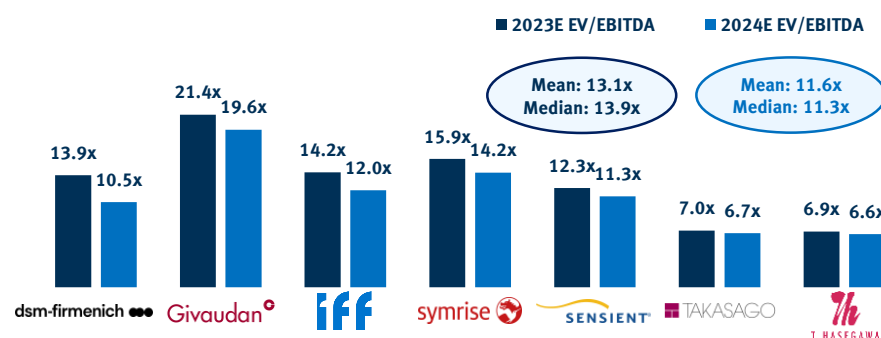
In the case of DSM-Firmenich, the share price has dropped by 33% since the merger in April 2023, owing to low confidence in future synergies. At the same time, due to destocking, previous oversupply, and inflationary pressure on prices, H123 EBITDA decreased by 21%. In turn, forward EBITDA multiples are lower relative to peers.

Givaudan, in turn, one of DSM-Firmenich's closest competitors with a more fragrance-focused portfolio (DSM was mainly feed/food), has seen a stable market valuation supported by ongoing revenue in Fine Fragrances and high-growth markets. In contrast,

increased costs and lowered revenue in Taste & Wellbeing contributed to a 7% reduction in EBITDA and thus higher EBITDA multiples relative to peers.

On the other side of the valuation range, the two major Japanese players, Takasago and Hasegawa, have similar EBITDA multiples, despite different margins and growth prospects. Takasago's share price has been under pressure for several years already, and slowing profits and lowered margins (especially in North America) moved the market valuation further down into a multiple driven by economics. While Hasegawa experienced a rise in share price in 2023, overall EBITDA growth due to strong positioning in the Japanese flavour market kept the valuation by EBITDA multiple low in relation, and not strictly driven by economics.

### Public Company Valuations



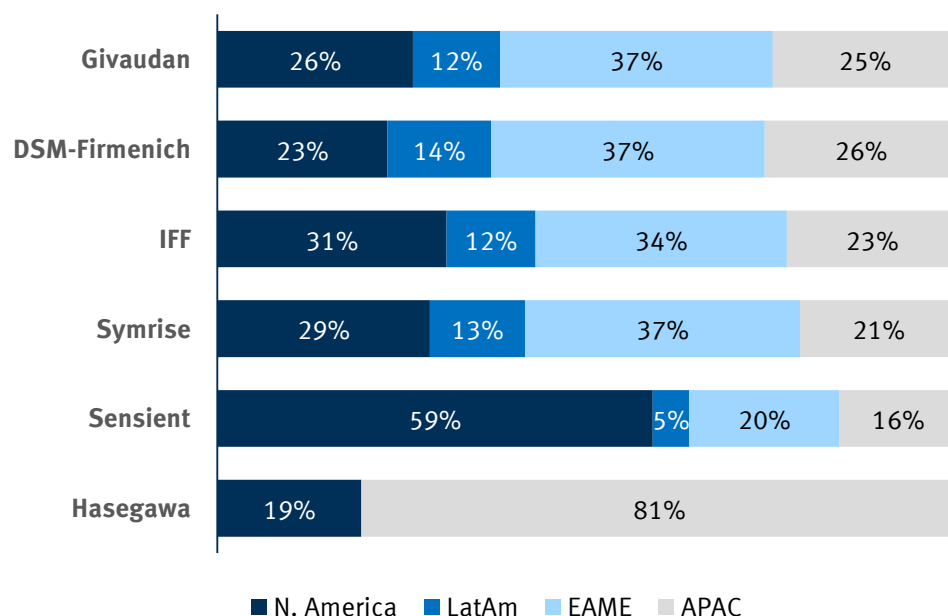
Country							
EV (€m)	23,049	33,235	26,189	15,005	2,949	600	571
Market Cap (€m)	21,007	27,811	15,873	12,518	2,276	357	766
2023E EBITDA Margin	14.0%	21.7%	16.8%	19.5%	16.8%	7.1%	19.7%
2024E EBITDA Margin	16.7%	22.4%	19.2%	20.7%	17.4%	7.4%	19.7%
2022-24E Rev. CAGR	25.0%	1.4%	(2.3%)	5.0%	4.6%	8.2%	5.0%
2022-24E EBITDA CAGR	33.1%	9.5%	0.8%	7.9%	4.9%	(5.7%)	5.0%



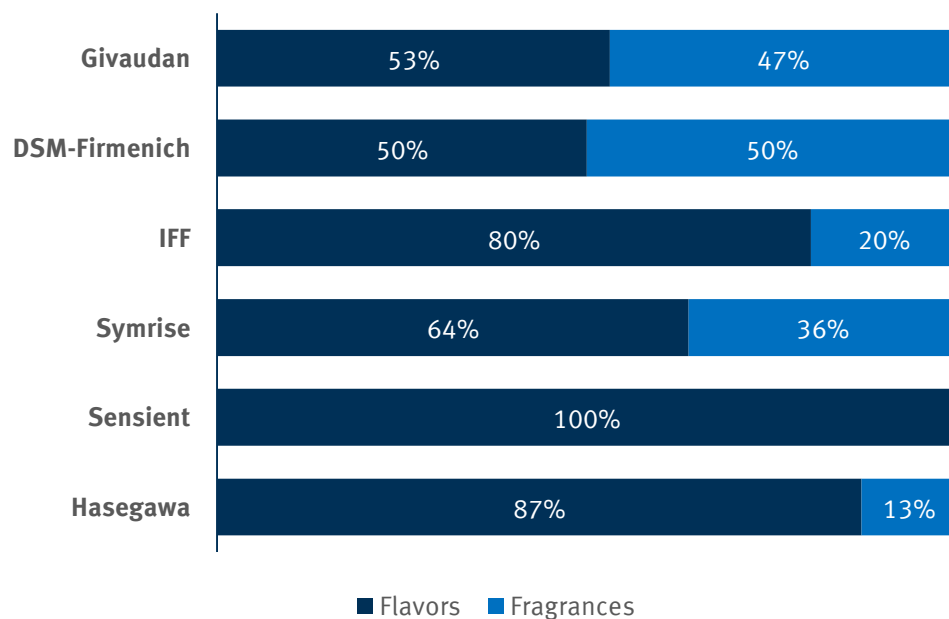
All major F&F companies have engaged in large-scale corporate development to diversify their product bases

Movement goes both up-/down-stream and horizontally in order to profit from market trends such as changing customer demands and higher raw material costs

### Peer Benchmarking: Revenue by Geography



### Peer Benchmarking: Revenue by Product Category





We have an experienced dedicated chemicals investment banking team with coverage over key regions supported by strong product teams globally

The Global Chemicals Team at Stifel has successfully closed 40+ transactions since 2018<sup>1</sup>

## Global Chemicals Team



**Dr. Bernd Schneider**  
Managing Director  
Frankfurt



Global Co-Head of Chemicals



**Aamit Joshi**  
Managing Director  
London



Global Co-Head of Chemicals



**Amitabh Ghule**  
Director  
London



Deal Execution Leader



**Atul Sehgal**  
VP  
London



Deal Execution Leader



**Finn Kristensen**  
Associate  
London



Deal Execution Team Member



**Lukas Holz**  
Analyst  
Frankfurt



Deal Execution Team Member



**Michael Zero**  
Analyst  
London



Deal Execution Team Member



**Mert Erel**  
Analyst  
London



Deal Execution Team Member



**Luca Cavaliere**  
Analyst  
Frankfurt



Deal Execution Team Member

## Select credentials<sup>1</sup>



Not Disclosed



Not Disclosed



Not Disclosed



Not Disclosed



Not Disclosed

(1) Includes deals executed by Stifel Chemicals Team since 2021

This presentation is provided for informational purposes only and is not intended to, and does not, constitute a recommendation with respect to any potential transaction or investment. Any opinions expressed are solely those of Stifel and applicable only as at the date of this presentation. This presentation is necessarily based upon economic, market, financial and other conditions as they exist on, and on the information made available to Stifel as of, the date of this presentation, and subsequent developments may affect the analyses or information set forth in this presentation. This presentation does not purport to give legal, tax or financial advice. Recipients should not rely on the information contained in this presentation and must make their own independent assessment and such investigations as they deem necessary. Stifel is not soliciting any action based upon this presentation. This presentation does not constitute or form part of any offer or invitation to sell, or issue, or any solicitation to any offer to purchase or subscribe for, any shares, financial instruments, or other securities, nor shall it (or any part of it), or the fact of its distribution, form the basis of, or be relied on in connection with or act as any inducement to enter into, any contract whatsoever relating to any securities, financial instruments or financial services of Stifel or of any other entity or constitute an invitation or inducement to any person to underwrite, subscribe for or otherwise acquire securities. The information in this presentation is not complete and is based upon information that Stifel considers reliable, but it has not been independently verified. Stifel does not represent, guarantee, or warrant, expressly or implicitly, that this presentation or any part of it is valid, accurate or complete (or that any assumptions, data or projections underlying any estimates or projections contained in the presentation are valid, accurate or complete), or suitable for any particular purpose, and it should not be relied upon as such. Stifel accepts no liability or responsibility to any person with respect to, or arising directly or indirectly out of the contents of or any omissions from this presentation.

The distribution of this presentation may be restricted by law. Accordingly, this presentation may not be distributed in any jurisdiction except in accordance with the legal requirements applicable to such jurisdiction. Persons into whose possession this document comes are required to inform themselves about and to observe any such restrictions. No person shall be treated as a client of Stifel, or be entitled to the protections afforded to clients of Stifel, solely by virtue of having received this document.

Information in this presentation may include forward looking statements, which are based on current expectations and projections about future events. These statements may include, without limitation, any statements preceded by, followed by or including words such as "target", "believe", "expect", "aim", "intend", "may", "anticipate", "estimate", "plan", "project", "will", "can have", "likely", "should", "would", "could" and any other words and terms of similar meaning or the negative thereof. These forward looking statements are subject to risks, uncertainties and assumptions about the underlying company and its subsidiaries and its investments, including, among other things, the development of its business, trends in its operating environment, and future capital expenditures and acquisitions. The forward looking statements in this presentation speak only as at the date of the presentation. Further, certain forward looking statements are based upon assumptions of future events which may not prove to be accurate and neither the company, Stifel nor any of their respective associated persons, affiliates or subsidiaries, nor any other person accepts any responsibility for the accuracy or fairness of the opinions expressed in the presentation or the underlying assumptions. Actual events or conditions are unlikely to be consistent with, and may differ significantly from, those assumed. In light of these risks, uncertainties and assumptions, the events in the forward looking statements may not occur. No representation or warranty is made that any forward looking statement will come to pass. No one undertakes to update, supplement, amend or revise any forward looking statements. The recipient is therefore cautioned not to place any undue reliance on forward looking statements.

#### Independence of Research

Stifel prohibits its employees from directly or indirectly offering a favorable research rating or specific price target, or offering to change a rating or price target, as consideration or inducement for the receipt of business or for compensation.

#### Basis of Presentation

References herein to "Stifel" collectively refer to Stifel, Nicolaus & Company, Incorporated, Stifel Nicolaus Europe Limited, Stifel Europe Bank AG, Stifel Nicolaus Canada Inc. and other affiliated broker-dealer subsidiaries of Stifel Financial Corp. References herein to "Stifel Financial" refer to Stifel Financial Corp. (NYSE: SF), the parent holding company of Stifel and such other affiliated broker-dealer subsidiaries. Unless otherwise indicated, information presented herein with respect to the experience of Stifel also includes transactions effected and matters conducted by companies acquired by Stifel (including pending acquisitions publicly announced by Stifel), or by Stifel personnel while at prior employers.

Stifel Nicolaus Europe Limited ("SNEL") is authorised and regulated in the United Kingdom by the Financial Conduct Authority ("FCA") whose address is 12 Endeavour Square, London, E20 1JN. SNEL is incorporated in England and Wales under company number 03719559 and its registered office is at 4th Floor, 150 Cheapside, London EC2V 6ET. SNEL's FCA Firm Reference Number is 190412. Stifel Europe Bank AG ("SEBA") is authorised and regulated in Germany by the German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht, or "BaFin") whose address is Graurheindorfer Str. 108, 53117 Bonn, Germany and Marie-Curie-Straße 24-28, 60439 Frankfurt a.M., Germany. SEBA is incorporated in Frankfurt a.M., Germany, HRB No 53261 and its registered office is at Kennedyallee 76, 60596 Frankfurt a.M./ Germany. SEBA's BaFin Firm ID is 118363. Stifel Europe Advisory GmbH ("SEAG") is incorporated in Germany and registered with the local court of Frankfurt am Main under registration number HRB 101001

Copyright 2023 Stifel. All rights reserved.