Scandinavia - Denmark Commissioned Research - Initiation of Coverage

# **Ready for takeoff**

FOM is active in the small but fast growing market for coating solutions to the renewable energy sector. The client list reveals a market leading position. We expect continued double-digit revenue growth with bottom-line profits.

# Hypergrowth market

We estimate FOM's addressable market to grow by 40-50% annually in the coming 5 years. The strong growth is a function of high demand and a small base. We estimate FOM's addressable market to be worth USD ~20m which could grow to USD ~128m by 2026. We forecast FOM's sales to grow in line with the market from DKK 24m in 2021 to DKK 77m in 2024 (CAGR +47%) with Net profits increasing from DKK 1.6m to DKK 4.6m during the same period.

## Market leading position

The client list includes XEROX, First Solar (PV), Rivian (EV), Livent (Lithium batteries), and the US Department of Energy. Why do global corporations buy coating machines from a small Danish company? We believe it is because they provide the best product i.e., FOM is the market leader in our view.

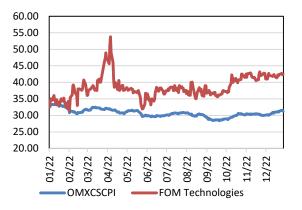
### Base case Fair value DKK 55.00/shr.

Our Base case DCF Fair value is DKK 55.00/shr., which assumes a terminal EBIT margin of 15%. We believe FOM could be in the beginning of a long-term above normal growth journey driven by the renewable energy industry's need for new coating solutions.

### Key figures (MDKK)

	2020	2021	2022E	2023E	2024E
Net sales	6.8	24.2	48.0	60.0	76.5
Net sales growth	-17.9%	256.6%	98.3%	25.0%	27.5%
EBITDA	-5.9	1.6	2.8	4.2	6.0
EBITDA margin	-87.2%	6.8%	5.7%	7.0%	7.9%
EBIT	-6.0	1.6	2.7	4.0	5.9
EBIT margin	-87.7%	6.5%	5.5%	6.7%	7.7%
EV/Sales	44.6	11.8	6.9	5.5	4.3
ev/ebitda	-51.1	172.8	121.0	79.4	54.3
EV/EBIT	-50.9	180.8	125.4	82.0	56.1
P/E adj.	-52.4	176.4	161.2	110.2	76.2
P/BV	26.3	21.5	12.1	10.9	9.6
EPS adj.	-0.80	0.22	0.28	0.41	0.59
EPS growth adj.	nm	nm	25.25%	46.26%	44.72%
Div. per share	0.00	0.00	0.00	0.00	0.00
Dividend yield	0.00%	0.00%	0.00%	0.00%	0.00%

Fair value range (DKK)	
Bull (term. EBIT marg. 20%)	73.80
Base (term. EBIT marg. 15%)	55.00
Bear (term. EBIT marg. 10%)	36.20
Key Data	
Price (DKK)	44.70
Ticker	FOM
Country	Denmark
Listed	FN Denmark
Market Cap (DKKm)	348
Net debt (DKKm)	0
Shares (m)	7.8
Free float	40.39%



Price range	
52-week high	53.80
52-week low	31.50

### Analyst

ResearchTeam@enlightresearch.net

### Coverage frequency

On Demand

**Enlight Research** 

# **Table of Contents**

Key Investment Factors	3
Valuation	8
Forecast	10
Company description	12
Market overview	17
Risk factors	18
Financials	19
Disclaimer	21

# **Key investment factors**

### FOM in the sweet spot that grows 40-50%

FOM is fully focused on the relatively inexpensive (EUR 15K to ~1m/machine) small flexible coating machines used by R&D/lab departments when innovating new products. We believe this is the sweet spot of the coating machinery market with an estimated annual growth rate of 40-50% in 2022-24. This growth is primarily driven by the need for new coating applications within the renewable energy industry such as e.g., solar panels (PV) and lithium batteries (EVs, fuel cells). In our view, FOM's addressable market is a derivative of the fast growing PV and EV battery markets. The PV market was estimated to be worth USD 199bn in 2021 and grow to USD 1,000bn by 2028E corresponding to a CAGR of 26% (marketsandmarkets.com), while the EV battery market was estimated to be worth USD 46bn in 2021 and grow to USD 560bn by 2030E corresponding to a CAGR of 32% (precedenceresearch.com). FOM is not active in the segment for expensive (EUR >1m) large scale production coating machines typically sold to manufacturing departments, which we believe is a sound strategy as this market likely has a slower growth (we estimate ~5-10%) and is dominated by big players such e.g., Kroenert. The global coating equipment market is estimated to grow from USD 18.9bn (DKK 131bn) in 2021 to USD 24.7bn (DKK 171bn) in 2026 corresponding to a CAGR of 5.6% (MarketsandMarkets.com). We estimate the market for small flexible coating machines where FOM is active to be worth USD 20m (DKK 154m), which is less than 1% of the total market. We recognize FOM's addressable market is small, but this is also one of the reasons 40-50% annual growth is possible for several years forward. We forecast FOM to grow in line with its addressable market i.e., 40-50% per annum in the forecast period 2022-24E, which implies a market share of around 31%.

### Flexible Coating Machinery is the Sweet Spot



Flexible coating machinery (DKK ~154m, growth 40-50%) Clients: R&D depts. and Laboratories Machine pricing point: EUR 15K to ~1M/machine Main players: FOM, nTact, Coatema

Source: Market size estimate based on sales figures from zoominfo.com, German company register, FOM reports, MarketsandMarkets

Coating equipment market for small machines							
Company	Revenue (DKKm)	Mkt shr.					
nTact	46	30%					
Coatema	50	32%					
FOM Tech.	48	31%					
Others	10	6%					
FOM's Total Addressable Market	154	100%					

\*Enlight Research estimate based on company reports and websites (exact figures not available as FOM's peers are privately held), assumed USD/DKK exchange rate 7.74

## **Clients reveal market leading product**

Why would global leading corporations (Apple, Xerox, First Solar, Livent, Rivian) and government organization such as the U.S. Department of Energy buy coating machines from a small Danish company like FOM with 24 employees and around DKK 48m (EUR 6.5m) in sales? In our view, the answer is simple – FOM makes the best products and offers the best service/support. It is also true that the number of suppliers is limited, and the current addressable market is small which is illustrated by our estimated addressable market size of DKK ~154m (USD ~20m) that is mainly divided by three players (FOM, Coatema, nTact). However, we regard the small market size as positive as it paves the way for hypergrowth driven by the demand for new coating solutions from the renewable energy industry. In the coming years, we expect FOM to leverage on its tier 1 client base and leapfrog its competitors in terms of sales to become the clear leader in the market for flexible mid-priced coating machines.

Client	Description
xerox	XEROX R&D department buys a FOM equipment to explore different coating solutions.
First Solar.	First Solar, America's largest solar panel manufacturer buys a FOM equipment to R&D how to increase the efficiency of solar panels.
🗞 RIVIAN	Electric vehicle manufacturer, Rivian, buys a FOM equipment to do battery R&D
🔄 Livent	Lithium battery manufacturer, Livent, buys FOM equipment to find ways to improve energy storage
U.S. DEPARTMENT OF	U.S. Department of Energy buys FOM equipment and Argonne National Laboratory buy FOM equipment to R&D solid electrolyte lithium batteries
Cepishine	Epishine, the leading manufacturer of solar cells that can run on indoor lighting, buys FOM equipment. One example of application are electronic price tags that run on indoor solar panels which would replace thousands of small batteries.

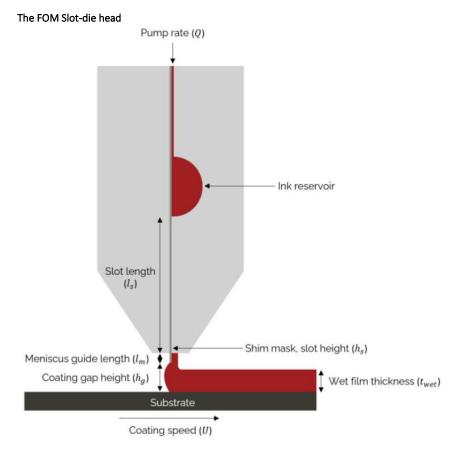
### Samples of FOM's +100 clients

Source: Company presentation, Company reports

# Unique product

The key characteristics that make FOM's coating machines unique are:

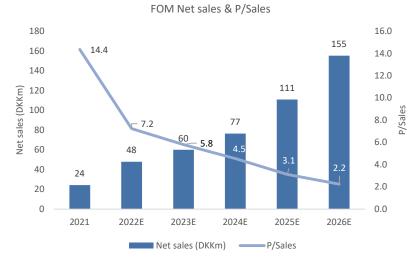
- Ultra-thin coating: the thickness of the coating layer
- Uniform coating: the difference/variance in the height of the coating (smoothness of surface)
- Small machine size: FOM's machines are 1/20 to 1/10 of the size of a large machine which makes them ideal for R&D departments and lab environments.



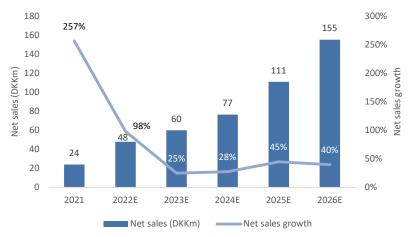
Source: Company presentation

### Profitable high growth implies upside

Our DCF Base case Fair value (FV) per share is DKK 55.00, implying an upside of around 23%. Our FV is underpinned by 25-98% sales growth in the forecast period 2022-24 and 40-45% in 2025-26, as well as a terminal EBIT margin of 15% (see DCF valuation for details). FOM's estimated P/Sales 2022 multiple of 7.2x is lower than the listed peers we have found. Worth noting is that there are no exact peers listed, but we have found two Swedish companies (Impact Coatings, Freemelt) that are similar in size and product offer (see peer valuation for details). Given our assumed sales growth of 25-98% in the forecast period 2022-24, the estimated P/Sales multiple comes down to 4.5x in 2024, which we regard as attractive as we expect double-digit growth beyond 2024 as well. Furthermore, we forecast the growth to materialize with profitability at both the EBIT and the Net profit line. In 2021, FOM grew its Net sales by 257% with an EBIT of DKK 1.6m. Considering this, our forecast period 2022-24 EBIT improvement from an estimated DKK 2.7m to 5.9m appears plausible in our view.



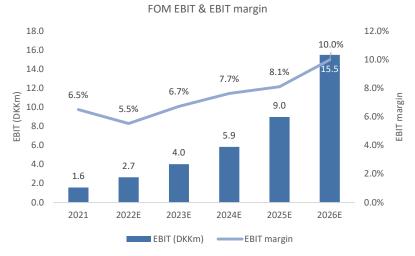
Source: Company reports (historical), Enlight Research (estimates), based on share price of DKK 44.70



FOM Net sales & Net sales growth

Source: Company reports (historical), Enlight Research (estimates)

**Enlight Research** 



Source: Company reports (historical), Enlight Research (estimates)

# Valuation

# **DCF** valuation

Our Base case DCF Fair value per share is DKK 55.00 indicating an upside of around 23%. Our Bear and Bull case Fair value per share are DKK 36.20, and DKK 73.80, respectively. Our assumed terminal EBIT margin for the Base case is 15% while it is 10% for the Bear case, and 20% for the Bull case (all other parameters are the same).

DCF Valuation Scenarios	Bear	Base	Bull
WACC	8.3%	8.3%	8.3%
Terminal sales growth	3.0%	3.0%	3.0%
Terminal EBIT margin	10.0%	15.0%	20.0%
Fair Value per share	36.20	55.00	73.80
Upside/Downside (last price)	-19%	23%	65%
FOM Technologies share price (DKK)	44.70	44.70	44.70
Source: Enlight Research			

DCF sensitivity table	Current	Step					Test	values & Re	sults				
Equity beta	1.15	0.10	0.65	0.75	0.85	0.95	1.05	1.15	1.25	1.35	1.45	1.55	1.65
Fair value (DCF)	55.00		86.99	78.44	71.21	65.02	59.67	55.00	50.89	47.25	44.01	41.10	38.48
Target debt ratio*	34.2 %	4.0 %	14%	18%	22%	26%	30%	34%	38%	42%	46%	50%	54%
Fair value (DCF)	55.00		37.50	40.23	43.28	46.70	50.58	55.00	60.07	65.96	72.85	81.04	90.89
Risk-free interest rate	3.0 %	0.5 %	0.5 %	1.0 %	1.5 %	2.0 %	2.5 %	3.0 %	3.5 %	4.0 %	4.5 %	5.0 %	5.5 %
Fair value (DCF)	55.00		89.51	80.12	72.28	65.63	59.93	55.00	50.69	46.89	43.53	40.53	37.84

Source: Enlight Research, \*Debt / (Debt + Equity)

# Peer valuation

There are no exactly similar listed peers to FOM. Rather than use a large irrelevant peer group, we compare FOM to below two Swedish listed companies that are fairly similar in size and product offer.

**Impact Coatings** develop and offer coating solutions. The company has a market cap of DKK 188m (FOM DKK 348m) and an estimated sales this year of DKK 55m (FOM DKK 60m) i.e., close to FOM. The focus is on expensive high-volume coating machines to manufacturing departments which is different from FOM's focus on lower priced flexible machines to R&D/Lab departments. Impact Coatings also offer "coating as a service". According to the research firm, Redeye, the 2022 sales are expected to decline 42% to SEK 33m and recover in 2023 to SEK 83m. Impact Coatings is trading at a P/Sales 2022E of 8.5x which means it is trading at a premium of around 17% to FOM's multiple of 7.2x. On 2023E, Impact Coatings' P/Sales is 3.4x which is significantly lower than FOM's multiple of 5.8x. However, we believe Redeye's estimated 2023 sales growth of 149% is very likely too optimistic i.e., the true multiple is probably in line with FOM's. Redeye does not expect Impact Coatings to show an operating profit in the forecast period 2022-24E, while we forecast FOM to be profitable at the operating profit level each year in 2022-24.

**Freemelt** develop 3D printers for R&D departments. The company has a market cap of DKK 167m and an estimated sales this year of DKK 42m i.e., fairly close to FOM and Impact Coatings. Although Freemelt does not make coating machines like FOM they target the same type of clients (R&D departments). According to consensus, Freemelt is expected to grow 2022 sales to SEK 29m from just SEK 0.3m in 2021, which should be realistic as the 9M/22 reported sales was SEK 24m. In 2023, the consensus is for Freemelt to grow sales by 119% to SEK 63m. Freemelt is trading at a P/Sales 2022E of 8.7x corresponding to a premium of around 20% compared to FOM.

expected to be profitable at the EBIT level in 2022 and 2023 while a positive EBIT is expected in 2024. We forecast FOM to show positive EBIT each year 2022-2024 (it was also profitable in 2021).

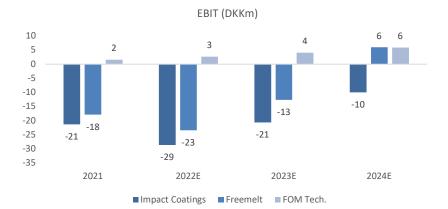
Peer valuation										N	et Sales	let Sales	let Sales	let Sales	let Sales					
			Price M	cap (m) l	EV (m) N	et sales N	et sales N	et sales N	let sales N	et sales	growth	growth	growth	growth	growth	P/Sales	P/Sales	P/Sales	P/Sales	P/Sales
Company	Ticker	Ccy	(last)	(last)	(last)	2021	2022E	2023E	2024E	2025E	2021	2022E	2023E	2024E	2025E	2021	2022E	2023E	2024E	2025E
Impact Coatings	IMPC	SEK	5.00	283	200	57.2	33.4	83.0	125.1	187.0	45%	-42%	149%	51%	49%	4.9	8.5	3.4	2.3	1.5
Freemelt	FREEN	1 SEK	6.86	251	237	0.3	29.0	63.4	114.0	194.7	na	9503%	119%	80%	71%	831.4	8.7	4.0	2.2	1.3
Average											na	4731%	134%	65%	60%	418.2	8.6	3.7	2.2	1.4
FOM Tech.	FOM	DKK	44.70	348	331	24.2	48.0	60.0	76.5	110.9	257%	98%	25%	28%	45%	14.4	7.2	5.8	4.5	3.1

Source: Redeye (Impact Coatings), MarketScreener (Freemelt), Enlight Research (FOM), Updated on 23 January 2023



■ Impact Coatings ■ Freemelt ■ FOM Tech.

Redeye (Impact Coatings), MarketScreener (Freemelt), Enlight Research (FOM), Updated on 23 January 2023, SEK/DKK 0.6656



Redeye (Impact Coatings), MarketScreener (Freemelt), Enlight Research (FOM), Updated on 23 January 2023, SEK/DKK 0.6656

# Forecast

### New machines and Aftermarket revenues

Revenues from sold machines make up the biggest revenue stream. We estimate Net sales from sold machines to make up 95% of Group Net sales in 2022 (company does not report this figure). We assume an average selling price (ASP) per machine of DKKm 1.060m in 2022E, which implies 43 sold machines (up from an estimated 22 machines in 2021). We assume aftermarket products and services (coating heads, software, training/courses, R&D consulting) to represent the remaining Net sales i.e., 5% of Group Net sales in 2022. As the active machine park grows, we expect the aftermarket to increase its share of Group Net sales to 15% in 2024 from an estimated 5% this year.

### Sales distribution (not reported, ER estimate)

	H1/21E	H2/21E	H1/22E	H2/22E	2021E	2022E	2023E	2024E
New machines	91%	91%	95%	95%	91%	95%	90%	85%
After-market	9%	9%	5%	5%	9%	5%	10%	15%
Total	100%	100%	100%	100%	100%	100%	100%	100%
Sales distribution								
	H1/21E	H2/21E	H1/22E	H2/22E	2021E	2022E	2023E	2024E
New machines	8.620	13.410	20.460	25.140	22.029	45.600	54.000	65.025
After-market	0.852	1.326	1.077	1.323	2.179	2.400	6.000	11.475
Total	9.472	14.736	21.537	26.463	24.208	48.000	60.000	76.500
Implied no. of sold machines (ER estimate)								
	H1/21E	H2/21E	H1/22E	H2/22E	2021E	2022E	2023E	2024E
Est. no. machines sold	9	13	19	24	22	43	50	59
Est. change, no. machines sold (y-on-y)	0%	0%	123.8%	76.8%	252.7%	95.2%	16.8%	17.7%
Est. ASP per machine (DKKm)	1.000	1.000	1.060	1.060	1.000	1.060	1.075	1.100
Est. change ASP (y-on-y)	0%	0%	6.0%	6.0%	0.0%	6.0%	1.4%	2.3%

Source: Company reports (historic), Enlight Research (estimates)

#### 70 70 65 60 60 54 New machines sales (DKKm) 59 50 46 50 PPS machi 40 40 sold 30 30 22 of No. 20 20 10 6 10 0 0 2020E 2021E 2022E 2023E 2024E No. of sold machines New machines sales (DKKm)

New machiners Net sales (DKKm) & No. of sold machiners

Source: Enlight Research (estimates), Company does not report machine sales and number of sold machines.

## **Profit & Loss Forecast**

In addition to Net sales from sale of new machines and the aftermarket, the company has Other operating income which consist of one time project revenues, which are often sponsored by the government or EU. The company does not balance R&D costs and there are no plans to do so in the future. In 2022, we forecast revenues to almost double to DKK 48m, which is in the middle of the recently announced guidance range (published December 2022). In 2023, our forecast revenue growth is 25% to DKK 60m, which is at the high end of the guidance. In 2024, we forecast revenues to grow 28% to DKK 76.5m (no guidance given for 2024). We realize these are above normal growth estimates, but we believe it is realistic due to the small size of the market and FOM's leading market position in the renewable energy space. Despite the high growth, we expect FOM to be profitable at the bottom-line in each year during the forecast period 2022-24. We forecast the EBIT margin to increase from an estimated 5.5% in 2022 to 7.7% in 2024. Our 2022 and 2023 estimated Net sales and EBITDA are within the company's latest guidance (see tables below).

Guidance	H1/21	H2/21	H1/22	H2/22E	2021	2022E	2023E	2024E
Revenue, high						50.000	60.000	
Revenue, mid						48.000	57.500	
Revenue, low						46.000	55.000	
EBITDA, high						3.000	5.000	
EBITDA, mid						2.000	3.500	
EBITDA, low						1.000	2.000	
P&L (DKKm)	H1/21	H2/21	H1/22	H2/22E	2021	2022E	2023E	2024E
Revenue	9.472	14.736	21.537	26.463	24.208	48.000	60.000	76.500
Other operating income	0.125	0.125	0.257	0.043	0.250	0.300	0.500	1.000
Total Revenue	9.597	14.861	21.794	26.506	24.458	48.300	60.500	77.500
Variable costs	-4.273	-6.210	-13.283	-13.282	-10.483	-26.565	-33.275	-42.625
Other external expenses	-0.005	-3.631	0.000	0.000	-3.636	0.000	0.000	0.000
Gross profit	5.319	5.020	8.511	13.224	10.339	21.735	27.225	34.875
Marketing costs	-0.113	-8.577	-0.403	-0.805	-8.690	-1.208	-1.452	-1.860
R&D costs	-0.605	0.605	-0.843	-1.475	0.000	-2.318	-2.844	-3.720
Fixed costs	-5.790	5.790	-7.971	-7.485	0.000	-15.456	-18.755	-23.250
Total Operating expenses	-6.508	-2.182	-9.217	-9.765	-8.690	-18.982	-23.051	-28.830
EBITDA	-1.189	2.838	-0.706	3.459	1.649	2.753	4.174	6.045
Depreciation & amortization	-0.040	-0.033	-0.047	-0.050	-0.073	-0.097	-0.130	-0.192
Operating profit	-1.229	2.805	-0.753	3.409	1.576	2.656	4.044	5.853
Finance Income	0.069	0.187	0.302	0.000	0.256	0.000	0.000	0.000
Finance costs	-0.079	-0.111	-0.193	0.000	-0.190	0.000	0.000	0.000
Share of profit of associates	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Total financial expenses, net	-0.010	0.076	0.109	0.000	0.066	0.109	0.000	0.000
Pre-tax profit	-1.239	2.881	-0.644	3.409	1.642	2.765	4.044	5.853
Income tax	0.133	-0.133	0.000	-0.608	0.000	-0.608	-0.890	-1.288
Other	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Net profit	-1.106	2.748	-0.644	2.801	1.642	2.157	3.154	4.565
Sales growth	H1/21	H2/21	H1/22	H2/22E	2021	2022E	2023E	2024E
Sales sequential					na	na	na	na
Sales y-on-y	194.1%	313.0%	127.4%	79.6%	256.6%	98.3%	25.0%	27.5%
Margins	H1/21	H2/21	H1/22	H2/22E	2021	2022E	2023E	2024E
Gross margin	56.2%	34.1%	39.5%	50.0%	42.7%	45.3%	45.4%	45.6%
EBITDA margin	-12.6%	19.3%	-3.3%	13.1%	6.8%	5.7%	7.0%	7.9%
Operating profit margin	-13.0%	19.0%	-3.5%	12.9%	6.5%	5.5%	6.7%	7.7%
Pre-tax profit margin	-13.1%	19.6%	-3.0%	12.9%	6.8%	5.8%	6.7%	7.7%
Net profit margin	-11.7%	18.7%	-3.0%	10.6%	6.8%	4.5%	5.3%	6.0%

Source: Company reports (historic), Enlight Research (estimates)

# **Company description**

## History

FOM Technologies (Functional Organic Materials) was founded in 2012 by Martin Kiener (currently Chief Innovation Officer), when the solar cell Roll-to-Roll (R2R) coating technology project was spun off from the Danish Technical University. Between 2013-2017, FOM continued to develop the coating technology project and gained recognition as a pioneer of cutting-edge precision machinery and equipment for slot-die coating, resulting in first international customers e.g., the Clean Energy Institute at the University of Washington. In 2017 (Q4), the current, CEO Michael Stadi, joins FOM and new (also current) strategy to become the leading provider of slot-die coating technology for new functional materials is adopted. In June 2020, FOM Technologies raised DKK 16m from 2,324 investors through an IPO on the Nasdaq Denmark First North Growth Market (the IPO was oversubscribed by 7.2 times). In 2021, FOM reported a record DKK 24m in Revenues and DKK 1.6m in Net profit. Today, FOM Technologies more than 100 customers on all 6 continents (incl. prestigious universities and Fortune 500 companies). Recently, the Company announced intention to list on the Nasdaq Small Cap in 2023.

### 2012

FOM Technologies was founded as a spin-off from the Danish Technical Univ.

### 2014-2016

Starts to gain recognition in the industry and first international customers

### 2017/18

Current managment joins FOM and implements new strategy to become the leading provider of slot-die coating technology for new functional materials

### 2017-2018

Change of ownership and new management appointed. Strategy focus to become the leading provider of slot-die coating technology for new functional materials.

### 2020

Listed on the Nasdaq First North Growth Market with IPO oversubscribption by 718%

## 2021

Award "Best performing IPO"

Record year reaching revenue of DKK 24m

### 2022

Award "Best Listed Danish Growth Company 2022" Sales guidance of DKK 46-50m for 2022

Source: Company presentation, Company IPO prospectus

## **Management & Organizational Structure**

FOM is organized into five functional areas (Innovation, Production, Sales, Finance, PR/Marketing). Each area has a responsible person assigned to it. The functional areas are overseen by the CEO. The CEO is also responsible for implementing the corporate strategi, as well as the administration and the HR departments. The CEO reports to the Board (see next section).

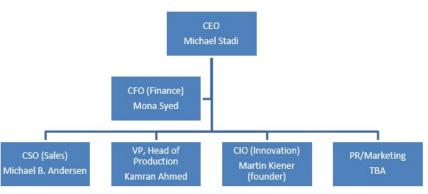
**Michael Stadi (CEO)** joined the company in 2017 with the mission to make FOM the leading provider of slot-die coating technology for new functional materials. Prior to joining FOM, Mr. Stadi worked 16 years in the financial industry in Copenhagen, London, and Stockholm as well as 16 years in the Cleantech industry in Denmark. Under Mr. Stadi's management, FOM has won several awards e.g., "Best rising star IPO in Europe" awarded by the European Commission, European Issuers, and the Federation of European Securities Exchanges; and the "Best Danish listed growth company in 2022" awarded by the Association for Listed Growth Companies (ALGC).

**Martin Kiener (CIO)** founded FOM in 2012 when the coating technology project was spun off from the Danish Technical University. Prior to starting FOM, Mr. Kiener spend 10 years working in the Danish technology sector. At foundation, Mr. Kiener secured FOM's first client, the Swedish University of Linköping. This year, Mr. Kiener handed over the sales responsibility to newly recruited, Michael B. Andersen, to fully focus on innovation as the Chief Innovation Officer (CIO).

**Mona Syed (CFO)** joined FOM in 2022 to become the CFO. Prior to joining FOM, Mrs. Syed has some 20 years' experience as Finance Manager and Controller in various organizations in Denmark including the Danish Red Cross.

**Michal B. Andersen (CSO)** joined FOM in 2022 as the Chief Sales Officer (CSO). Mr. Andersen has many years of experience in the sale of highly advanced technical machinery and equipment. He comes from a position as Sales Director at the German based Syntegon Technology (formerly Bosch Packaging Technology), which is the world's largest manufacturer of machinery and equipment for the pharmaceutical industry.

**Kamran Ahmed (VP, Head of Production)** joined FOM in 2020 as the Head of Production and Logistics & Supply Chain. Prior to joining FOM, Mr. Ahmed was a Senior logistics design engineer with McLaren Automotive Ltd.



FOM Technologies Organizational chart

Source: Company reports, Company website

### Board

Currently, FOM's Board consist of three members but it could be up to four members, serving for a period of five years. Worth noting is that all of the three current Board members are independent and started their positions in 2021.

Andreas Nielsen (Chairman of the Board) joined FOM's Board in 2021 as an independent member. Mr. Nielsen is Partner of the Danish law firm, Bech Bruun. Mr. Nielsens' focus is on M&A and Corporate Finance.

**Karina Rothoff Brix (Member of the Board)** joined FOM's Board in 2021 as an independent member. Mrs. Brix has been the CEO at the Center for Lifelong Learning at the Danish Technical University, and is currently country manager in Denmark at FiRi, the largest crypto exchange in Scandinavia.

**Birgitte Jespersen Skade (Member of the Board)** joined FOM's Board in 2021 as an independent member. Mrs. Skade is the Vice President of Marketing & Communications at Marel, a global leader in the food processing machinery sector.

### **Advisory Boards**

In addition to the corporate board, FOM has an Academic and a Commercial Advisory Board, each with expertise in their respective fields that is useful for FOM's development.

Name	Position	FOM Board	Competence
Dr. Devin MacKinzie	Associate Professor of Clean Energy & Material Science, University of Washington	Advisory - academic	Clean Energy & Material Science
Jason Li-Ying	Professor in Innovation & Entrepreneurship, Danish Technical University	Advisory - academic	Innovation & Entrepreneurship
Morten Madsen	Associate Professor - Organic Solar Cells, SDU NanoSYD	Advisory - academic	Organic Solar Cells
Søren Ulstrup	Executive Vice President, SP Group A/S	Advisory - commercial	Management of a large stock listed company (SP Group market cap DKK +2.8bn).
Karsten Winther	President, EMEA, Vertiv Holding Co.	Advisory - commercial	Global sales in a large stock listed company (Vertiv Holding Co market cap USD +4bn).

Source: Company reports, Company website

### **FOM Product solution**

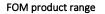
FOM provide slot-die coating machines (coating distributed via a slot-die head on rollbased or flat-based surface) that eliminate the main problems associated with the old technique, spin-coating machines (coating distributed by spinning the object being coated).

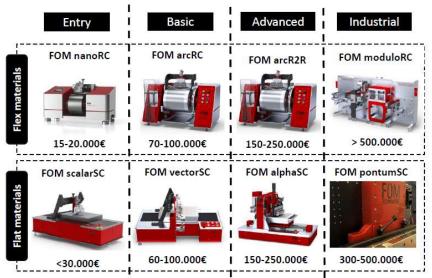
Spin coating machines	Slot-die coating machines
Time consuming (to spin object long enough for coating to spread out on the surface)	Up to 100x times faster than spin coating(coating applied by slot-die head, similar to a printer head)
High waste of coating fluid	Almost zero waste of coating fluid
Impossible to coat flexible foil	Possible to coat flexible materials
Impossible to coat large areas	Possible to coat large areas needed for industria applications

Source: Company reports, Company website

## **FOM Product range**

FOM Technologies provides a wide range of coating machines and related equipment. The type of machines varies depending on the substrate (underlying) material (Flexroll or Flat-sheet) and the level of complexity (entry, basic, advanced, and industrial). The price of a machine varies, mainly depending on the complexity of the machines. The entry level models start at around EUR 15-30K while the Industrial models start at EUR 300-500K. The main differences between the product types are the slot-die size, and substrate & drying features. In addition to the machines, FOM sells supplies such as e.g., slot-die heads and spare parts.





Source: Company presentation

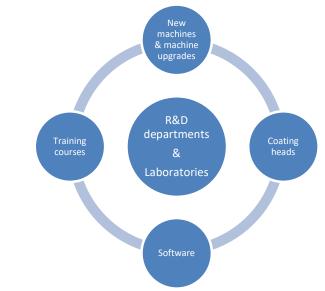
### Slot-die coating

Slot-die coating allows to produce ultra-thin layers of almost any material by dissolving or suspending the material into a coatable liquid, typically referred to as "ink". The ink is coated onto a desired substrate (material) through a highly precise delivery component called the slot die head. The slot-die head distributes the ink uniformly across the width of the substrate as it passes by and all the ink is deposited neatly onto the surface with little or no waste. Furthermore, the machine allows to easily control the thickness of the coated layer by simply varying the ink pump rate and the substrate travel speed. Afterwards, the solvent evaporates from the substrate, and a pure film of the desired material is left behind. Slot-die coating allows to produce high quality thin films with thicknesses ranging from tens of nanometers to hundreds of microns.

### **Business model**

FOM's core business is coating solutions for R&D departments and labs who require small flexible machines at a much lower price than the available mass-production industrial machines. FOM's innovations could potentially be done by a global company's R&D department. However, as the coating process is only one of many steps in a product being developed, R&D departments prefer to buy a coating machine externally rather than spend time and money to develop their own machine. FOM's main revenue stream consist of sale of new machines. As the active machine park grows, the aftermarket revenue stream should also grow (slot-die coating heads, software etc.). One key aspect of FOM's business model is that clients upgrade to a more complex and more expensive machine as their R&D project progresses (upscaling). The company also earns consultancy fees by participating in EU financed innovation projects. This type of revenues is not to be considered core business and therefore, are not included in below Business model picture (consultancy revenues are booked as Other operating income in the Income statement).

### FOM Business Model



Source: Enlight Research

### **Main shareholders**

The founder Martin Kiener is still FOM's main shareholder (29%) followed by the current CEO, Michael Stadi (16%). Worth noting is that neither Martin Kiener nor Michael Stadi has sold any shares since the IPO, despite that the 12 month lock-up period ended in June last year. The institutional investors have yet to discover FOM, which we believe is mainly due to limited research coverage and the fact that the share is listed on the Nasdaq First North Copenhagen. The company has announced plans to move to the Nasdaq Copenhagen Small Cap list, which is a regulated market.

FOM Shareholder	s			
Owner	Shares (m)	Pct Capital & Votes	Description	
Martin Kiener	2.250	28.92%	Founder	
Michael Stradi	1.262	16.23%	CEO	
Graham Bryce	1.125	14.46%	Private investor	
Other	3.142	40.39%	Free float	
Total	7.779	100.0%		

Source: Company report

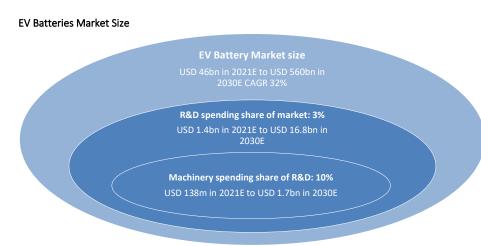
# Market overview

We have focused on the solar photovoltaic (PV) and the Electric vehicle battery (EV battery) markets as we believe these sectors will drive FOM's growth in the years to come. From a top-down perspective, we estimate the market for R&D based tools & machinery from these two sectors to be worth around USD 738m whereof USD 600m is from the PV sector and USD 138m from the EV battery sector. In other words, FOM's is part of the USD 738m in global spending on tools & machinery by R&D & Lab departments in the PV and the EV battery sectors. Naturally, not all this spending goes to coating machines, but it can be regarded as an eligible revenue pool for FOM. Our PV market estimates are based on research firm, marketsandmarkets.com, total PV market size, while our EV battery market estimates are based on the research firm, precedenceresearch.com, total EV battery market size. Marketsandmarkets.com estimate the PV market to grow from USD 199bn in 2021 to USD 1000bn in 2028 corresponding to a CAGR of 26%, while precedenceresearch.com estimate the EV battery market to grow from USD 46bn in 2021 to USD 560bn in 2030 corresponding to a CAGR of 32%.

### PV Market Size



Source: marketsandmarkets.com (PV Manufacturers Market Size), Enlight Research (R&D spending, Machinery spending)



Source: precedenceresearch.com (EV Batteries Market Size), Enlight Research (R&D spending, Machinery spending)

# **Risk factors**

Below risks is not a complete list of risks related to FOM, but rather a list of risks that we view as the most relevant to highlight given the current environment and our key investment factors. For examples of additional risks, we recommend reading the listing document and the annual reports.

## New entrants

As the market for flexible small coating machines grows, new players might decide to enter the market, which could affect FOM's market share and margins.

## **Reverse engineering risk**

There is a risk that a competitor will try to reverse engineer and copy FOM's machine. Even though the company has no registered patents, it would be hard to copy FOM's machinery as it consists of more than 100 different parts from more than 30 different suppliers.

# Supply chain risk

Although most key suppliers are in Scandinavia, there is a risk that there could be a lack of parts and other supplies, especially microchips and servo drive motors.

## Personnel and workforce

FOM is an innovation company with around 16 highly skilled employees. Therefore, a loss of one or several employees could have significant negative effect on the company.

# Renewable energy industry

A slowdown in the renewable energy industry would most likely affect FOM's sales and earnings negatively.

# Pandemic restrictions risk

Re-instated pandemic restrictions would most likely affect FOM's sales and earnings negatively.

# Russia – Ukraine risk

The company has no significant exposure to Russia, Ukraine, or Belarus.

Income Statement	2020	2021	2022E	2023E	2024E	Free
Net sales	6.8	24.2	48.0	60.0	76.5	Opera
Total operating costs	-12.7	-22.6	-45.2	-55.8	-70.5	Depre
EBITDA	-5.9	1.6	2.8	4.2	6.0	Worki
Depreciation & Amort.	0.0	-0.1	-0.1	-0.1	-0.2	Other
One-off EBIT items	0.0	0.0	0.0	0.0	0.0	Opera
EBIT	-6.0	1.6	2.7	4.0	5.9	Net in
Financial net	0.0	0.1	0.1	0.0	0.0	Other
Pre-tax profit	-6.0	1.6	2.8	4.0	5.9	Free C
Taxes	0.0	0.0	-0.6	-0.9	-1.3	
Minority interest	0.0	0.0	0.0	0.0	0.0	Capi
Other items	0.0	0.0	0.0	0.0	0.0	Equity
Net profit	-6.0	1.6	2.2	3.2	4.6	Debt
Balance Sheet	2020	2021	2022E	2023E	2024E	Geari
Cash and cash equivalent	9	5	0	1	2	Net d
Receivables	2	8	12	12	15	Profi
Inventories	2	1	7	9	11	
Other current assets	1	3	3	3	3	ROE
Total current assets	15	17	37	40	48	FCF yi
Tangible assets	0	0	0	0	1	EBITD
Goodwill & intangible assets	0	0	0	0	1	EBIT n PTP m
Lease & Investment	0	0	0	0	0	Net m
properties	0	0	0	0	0	Valu
Long-term Investments Associated companies	0	0	0	0	0	P/E
Other long-term assets	0	0	0	0	0	P/E a
Total fixed assets	1	0	1	1	1	P/Sale
Total Assets	15	17	38	42	50	EV/Sa
Accounts payable	15	2	30	<b>4</b> 2 4	5	EV/EE
Short-term IB debt	0	0	0	- 0	0	EV/EE
Other current liabilities	1	2	6	6	9	P/BV
Total current liabilities	3	4	9	9	13	P/BV
Long-term IB debt	0	<b>4</b> 0	0	0	0	.,=.
Convertibles & Lease liab.	0	0	0	0	0	Pers
Deferred tax liab.	0	0	0	0	0	EPS
Provisions	0	0	0	0	0	EPS,
Other long-term liab.	1	0	0	0	0	Oper
Total long-term liab.	1	ŏ	ŏ	ŏ	ő	Free
Total Liabilities	3	4	9	10	14	BV/sl
Minority interest	0	0	0	0	0	Tang
Shareholders' equity	12	13	29	32	36	Div. p
Total liabilities and equity	12	13 17	38	42	50	Div. p
rotal habilities and equity	10					Divid
DCF valuation			low, mDK			Shar
WACC (%)	8.32 %	6 NPV FC	F (2022-202	24)	2	Marti Mich
Assumptions 2022-2028 (%)		NPV FC	F (2025-203	31)	60	ivilCh

WACC (70)	0.52 /0	111 1 1 (2022-2024)	2
Assumptions 2022-2028 (%)		NPV FCF (2025-2031)	60
Sales CAGR	32.70 %	NPV FCF (2032-)	361
Avg. EBIT margin	8.72 %	Non-operating assets	5
Fair value per share (DKK)	55.00	Interest-bearing debt	0
Share price (DKK)	44.70	Fair value estimate	428

Free Cash Flow	2020	2021	2022E	2023E	2024E
Operating profit	-6.0	1.6	2.7	4.0	5.9
Depreciation & Amort.	0.0	0.1	0.1	0.1	0.2
Working capital chg.	0.3	-5.6	-5.0	-1.1	-1.2
Other Operating CF items	-0.3	0.3	-0.6	-0.9	-1.3
Operating Cash Flow	-5.9	-3.7	-2.8	2.2	3.5
Net investments	-0.2	-0.1	-0.4	-0.6	-0.5
Other items	0.5	-0.2	0.0	0.0	0.0
Free Cash Flow	-5.6	-4.0	-3.2	1.6	3.0
Capital structure	2020	2021	2022E	2023E	2024E
Equity ratio	77.6%	77.0%	76.1%	76.6%	72.9%
Debt / Equity ratio	0.4%	0.7%	0.0%	0.0%	0.0%
Gearing %	-73.7%	-35.2%	-51.1%	-51.2%	-53.0%
Net debt/EBITDA	1.5	-2.9	-5.3	-3.9	-3.2
Profitability	2020	2021	2022E	2023E	2024E
ROE	-72.9%	13.0%	10.3%	10.4%	13.4%
FCF yield	-1.8%	-1.4%	-0.9%	0.5%	0.9%
EBITDA margin	-87.2%	6.8%	5.7%	7.0%	7.9%
EBIT margin	-87.7%	6.5%	5.5%	6.7%	7.7%
PTP margin	-87.7%	6.8%	5.8%	6.7%	7.7%
Net margin	-87.7%	6.8%	4.5%	5.3%	6.0%
Valuation	2020	2021	2022E	2023E	2024E
P/E	-52.4	176.4	161.2	110.2	76.2
P/E adjusted	-52.4	176.4	161.2	110.2	76.2
P/Sales	45.9	12.0	7.2	5.8	4.5
EV/Sales	44.6	11.8	6.9	5.5	4.3
EV/EBITDA	-51.1	172.8	121.0	79.4	54.3
EV/EBIT	-50.9	180.8	125.4	82.0	56.1
P/BV	26.3	21.5	12.1	10.9	9.6
P/BV tangible	27.3	21.8	12.3	11.1	9.7
Per share ratios	2020	2021	2022E	2023E	2024E
EPS	-0.80	0.22	0.28	0.41	0.59
EPS, adjusted	-0.80	0.22	0.28	0.41	0.59
Operating CF/share	-0.80	-0.50	-0.36	0.28	0.45
Free Cash Flow/share	-0.76	-0.54	-0.41	0.21	0.39
BV/share	1.59	1.82	3.68	4.09	4.67
Tangible BV/share	1.59	1.82	3.68	4.09	4.67
Div. per share	0.00	0.00	0.00	0.00	0.00
Div. payout ratio	0.0%	0.0%	0.0%	0.0%	0.0%
Div. payout ratio					0.00/
Dividend yield	0.0%	0.0%	0.0%	0.0%	0.0%
	0.0%	0.0%	0.0% Capital	0.0%	Votes
Dividend yield	0.0%	0.0%		0.0%	
Dividend yield Shareholders	0.0%	0.0%	Capital	0.0%	Votes
Dividend yield Shareholders Martin Kiener	0.0%	0.0%	<b>Capital</b> 100.560	0.0%	<b>Votes</b> 28.92 %

Key people	
CEO	Michael Stadi
CFO	Mona Syed
IR	Michael Stadi
Chairman	Andreas Nielsen

P/E	EPS
Price per share	Profit before extraordinary items and taxes – income taxes +
Earnings per share	minority interest
	Number of shares
P/Sales	DPS
Market cap	Dividend for financial period per share
Sales	
P/BV	CEPS
Price per share	Gross cash flow from operations
Shareholders' equity + taxed provisions per share	Number of shares
P/CF Price per share	EV/Share
Operating cash flow per share	Enterprise value
operating cash now per share	Number of shares
EV (Enterprise value)	Sales/Share
Market cap + Net debt + Minority interest at market value – share of	Sales
associated companies at market value	Number of shares
Net debt	EBITDA/Share
Interest-bearing debt – financial assets	Earnings before interest, tax, depreciation and amortization
	Number of shares
EV/Sales	EBIT/Share
Enterprise value	Operating profit Number of shares
Sales	Number of shares
EV/EBITDA	EAFI/Share
Enterprise value	Pre-tax profit
Earnings before interest, tax, depreciation and amortization	Number of shares
EV/EBIT	Capital employed/Share
Enterprise value	
Operating profit	Total assets – non-interest-bearing debt
	Number of shares
Div yield, %	Total assets
Dividend per share	
Price per share	Balance sheet total
Payout ratio, %	Interest coverage (x)
Total dividends	Operating profit
Earnings before extraordinary items and taxes – income taxes + minority interest	Financial items
Net cash/Share	Asset turnover (x)
Financial assets – interest-bearing debt	Turnover
Number of shares	Balance sheet total (average)
ROA, %	Debt/Equity, %
Operating profit + financial income + extraordinary items	Interest-bearing debt
Balance sheet total – interest-free short-term debt – long-term advances	Shareholders' equity + minority interest + taxed provisions
received and accounts payable (average)	
ROCE, %	Equity ratio, %
Profit before extraordinary items + interest expenses + other financial costs	Shareholders' equity + minority interest + taxed provisions
Balance sheet total – non-interest-bearing debt (average)	Total assets – interest-free loans
שממותב אובבי נסנמו – חטוריוונבובאנ-שכמוווא עבטו (מענומצע)	יטנסו סטפרט – ווונפו כטניוו לל וטמווט
	CAGR, %
ROE. %	
ROE, %	
ROE, % Profit before extraordinary items – income taxes	Cumulative annual growth rate = Average growth rate per year

## Disclaimer

Enlight Research OÜ's main valuation methods are discounted cash flow valuation and peer valuation with common multiples such as Price to Earnings, Enterprise Value to EBITDA, dividend yield etc. Aforementioned methods are used to estimate a company's fair value according to the following three scenarios: Bull (positive), Base (main scenario), and Bear (negative).

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ResearchTeam@EnlightResearch.net