ABO Wind

(Scale All Share (Ref.), Renewables, AB9 GR)

WARBURG RESEARCH

FLASH REPORT

08.04.2024

Warburg ESG Risk Score:	3.0
ESG Score (MSCI based):	n.a.
Balance Sheet Score:	5.0
Market Liquidity Score:	1.0

Description: One of the largest German renewable energy project developers

Market Snapshot:	EUR m
Market cap:	520.1
No. of shares (m):	9.2
EV:	738.0
Freefloat MC:	197.6
Ø Trad. Vol. (30d):	93.80 th

Shareholders:	
Freefloat	38.00 %
Ahn Family	26.00 %
Bockholdt Family	26.00 %
Mainova AG	10.00 %

Key Figures (WRe):	2024e
Beta:	1.4
Price / Book:	2.4 x
Equity Ratio:	39 %
Net Fin. Debt / EBITDA:	3.4 x
Net Debt / EBITDA:	3.4 x

On the brink of steep earnings growth

As one of the leading renewable energy developers in Europe, ABO Wind is poised to profit from the high demand for projects across different technologies such as onshore wind, PV, battery storage and hydrogen. With a pipeline of 23.1 GW under development, project turnover is expected to grow significantly in coming years, allowing ABO Wind to pursue its revenue and margin accretion. The European markets, in particular, should provide a solid basis for sustainable growth and attractive developer margins, which we expect to be accompanied by selected international project-rights sales.

Strong competitive standing: With its proven track-record of 5.5 GW of developed projects, a regional presence in 16 countries, and well-established network to local authorities and other stakeholders, ABO Wind should be able to source new projects and underpin its leading industry positioning. Pioneering technologies, such as storage and hydrogen, will play a vital role in future growth and should allow ABO Wind to maintain its competitive edge as well as its ability to generate attractive returns. The broader technological focus will also be underpinned by the planned rebranding of ABO Wind to ABO Energy.

Promising outlook: Our forecast points to steep growth ahead which should allow ABO Wind to enhance net income generation significantly. Even in the light of recent obstacles such as enlarged construction times and supply-chain challenges, we expect ABO Wind to reach the mid-point of its 2024 guidance (EUR 25-31m net income). In the years after that, the vast number of mature projects lay a solid basis to grow net income towards EUR 41m with additional upside arising from project-rights sales abroad.

However, the pipeline growth and higher project turnover are assumed to trigger a balance-sheet expansion driven by higher working capital. The solid balance sheet, characterized by a high equity ratio of 39%, positive net income and moderate dynamic leverage (2.8x net debt/EBITDA), should allow ABO Wind to finance growth with additional debt and avail of growth opportunities. However, the fast working-capital expansion will limit free cash-flow generation in the short term but should turn positive as soon as market growth stabilises on high levels (WRe: 2028).

Not included in our detailed outlook (2024-2026) are larger battery storage or hydrogen-project sales. Regulators though, are encouraging the development of both technologies which might allow ABO Wind to generate margins from these technologies earlier than anticipated. In particular hybrid projects, combining PV or onshore wind parks with storage or hydrogen production, could become an additional growth driver and bolster margin generation.

Rel. Performance vs Scale All Share	
1 month:	20.9 %
6 months:	14.2 %
Year to date:	40.0 %
Trailing 12 months:	-20.2 %

Company events:	
30.04.24	AGM
31.08.24	H1

FY End: 31.12. in EUR m	CAGR (23-26e)	2020	2021	2022	2023	2024e	2025e	2026e
Sales	13.8 %	149.2	127.1	231.7	299.7	329.7	379.3	441.5
Change Sales yoy		18.1 %	-14.8 %	82.3 %	29.4 %	10.0 %	15.0 %	16.4 %
Gross profit margin		*64.9 %*	*85.9 %*	*68.8 %*	*62.1 %*	*65.5 %*	*63.9 %*	*64.9 %*
EBITDA	14.8 %	34.8	30.5	57.0	59.3	63.9	72.2	89.7
Margin		*23.3 %*	*24.0 %*	*24.6 %*	*19.8 %*	*19.4 %*	*19.0 %*	*20.3 %*
EBIT	18.6 %	22.5	22.4	43.1	42.6	47.5	54.7	71.1
Margin		*15.1 %*	*17.7 %*	*18.6 %*	*14.2 %*	*14.4 %*	*14.4 %*	*16.1 %*
Net income	15.0 %	13.1	13.8	24.6	27.2	28.7	31.9	41.4
EPS	15.0 %	1.42	1.50	2.67	2.95	3.11	3.46	4.49
EPS adj.	15.0 %	1.42	1.50	2.67	2.95	3.11	3.46	4.49
DPS	3.2 %	0.45	0.49	0.54	0.60	0.62	0.64	0.66
Dividend Yield		1.9 %	1.0 %	0.9 %	1.0 %	1.1 %	1.1 %	1.2 %
FCFPS		4.39	-5.86	-2.07	-7.41	-4.92	-0.87	-4.89
FCF / Market cap		18.3 %	-11.7 %	-3.6 %	-12.1 %	-8.7 %	-1.5 %	-8.7 %
EV / Sales		1.6 x	4.2 x	2.7 x	2.4 x	2.2 x	2.0 x	1.8 x
EV / EBITDA		6.7 x	17.4 x	11.0 x	12.4 x	11.6 x	10.4 x	8.9 x
EV / EBIT		10.3 x	23.7 x	14.5 x	17.2 x	15.5 x	13.7 x	11.3 x
P / E		16.9 x	33.4 x	21.4 x	20.8 x	18.1 x	16.3 x	12.6 x
P / E adj.		16.9 x	33.4 x	21.4 x	20.8 x	18.1 x	16.3 x	12.6 x
FCF Potential Yield		11.7 %	4.4 %	6.9 %	6.1 %	6.5 %	7.3 %	8.4 %
Net Debt		10.7	69.5	98.1	167.1	218.0	231.7	282.7
ROCE (NOPAT)		9.0 %	8.0 %	11.4 %	8.8 %	7.7 %	7.8 %	8.9 %
Guidance:		2024: Net income of EUR 25-31m						

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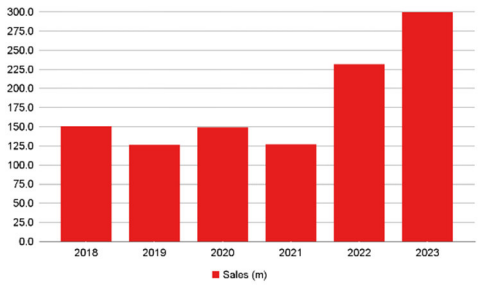
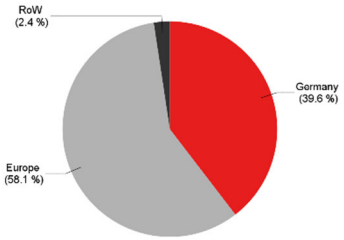
Sales development
in EUR m



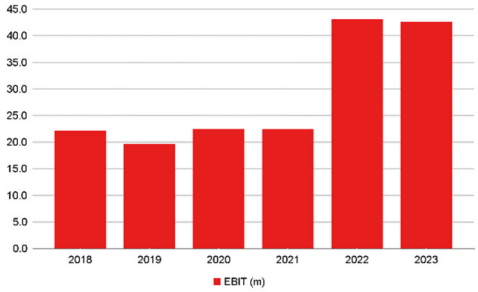
Source: Warburg Research

Sales by regions
2023; in %



Source: Warburg Research

EBIT development
in EUR m



Source: Warburg Research

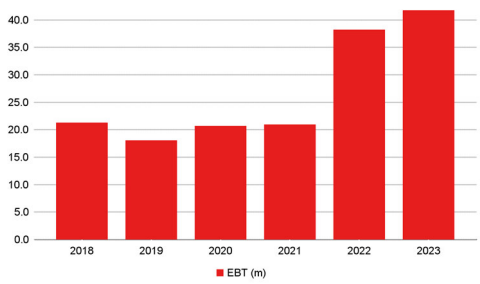
Company Background

- Founded in Germany in 1996 with a focus on onshore wind projects, ABO Wind evolved to one of the leading developers for renewable energy sources with a broad international focus.
- With the expansion of its technological scope towards PV, battery storage and hydrogen, ABO Wind offers the full range of development services for all established renewable technologies.
- ABO Wind has a proven track record of 5.5 GW of realized projects and is active in 16 countries with local subsidiaries or presence.
- In addition to its development activities, ABO Wind offers O&M services for operating assets, site optimization works and other services for operators
- In 2024, the company decided to change its name to “ABO Energy” and its legal form to a KGaA.

Competitive Quality

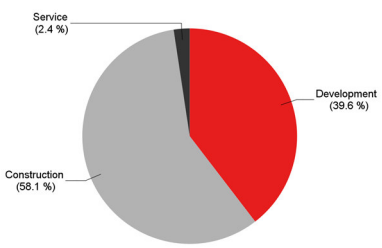
- ABO Wind covers the entire value chain of project development, embedded in a regional corporate structure, which allows for preferred access to new sites.
- The regional approach of ABO Wind is characterized by close collaboration with local authorities, suppliers and residents, which ensures a high probability of project realization. It is accustomed to entering new markets
- For battery storage and hydrogen, ABO Wind is pioneering in the European and international markets, allowing the company to diversify and expand its business and benefit from new industry trends.
- The current project pipeline amounts to >23 GW of projects, accompanied by a hydrogen pipeline of >20 GW, which shows ABO Wind´s excellent market access and growth prospects.

EBT development
in EUR m



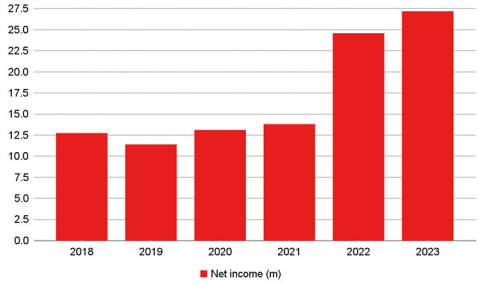
Source: Warburg Research

Sales by segments
2023; in %



Source: Warburg Research

Net income development
in EUR m



Source: Warburg Research

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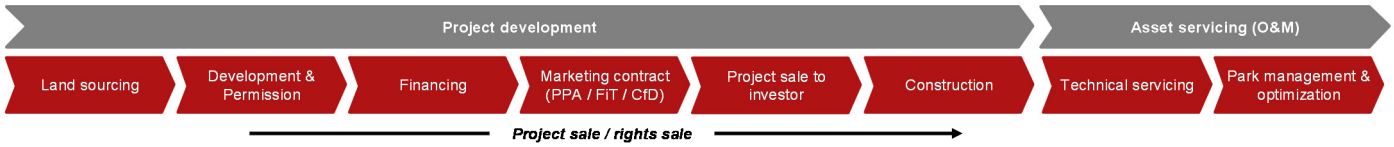
Company Overview

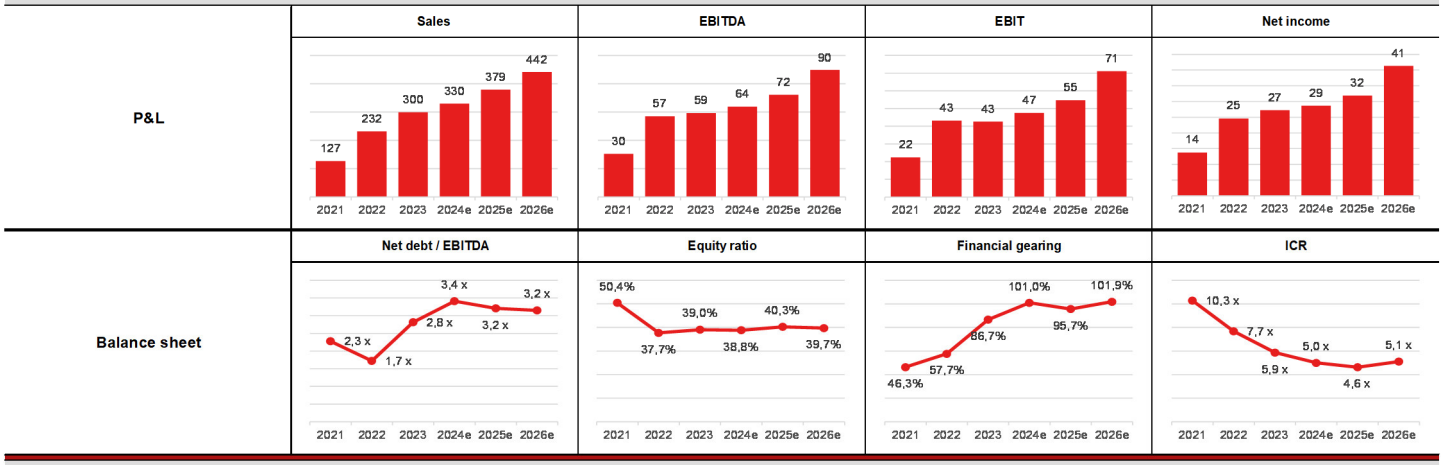
ABO Wind

Business segments	**Project development** **Onshore wind** · **PV** · **Battery storage** · **Hydrogen** Development, financing and marketing of single technology and integrated projects at an international scale. Track record of >5GW and pipeline of >23GW. **Services** **O&M services** · **Asset optimization** · **Expert opinion** Commercial and technical management. Own energy management products to improve lifecycle management.
Suppliers	NORDEX, acciona, ENERCON ENERGY FOR THE WORLD, SMA, solaredge, CanadianSolar, Trinasolar, Vestas, GE Renewable Energy, SIEMENS Gamesa RENEWABLE ENERGY, SUNGROW Clean power for all, JinKO Solar, LONGi Solar, Nidec –All for dreams
Competitors	EnergieKontor, PNE pure new energy, wpd think energy, DENKER & WULF AG, JUWI, RWE, ENERTRAG, ALTUS TRANSFORMING ENERGY, Alterric, BayWa r.e., EnBW, GP JOULE TRUST YOUR ENERGY, energiequelle ENERGIE MIT ZUKUNFT, enova

Value chain

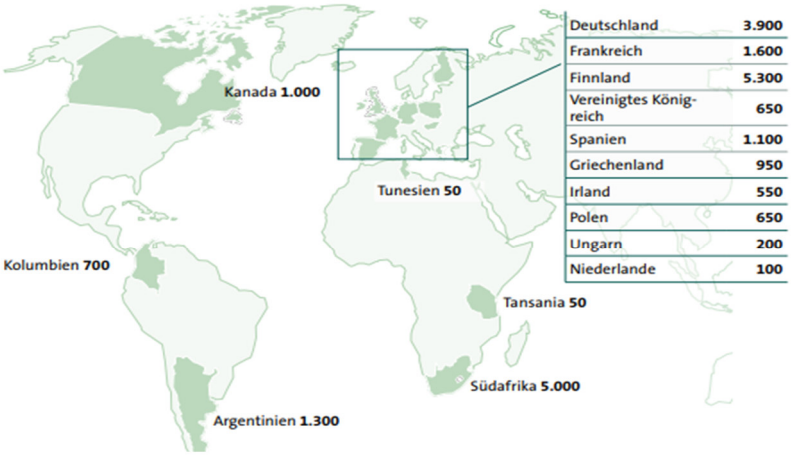


Operative figures (mEUR)



Project pipeline (31.12.23)

MW	Phase I	Phase II	Phase III
Germany	3.500	200	200
France	1.400	140	60
Finland	5.110	70	120
UK	610	20	20
South Africa	2.500	2.500	0
Canada	1.000	0	0
Argentina	600	700	0
Greece	250	700	0
Colombia	160	500	40
Spain	400	650	50
Ireland	410	140	0
Poland	650	0	0
Netherlands	100	0	0
Tunisia	40	10	0
Hungary	100	25	75
Tanzania	50	0	0
Total	**16.880**	**5.655**	**565**



Source: Warburg Research

A rapid growth story in an accelerating market

- Revenue and margin generation are set to accelerate on the back of a steep market growth in Europe.
- ABO Wind is well-positioned to profit from market growth and expand its business operations and its pipeline.
- We position ahead of consensus for 2025/26 and expect a steeper net income growth as we expect developer margins to sustain on high levels.

Renewables are the new backbone of Europe´s energy supply

The energy crisis in Europe was the trigger that prompted governments to double down on regulatory support to achieve climate neutrality and intensify efforts to develop sufficient renewable energy capacities and become independent of fossil sources. Several measures have been implemented on national and EU level:

Renewables are supported by various regulatory frameworks

- **EU Climate Law** establishes the goal of achieving climate neutrality by 2050, with a mandatory reduction of greenhouse gas emissions by at least 55% by 2030 (compared to 1990 levels). It outlines specific actions to reach these targets, such as incentivizing RE growth and enhancing energy efficiency.
- **REPowerEU:** The REPowerEU plan aims to reduce dependence on Russian fossil fuels and expedite the green transition. It raises the renewable energy target to 45% of the EU's total energy consumption by 2030. This initiative seeks to diversify energy sources and accelerate the development of infrastructure for renewable energies, contributing to a more sustainable and resilient energy system.
- **Renewable Energy Directive:** The Renewable Energy Directive establishes mandatory targets for the proportion of renewable energy in the EU's overall energy consumption. It requires member states to develop national action plans to enact the directive's provisions. Additionally, the directive encourages the growth of renewable energy sources such as wind power, solar energy, bioenergy, and others, fostering a more sustainable energy landscape.
- **Financial Support & Permit Procedures:** Financial resources from the EU and member states support RE expansion, including subsidies for wind turbines and solar parks, along with loans for investments. Approval procedures to grant permits for such projects are expedited by online platforms and streamlined administrative processes.

In recent years, there has been upbeat growth in the share of renewables in Europe´s gross energy production but, with regard to the 2030 targets, the yearly capacity additions are still behind plan. As a result, there is expected to be double-digit growth in gigawatt capacity additions annually, especially in onshore and offshore wind as well as PV, which offers plenty of scope to accelerate growth.

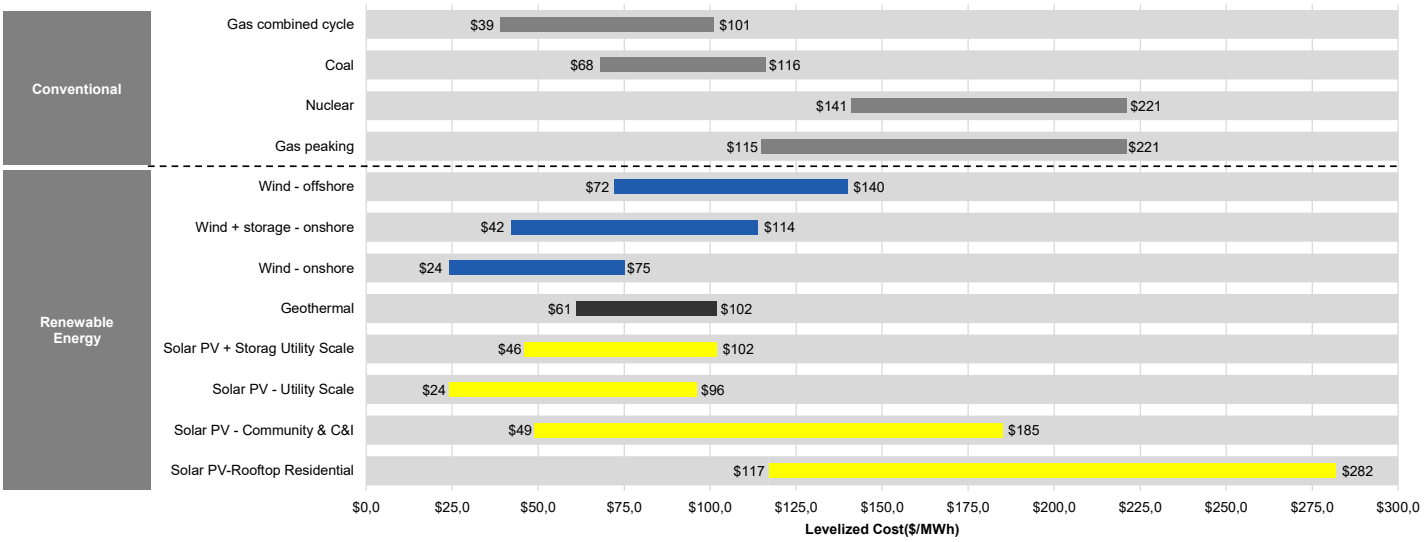
Project developers are the first to profit from high capacity additions

ABO Wind is poised to profit from a steep market growth

ABO Wind ranks among the largest European project developers and focuses on onshore wind, PV, battery storage and hydrogen projects. Historically, onshore wind was the company’s strength but as soon as PV became cost-competitive, ABO Wind established the PV segment as second growth pillar. In recent years, battery storage and hydrogen have been added as additional technologies but the major role of these technologies in the European energy transition should trigger steep growth.

Today, onshore wind and PV offer the cheapest LCOE (“levelized cost of energy”) available and they are on the brink of becoming the backbone of Europe´s energy supply.

LCOE of different energy sources in USD/MWh (2023)

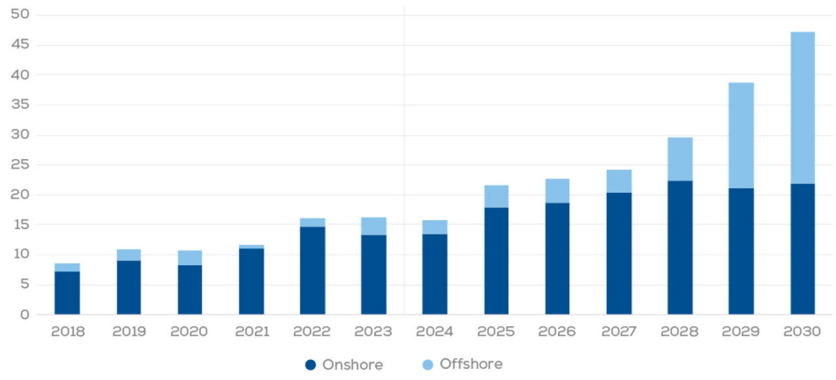


Source: Lazard, Warburg Research

Driven by the slump in production costs, European utilities have built large renewable energy portfolios and communicated ambitious growth targets by 2030, which suggest major market growth.

Capacity additions of 10-15 GW p.a. are expected for onshore wind in Europe, though bottlenecks in the supply chain and sluggish grid development pose challenges for new projects. Nevertheless, yearly capacity additions should remain at high levels. Germany, UK, France, Italy and the Nordics are the largest markets for ABO Wind.

Annual wind capacity additions in Europe (GW)



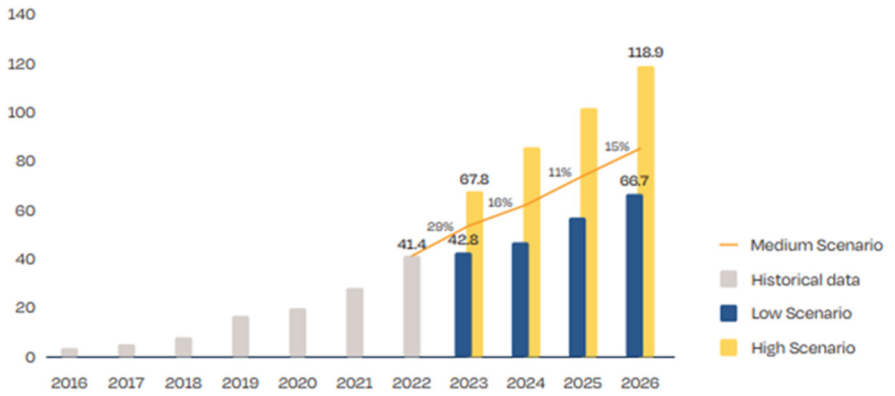
Source: WindEurope, Warburg Research

Onshore wind and PV will lead the European RES market

In 2023, Solar Power Europe declared yet another milestone year for the solar industry. The newly installed solar capacity of 55.9 gigawatts across the 27 European Union member states surpassed the previous year's expansion by an impressive 40%. This growth trajectory has been consistent, with similar rates achieved in the preceding two years. Notably, 20 of the 27 member states had their best-ever year for solar installations in terms of volume. Consequently, the cumulative installed solar capacity in the European Union has now reached 263 gigawatts.

Looking ahead, the European Solar Association anticipates that annual growth will continue over the next years, albeit at slightly more moderate rates than in recent years. This projection comes in light of the significant drop in solar panel prices observed in 2023. While advantageous for project companies like ABO Wind, this trend has posed challenges for European manufacturers.

Annual PV capacity additions outlook for Europe (GW)

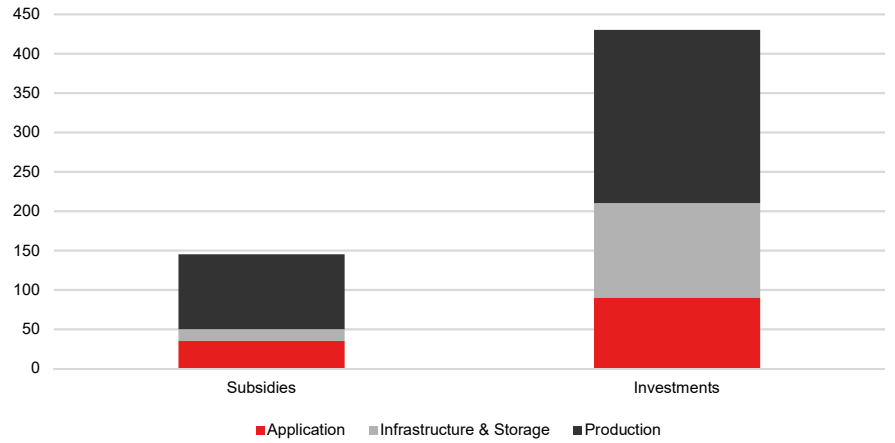


Source: Solar Power Europe, Warburg Research

Storage and hydrogen will play a crucial role in the energy transition

Even though they are still at an early stage, the markets for hydrogen and battery-storage are anticipated to play a crucial role in the success of the energy transition. In terms of regulation, both markets have come to the fore and are supported by various subsidy schemes. The European Hydrogen Strategy aims to channel significant investments into hydrogen infrastructure and production. These investments, totaling EUR 430bn, are projected to unfold in three phases until 2030.

EU investment in hydrogen by 2030 (in EURbn)



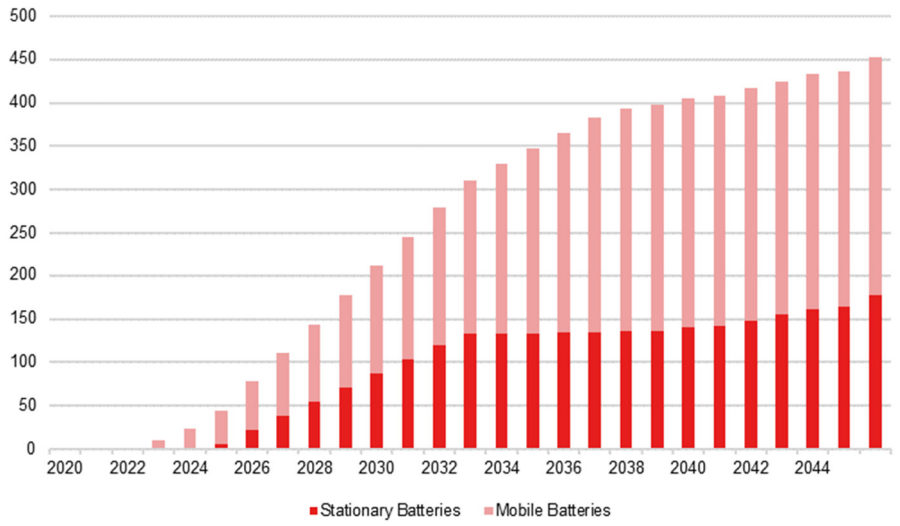
Source: Handelsblatt, Warburg Research

Hybrid solutions are already today a merchant market

Stationary batteries, used as a hybrid project solution in connection with a PV or onshore wind park or as standalone project, play a vital role in the end-consumer market. In Germany alone, approximately 400,000 battery storage units have been installed alongside PV systems, reflecting a growing trend towards decentralized energy storage. Additionally, the soaring demand for electric vehicles and data centres underpins the importance of mobile battery storage solutions.

While pumped storage has historically dominated the energy-storage landscape, the focus is turning to large-scale battery storage for grid stability and new business models. The optimal quantity and combination of energy-storage systems will depend on factors such as investment costs for new storage technologies, the availability of alternative flexibility options, and the pace of renewable energy expansion.

Projected battery storage development in Germany (GWh)



Source: Statista, Warburg Research

The first companies in the renewable value chain to profit from rapid capacity growth are project developers, which focus on developing, securing permission for, and executing projects and subsequently selling the commissioned assets to operators.

Project developers will be the first to profit from high capacity additions

With its full value-chain coverage and proven track-record of 5.5 GW, ABO Wind is poised to profit from the high demand for projects and demonstrate its extensive experience and ability to source new projects. Similar to other project developers, the core competencies cover the different project-development phases and are imbedded in a fragmented and local corporate structure, which secures preferred access to new sites:

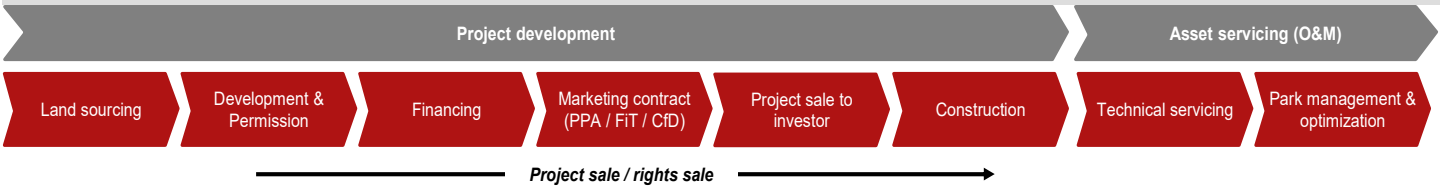
- **Site acquisition:** Identification of suitable areas and conclusion of land lease agreements.
- **Development:** Analysis of meteorological data, calculation of feasibility and selection of plants and park layout. Completion of the approval process.
- **Financing:** Structuring of financing and loan agreements. Securing remuneration by FiT, PPA or CfD.
- **Construction:** Establishment of grid connection and supervision of all construction activities until commissioning.
- **Sales:** Structured investment process and sale of the project to an operator (utility, investor, local municipality, IPP, citizen participation).
- **O&M:** Technical and commercial management. Additional product offering to optimize park operation.

ABO covers the entire value-chain and has a proven track-record

In addition to the technical and regulatory know-how, the keys to success in project development are an established network to local authorities, on-site representatives, a reliable supply chain and the ability to reassure residents. With several field offices and presence in 16 countries, ABO Wind applies a suitable approach to each region and ensures a high probability of project realization.

Usually all projects are sold with an O&M contract, where ABO Wind is responsible for the commercial and technical management of the plant. Even though the margin and revenue contribution are low compared to project development, O&M services deliver a sustainable and predictable revenue stream and allow ABO Wind to gain access to potential repowering projects.

Value-chain coverage of ABO Wind



Source: ABO Wind, Warburg Research

Revenue and margin growth are set to accelerate

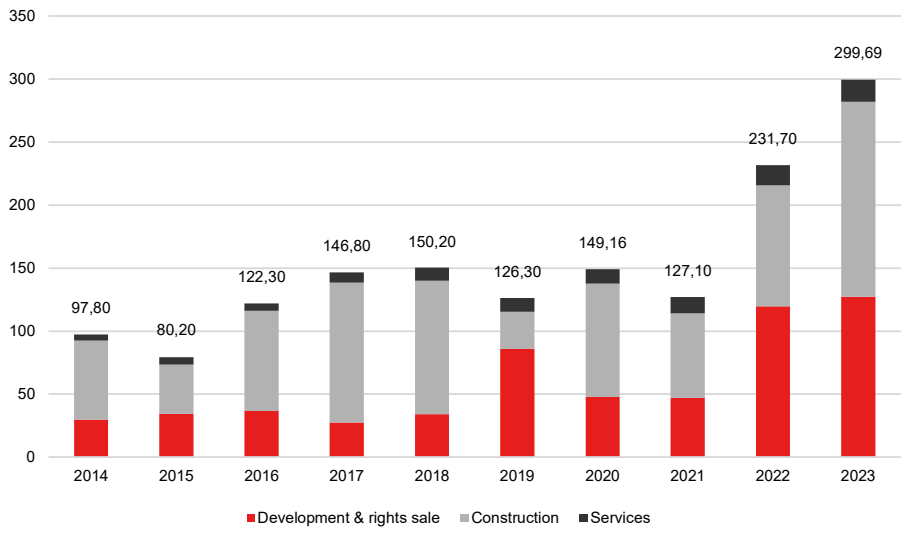
ABO Wind´s financial performance of recent years reflects the underlying market growth since 2019. To circumvent volatile earnings generation as a result of project postponements or delays in grid connection, ABO Wind uses different revenue models, which allow the company to reveal the generated value-add in project development. The sales approaches are shown as different reporting segments in the financial reports:

Different segments smooth revenue and margin generation

1. **Development & project rights sale:** As soon as the permission is granted for a project, ABO Wind charges the project SPV the rendered service including 50% of the applicable project-margin. Since the project SPV is still fully owned by ABO Wind, a corresponding position on the balance sheet (receivables from associated companies) is built and the generated earnings are not yet cash-effective. A similar approach is used for the sale of project rights, but a sale to an external investor means that revenue and margins become cash-effective.
    1.1. **Construction management:** In the case of a project-rights sale, ABO Wind offers to supervise the construction of the asset and oversee all necessary steps for the buyer and charges the client a service fee.
2. **Construction:** With the commissioning and sale of a project, ABO Wind generates the second half of the project margin and the entire project margin becomes cash-effective as the receivables position is closed.
3. **Services:** All service activities, including O&M services and site optimization works are charged per order on a regular basis.

The ability to show revenue and margin contribution from development activities prior to the project commissioning, smooths the P&L development and flattens the otherwise fluctuating earnings generation.

Historical development of sales per segments



Source: ABO Wind, Warburg Research

We forecast the P&L based on the project pipeline and assume mature projects will be sold in the next one to three years. Main markets should be Germany, France, Finland, Spain and the UK/Ireland, accompanied by project-rights sales in other countries.

Well-filled pipeline lays a profound basis for accelerated growth

Project pipeline as of 31.12.2023 in MW

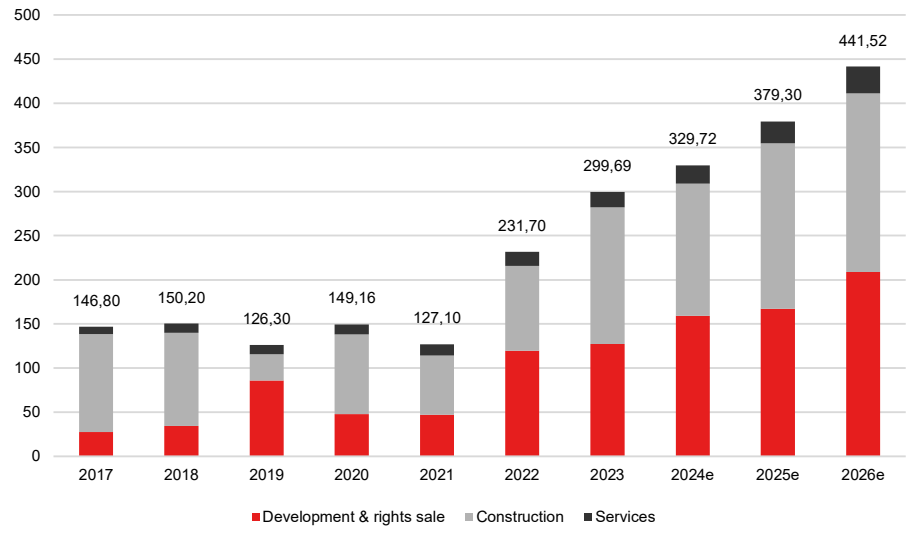
MW	Phase I	Phase II	Phase III
Germany	3,500	200	200
France	1,400	140	60
Finland	5,110	70	120
UK	610	20	20
South Africa	2,500	2,500	0
Canada	1,000	0	0
Argentina	600	700	0
Greece	250	700	0
Colombia	160	500	40
Spain	400	650	50
Ireland	410	140	0
Poland	650	0	0
Netherlands	100	0	0
Tunisia	40	10	0
Hungary	100	25	75
Tanzania	50	0	0
Total	**16,880**	**5,655**	**565**

Source: ABO Wind, Warburg Research

Country diversification and mature pipeline limits project risks

For 2024, delayed grid connections and extended lead-times and construction point to an increasing proportion of development and rights-sales revenues, which will turn around in 2025 when these projects can be commissioned. Since we apply realisation probabilities to the different projects included in our forecast, a deviation of +/- 5-10% of sales is possible, arising from project postponements, cancelations or other circumstances which shift the revenue and margin generation from one year to the next. However, the solid number of late-stage projects and robust country diversification should limit material shortfalls to a minimum.

Revenue forecast 2024e-2026e (EURm)

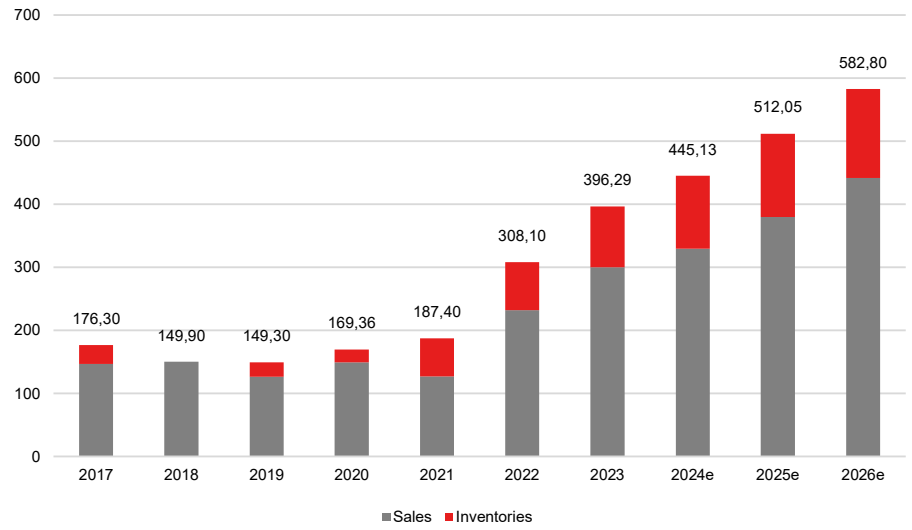


Source: ABO Wind, Warburg Research

Inventories will be built, reflecting the growing pipeline

In addition to revenues, ABO Wind usually builds up inventories which are a result of the addition of new projects to the pipeline, further development of existing projects or projects under construction. We expect the yearly pipeline additions to show notable growth ranging from 1.2GW (2024e) to 2.8 GW (2026e) and several projects under construction at the reporting date to result in a further build-up of inventories.

Total sales forecast 2024e-2026e (EURm)



Source: ABO Wind, Warburg Research

Compared to the management's forecast, which targets an increase in total sales of 10-30%, we position at the lower end of guidance with a growth rate (total sales) of 12.3%, owing to a challenging market environment and supply-chain disruption.

Project margins should remain attractive

As a basis for our margin forecast, we apply project margins to each technology and country. In general, we expect developer margins to remain on attractive levels, though some adverse developments will impact ABO Wind´s P&L:

Developer margins are expected to remain high…

- PV projects, which carry lower margins than wind, as a share of project sales should increase in line with the steep growth in PV capacity additions and shorter planning and approval times. Hence, the overall project margin is expected to dip slightly.
- Material costs (wind turbines) for onshore wind projects have increased substantially, which is partially offset by new turbine generations with a higher output per MW installed. However, we expect rising construction costs in the short term (2024-2025) and a normalization in 2026.
- For PV, construction costs are set to drop following the sharp decline in module prices since H2/23. However, achievable prices for PV power also came down significantly offsetting the positive capex development.

…though the technological mix triggers a lower relative margin

- In an early anticipation of the major growth opportunities ahead, we expect ABO Wind to increase its headcount and to have to pay competitive salaries for experienced project engineers. Therefore, there should be a disproportionate increase in personnel costs, putting some pressure on EBITDA margins.
- Other operating expenses arising from development activities should develop in line with the higher project turnover.

Based on our market outlook and detailed project planning, operating expenses will affect margin generation in the short term but allow ABO Wind to build a capable platform for future growth, which we categorize into three phases:

The steep market growth should stagnate on high levels in 2028

1. Phase I (2024-2027): The pipeline should experience steep growth and project turnover is expected to increase but supply-chain issues, prolonged delivery times and staff shortages will restrain margin generation.
2. Phase II (2028-2030): Yearly project output should grow significantly, whilst pipeline growth should decline to lower levels. The cost basis will be flattish, triggering a margin expansion.
3. Phase III (post 2030): Growth slows down, the majority of new projects are repowering projects. Project margins and costs stabilize on lower levels compared to phase II.

Our detailed P&L forecast reflects the basic assumptions outlined above and results in a slight decline in relative margin generation but absolute margin growth.

Detailed P&L forecast

in EUR m	2020	2021	2022	2023	2024e	2025e	2026e
Sales	**149.2**	**127.1**	**231.7**	**299.7**	**329.7**	**379.3**	**441.5**
Increase / decrease in inventory	20.2	60.3	76.4	96.6	115.4	132.8	141.3
Own work capitalised	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total sales	**169.4**	**187.5**	**308.1**	**396.3**	**445.1**	**512.1**	**582.8**
Material Expenses	72.6	78.3	148.8	210.3	229.2	269.9	296.1
Gross profit	**96.8**	**109.2**	**159.3**	**186.0**	**215.9**	**242.2**	**286.7**
Personnel expenses	50.8	63.4	77.7	98.2	110.0	120.0	135.0
Other operating income	6.4	5.1	5.1	10.5	5.0	5.0	2.0
Other operating expenses	17.6	20.4	29.7	39.0	47.0	55.0	64.0
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	**34.8**	**30.5**	**57.0**	**59.3**	**63.9**	**72.2**	**89.7**
margin %	23.3%	24.0%	24.6%	19.8%	19.4%	19.0%	20.3%
Depreciation of fixed assets	12.3	8.0	13.8	16.7	16.4	17.5	18.6
EBITA	**22.5**	**22.4**	**43.1**	**42.6**	**47.5**	**54.7**	**71.1**
Amortisation of intangible fixed assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Impairment charges and amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**22.5**	**22.4**	**43.1**	**42.6**	**47.5**	**54.7**	**71.1**
margin %	15.1%	17.7%	18.6%	14.2%	14.4%	14.4%	16.1%
Interest income	0.7	0.9	2.6	5.9	6.0	6.0	6.0
Interest expenses	2.2	2.2	5.6	7.3	9.5	11.8	13.9
Financial result	-1.8	-1.5	-4.9	-0.9	-3.0	-5.3	-7.4
Recurring pretax income from cont. operations	**20.7**	**21.0**	**38.2**	**41.8**	**44.5**	**49.4**	**63.7**
Extraordinary income/loss	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	**20.7**	**21.0**	**38.2**	**41.8**	**44.5**	**49.4**	**63.7**
Taxes total	7.6	7.2	13.7	14.5	15.8	17.5	22.4
Net income	**13.1**	**13.8**	**24.6**	**27.2**	**28.7**	**31.9**	**41.4**

Source: ABO Wind, Warburg Research

To derive EBIT and EBT, we calculate depreciation and financing costs based on a detailed outlook (see chapter “Balance sheet”). The asset-light business model of ABO Wind does not trigger major depreciation on fixed assets and the majority of depreciation costs arise from the impairment of activated projects (Inventories). Relative to the higher number of activated projects, we assume a yearly impairment of EUR 12-14m and depreciation on fixed assets of EUR 4m.

The pipeline expansion will need additional financing

To finance the pipeline expansions and subsequently higher activated project inventories, we assume ABO Wind will increase its financial liabilities which will result in rising financing costs.

As mentioned before, our outlook is subject to a certain deviation arising from unplanned project-rights sales abroad, project postponements or longer-lasting supply-chain problems than expected. If we apply a bull case to our model, the margin development improves by 3-5% on EBITDA level. In a bear-case scenario, the vast headcount and overhead costs harm our margin forecast by 4-5%.

We position above consensus for 2025/26

Warburg vs. consensus

Compared to consensus estimates, we assume a faster top-line and margin growth in 2025/26 since we expect project margins to remain on high levels and project turnover to show a steep growth. Our net income estimate for 2024 is positioned at the mid-point of guidance (EUR 25-31m) and in-line with consensus.

Warburg vs. consensus

	Consensus			Warburg Research			Deviation (WRe vs. Consensus)		
Year	2024	2025	2026	2024	2025	2026	2024	2025	2026
Sales	350,00	368,00	412,49	329,72	379,30	441,52	-5,8%	3,1%	7,0%
EBITDA	62,00	67,00	80,48	63,89	72,20	89,74	3,0%	7,8%	11,5%
margin %	*17,71%*	*18,21%*	*19,51%*	*19,38%*	*19,04%*	*20,33%*			
EBIT	44,71	49,83	61,34	47,49	54,70	71,14	6,2%	9,8%	16,0%
margin %	*12,77%*	*13,54%*	*14,87%*	*14,40%*	*14,42%*	*16,11%*			
Net income	28,58	30,00	35,55	28,67	31,89	41,36	0,3%	6,3%	16,3%

Source: FactSet, Warburg Research

Sound balance sheet is able to finance growth

- ABO Wind has a solid balance sheet with a high equity ratio and moderate leverage, which should allow to finance growth with additional debt.
- Working capital development should be the main driver of the expected balance sheet expansion as additional projects are reported as inventories.
- Debt KPIs, such as net debt/EBITDA should stay on current levels, which will allow ABO Wind to draw additional debt and refinance expiring debt.

The balance sheet of ABO Wind is characterized by a solid equity ratio, moderate financial leverage and high inventories, whilst fixed assets play a minor role, typical for a project developer.

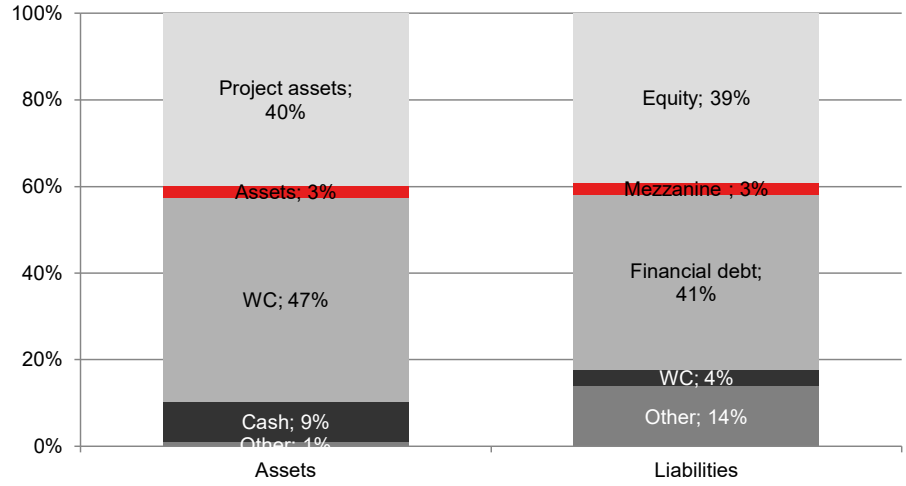
The equity ratio should improve further due to a positive net income

Since we assume ABO Wind can generate a positive and growing net income in the future, the equity ratio is set to improve further, though the cash-flow generation is heavily impacted by growing inventories and receivables. However, the rising working capital is a result of pipeline growth and higher project turnover and lays the basis for accelerated growth.

Growing equity base is used to finance pipeline growth

Reflecting the risk profile of a project developer, ABO Wind shows a solid equity ratio of 39%, sufficient to cover potential losses and project impairments. The activated pipeline amounted to EUR 196.3m by the end of 2023 whilst equity stood at EUR 192.6m. Even in the case of material project impairments (40-50% of the pipeline), ABO Wind would be able to maintain its operative business and prevent a debt default. In addition, the majority of project assets arises from late-stage projects, which have a very low cancellation risk of 1-5%, making a substantial impairment unlikely.

Balance sheet structure as of 31.12.2023



Source: ABO Wind; Warburg Research

Financial debt is used to finance working capital, which is the largest asset position and is made up of:

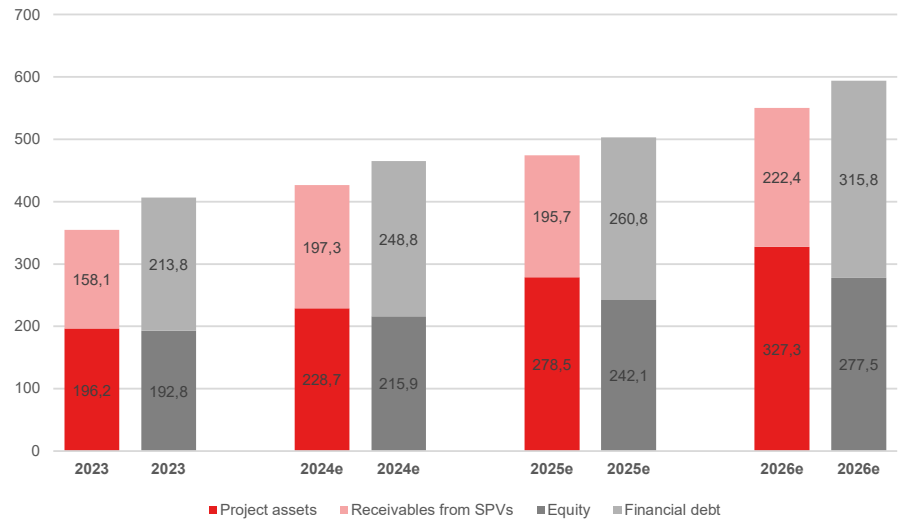
Working capital will drive the balance sheet expansion

(I) **Inventories:** Goods used for projects under construction and development activities (EUR 11.86m).

(II) **Receivables:** As outlined in the previous chapter, ABO Wind charges the project SPVs, which are owned by the company, the rendered development services as soon as permission has been granted for the project and, as the case, may be rendered construction services. The revenue and margin shown are activated as receivables until the SPV is sold. Receivables against SPVs amounted to EUR 158.1m in 2023.

In our forecast, we expect ABO Wind to expand its project pipeline and increase its project turnover, resulting in growing project assets (inventories) and accounts receivable from SPVs (charged construction services).

Development of balance sheet ratios (EURm)



Source: ABO Wind; Warburg Research

Even though additional debt is needed, balance sheet relations remain stable

The balance sheet ratios though, are expected to remain roughly stable with equity covering the pipeline growth and financial debt being used to finance receivables. However, since we assume massive pipeline growth, ABO Wind will need to finance a small proportion of activated projects with debt (EUR 49.8m in 2026). Our outlook assumes a moderate increase in dividend payments to EUR 0.66/share in 2026 (EUR 0.60 for 2023), which could also be used to bolster equity and reduce the need for financial debt.

Debt structure and maturity profile

The financial debt of ABO Wind consists of different debt instruments, which are mainly used to finance working capital and the small asset base (intangibles & fixed assets):

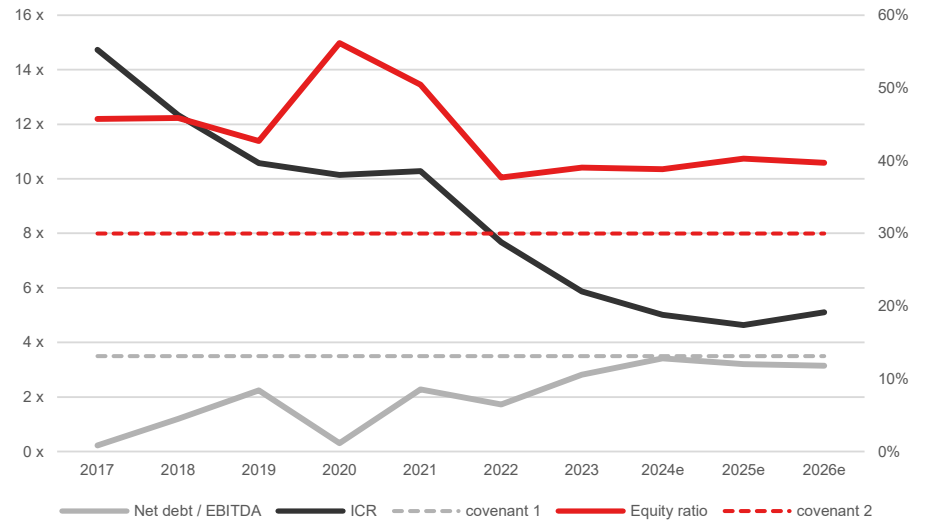
- **Bilateral loans:** Loan facility, which can be utilized dynamically. Covenants are an equity ratio >30% and net debt / EBITDA < 3.5x. Debt is usually drawn as a bank loan.
- **Promissory note:** ABO Wind has issued five tranches with a total volume of EUR 70m with different tenures (2025/27/29). Coupons are undisclosed.
- **Bond:** In 2021, a bond in the volume of EUR 46m was issued with a coupon of 3.5% and tenure of nine years (2030).
- **Mezzanine capital:** Via different financing vehicles (ABO Wind Mezzanine GmbH & Co. KG, ABO Wind Mezzanine II GmbH & Co. KG), ABO Wind has issued participation rights in the volume of EUR 13.7m. Terms are undisclosed.

Debt KPIs will remain in line with covenants

Our model shows, that the covenants of the bilateral loan facilities will be met in any year and the growing EBITDA generation allows for an increase in liabilities to banks in line with profit generation. Hence, we assume ABO Wind can cover the needed liquidity for operations, respectively the negative operating cash-flow, with additional debt from banks in the amount of EUR 25m in 2024 / EUR 25m in 2025 / EUR 40m in 2026. The additional debt, simulated in 2025 though, includes the compensation of the repayment for the first two promissory note tranches in the amount of EUR 23m. Further, we assume a necessary cash position of at least EUR 20m to ensure bankability and smooth business operations.

Alternative financing instruments would be tapping the existing bond, the issuance of a new bond or hybrid debt instruments in the volume of up to EUR 90m.

Debt covenants and credit KPIs

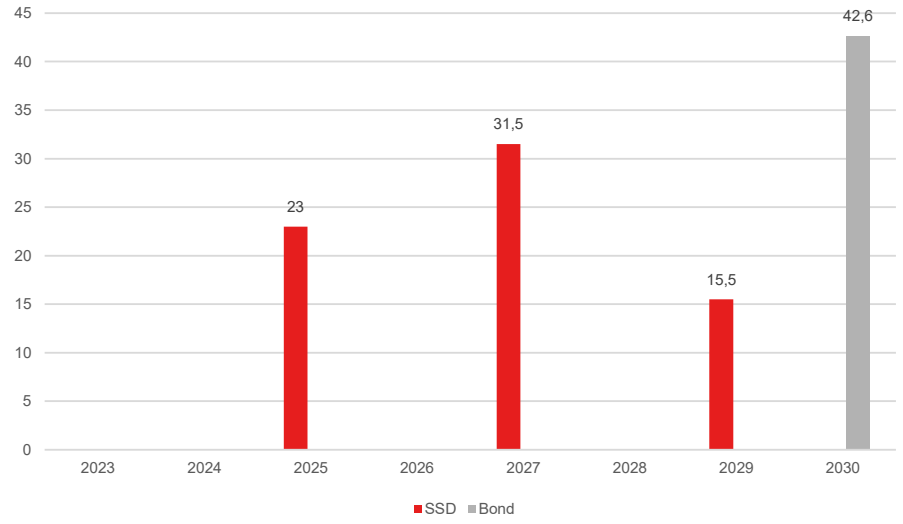


Source: ABO Wind; Warburg Research

Solid equity ratio should allow to refinance expiring debt

The maturity profile of the existing debt instruments shows bullet repayments in 2025, 2027 and 2030. Since we expect ABO Wind to expand its business operations remarkably in the same period and expand its balance sheet accordingly, expiring debt has to be refinanced, though the solid equity ratio and credit KPIs should be sufficient to issue new debt in the future.

Maturity profile (bond / promissory note; EURm)



Source: ABO Wind; Warburg Research

According to the schedule of liabilities published in the financial report 2023, liabilities to banks have different tenures of <1 year, 1-5 years or > 5 years.

Maturities according to the FY 2023 report

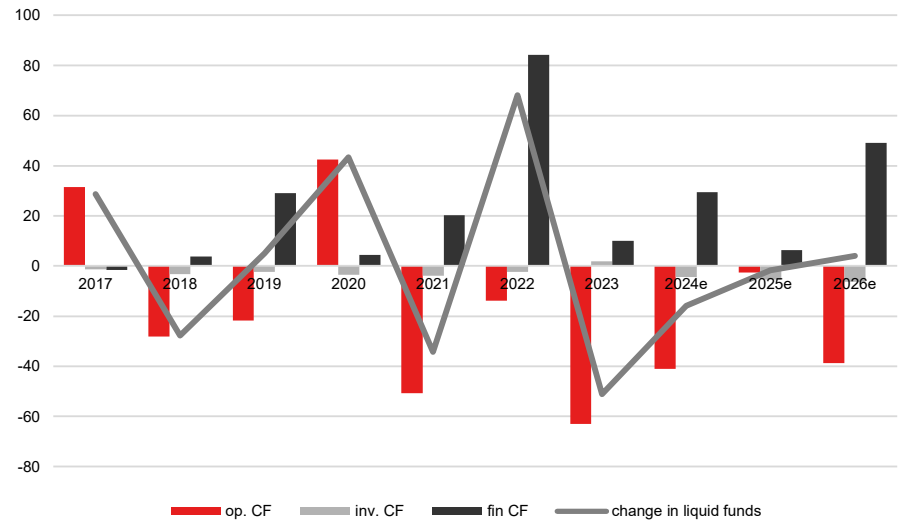
mEUR	< 1 year	1-5 years	> 5 years	Total
Bonds	0,00	0,00	42,64	42,64
Promissory note	0,00	70,00	0,00	70,00
Bank loans	3,22	58,77	25,50	87,49
Mezzanine				13,70
	3,22	128,77	68,14	213,83

Source: ABO Wind; Warburg Research

Free cash-flow development lags behind operating performance

In the cash-flow statement, the working-capital expansion as a result of good business prospects, becomes visible in a negative operating cash-flow. In particular inventories (projects) and receivables show steep growth, though both should normalize as soon as market growth stabilizes at high levels (phase II 2028-2035).

Cash-flow development



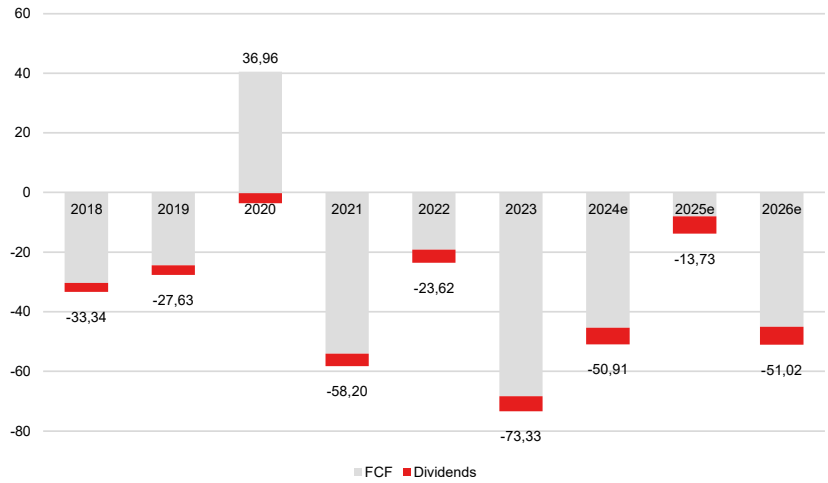
Source: ABO Wind; Warburg Research

Free cash-flow lags behind operating performance due to WC build-up

Despite the years marked by a decline in project output (2017/2020), operating cash-flow is negative, which we deem to be a result of the different sales approaches employed by ABO Wind, making clear period-mapping of margins impossible.

The same is true for free cash-flow generation, which is usually burdened by a high inventory and receivables build-up as a result of a strong operating performance. As long as ABO Wind faces steep market growth, we expect FCF to remain negative. However, as outlined above in the “Financials” chapter, yearly renewable capacity additions are expected to reach a plateau in 2028, which should then allow FCF to turn positive.

FCF development incl. dividend payments (mEUR)



Source: ABO Wind; Warburg Research

Investments do not play a vital role in ABO Wind´s business model as capex is limited to goods needed for general business operations. We assume a slight increase in capex from EUR 4.4m in 2024 to EUR 6.4m in 2026.

Company & Products

ABO Wind positions as one of the leading developers in Europe

ABO Wind is a German-based renewable project developer, focusing on onshore wind, PV, battery storage and hydrogen. It ranks amongst the largest developers in Europe with a sound track-record of more than 800 completed projects, totalling more than 5GW of installed capacity. Founded in Germany in 1996, ABO Wind quickly expanded its local footprint to 16 branches worldwide and has about 1,200 employees, developing a pipeline of >23 GW. Besides project development, ABO Wind offers services for renewable assets in operation such as technical and commercial plant management and construction supervision.

Product offering

Focus technologies are PV, onshore wind, battery and hydrogen

ABO Wind generates a diversified revenue stream from different countries and technologies and covers the entire value chain of project development and asset servicing. Value accretion follows the development cycle, which usually takes several years, though revenues and margins are only generated as soon as a project reaches the final development stage. To even out the development of sales and margins from one period to another, ABO Wind established a number of different sales approaches, allowing the company to reveal the margin contribution prior to a project´s commercial operation date (COD).

The company reports three segments, including;

(I) **Planning and sale of rights:** When a project has been granted full permission, ABO Wind charges the project SPV its development services and unveils the generated revenue and margin in its income statement, even though the SPV is usually fully owned by ABO Wind. As a corresponding balance sheet position, the charged services are shown as accounts receivable from subsidiaries. Also, if a project is sold during the development phase (project right sale), revenues are reported in this segment.

(II) **Construction:** Following the development services, the final construction and associated services are charged when the project has been erected or has reached its COD. Usually, the revenues and margins shown are generated not before the sale of the SPV to third parties.

(III) **Services:** Includes all O&M services for operating projects or other services performed for third-party projects, such as EPC or construction supervision.

The project pipeline of ABO Wind comprises projects in 16 countries, totalling 23.1GW. Historically, the company focused on onshore wind technology, though PV, battery storage and hydrogen projects have been established as additional growth pillars.

Wind parks

Worldwide, ABO Wind has developed over 4,400 megawatts of wind parks, positioning it as one of the leading wind-park developers in Europe.

In the first phase of the development of a wind park, ABO Wind secures suitable land areas and ensures grid access. Once land is secured, the development phase commences, which involves the creation of assessments, analysis of wind and solar potential, economic viability calculations, selection of the wind turbines, and obtaining requisite approvals. Subsequently, financing is structured, tariffs are secured, credit agreements are finalized, and potential investors are approached. This process takes one to five years, depending on the country and technology.

Throughout the construction phase, ABO Wind establishes the grid connection, and all necessary infrastructure and supervises the turbine being erected. Once all works are finalized, the turbines are tested until their commercial operation date (“COD”) is reached and the asset can be economically transferred to an investor. The construction phase takes a half to two years.

After the completion of the wind park, ABO Wind offers O&M services. This includes operations management, maintenance, and all assessments. Wind parks are usually operated for more than 20 years.

Solar parks

For solar parks, ABO Wind oversees all aspects of project development within the solar sector. This entails managing planning and approval procedures for solar installations, sourcing essential components, and supervising the installation and commissioning of modules. Furthermore, ABO Wind actively promotes the integration of local energy cooperatives and other forms of community involvement to improve the realization probability of projects.

ABO Wind has constructed and sold over 900 MWp, with an additional 7,000 MWp in various stages of development next to Germany. The company focuses on sun-rich regions across Europe, Africa, and Latin America.

Battery storage

ABO Wind AG operates its own specialized departments dedicated to storage projects. Additionally, the company tests concepts and business models for the system integration of renewable energies and storage technologies, without conducting its own research or development activities. Instead, ABO Wind AG utilizes market-available technology and incorporates it into concepts or specific projects.

Batteries play a crucial role in the energy transition by stabilizing power grids and facilitating the rapid expansion of renewable energy sources. With 100 MW already installed and over 1,000 MW in development, ABO Wind manages all aspects of battery

storage project planning and construction. The company collaborates closely with landowners, municipalities, grid operators, and reputable battery manufacturers.

In Germany, ABO Wind has established itself as a leader in the Federal Network Agency's innovation tenders for hybrid projects. Globally, ABO Wind is involved in numerous locations to implement hybrid energy projects. The company has already developed and constructed several standalone battery systems.

Hydrogen

ABO Wind has extensive experience in the hydrogen sector and recognizes the importance of green hydrogen from renewable sources in decarbonizing challenging industries like heavy industry and transportation.

ABO Wind's hydrogen business models focus on:

- Large-scale derivative production: Developing export projects in regions with favourable wind/solar conditions, involving the conversion, storage, and transportation of ammonia/methanol.
- Pipeline injection: Developing projects in regions with favourable wind/solar conditions, injecting hydrogen into H2/natural gas pipelines for export or local use.
- Industrial hydrogen solutions: On-site production for energy-intensive industries like refineries, steelworks, chemical industries, or fertilizer production.
- Turnkey integrated hydrogen solutions: Combining renewable energy with electrolyzers, storage, and refuelling stations.

The company is actively driving the development of hydrogen projects in its core markets, collaborating with partners and key stakeholders. ABO Wind has a significant 20 GW project pipeline for green hydrogen across various countries including Canada, Argentina, Tunisia, South Africa, Spain, Germany, Finland, and the Netherlands.

Company history

ABO Wind has a long history as renewable energy developer and was founded in 1996 in Germany.

- 1996: Formation of the company “Planungsgesellschaft zur Nutzung der Windkraft & anderer regenerativer Energien” (planning entity for the use of windpower & other regenerative energies) in Germany.
- 1998: Construction of the first wind park
- 2000: Change in the legal entity and name to “ABO Wind AG”
- 2001: Establishment of its first subsidiary ABO Wind España S.A.U. in Spain
- 2005: Biogas projects are added to the product portfolio
- 2010: Stronger internationalization with projects worldwide
- 2013: Establishment of the Hydrogen department
- 2017: Core business expanded to PV
- 2017: Issuance of a convertible bond
- 2020: First battery project erected
- 2021: First hybrid project erected, market leader in innovation tender in Germany
- 2024: Change of legal entity into ABO Wind KGaA
- 2024: Planned rebranding to ABO Energy

Management board

Dr. Karsten Schlageter (Business development & speaker of the board)

Dr. Karsten Schlageter, an industrial engineer, joined ABO Wind in 2013 and initially led the international business development. He became a board member in October 2018. Before joining ABO Wind, Dr. Schlageter developed renewable energy ventures for EnBW in Peru and worked in consulting.

Dr. Jochen Ahn (Business development)

Dr. Jochen Ahn, a Ph.D. in Physical Chemistry, co-founded ABO Wind in 1996. Before 1996, Jochen Ahn worked as a wind energy specialist examiner at the Hessian Ministry of the Environment. Dr. Ahn holds 26% of the shares.

Alexander Reinicke (Finance)

Alexander Reinicke started out in the banking sector (M&A, microfinance - institutional building). He joined ABO Wind in 2006, and initially worked in Project Financing and Sales. Then he built up the company's Controlling Department and was Head of Corporate Finance, Accounting, Controlling, and Human Resources for twelve years before becoming Managing Director in 2022.

Matthias Hollmann (Technology)

The company's first employee in 1996 was fundamentally involved in building up the company. He was at first responsible for project development and contracts; later, he set up the first foreign subsidiaries. He lead the Technical Engineering Division including Site Assessments, Construction, Electrical Engineering, and Purchasing of Wind Turbines for many years before becoming a Managing Director in 2022.

Susanne von Mutius (Project finance and Sales)

Susanne von Mutius initially started out in the banking sector (project financing and international leasing) and then worked for a manufacturer of solar modules. She has been with ABO Wind since 2012, where her focus has been Project Financing and Sales in Germany and several foreign markets for many years. After leading the Financing Division for many years, she became the company's first female Managing Director in 2022.

Dr. Thomas Treiling (Business development)

The geographer has worked at ABO Wind since 2009, first as a Project Manager, then as a Team Lead, and Head of Department. In 2018, he became General Manager and was responsible for the development of wind energy and photovoltaic projects in Germany, which is particularly important for the company's continued success. He was appointed as Managing Director in April 2024, successively assuming responsibility for Business and Project Development in Germany and France (wind & solar), IT, and Energy Markets & Sales.

Supervisory board

Dr. Alexander Thomas (Chairman)

Dr Alexander Thomas (born 1973) lives with his family near Munich. Professionally, he specialises in advising on stock corporation and capital market law. He prepares securities prospectuses, accompanies IPOs and advises on general meetings. He joined the law firm GSK Stockmann in 2022. Previously, he was a partner at Pinsent Masons for several years. From 2015 onwards, he regularly advised ABO Wind AG on stock exchange matters, so he knows the company well. In April 2023, the Annual General Meeting elected him to the Supervisory Board.

Dr. Daniel Duben

The political scientist (born in 1985) has been working in the communications department at ABO Wind since 2016 - currently as team leader. Originally from Wiesbaden, he studied political science and wrote his doctoral thesis on strategies against right-wing extremism in football stadiums. In September 2023, his colleagues elected him to the Supervisory Board as an employee representative in accordance with the German One-Third Participation Act.

Martin Giehl

The engineer (born 1971) is Managing Director of the Frankfurt based utility Mainova AG, which holds ten per cent of the ABO Wind shares. He has been on the Supervisory Board of ABO Wind AG since 2022.

Natalie Hahner

The business economist and political scientist (born in 1988) lives in Mainz and has been working at ABO Wind since 2014. She initially worked in the Investor Relations and Public Relations department. Since 2017, she has been responsible for the financing and sales of German wind, photovoltaic and hybrid projects. She has been leading a team since mid-2021. Her colleagues elected her to the Supervisory Board as an employee representative in accordance with the German One-Third Participation Act.

Eveline Lemke

The economist (born 1964) is the founder of Thinking Circular. The Green politician was Deputy Prime Minister and Economics Minister in RhinelandPalatinate from 2011 until 2016. She has been on the ABO Wind Supervisory Board since June 2017.

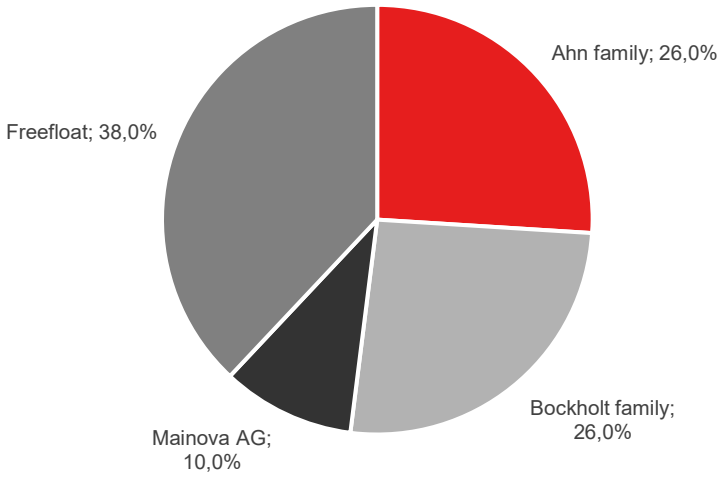
Maike Schmidt

The scientist (born 1979) is head of the Systems Analysis Department at the Centre for Solar Energy and Hydrogen Research Baden-Wurttemberg. She has been a member of the Supervisory Board of ABO Wind AG since 2019.

Shareholder structure

The top five shareholders of ABO Wind hold 62% of the shares outstanding. The remaining 38% of the shares are distributed and are mostly held by investment advisors. The largest shareholder are the founders of the company, who hold 26% each.

Shareholder structure (as of 04/2024)



Source: FactSet, Warburg Research

Matthias Bockholt and Jochen Ahn recently increased their shareholdings, demonstrating their confidence in the business. Mainova AG is one of Germany's largest regional energy providers, supplies approximately one million households in Hesse and neighboring states with electricity, natural gas, heating, and drinking water. Formed in 1998 with the merger of Stadtwerke Frankfurt am Main and Maingas AG, Mainova acquired 10% of the shares in 2010 in a capital increase, with the aim of leveraging the entire value chain and generating revenue from project development.

Valuation

	2020	2021	2022	2023	2024e	2025e	2026e
Price / Book	1.6 x	3.1 x	3.1 x	2.9 x	2.4 x	2.1 x	1.9 x
Book value per share ex intangibles	15.07	16.09	18.27	20.78	23.25	26.04	29.84
EV / Sales	1.6 x	4.2 x	2.7 x	2.4 x	2.2 x	2.0 x	1.8 x
EV / EBITDA	6.7 x	17.4 x	11.0 x	12.4 x	11.6 x	10.4 x	8.9 x
EV / EBIT	10.3 x	23.7 x	14.5 x	17.2 x	15.5 x	13.7 x	11.3 x
EV / EBIT adj.*	10.3 x	23.7 x	14.5 x	17.2 x	15.5 x	13.7 x	11.3 x
P / FCF	5.5 x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
P / E	16.9 x	33.4 x	21.4 x	20.8 x	18.1 x	16.3 x	12.6 x
P / E adj.*	16.9 x	33.4 x	21.4 x	20.8 x	18.1 x	16.3 x	12.6 x
Dividend Yield	1.9 %	1.0 %	0.9 %	1.0 %	1.1 %	1.1 %	1.2 %
FCF Potential Yield (on market EV)	11.7 %	4.4 %	6.9 %	6.1 %	6.5 %	7.3 %	8.4 %

*Adjustments made for: -

Consolidated profit & loss

In EUR m	2020	2021	2022	2023	2024e	2025e	2026e
Sales	**149.2**	**127.1**	**231.7**	**299.7**	**329.7**	**379.3**	**441.5**
Change Sales yoy	18.1 %	-14.8 %	82.3 %	29.4 %	10.0 %	15.0 %	16.4 %
Increase / decrease in inventory	20.2	60.3	76.4	96.6	115.4	132.8	141.3
Own work capitalised	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Sales	**169.4**	**187.5**	**308.1**	**396.3**	**445.1**	**512.1**	**582.8**
Material expenses	72.6	78.3	148.8	210.3	229.2	269.9	296.1
Gross profit	**96.8**	**109.2**	**159.3**	**186.0**	**215.9**	**242.2**	**286.7**
Gross profit margin	*64.9 %*	*85.9 %*	*68.8 %*	*62.1 %*	*65.5 %*	*63.9 %*	*64.9 %*
Personnel expenses	50.8	63.4	77.7	98.2	110.0	120.0	135.0
Other operating income	6.4	5.1	5.1	10.5	5.0	5.0	2.0
Other operating expenses	17.6	20.4	29.7	39.0	47.0	55.0	64.0
Unfrequent items	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBITDA	**34.8**	**30.5**	**57.0**	**59.3**	**63.9**	**72.2**	**89.7**
Margin	*23.3 %*	*24.0 %*	*24.6 %*	*19.8 %*	*19.4 %*	*19.0 %*	*20.3 %*
Depreciation of fixed assets	12.3	8.0	13.8	16.7	16.4	17.5	18.6
EBITA	**22.5**	**22.4**	**43.1**	**42.6**	**47.5**	**54.7**	**71.1**
Amortisation of intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Goodwill amortisation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**22.5**	**22.4**	**43.1**	**42.6**	**47.5**	**54.7**	**71.1**
Margin	*15.1 %*	*17.7 %*	*18.6 %*	*14.2 %*	*14.4 %*	*14.4 %*	*16.1 %*
EBIT adj.	**22.5**	**22.4**	**43.1**	**42.6**	**47.5**	**54.7**	**71.1**
Interest income	0.7	0.9	2.6	5.9	6.0	6.0	6.0
Interest expenses	2.2	2.2	5.6	7.3	9.5	11.8	13.9
Other financial income (loss)	0.3	0.3	3.9	3.1	1.5	1.5	1.5
EBT	**20.7**	**21.0**	**38.2**	**41.8**	**44.5**	**49.4**	**63.7**
Margin	*13.9 %*	*16.5 %*	*16.5 %*	*13.9 %*	*13.5 %*	*13.0 %*	*14.4 %*
Total taxes	7.6	7.2	13.7	14.5	15.8	17.5	22.4
Net income from continuing operations	**13.1**	**13.8**	**24.6**	**27.2**	**28.7**	**31.9**	**41.4**
Income from discontinued operations (net of tax)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income before minorities	**13.1**	**13.8**	**24.6**	**27.2**	**28.7**	**31.9**	**41.4**
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	**13.1**	**13.8**	**24.6**	**27.2**	**28.7**	**31.9**	**41.4**
Margin	*8.8 %*	*10.9 %*	*10.6 %*	*9.1 %*	*8.7 %*	*8.4 %*	*9.4 %*
Number of shares, average	9.2	9.2	9.2	9.2	9.2	9.2	9.2
EPS	**1.42**	**1.50**	**2.67**	**2.95**	**3.11**	**3.46**	**4.49**
EPS adj.	1.42	1.50	2.67	2.95	3.11	3.46	4.49

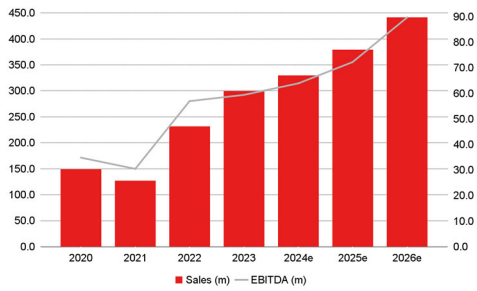
*Adjustments made for:

Guidance: 2024: Net income of EUR 25-31m

Financial Ratios

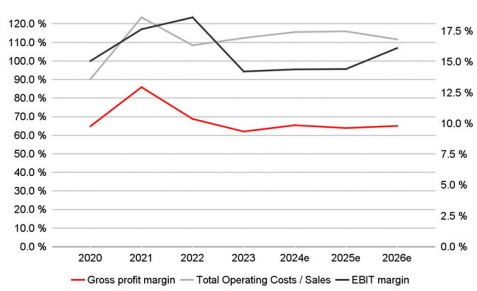
	2020	2021	2022	2023	2024e	2025e	2026e
Total Operating Costs / Sales	90.2 %	123.5 %	108.4 %	112.4 %	115.6 %	116.0 %	111.7 %
Operating Leverage	0.8 x	0.0 x	1.1 x	0.0 x	1.1 x	1.0 x	1.8 x
EBITDA / Interest expenses	15.7 x	14.0 x	10.2 x	8.2 x	6.7 x	6.1 x	6.4 x
Tax rate (EBT)	36.7 %	34.1 %	35.7 %	34.8 %	35.6 %	35.4 %	35.1 %
Dividend Payout Ratio	31.6 %	32.7 %	20.3 %	20.3 %	19.9 %	18.5 %	14.7 %
Sales per Employee	193,206	133,098	223,608	245,442	n.a.	n.a.	n.a.

Sales, EBITDA
in EUR m



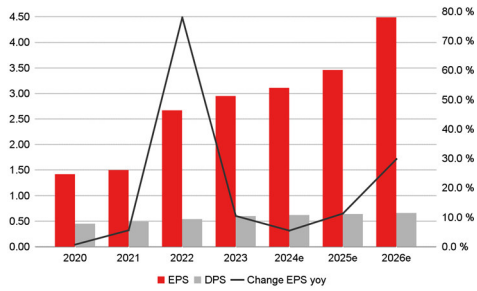
Source: Warburg Research

Operating Performance
in %



Source: Warburg Research

Performance per Share



Source: Warburg Research

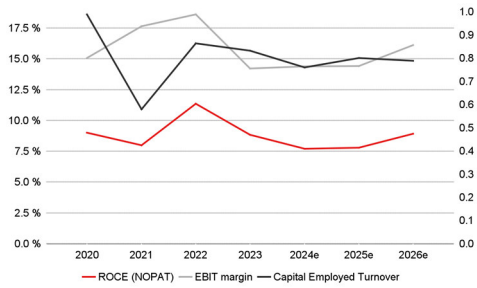
Consolidated balance sheet

In EUR m	2020	2021	2022	2023	2024e	2025e	2026e
Assets							
Goodwill and other intangible assets	1.2	1.5	1.6	1.1	1.5	1.9	2.3
thereof other intangible assets	1.2	1.5	1.6	1.1	1.5	1.9	2.3
thereof Goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property, plant and equipment	5.7	7.2	9.0	10.1	9.7	10.2	11.6
Financial assets	5.7	5.7	3.0	2.8	2.3	1.8	1.3
Other long-term assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fixed assets	**12.5**	**14.5**	**13.6**	**14.0**	**13.5**	**13.9**	**15.2**
Inventories	64.4	133.0	124.2	208.1	240.6	290.4	339.2
Accounts receivable	34.0	10.9	26.5	47.2	54.2	52.0	68.9
Liquid assets	62.1	30.2	95.9	46.7	30.8	29.1	33.1
Other short-term assets	76.2	108.6	191.1	178.0	217.2	215.6	242.3
Current assets	**236.8**	**282.6**	**437.6**	**480.0**	**542.8**	**587.1**	**683.4**
Total Assets	**249.3**	**297.1**	**451.3**	**493.9**	**556.3**	**601.0**	**698.6**
Liabilities and shareholders' equity							
Subscribed capital	9.2	9.2	9.2	9.2	9.2	9.2	9.2
Capital reserve	45.5	45.5	45.5	45.5	45.5	45.5	45.5
Retained earnings	85.7	95.3	115.4	137.9	161.0	187.2	222.7
Other equity components	-0.3	-0.2	-0.1	0.1	0.1	0.1	0.1
Shareholders' equity	140.1	149.8	170.0	192.8	215.9	242.1	277.5
Minority interest	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total equity	**140.1**	**149.9**	**170.1**	**192.8**	**215.9**	**242.1**	**277.5**
Provisions	19.6	21.4	36.7	44.1	44.1	44.1	44.1
thereof provisions for pensions and similar obligations	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financial liabilities (total)	72.8	99.6	194.0	213.8	248.8	260.8	315.8
Short-term financial liabilities	8.6	0.0	0.0	0.0	0.0	0.0	0.0
Accounts payable	7.1	14.0	19.1	18.5	22.6	29.1	36.3
Other liabilities	9.6	12.2	31.4	24.9	24.9	24.9	24.9
Liabilities	**109.1**	**147.2**	**281.2**	**301.2**	**340.4**	**358.9**	**421.1**
Total liabilities and shareholders' equity	**249.3**	**297.1**	**451.3**	**493.9**	**556.3**	**601.0**	**698.6**

Financial Ratios

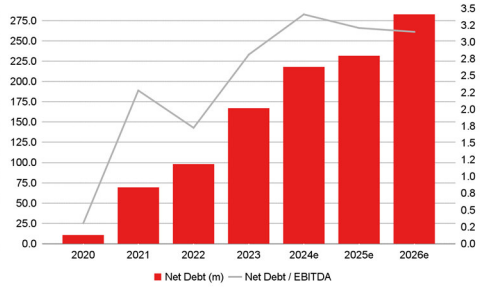
	2020	2021	2022	2023	2024e	2025e	2026e
Efficiency of Capital Employment							
Operating Assets Turnover	1.5 x	0.9 x	1.6 x	1.2 x	1.2 x	1.2 x	1.2 x
Capital Employed Turnover	1.0 x	0.6 x	0.9 x	0.8 x	0.8 x	0.8 x	0.8 x
ROA	104.5 %	95.5 %	180.3 %	194.8 %	213.0 %	230.1 %	272.8 %
Return on Capital							
ROCE (NOPAT)	9.0 %	8.0 %	11.4 %	8.8 %	7.7 %	7.8 %	8.9 %
ROE	10.8 %	9.5 %	15.4 %	15.0 %	14.0 %	13.9 %	15.9 %
Adj. ROE	10.8 %	9.5 %	15.4 %	15.0 %	14.0 %	13.9 %	15.9 %
Balance sheet quality							
Net Debt	10.7	69.5	98.1	167.1	218.0	231.7	282.7
Net Financial Debt	10.7	69.5	98.1	167.1	218.0	231.7	282.7
Net Gearing	7.6 %	46.3 %	57.7 %	86.7 %	101.0 %	95.7 %	101.9 %
Net Fin. Debt / EBITDA	30.8 %	227.9 %	172.3 %	281.6 %	341.2 %	320.9 %	315.1 %
Book Value / Share	15.2	16.2	18.4	20.9	23.4	26.3	30.1
Book value per share ex intangibles	15.1	16.1	18.3	20.8	23.2	26.0	29.8

ROCE Development



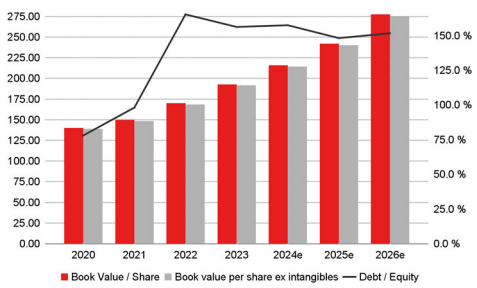
Source: Warburg Research

Net debt
in EUR m



Source: Warburg Research

Book Value per Share
in EUR



Source: Warburg Research

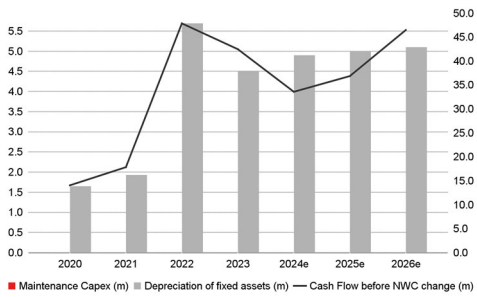
Consolidated cash flow statement

In EUR m	2020	2021	2022	2023	2024e	2025e	2026e
Net income	13.1	13.8	24.6	27.2	28.7	31.9	41.4
Depreciation of fixed assets	1.6	1.9	5.7	4.5	4.9	5.0	5.1
Amortisation of goodwill	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Amortisation of intangible assets	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Increase/decrease in long-term provisions	-9.8	4.5	9.7	4.9	0.0	0.0	0.0
Other non-cash income and expenses	9.1	-2.4	7.9	5.8	0.0	0.0	0.0
Cash Flow before NWC change	**14.1**	**17.8**	**47.9**	**42.5**	**33.6**	**36.9**	**46.5**
Increase / decrease in inventory	15.8	-67.4	8.8	-84.0	-32.5	-49.8	-48.8
Increase / decrease in accounts receivable	10.6	1.8	-83.3	-8.8	-7.0	2.2	-16.9
Increase / decrease in accounts payable	2.1	-3.0	12.8	-12.7	4.1	6.5	7.2
Increase / decrease in other working capital positions	0.0	0.0	0.0	0.0	-39.2	1.6	-26.7
Increase / decrease in working capital (total)	28.4	-68.6	-61.7	-105.5	-74.5	-39.5	-85.2
Net cash provided by operating activities [1]	**42.5**	**-50.7**	**-13.9**	**-63.0**	**-41.0**	**-2.6**	**-38.7**
Investments in intangible assets	-0.2	-0.4	-0.7	-0.8	-0.4	-0.4	-0.4
Investments in property, plant and equipment	-1.8	-2.9	-4.6	-4.5	-4.0	-5.0	-6.0
Payments for acquisitions	0.0	-1.8	0.0	0.0	0.0	0.0	0.0
Financial investments	-4.3	-0.1	0.0	0.0	0.0	0.0	0.0
Income from asset disposals	2.3	0.6	0.3	0.5	0.0	0.0	0.0
Net cash provided by investing activities [2]	**-3.6**	**-3.9**	**-2.2**	**1.8**	**-4.4**	**-5.4**	**-6.4**
Change in financial liabilities	-16.6	26.8	94.4	20.1	35.1	12.0	55.0
Dividends paid	-3.6	-4.1	-4.5	-5.0	-5.5	-5.7	-5.9
Purchase of own shares	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Capital measures	27.1	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash provided by financing activities [3]	**4.4**	**20.3**	**84.2**	**10.1**	**29.5**	**6.3**	**49.1**
Change in liquid funds [1]+[2]+[3]	**43.3**	**-34.3**	**68.1**	**-51.1**	**-15.9**	**-1.7**	**4.0**
Effects of exchange-rate changes on cash	-0.2	0.0	0.4	1.2	0.0	0.0	0.0
Cash and cash equivalent at end of period	52.8	18.5	87.0	37.2	21.3	19.6	23.6

Financial Ratios

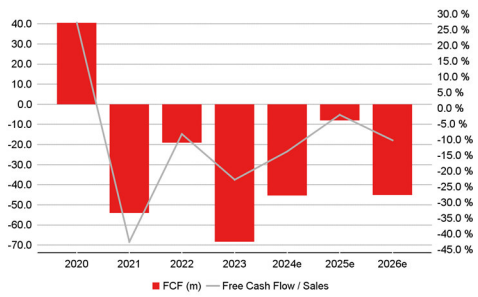
	2020	2021	2022	2023	2024e	2025e	2026e
Cash Flow							
FCF	40.5	-54.1	-19.1	-68.4	-45.4	-8.0	-45.1
Free Cash Flow / Sales	27.2 %	-42.5 %	-8.2 %	-22.8 %	-13.8 %	-2.1 %	-10.2 %
Free Cash Flow Potential	27.2	23.3	43.3	44.8	48.1	54.7	67.4
Free Cash Flow / Net Profit	309.0 %	-391.6 %	-77.7 %	-251.4 %	-158.3 %	-25.1 %	-109.1 %
Interest Received / Avg. Cash	1.6 %	2.0 %	4.0 %	8.2 %	15.5 %	20.0 %	19.3 %
Interest Paid / Avg. Debt	2.7 %	2.5 %	3.8 %	3.6 %	4.1 %	4.6 %	4.8 %
Management of Funds							
Investment ratio	1.3 %	2.6 %	2.3 %	1.8 %	1.3 %	1.4 %	1.4 %
Maint. Capex / Sales	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %
Capex / Dep	15.8 %	41.3 %	37.9 %	32.1 %	26.8 %	30.9 %	34.4 %
Avg. Working Capital / Sales	60.9 %	87.0 %	56.4 %	61.5 %	77.2 %	77.2 %	77.6 %
Trade Debtors / Trade Creditors	480.4 %	77.4 %	138.9 %	255.6 %	239.8 %	178.7 %	189.8 %
Inventory Turnover	1.1 x	0.6 x	1.2 x	1.0 x	1.0 x	0.9 x	0.9 x
Receivables collection period (days)	83	31	42	57	60	50	57
Payables payment period (days)	36	65	47	32	36	39	45
Cash conversion cycle (Days)	371	586	299	387	407	403	430

CAPEX and Cash Flow
in EUR m



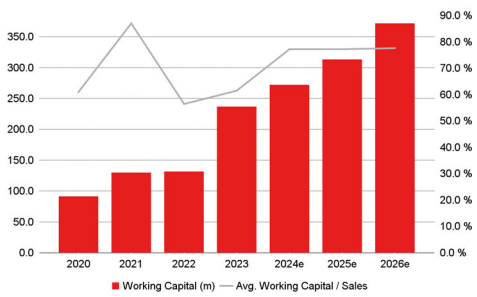
Source: Warburg Research

Free Cash Flow Generation



Source: Warburg Research

Working Capital



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Company	Disclosure	Link to the historical price targets and rating changes (last 12 months)
ABO Wind	4	https://www.mmwarburg.com/disclaimer/disclaimer_en/DE0005760029.htm

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Investment recommendation: expected direction of the share price development of the financial instrument up to the given price target in the opinion of the analyst who covers this financial instrument.

-B-	**Buy:**	The price of the analysed financial instrument is expected to rise over the next 12 months.
-H-	**Hold:**	The price of the analysed financial instrument is expected to remain mostly flat over the next 12 months.
-S-	**Sell:**	The price of the analysed financial instrument is expected to fall over the next 12 months.
"-"	**Rating suspended:**	The available information currently does not permit an evaluation of the company.

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING

Rating	Number of stocks	% of Universe
Buy	146	70
Hold	47	23
Sell	8	4
Rating suspended	7	3
Total	**208**	**100**

WARBURG RESEARCH GMBH – ANALYSED RESEARCH UNIVERSE BY RATING …

… taking into account only those companies which were provided with major investment services in the last twelve months.

Rating	Number of stocks	% of Universe
Buy	47	82
Hold	7	12
Sell	0	0
Rating suspended	3	5
Total	**57**	**100**

PRICE AND RATING HISTORY ABO WIND AS OF 08.04.2024

Markings in the chart show rating changes by Warburg Research GmbH in the last 12 months. Every marking details the date and closing price on the day of the rating change.

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