

Amoéba

Building on an exceptional year

FY22 results overview

Industrial engineering

3 April 2023

Price €0.67
Market cap €33m

Net cash (€m) at end December 2022 3.1
Shares in issue 49.7m
Free float 96.2%
Code ALMIB
Primary exchange Euronext Growth
Secondary exchange N/A

Share price performance



%	1m	3m	12m
Abs	(5.9)	(22.6)	(10.7)
Rel (local)	(6.2)	(31.1)	(17.5)
52-week high/low		€1.25	€0.49

Business description

Amoéba is developing biological fungicides for treating diseases such as mildews and rusts, which have a major economic impact on the production globally of a wide range of crops. These novel fungicides are based on the characteristics of the *Willaertia magna* C2c *Maky amoeba*.

Next event

AGM 25 May 2023

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FY22 was an exceptional year for Amoéba in which it secured regulatory approval in the United States and a recommendation for approval in the European Union for the active substance used in its innovative biological fungicides. Now that these essential regulatory hurdles have been cleared, the company intends to construct a production plant capable initially of manufacturing sufficient active substance annually to treat 100,000 hectares of crops, 200,000 hectares when extended. Management plans to have this operational by early 2025 to support product roll-out, subject to Amoéba receiving regulatory approval for individual fungicides containing the active substance in 2024.

Year end	Revenue (€m)	EBITDA (€m)	PBT* (€m)	EPS* (€)	DPS (€)	P/E (x)
12/20	0.0	(4.4)	(8.0)	(0.49)	0.00	N/A
12/21	0.0	(4.5)	(8.0)	(0.45)	0.00	N/A
12/22e*	0.0	(4.6)	(7.6)	(0.24)	0.00	N/A
12/23e	0.0	(7.7)	(9.1)	(0.18)	0.00	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments. *FY22 figures are estimates due to the limited disclosure at the time of writing.

Operating costs increasing as company prepares for commercialisation

The company is not yet revenue generating. Grant income was €0.1m lower year-on-year in FY22, while total operating costs were €0.2m higher year-on-year, resulting in a widening of EBIT losses by €0.3m to €5.8m. At end-FY22, Amoéba had €5.5m cash (€7.3m end-FY21) on its balance sheet and €2.4m debt (€12.5m end-FY21). We have updated our FY22 estimates with the headline data provided so far and leave our FY23 estimates unchanged.

Seeking finance for commercial scale-up

Amoéba is seeking to raise €45m finance to fund operations and site expansion over the next three years. Because it will take time for Redbridge to secure this funding, Amoéba has agreed a new bond financing agreement with Nice & Green that will generate up to €8.4m cash (net), which enables Amoéba to get started on its manufacturing scale-up programme.

Valuation: Addressing a high-growth market

We are not attempting to calculate a valuation at present. The proposed production plant and extension will be capable of manufacturing sufficient active substance annually to treat 200,000 hectares of crops. In our [March note](#), we estimate that this level of output could represent annual revenues of €26m and gross profit of €19.5m at full utilisation. This is a very small share of the global biocontrol agents market, which a report published by P&S Intelligence noted was worth c \$4.9bn in 2021 and predicts will increase to c \$13.6bn by 2030 (ie a CAGR of 12.2%), so further production facilities could follow.

FY22 performance

Modest widening of EBIT losses as company prepares for commercial launch of the product

The company is not yet revenue generating. Grant income was €0.1m lower year-on-year in FY22 and total operating costs were €0.2m higher year-on-year, resulting in a widening of EBIT losses by €0.3m to €5.8m. Industrial deployment costs increased as the company began to prepare for the establishment of its production facility. R&D expenses were higher as the activity related to field trials intensified, while sales and marketing costs were higher year-on-year because the company began to prepare for the commercial launch of the product. General and administrative costs, however, were lower year-on-year because of lower third-party fees. The losses were slightly wider than our €5.7m estimate, which had modelled grants and operating costs at double H122 levels.

Exhibit 1: Comparison of FY21 and FY22 performance

€m	FY21	FY22
Revenue	0.000	0.000
Grants	0.571	0.461
Industrial deployment costs	(0.767)	(1.110)
R&D costs	(2.178)	(2.525)
General and admin costs	(2.980)	(2.280)
Sales and marketing costs	(0.225)	(0.389)
Reported EBIT	(5.579)	(5.843)
Net finance costs (including change in fair value of derivatives and other exceptional items)	(2.238)	(2.180)
Reported profit before tax	(7.817)	(8.023)*
Reported tax	0.000	0.000*
Reported profit after tax	(7.817)	(8.023)

Source: Company data. Note: *Estimate.

Debt restructuring programme completed

During FY22, Amoéba concluded its debt restructuring process by fully repaying the €6.8m balance of the loan (which included interest) from the European Investment Bank and purchasing the warrants associated with the loan for €0.2m. During the year Amoéba generated €10.6m cash (net) from the issue of the fourth, fifth, sixth and seventh tranches of convertible bonds associated with the finance programme with Nice & Green.

At the end of December 2022, Amoéba had €5.5m cash (€7.3m end-FY21) on its balance sheet and €2.4m debt (€12.5m end-FY21) of which €2.1m related to the bonds issued but not yet converted by the year-end (these have since converted) under the convertible bond agreement with Nice & Green and €0.3m related to lease obligations.

In January 2023, Amoéba announced that it was terminating its convertible bond issue contract with Nice & Green and would not be issuing the optional eighth and final tranche of convertible bonds under the contract as initially planned. Instead, the company signed a contract with independent advisory firm Redbridge Debt & Treasury Advisory to assist it in its search for securing €45m finance to fund operations and site expansion over the next three years. Because it will take time for Redbridge to secure this funding, Amoéba agreed a new bond financing agreement with Nice & Green that will generate up to €8.4m cash net through the issue of three equal tranches of bonds between 30 June 2023 and 1 March 2024. The arrangement has enabled Amoéba to get started on its manufacturing scale-up programme (see below).

Progress against strategy

Securing regulatory approval

During FY22 Amoéba secured regulatory approval from the Environmental Protection Agency (EPA) in the United States and a recommendation for approval in the European Union for the active substance used in its innovative biological fungicides. The active substance is a lysate derived from *W. magna* (*Willaertia magna* C2c Maky) amoebae. The EPA confirmed that the active substance was exempt from maximum residue limits and any restrictions on how close to harvest the active substance could be applied to crops, provided it was applied in accordance with instructions for use and good agricultural practices.

The company was involved in over 120 field trials during winter 2021 and summer 2022. This most recent phase of trials (1) generated efficacy data for future marketing authorisations in Europe, Brazil and California (which has a separate regulatory framework from the rest of the US); (2) evaluated the potential of the company's formulations on new targets such as soybean rust, black sigatoka on bananas, scab on apple trees and powdery mildew on tomatoes and cucumbers in greenhouses; and (3) ascertained the optimal application dose for treating mildews on vines (alone and in combination with copper), late blight on potatoes and several diseases on wheat. Two main formulations were tested: a suspension concentrate and a dispersion in oil.

Next steps

Regulatory approval: United States

Amoéba needs to obtain marketing authorisation from the EPA for individual formulations or products containing the active substance. It intends to apply to the EPA for market authorisation for products containing *W. magna* lysate in 2023 and expects that the approval will be awarded in 2024.

Regulatory approval: EU

The next steps are: (1) peer review (to be completed in Q323) in which representatives from several other member states review the information in the dossier assembled by Austria; (2) publication of the review by the European Commission and implementation of regulation approving the active substance (H124); and (3) decisions on the authorisation of products containing the active substance in the three individual geographical zones that the EU is split into (2024).

Field trial programme for FY23

Amoéba intends to undertake over 100 trials this calendar year. These will focus on (1) completing and generating data for future marketing authorisation dossiers in the EU and California; (2) confirming the results from studies on new targets carried out in 2022 (see above); (3) carrying out further field trials in the EU with potential early adopters of its products and approved contract research organisations to determine the optimal product formulation and application regime for treating vines and vegetables.

One of the performance evaluations taking place during 2023 is with Nissan Chemical Corporation under the framework of a Material Transfer Agreement. Nissan has started a performance evaluation study using a mixture of its established Leimay product with an experimental biocontrol product from Amoéba to control downy mildew on grapevines. This mixture has already been used in two trials in Italy during 2022, which showed that the mixture was more effective than either of the two products used on their own as well as showing significantly better performance than the conventional copper hydroxide treatment.

Scaling up production

Management intends to build a new production plant dedicated to biocontrol products capable of manufacturing 200 tonnes of finished product annually. This is equivalent to 40 tonnes of active substance per year, which would treat 100,000 hectares of crops. Management has identified a suitable location in Cavaillon in the south of France and applied for a building permit for the site. It plans to start construction work at the site later this year, subject to receiving planning approval, and to begin production there by early 2025. Amoéba will require €45m over the next three years to finance the Cavaillon production site and to continue its operational and research activities. In total, €23m of the financing will be for capital expenditure and the remainder for funding field trials, supporting the regulatory approvals process, registering products, establishing sales channels and adding production staff. Management is considering constructing an extension to the facility, which would double output and cost another €10m. The French public investment bank BPI France is providing Amoéba with a €3.6m subsidy and a €2.4m recoverable advance to support the expansion programme.

Biocide opportunity being pursued through third parties

In December 2022, the EPA approved both live *W. magna* as an active substance and the Biomeba products containing it for use in closed cooling systems for the control of microbial slime, microbially induced corrosion and general microbial flora. Management intends to work with third parties who will take over production and/or marketing of Biomeba in the United States. Management has initiated the withdrawal of the biocidal active substance applications in Canada and Europe to conserve cash for commercialising biological control products.

Exhibit 2: Financial summary

31-December	€m	2020	2021	2022e*	2023e
INCOME STATEMENT					
Revenue		0.0	0.0	0.0	0.0
EBITDA		(4.4)	(4.5)	(4.6)	(7.7)
Operating profit (before amort. and excepts.)		(5.9)	(5.6)	(5.8)	(8.8)
Amortisation of acquired intangibles		0.0	0.0	0.0	0.0
Exceptionals		0.0	0.0	0.0	0.0
Share-based payments		(0.3)	(0.0)	(0.1)	(0.1)
Reported operating profit		(6.2)	(5.6)	(5.8)	(8.8)
Net Interest		(2.1)	(2.5)	(1.8)	(0.3)
Exceptionals		0.1	0.2	(0.3)	0.0
Profit Before Tax (norm)		(8.0)	(8.0)	(7.6)	(9.1)
Profit Before Tax (reported)		(8.2)	(7.8)	(8.0)	(9.1)
Reported tax		0.0	0.0	0.0	0.0
Profit After Tax (norm)		(8.0)	(8.0)	(7.6)	(9.1)
Profit After Tax (reported)		(8.2)	(7.8)	(8.0)	(9.1)
Discontinued operations		0.0	0.0	0.0	0.0
Net income (normalised)		(8.0)	(8.0)	(7.6)	(9.1)
Net income (reported)		(8.2)	(7.8)	(8.0)	(9.1)
Average Number of Shares Outstanding (m)		16.2	17.8	31.5	49.1
EPS - normalised (EUR)		(0.49)	(0.45)	(0.24)	(0.18)
EPS - normalised fully diluted (c)		(49.31)	(45.06)	(24.25)	(18.43)
EPS - basic reported (EUR)		(0.50)	(0.44)	(0.25)	(0.19)
Dividend (EUR)		0.00	0.00	0.00	0.00
Revenue growth (%)		N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	N/A
Normalised Operating Margin		N/A	N/A	N/A	N/A
BALANCE SHEET					
Fixed Assets		6.9	6.1	5.0	9.4
Intangible Assets		2.5	2.5	2.5	2.5
Tangible Assets		4.3	3.5	2.4	6.8
Investments & other		0.1	0.1	0.1	0.1
Current Assets		6.2	8.4	6.7	2.2
Stocks		0.1	0.3	0.3	0.3
Debtors		0.0	0.0	0.0	0.0
Cash & cash equivalents		5.0	7.3	5.5	1.1
Other		1.1	0.9	0.9	0.9
Current Liabilities		(2.1)	(13.8)	(4.6)	(13.7)
Creditors		(1.1)	(1.0)	(1.4)	(2.1)
Short term borrowings including lease liabilities		(0.4)	(12.2)	(2.7)	(11.1)
Other		(0.6)	(0.5)	(0.5)	(0.5)
Long Term Liabilities		(9.0)	(0.5)	(0.4)	(0.3)
Long term borrowings		(8.2)	(0.3)	(0.2)	(0.1)
Other long term liabilities		(0.7)	(0.3)	(0.3)	(0.3)
Net Assets		2.0	0.2	6.6	(2.4)
Minority interests		0.0	0.0	0.0	0.0
Shareholders' equity		2.0	0.2	6.6**	(2.4)
CASH FLOW					
Operating Cash Flow		(4.3)	(4.3)	(5.2)	(7.7)
Working capital		0.9	(0.4)	0.4	0.7
Exceptional & other		0.1	0.5	0.0	0.0
Tax		0.0	0.0	0.0	0.0
Operating Cash Flow		(3.3)	(4.3)	(4.9)	(6.9)
Capex (including capitalised R&D)		(0.1)	(0.1)	(0.1)	(5.5)
Acquisitions/disposals		0.0	0.0	0.0	0.0
Net interest		(0.2)	(1.6)	(1.1)	(0.3)
Equity financing		0.0	0.0	(0.2)	0.0
Dividends		0.0	0.0	0.0	0.0
Other		4.5	10.1	10.6	0.0
Net Cash Flow		1.0	4.1	4.4	(12.7)
Opening net debt/(cash)		2.7	3.6	5.2	(5.1)
FX		0.0	0.0	0.0	0.0
Other non-cash movements		(1.9)	(5.7)	5.9	0.0
Closing net debt/(cash)		3.6	5.2	(5.1)	7.7
Lease liabilities		0.7	0.5	0.4	0.3
Closing net debt/(cash) excluding property lease liabilities		2.9	4.7	(5.5)	7.4

Source: Company data, Edison Investment Research. Note: *Revised to incorporate data from press release on FY22 results except for net asset total. **Actual net asset total is €8.2m. We will update the balance sheet and cash flow when more detail is available.

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