

Carbios

First time profitable

Results update

Alternative energy

Carbios reported a profit, for the first time in its history, in 2016. First commercial revenues from the Carbiolice JV were the key driver behind the strong results. We have upgraded our forecasts and estimate that the company is funded through 2017 but may require additional financing in 2018. Our valuation range remains unchanged at €23-37 per share.

Year end	Revenue (€m)	PBT* (€m)	EPS* (c)	DPS (c)	P/E (x)	Yield (%)
12/15	0.8	(4.0)	(81.3)	0.0	N/A	N/A
12/16	8.9	3.6	131.9	0.0	4.7	N/A
12/17e	1.2	(4.0)	(71.9)	0.0	N/A	N/A
12/18e	2.0	(3.2)	(64.1)	0.0	N/A	N/A

Note: *PBT and EPS are normalised, excluding amortisation of acquired intangibles, exceptional items and share-based payments.

Profits for the first time

Carbios has turned profitable for the first time in its history. It reported 2016 revenues of €8.9m, operating income of €3.5m and net income of €5.0m, all of which are above our expectations. First commercial revenues from the new joint venture, Carbiolice, were the most important element for the positive earnings. Cash management was also strong, with lower than expected cash outflows of €5.0m, and gross cash at the year-end stood at €3.98m. With this and additional grant income of €1m yet to be received in 2017, the company can fully cover cash outflows of c €3m (pre-grant inflows) for the year.

New revenues, but future financing requirement

We have updated our 2017 forecast and introduce 2018 numbers. Our 2017e EPS loss falls to €0.72 from €0.93 on the back of higher commercial revenues. Carbios's first commercial JV, Carbiolice, which was the most important milestone during 2016, is becoming ever more important as it is now a source of revenues. Besides that, we also include PET recycling revenues from 2017. Nevertheless, as grant funding comes to an end this year, we estimate that cash outflows will exceed available cash of €1.6m as per our forecast for end 2017. We therefore expect the company to require additional financing, eg other grant funding or debt, or to step up commercial revenues beyond our forecast, or a combination of all three.

Valuation: Unchanged at €23-37 per share

We value Carbios using a DCF methodology with risk-weighted cash flows for its most important processes. This yields a fair value range of €23-37 per share based on different discount rates, with a base case value of €26/share (WACC of 20%). PET, one of the most advanced processes, is the most important component, accounting for 53% of our fair value.

11 April 2017

Price €6.23

Market cap €24m

Net cash (€m) at 31 December 2016 3.8

Shares in issue 3.8m

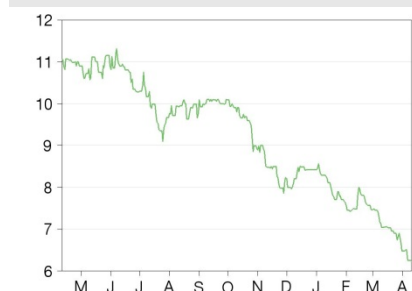
Free float 11%

Code ALCRB

Primary exchange Alternext

Secondary exchange N/A

Share price performance



% 1m 3m 12m

Abs (11.5) (24.8) (42.8)

Rel (local) (13.7) (28.5) (51.9)

52-week high/low €11.3 €6.2

Business description

Carbios develops enzyme-based processes for biodegradation and bioproduction of plastics, with a long-term aim of displacing current recycling and production practices.

Next events

H1 results September 2017

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FY16 results: Profitability for the first time

In FY16, revenues were €8.9m, operating profit came in at €3.5m and net income at €5.0m. While revenues were slightly short of our estimate of €9.2m, both EBIT and net income were ahead, 12% and 6%, respectively. Remarkably, the company generated first licensing revenues, €8m, from its new joint venture, Carbiolice. Given the short time of just six months since Carbiolice's inception, this shows very strong execution. Other revenues principally consisted of grant funding in line with achieved milestones, namely the conclusion of key stage four and a payment for stage five, the last stage of the project. As expected, costs increased with the scaled-up business. However, the company's EBIT margin was 500bp points above our estimate, reaching 38%. Cash flow was also stronger than expected with €4.5m cash flow from operations, compared to our €3.7m estimate. Total cash outflow, including the investment in Carbiolice, was €5.6m, better than our estimate of €5.4m. With that, the company had cash of €4m (gross) at end December. Its cash burn rate is about €300k per month, which means that cash at hand broadly covers outflows for this year. In addition, the company is still to receive €1m of remaining grant payments for the Thanaplast project for this year before the project completes in 2017.

Exhibit 1: FY16 results

€000s	FY16a	FY16e	change y-o-y	FY17e
Revenues	8,870	9,200	999%	1,152
EBIT	3,538	2,986	N/M	(4,066)
Net income	4,947	4,661	N/M	(2,698)
Net cash flow	(5,097)	(5,383)	49.3%	(2,353)
Cash (gross) at end of period	3,987	3,628	-55.7%	1,634

Source: Carbios accounts, Edison Investment Research

Update to our forecasts

We have updated our FY17 forecasts to reflect the reported numbers. We now include €750k in collaborative revenues from the Carbiolice JV and €300k in upcoming PET recycling partnership revenues, which has just been confirmed by the company (see above), and increase our forecast for R&D tax credits. This increases our revenue forecast to €1.2m. With cost estimates largely unchanged, this now feeds through to an EBIT loss of €4.1m on the basis of total operating expenses of c €5m, and to a net loss of €2.7m. With that, we estimate gross cash at hand of €1.6m at the end of 2017.

Exhibit 2: Forecast changes

€000s	2017e		2018e
	Old	New	New
Revenues	653	1,152	1,950
EBIT	(4,379)	(4,066)	(3,211)
Net income	(3,487)	(2,698)	(2,402)
EPS (€)	(0.93)	(0.72)	(0.64)
Operating cash flow	(2,658)	(2,399)	(2,288)
Net cash flow	(3,183)	(2,353)	(3,292)
Net cash/(debt)	314	1,506	(1,734)

Source: Carbios accounts, Edison Investment Research

We also introduce our 2018 forecasts. Our revenue estimate of €2m comprises revenues from Carbiolice, in addition to other commercial PET recycling revenues. As the Thanaplast project will conclude in 2017, there will be no more subsidies revenues. As such, we expect the company to be loss-making as the cost base exceeds revenues. We forecast an EBIT loss of €3.2m and a net loss of €2.4m.

As initial grant and subsidies financing will come to an end this year, and cash flows are still negative, we calculate that Carbios will require further financing in 2018, be it other grants, debt or other sources. We forecast a net cash outflow of €3.3m in FY18, which exceeds estimated cash of €1.6m at end-2017. That said, should the company be able to step up commercial revenues, it might reduce financing requirements.

Industrial and commercial steps ahead

The company has delivered impressive progress through 2016. Most importantly, it agreed its first joint venture, Carbiolice, in partnership with Limagrain and Bpifrance (see our [outlook note](#) of 28 September 2016 and discussion above), and has shown its first positive commercial impact. It has also strengthened its intellectual property: it has been granted two patents in the US, one for enzyme inclusion in plastics and one for PLA degradation. Carbios has also achieved a new patent in China for enzymatic biodegradation of PLA, which underpins its market expansion strategy in agricultural mulching films. Furthermore, it has taken forward its PLA production process by validating its in vivo enzymatic polymerisation process. Lastly, the company has taken a step forward by adapting the polyester biorecycling process for crystalline PET material, which is key for the very important plastic bottle market, one of Carbios's potential future growth markets.

The company now needs to drive further commercial roll-out to grow commercial revenues as Bpifrance/Thanaplast financing will come to an end in 2017 and/or contemplate additional financing from 2018.

Exhibit 3: Financial summary

Year end 31 December	€000s	2013	2014	2015	2016	2017e	2018e
		IFRS	IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS							
Revenue		900	664	837	8,870*	1,152	1,950
Cost of Sales		(3,164)	(2,912)	(3,145)	(2,980)	(2,831)	(2,774)
Gross Profit		(2,264)	(2,248)	(2,308)	5,890	(1,679)	(824)
EBITDA		(3,077)	(3,283)	(3,896)	3,761	(3,824)	(2,976)
Operating Profit (before amort. and except.)		(3,116)	(3,364)	(4,062)	3,538	(4,066)	(3,211)
Intangible Amortisation		0	0	0	0	0	0
Exceptionals		9	15	(23)	0	0	0
Other		0	0	0	0	0	0
Operating Profit		(3,107)	(3,349)	(4,085)	3,538	(4,066)	(3,211)
Net Interest		(0)	48	78	88	27	42
Profit Before Tax (norm)		(3,116)	(3,316)	(3,984)	3,626	(4,040)	(3,170)
Profit Before Tax (FRS 3)		(3,107)	(3,301)	(4,007)	3,626	(4,040)	(3,170)
Tax		961	1,091	936	1,321	1,342	768
Profit After Tax (norm)		(2,155)	(2,225)	(3,048)	4,947	(2,698)	(2,402)
Profit After Tax (FRS 3)		(2,146)	(2,210)	(3,071)	4,947	(2,698)	(2,402)
Average Number of Shares Outstanding (m)		3.8	3.8	3.8	3.8	3.8	3.8
EPS - normalised fully diluted (c)		(57.8)	(59.3)	(81.3)	131.9	(71.9)	(64.1)
EPS - (IFRS) (c)		(57.2)	(58.9)	(81.9)	131.9	(71.9)	(64.1)
Dividend per share (c)		0.0	0.0	0.0	0.0	0.0	0.0
Gross Margin (%)		N/A	N/A	N/A	N/A	N/A	N/A
EBITDA Margin (%)		N/A	N/A	N/A	42.4	N/A	N/A
Operating Margin (before GW and except.) (%)		N/A	N/A	N/A	39.9	N/A	N/A
BALANCE SHEET							
Fixed Assets		243	1,048	1,665	11,270	11,858	12,668
Intangible Assets		72	130	231	371	601	796
Tangible Assets		14	740	1,258	1,211	1,569	2,183
Investments		157	178	176	9,688	9,688	9,688
Current Assets		16,113	12,684	10,377	6,162	3,647	2,043
Stocks		0	20	12	15	16	15
Debtors		1,401	1,402	1,224	1,945	1,782	1,813
Cash		14,598	11,099	9,011	3,987	1,634	0
Other		114	163	130	215	215	215
Current Liabilities		(1,110)	(196)	(337)	(494)	(415)	(366)
Creditors		(1,110)	(196)	(337)	(494)	(415)	(366)
Short term borrowings		0	0	0	0	0	0
Long Term Liabilities		(680)	(474)	(571)	(674)	(624)	(2,281)
Long term borrowings		(457)	(152)	(222)	(178)	(128)	(1,785)
Other long term liabilities		(223)	(322)	(349)	(496)	(496)	(496)
Net Assets		14,566	13,062	11,134	16,264	14,466	12,064
CASH FLOW							
Operating Cash Flow		(1,532)	(3,546)	(2,595)	4,515	(2,399)	(2,288)
Net Interest		(0)	48	78	88	27	42
Tax		0	0	0	0	0	0
Capex		(187)	(867)	(786)	(329)	(830)	(1,045)
Acquisitions/disposals		0	0	0	(9,500)	0	0
Financing		13,500	1,171	1,145	129	850	0
Dividends		0	0	0	0	0	0
Net Cash Flow		11,781	(3,194)	(2,158)	(5,097)	(2,353)	(3,292)
Opening net debt/(cash)		(2,360)	(14,141)	(10,947)	(8,789)	(3,809)	(1,506)
HP finance leases initiated		0	0	0	0	0	0
Other		0	0	0	117	50	51
Closing net debt/(cash)		(14,141)	(10,947)	(8,789)	(3,809)	(1,506)	1,734

Source: Carbios accounts, Edison Investment Research. Note: *FY16 revenues include an €8m non-cash payment treated as licensing revenues as per management guidance; this non-cash payment has been adjusted in the operating cash flow accordingly.

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