

# Deinove

Company update

## Preparing for DNV3837 Phase II trial start

With its latest H218 report, Deinove reiterated its focus on the major areas of bioactives and antibiotics. The most recent significant announcement was its collaboration with the Institut Pasteur, which will provide access to a selection of bacterial strains. The upcoming initiation of the company's first Phase II trial with DNV3837 for *C. diff* infections is the key milestone this year. According to the released details, the trial is expected to start in mid-2019 in the US and Germany, enrol 40 patients and last for about a year. If positive, the next step would likely be a Phase III trial. Deinove's commercial activities will continue to focus on the two marketed and several other cosmetics ingredients in development. Our valuation is virtually unchanged at €66m or €4.2/share.

Year end	Revenue (€m)	PBT* (€m)	EPS* (€)	DPS (€)	P/E (x)	Yield (%)
12/17	0.2	(9.7)	(0.7)	0.0	N/A	N/A
12/18	0.8	(10.5)	(0.6)	0.0	N/A	N/A
12/19e	1.1	(13.2)	(0.7)	0.0	N/A	N/A
12/20e	2.9	(12.4)	(0.6)	0.0	N/A	N/A

Note: \*PBT and EPS are normalised, excluding amortisation of acquired intangibles and exceptional items.

## Newsflow from antibiotics and AGIR programme

Deinove recently announced an agreement with the Institut Pasteur, one of the key global players in infectious disease research, which will provide access to a selection of bacterial strains. Using its platform technology, Deinove will be able to evaluate the antibiotic and antifungal activity potential. The company established similar collaborations with Naicons and bioMérieux in 2018 (described in our recent [outlook report](#)). Such agreements boost Deinove's Antibiotics against Resistant Infectious aGents (AGIR) programme, which is supported by the Future Programme (run by Bpifrance) and should receive €14.6m over five years. The first €1.5m was received in Q119.

## Bioactives portfolio development on track

The AGIR programme and the in-licensed DNV3837 are the major focus areas in antibiotics R&D pipeline (Exhibit 1). In its latest update on its bioactive ingredient portfolio, Deinove reiterated its focus on commercialising the two launched ingredients with more planned for launch in 2019 (as previously discussed in our [outlook report](#)). The internally developed PHYT-N-RESIST has been distributed by Univar and Solvay in all major geographies since 2018, while Hebelys has been developed and is marketed in partnership with Greentech.

## Valuation: €66m or €4.2/share

We value Deinove at €66m (vs €65m) or €4.2/share (vs €4.2/share), using a 12.5% discount rate. From the antibiotics pipeline, we include only the lead asset DNV3837 in our valuation at €2.3/share, but will revisit other compounds as they progress through the preclinical stage. Other products in our valuation are the marketed cosmetics ingredients, Phyt-N-Resist and Hebelys, and the disclosed ingredients in development (Oléos, second carotenoid and nutrition).

Pharma &amp; biotech

25 April 2019

**Price** €1.23

**Market cap** €19m

Net cash (€m) at end-2018 (excludes non-conditional government loans of €11.0m) 3.9

Shares in issue 15.6m

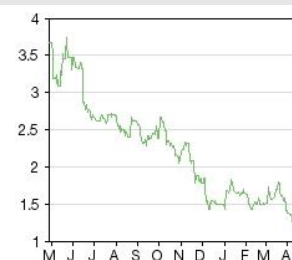
Free float 83%

Code ALDEI

Primary exchange Euronext Growth

Secondary exchange N/A

### Share price performance



%	1m	3m	12m
Abs	(24.1)	(24.3)	(66.7)
Rel (local)	(28.3)	(33.4)	(67.2)
52-week high/low		€3.75	€1.20

### Business description

Deinove is a biotechnology company that discovers, develops and produces high value-added compounds using its state-of-the-art bacterial strain selection, banking, fermentation and screening facilities. The most valuable compounds in the pipeline are novel antimicrobials, with lead asset DNV3837 ready for Phase II trial. Products for other applications, such as cosmetics and nutrition, will support drug development efforts.

### Next events

Start of Phase II trial with DNV3837	2019
Cosmetics ingredient commercialisation updates	H119
2019 half-year financial results	26 September

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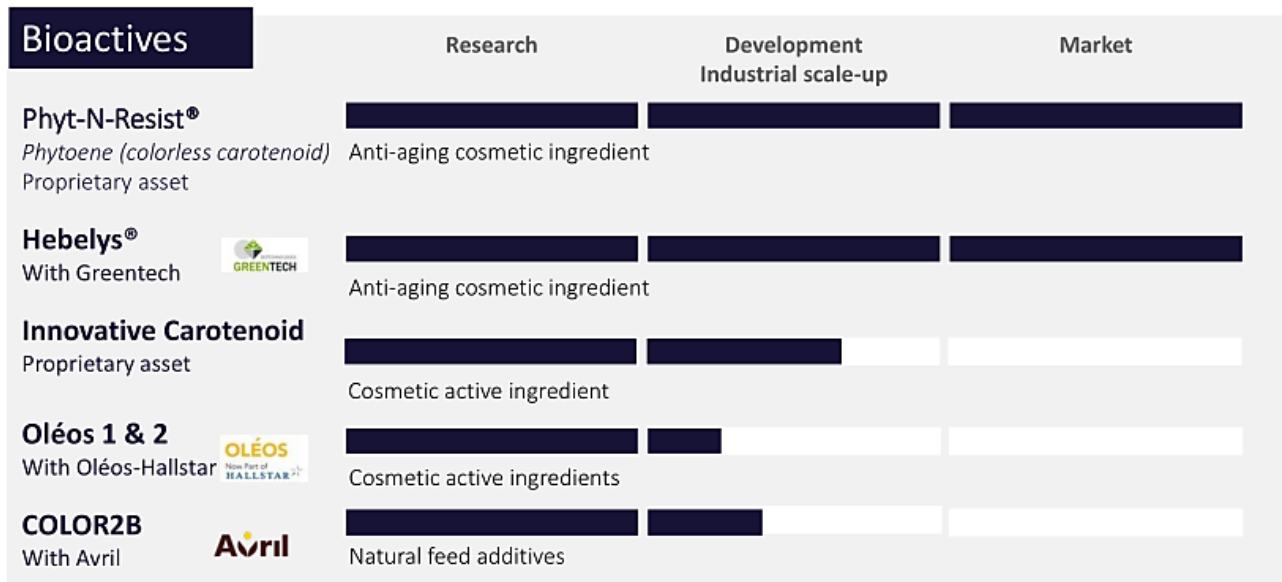
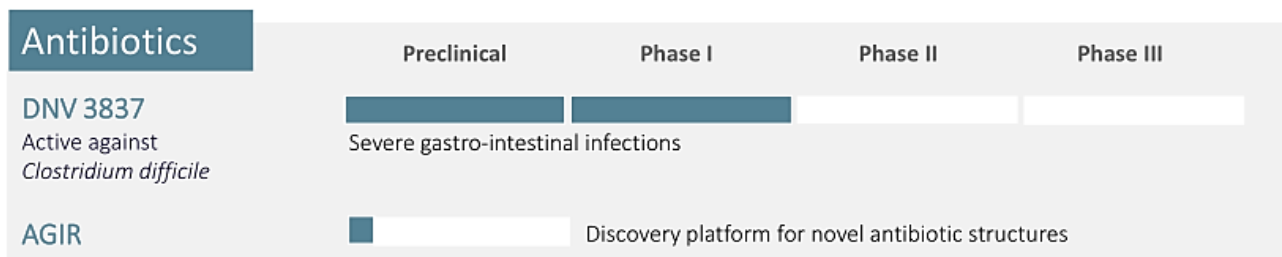
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## Progress with bioactives and antibiotics

Deinove is a biotech company that develops innovative compounds from rare bacteria strains, including the little-explored *Deinococcus* genus. Using proprietary strain-selection technology and via collaborations with other institutions, the company has access to an extensive library of bacterial strains with various potential applications, including antibiotics, antifungals and other bioactive compounds (it also has programmes in cosmetics and animal nutrition). Of the many potential compounds identified by Deinove, the most valuable are novel antimicrobials.

An upcoming milestone event in antibiotic development will be the initiation of the Phase II trial with DNV3837, a novel quinolonyl-oxazolidinone class molecule, for *C. diff* infection. The recently released details indicate the trial is expected to start in mid-2019 in the US (10 centres) and Germany (five centres) and will enrol around 40 patients in severe and moderate cohorts. The study should last for about 10–12 months. If positive, the next step would likely be a registration Phase III trial. Deinove chose Medpace as a CRO for the trial. Detailed study protocol has not been released yet.

### Exhibit 1: Deinove's R&D pipeline and product portfolio



Source: Deinove

## Financials and valuation

Because of the merger with Biovertis (including subsidiary Morphochem) in June 2018, the y-o-y comparison of the financial results is not meaningful. In 2018, Deinove reported operating revenue of €759k (€214k in 2017), of which €678k came from the AGIR programme (effectively government

loans). Total operating costs amounted to €11.2m, of which €8.5m was R&D related. These were up from €7.4m and €2.5m in 2017 due to more intensive R&D. We maintain our revenue forecasts for FY19 and FY20, which are €1.12m and €2.94m respectively, and mainly reflect grant payments and expected initial sales of cosmetics products.

Existing cash (€3.9m at end-2018), the incoming grant stream and extended equity lines are sufficient to fund existing operations until 2020 and to initiate the Phase II trial with DNV3837. We expect the next fund-raise will focus significantly on supporting the DNV3837 asset to reach the Phase II readout, which represents an opportunity for value inflection. At the end of 2018, Deinove had €11.7m booked as long-term debt. Of that amount, €11.0m is non-conditional government loans, which are repayable if the products achieve commercial success.

Our risk-adjusted NPV is virtually unchanged at €66m or €4.2/share. We have rolled our model forward, which is partially offset by the higher net debt position (€7.8m vs €3.7m before). We maintain our all other assumptions for the R&D projects, as described in our [outlook report](#).

We note that as of end-2018 there were unexercised share warrants and options amounting to c 10.9m; however, absolute majority (8.0m) of those were related to the acquisition of Biovertis/Morphochem. The warrants associated with the latter become exercisable only after certain milestones are met, which are related to clinical development. Each of these milestones is related to positive R&D developments, which typically provides catalysts for the share price.

#### Exhibit 2: DCF valuation of Deinove (operations including ingredients)

(€m)	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	2029e	2030e	
EBIT (risk-adjusted)	(10.6)	(9.8)	(6.1)	(0.1)	3.2	6.1	7.9	8.6	9.8	10.5	11.2	12.0	
Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
D&A	2.0	1.9	1.1	1.1	1.1	1.1	1.1	1.1	0.6	0.6	0.6	0.6	
Change in WC	4.1	0.0	0.5	(2.2)	(1.2)	(2.2)	0.0	(0.1)	0.5	0.5	1.1	0.5	
Capex	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	(0.6)	
<b>Operating FCF</b>	<b>(5.1)</b>	<b>(8.5)</b>	<b>(5.1)</b>	<b>(1.8)</b>	<b>2.5</b>	<b>4.4</b>	<b>8.4</b>	<b>9.0</b>	<b>10.2</b>	<b>11.0</b>	<b>12.3</b>	<b>12.5</b>	
												<b>rNPV (€m)</b>	
Free cash flows FY19–30e													8.4
Terminal value (1.5% growth rate assumed)													29.2
<b>Total value</b>													<b>37.6</b>
<b>Valuation/share (€)</b>													<b>2.4</b>

#### Sum-of-the-parts Deinove valuation (operations including ingredients and antibiotic)

Product	Launch	Peak sales (€m)	Unrisked NPV (€m)	Unrisked NPV/share (€)	Probability (%)	rNPV (€m)	Value per share (€)
Antibiotics ( <i>C. diff</i> )	2025	209	125.9	8.1	27.5%	35.9	2.3
Bioactives (DCF)						37.6	2.4
Net debt at end-2018						(7.8)	(0.5)
<b>Valuation</b>						<b>65.8</b>	<b>4.2</b>

Source: Edison Investment Research. Note: Discount rate 12.5%. DCF taxes are offset by tax loss carryforward (€54.4m in 2017)

**Exhibit 3: Financial summary**

	€'000s	2016	2017	2018	2019e	2020e
Year end 31 December		IFRS	IFRS	IFRS	IFRS	IFRS
<b>PROFIT &amp; LOSS</b>						
Revenue		793	214	759	1,120	2,941
Cost of sales		0	0	0	(150)	(1,000)
Gross profit		793	214	759	970	1,941
EBITDA		(6,362)	(8,521)	(9,366)	(11,755)	(11,010)
Operating profit (before amort. and except.)		(7,676)	(9,681)	(10,496)	(13,155)	(12,373)
Intangible Amortisation		0	(376)	(430)	(562)	(511)
Exceptionals		639	296	172	0	0
Other		0	0	0	0	0
Operating profit		(7,037)	(9,761)	(10,754)	(13,716)	(12,884)
Net Interest		(31)	(5)	(6)	0	0
Profit Before Tax (norm)		(7,707)	(9,686)	(10,502)	(13,155)	(12,373)
Profit before tax (FRS 3)		(7,068)	(9,766)	(10,760)	(13,716)	(12,884)
Tax		1,115	2,430	2,014	2,576	2,612
Profit after tax (norm.)*		(6,897)	(7,256)	(8,488)	(10,579)	(9,761)
Profit after tax (FRS 3)*		(6,258)	(7,336)	(8,746)	(11,141)	(10,272)
Average Number of Shares Outstanding (m)		8.6	10.7	13.9	15.5	15.5
EPS - normalised (€)		(0.73)	(0.68)	(0.61)	(0.68)	(0.63)
EPS - (IFRS) (€)		(0.73)	(0.68)	(0.63)	(0.72)	(0.66)
Dividend per share (€)		0.0	0.0	0.0	0.0	0.0
Gross margin (%)		N/A	N/A	N/A	N/A	N/A
EBITDA margin (%)		N/A	N/A	N/A	N/A	N/A
Operating margin (before GW and except.) (%)		N/A	N/A	N/A	N/A	N/A
<b>BALANCE SHEET</b>						
Fixed assets		2,336	5,741	6,923	5,174	3,899
Intangible assets		201	3,604	4,430	3,714	3,203
Tangible assets		1,851	2,044	2,397	1,363	600
Investments		284	93	96	96	96
Current assets		11,525	8,400	9,696	2,729	2,274
Stocks		0	0	0	0	0
Debtors		1,792	3,050	5,212	1,800	1,800
Cash		9,316	4,876	3,902	455	0
Other		417	474	582	474	474
Current liabilities		(2,141)	(2,663)	(2,876)	(3,360)	(11,632)
Creditors		(2,141)	(2,663)	(2,876)	(3,360)	(3,413)
Short-term borrowings		(0)	0	0	0	(8,219)
Long-term liabilities		(10,275)	(10,803)	(12,247)	(14,576)	(14,846)
Long-term borrowings		(9,178)	(9,972)	(11,677)	(14,006)	(14,276)
Other long-term liabilities		(1,097)	(831)	(570)	(570)	(570)
Net Assets		1,445	675	1,496	(10,033)	(20,305)
<b>CASH FLOW</b>						
Operating cash flow		(6,327)	(9,346)	(11,383)	(7,902)	(10,973)
Net Interest		(31)	(5)	(6)	0	0
Tax		1,115	2,430	2,014	2,619	2,629
Capex		(519)	(1,208)	(1,410)	(600)	(600)
Acquisitions/disposals		28	551	0	0	0
Financing		437	2,345	8,106	108	0
Dividends		0	0	0	0	0
Net cash flow		(5,297)	(5,234)	(2,679)	(5,776)	(8,944)
Opening net debt/(cash)		(5,435)	(138)	5,096	7,775	13,551
HP finance leases initiated		0	0	0	0	0
Other		0	0	0	0	0
Closing net debt/(cash)		(138)	5,096	7,775	13,551	22,495
Closing net debt/(cash) (Excluding government loans)		(9,316)	(4,876)	(3,902)	(455)	0

Source: Deinove accounts, Edison Investment Research

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