Pharming Group NV

Netherlands / Biotechnology
Primary exchange: Euronext Amsterdam / Secondary exchange: Frankfurt
Bloomberg: PHARM NA
ISIN: NL0010391025

Q2 results

RATING	**BUY**
PRICE TARGET	**€ 1.90**
Return Potential	102.4%
Risk Rating	High

Q2 RESULTS COULD MARK TURNING POINT IN SENTIMENT

Q2/19 sales at €42.7m (Q2/18: €30.0m) were 21.3% above the Q1/19 figure of €35.2m and 11.3% above the Bloomberg consensus forecast of €38.4m. Q2/19 operating profit of €12.4m (Q2/18:€8.1m) was 53% above the prior year figure but only 1.2% above Q1/19 because of higher R&D spend in preparation of clinical trials of Ruconest in pre-eclampsia and acute kidney injury. We think these results will further allay fears about competitors that have dogged the Pharming share since last autumn. Q2 results indicate that rather than suffering from the growth of the hereditary angioedema (HAE) prophylactic therapies Takhzyro (Takeda) and Haegarda (CSL Behring), Ruconest sales are benefiting from demand for treatment of breakthrough attacks from patients using these products. Meanwhile, the disappointing results of Biocryst's phase III trial of BCX7353 in May will ease concerns about competition from oral treatments. Lastly, worries that Ruconest's intravenous administration method is not competitive also look less pressing given that Pharming can currently sell every vial of Ruconest it can produce. In our view, evidence from the Q2 report that Ruconest growth in HAE can be relied upon, will refocus investor attention on Pharming's pipeline which includes multiple products each with sales potential of over USD1bn. We have revised up our forecasts to reflect the strong Q2 numbers and now see fair value at €1.90 (previously: €1.80). We maintain our Buy recommendation.

Highest gross margin since 2014 The Q2/19 gross margin at 87% was higher than for any quarter since 2014 helped by a shift in the sales mix towards the U.S.

U.S. pre-eclampsia patient population is 20-30X larger than HAE population In June Pharming received approval from the Dutch authorities to start a phase I/II trial of Ruconest with pre-eclampsia patients. There are 150,000 to 200,000 cases of pre-eclampsia in the U.S. every year. This compares with ca. 7,500 diagnosed U.S. HAE patients. (p.t.o.)

FINANCIAL HISTORY & PROJECTIONS

	2015	2016	2017	2018	2019E	2020E
Revenue (€ m)	10.83	15.87	89.62	135.13	170.94	212.00
Y-o-y growth	-48.9%	46.6%	464.6%	50.8%	26.5%	24.0%
EBIT (€ m)	-12.83	-11.54	21.91	37.99	51.81	68.07
EBIT margin	-118.5%	-72.7%	24.4%	28.1%	30.3%	32.1%
Net income (€ m)	-9.96	-17.54	-76.25	24.99	25.73	49.57
EPS (diluted) (€)	-0.02	-0.04	-0.15	0.04	0.04	0.08
DPS (€)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (€m)	-18.14	-67.48	32.17	36.61	24.77	15.18
Net gearing	-67.0%	128.4%	137.9%	-13.9%	-28.4%	-25.9%
Liquid assets (€ m)	31.64	31.89	58.66	80.31	68.70	49.60

RISKS

The main risks to our price target include slower sales growth for Ruconest in the EU and the US than we currently model.

COMPANY PROFILE

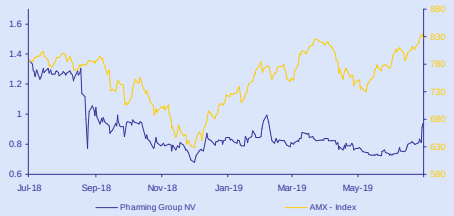
Pharming develops and produces therapeutic proteins through a bioreactor recombinant technology platform. Lead drug Ruconest received EMA approval in 2010 and FDA approval in July 2014.

MARKET DATA

As of 26 Jul 2019	
Closing Price	€ 0.94
Shares outstanding	626.80m
Market Capitalisation	€ 588.44m
52-week Range	€ 0.68 / 1.36
Avg. Volume (12 Months)	10,800,499

Multiples	2018	2019E	2020E
P/E	22.3	22.1	11.4
EV/Sales	4.2	3.4	2.7
EV/EBIT	15.1	11.1	8.4
Div. Yield	0.0%	0.0%	0.0%

STOCK OVERVIEW



COMPANY DATA

As of 30 Jun 2019	
Liquid Assets	€ 63.89m
Current Assets	€ 101.22m
Intangible Assets	€ 51.52m
Total Assets	€ 205.79m
Current Liabilities	€ 65.97m
Shareholders' Equity	€ 77.49m

SHAREHOLDERS

FMR LLC	3.1%
Polar Capital Partners Ltd.	3.0%
Goldman Sachs Group Inc.	3.0%
Hagemann G.J.	2.3%
Free float and other	88.6%

Analyst: Simon Scholes, Tel. +49 (0)30 - 80 93 96 94

Figure 1: Q2/19 results versus our forecasts

All figures in €m	Q2 19A	Q2 19E	Delta	Q2 18A	Delta
Sales	42.71	36.20	18.0%	29.97	42.5%
EBIT	12.39	8.50	45.7%	8.09	53.2%
margin	*29.0%*	*23.5%*	-	*27.0%*	-
Net income	6.86	3.30	107.7%	3.03	126.4%
margin	*16.1%*	*9.1%*	-	*neg.*	-
EPS (in €)	0.011	0.005	107.7%	0.005	144.4%

Source: First Berlin Equity Research estimates, Pharming Group NV

Results from the first part of the study to assess safety and tolerability are expected in Q2 next year and full results including assessment of preliminary efficacy parameters in Q4/20 or Q1/21. There is currently no FDA-approved therapy for pre-eclampsia.

Trial of Ruconest with acute kidney injury patients set to begin later this year Pharming also expect approval from the authorities later this year to begin a phase II trial of Ruconest in acute kidney injury patients undergoing percutaneous coronary intervention (PCI) accompanied by contrast-enhanced examinations. The incidence of acute kidney injury is highest for patients with renal condition undergoing PCI. PCI is a part of the procedure used to treat narrowed coronary arteries in coronary heart disease. A catheter is used to visualise the blood vessels with x-ray imaging. After this, a coronary angioplasty can be performed in which a deflated balloon is moved into the obstructed artery and inflated to relieve the narrowing. Devices such as stents are then used to keep the artery open. These procedures both require higher volumes of contrast medium and are more likely to lead to thromboembolic events which trigger the complement system and culminate in reperfusion injury to the kidney (tissue damage caused when blood supply returns to tissue after a period of ischemia or lack of oxygen). Here too, the target U.S. patient population at ca. 0.5 million is many times the size of the HAE patient population. Readout from the trial is expected in 2020.

PROTECT results with acute kidney injury patients were very promising Last October Pharming published the results of PROTECT, an investigator-initiated (University Hospital Basel) phase II study of Ruconest in acute kidney injury. The study enrolled 75 patients, 37 of whom were given Ruconest and 38 who were on placebo. The study achieved its endpoint with a statistically significant (p= 0.038) reduction in urinary Neutrophil Gelatinase-Associated Lipocalin (NGAL). NGAL is a generally recognised early marker of acute renal injury in patients with diagnosed renal function impairment undergoing interventions enhanced with standard contrast media. Results in the sub-group of 30 patients undergoing PCI were particularly encouraging. Patients in this group had a median increase in peak urinary NGAL concentration within 48 hours of 1.8 ng/ml compared with an increase of 26.2 ng/ml in the placebo arm (p=0.04). The median percentage change in the peak urinary NGAL level within 48 hours was 11.3% for patients who received Ruconest and 205.2% in the placebo arm (p=0.001).

Figure 2: Expected pipeline newsflow

H2 19	Start phase II trial in acute kidney injury
Q2 20	Pre-eclampsia phase I/II trial safety component read-out
Q4 20	IND filing in Pompe disease
Q4 20/Q1 21	Full read-out on phase I/II trial in pre-eclampsia
Q1 21	Start clinical studies of new delivery methods
H1 21	Start phase I/II trial in Pompe disease
Mid-2021	Read-out on acute kidney injury phase II trial
2021	Read-out on investigator-initiated study in delayed graft function
H1 22	Start phase I/II trial in Fabry disease

Source: Pharming Group NV

During the conference call following the results, management confirmed that they are much more optimistic than a year ago about the growth outlook for Ruconest as a treatment for HAE in its current configuration (acute therapy, intravenous administration). Due to strong Ruconest sales growth and the need to assimilate insights gained from the observation of competitors' products, management states that clinical studies of new Ruconest administration methods are now not likely to start until Q1 2021. We had previously assumed H1 2020. Pharming intend that the prophylactic version of Ruconest should use a more convenient method of administration than intravenous delivery. But given the later start to the studies of new administration methods, we also put back our forecast launch date for Ruconest in prophylactic treatment of HAE in the U.S. by two years to 2023.

We raise our price target from €1.80 to €1.90 and maintain our Buy recommendation

In our valuation model, upward revisions to our forecasts to reflect the better than expected Q2 results outweigh the later timing of the launch of Ruconest in prophylaxis. Our price target moves to €1.90 (previously: €1.80) and we maintain our Buy recommendation.

Figure 3: Changes to our forecasts

	2019E			2020E		
All figures in €m	**Old**	**New**	**Delta**	**Old**	**New**	**Delta**
Sales	158.00	170.94	8.2%	184.20	212.00	15.1%
EBIT	48.74	51.81	6.3%	61.49	68.07	10.7%
margin	*30.8%*	*30.3%*	-	*33.4%*	*32.1%*	-
Net income	23.34	25.73	10.3%	44.43	49.57	11.6%
margin	*14.8%*	*15.1%*	-	*24.1%*	*23.4%*	-
EPS (in €)	0.04	0.04	10.3%	0.07	0.08	11.6%

* Total sales including other operating income such as milestone payments

Source: First Berlin Equity Research estimates

Figure 4: Valuation model

Compound	Project[1)]	Present Value	Patient Pop	Treatment Cost	Market Size	Market Share	Peak Sales	Gross margin	Discount Factor	Patent Life[2)]	Time to Market
Ruconest (EU)	HAE-AA	€22.4M	4K	€ 43,478	€174M	20%	€7M	60%	10%	16	-
Ruconest (US)	HAE-AA	€1,543.3M	4K	€ 225,330	€901M	20%	€336M	87%	10%	12	-
Ruconest (EU)	HAE-PR	€4.1M	1K	€ 86,957	€87M	10%	€8M	60%	12%	4	5 years
Ruconest (US)	HAE-PR	€276.8M	2K	€ 463,768	€723M	15%	€160M	87%	12%	5	4 years
rhαGLU (EU+US)	Pompe	€479.9M	3K	€ 260,870	€826M	30%	€718M	85%	12%	18	4 years
PV of gross profits		€2,326.5M			€2,712M		€1,229M				
Costs PV		€1,027.3M									
PV after costs		€1,299.2M									
Contingent consideration		€32.0M									
Net cash (pro-forma)		€13.1M									
Fair Value		€1,280.3M									
Share Count (fully diluted, PV)		675,518K									
Fair value per share		€ 1.90									

1) A project typically refers to a specific indication or, where necessary or relevant, a combination between indication and geographic market

2) Remaining patent life in years after point of approval

Source: First Berlin Equity Research estimates

Figure 5: Changes to our valuation model

	Old	New	Delta
PV of gross profits	**€2,194.3M**	**€2,326.5M**	**6.0%**
Costs PV	€982.8M	€1,027.3M	4.5%
PV after costs	**€1,211.5M**	**€1,299.2M**	**7.2%**
Contingent consideration	€49.5M	€32.0M	-35.3%
Proforma net cash	€17.5M	€13.1M	-25.1%
Fair Value	€1,179.5M	€1,280.3M	8.5%
Share Count (fully diluted, PV)	657,323K	675,518K	2.8%
Fair value per share	**€ 1.80**	**€ 1.90**	**5.3%**

Source: First Berlin Equity Research estimates

INCOME STATEMENT

All figures in EUR '000	2015A	2016A	2017A	2018A	2019E	2020E
Revenues	**10,828**	**15,873**	**89,620**	**135,130**	**170,935**	**212,000**
Costs of sales	-4,800	-4,683	-12,445	-22,180	-23,511	-29,680
Gross profit	**6,028**	**11,190**	**77,175**	**112,950**	**147,424**	**182,320**
Other income	147	335	790	684	481	600
Research and development	-14,180	-15,388	-18,657	-28,882	-36,377	-47,000
General and administrative	-3,744	-4,642	-5,974	-12,221	-14,942	-16,850
Marketing and sales	-1,085	-3,035	-31,422	-34,539	-44,776	-51,000
Operating income (EBIT)	**-12,834**	**-11,540**	**21,912**	**37,992**	**51,810**	**68,070**
Net financial result	2,877	-5,996	-107,601	-37,135	-16,558	-4,523
Pre-tax income (EBT)	**-9,957**	**-17,536**	**-85,689**	**857**	**35,252**	**63,547**
Income taxes	0	0	9,442	24,136	-9,520	-13,980
Minority interests	0	0	0	0	0	0
Net income / loss	**-9,957**	**-17,536**	**-76,247**	**24,993**	**25,732**	**49,567**
Diluted EPS	**-0.02**	**-0.04**	**-0.15**	**0.04**	**0.04**	**0.08**
EBITDA	**-11,871**	**-10,784**	**25,327**	**40,342**	**55,660**	**71,920**
Ratios						
Gross margin on revenues	55.7%	70.5%	86.1%	83.6%	86.2%	86.0%
EBITDA margin on revenues	n.m.	n.m.	28.3%	29.9%	32.6%	33.9%
EBIT margin on revenues	n.m.	n.m.	24.4%	28.1%	30.3%	32.1%
Net margin on revenues	n.m.	n.m.	n.m.	18.5%	15.1%	23.4%
Expenses as % of revenues						
Cost of sales	44.3%	29.5%	13.9%	16.4%	13.8%	14.0%
Research and development	131.0%	96.9%	20.8%	21.4%	21.3%	22.2%
General and administrative	34.6%	29.2%	6.7%	9.0%	8.7%	7.9%
Marketing and sales	10.0%	19.1%	35.1%	25.6%	26.2%	24.1%
Y-Y Growth						
Revenues	-48.9%	46.6%	464.6%	50.8%	26.5%	24.0%
Operating income	n.m.	n.m.	n.m.	73.4%	36.4%	31.4%
Net income/ loss	n.m.	n.m.	n.m.	n.m.	3.0%	92.6%

BALANCE SHEET

All figures in EUR '000	2015A	2016A	2017A	2018A	2019E	2020E
Assets						
Current assets, total	**51,092**	**62,190**	**88,251**	**115,440**	**109,771**	**97,490**
Cash and cash equivalents	31,643	31,889	58,657	80,311	68,696	49,605
Receivables	3,220	12,360	11,260	17,814	20,829	24,283
Inventories	16,229	17,941	18,334	17,315	20,245	23,603
Other current assets	0	0	0	0	0	0
Non-current assets, total	**6,585**	**64,593**	**77,939**	**99,129**	**98,321**	**96,194**
Property, plant & equipment	5,661	6,043	8,234	8,402	9,480	9,210
Long term prepayments	0	1,622	2,296	2,006	2,370	2,763
Deferrred tax assets	0	0	9,442	35,082	35,082	35,082
Goodwill & other intangibles	724	56,680	56,631	52,435	50,185	47,935
Restricted cash	200	248	1,336	1,204	1,204	1,204
Total assets	**57,677**	**126,783**	**166,190**	**214,569**	**208,092**	**193,684**
Shareholders' equity & debt						
Current liabilities, total	**13,475**	**51,378**	**60,743**	**82,599**	**104,657**	**55,463**
Debt	3,047	26,136	22,398	35,235	29,750	14,911
Contract liabilities	2,207	943	804	800	935	1,091
Derivative financial liabilities	953	9,982	10,080	228	228	228
Trade and other payables	7,005	14,054	27,198	28,589	33,428	38,971
Finance lease liabilities	263	263	263	263	263	263
Other financial liabilities	0	0	0	17,484	40,053	0
Longterm liabilities, total	**20,363**	**47,938**	**89,337**	**70,219**	**15,952**	**1,172**
Debt	11,757	40,395	59,161	37,267	14,911	0
Deferred tax liabilities	0	0	0	87	87	87
Contract liabilities	7,808	2,270	1,467	667	790	921
Finance lease liabilities	798	599	390	164	164	164
Other financial liabilities	0	4,674	28,319	32,034	0	0
Minority interests	**0**	**0**	**0**	**0**	**0**	**0**
Shareholders' equity	**23,839**	**27,467**	**16,110**	**61,751**	**87,483**	**137,050**
Total consolidated equity and debt	**57,677**	**126,783**	**166,190**	**214,569**	**208,092**	**193,684**
Ratios						
Current ratio (x)	3.79	1.21	1.45	1.40	1.05	1.76
Quick ratio (x)	2.59	0.86	1.15	1.19	0.86	1.33
Net gearing	-67.0%	128.4%	137.9%	-13.9%	-28.4%	-25.9%
Book value per share (€)	0.06	0.06	0.03	0.10	0.14	0.22
Net debt	-15,978	35,256	22,219	-8,586	-24,813	-35,471
Return on equity (ROE)	-37.1%	-68.4%	-349.9%	64.2%	34.5%	44.2%

CASH FLOW STATEMENT

All figures in EUR '000	2015A	2016A	2017A	2018A	2019E	2020E
EBIT	**-12,834**	**-11,540**	**21,912**	**37,992**	**51,810**	**68,070**
Depreciation and amortization	963	756	3,415	6,559	3,850	3,850
EBITDA	**-11,871**	**-10,784**	**25,327**	**44,551**	**55,660**	**71,920**
Changes in working capital	-5,267	642	11,099	-4,144	-1,212	-1,375
Interest income, taxes paid, other	-103	138	1,787	-31	-9,520	-13,980
Milestone payments	0	0	0	0	-17,484	-40,053
Operating cash flow	**-17,241**	**-10,004**	**38,213**	**40,376**	**27,444**	**16,511**
CAPEX	-898	-57,474	-6,045	-3,769	-2,678	-1,330
Free cash flow	**-18,139**	**-67,478**	**32,168**	**36,607**	**24,766**	**15,181**
Debt financing, net	**15,524**	**63,635**	**-10,088**	**-28,457**	**-36,381**	**-34,273**
Equity financing, net	**483**	**8,825**	**6,833**	**10,496**	**0**	**0**
Other changes in cash	-410	-4,736	-1,057	3,008	0	0
Net cash flows	**-2,542**	**246**	**27,856**	**21,654**	**-11,615**	**-19,092**
Cash, start of the year	34,185	31,643	31,889	58,657	80,311	68,696
Cash, end of the year	**31,643**	**31,889**	**58,657**	**80,311**	**68,696**	**49,605**
EBITDA/share	**-0.03**	**-0.03**	**0.05**	**0.07**	**0.09**	**0.12**
Y-Y Growth						
Operating cash flow	n.m.	n.m.	n.m.	5.7%	-32.0%	-39.8%
Free cash flow	n.m.	n.m.	n.m.	13.8%	-32.3%	-38.7%
EBITDA/share	n.m.	n.m.	n.m.	45.2%	22.6%	29.2%

FIRST BERLIN RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	10 November 2009	€0.52	Buy	€0.70
2...42	↓	↓	↓	↓
43	12 December 2018	€0.79	Buy	€2.00
44	12 March 2019	€0.80	Buy	€1.80
45	21 May 2019	€0.79	Buy	€1.80
46	Today	€0.94	Buy	€1.90

Authored by: Simon Scholes, Analyst

Company responsible for preparation:

First Berlin Equity Research GmbH
Mohrenstraße 34
10117 Berlin

Tel. +49 (0)30 - 80 93 96 94 Fax +49 (0)30 - 80 93 96 87

info@firstberlin.com
www.firstberlin.com

Person responsible for forwarding or distributing this financial analysis: Martin Bailey

INFORMATION PURSUANT TO SECTION 34B OF THE GERMAN SECURITIES TRADING ACT [WPHG], TO REGULATION (EU) NO 596/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF APRIL 16, 2014, ON MARKET ABUSE (MARKET ABUSE REGULATION) AND TO THE GERMAN ORDINANCE ON THE ANALYSIS OF FINANCIAL INSTRUMENTS [FINANV]

First Berlin Equity Research GmbH (hereinafter referred to as: "First Berlin") prepares financial analyses while taking the relevant regulatory provisions, in particular the German Securities Trading Act [WpHG], Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) and the German Ordinance on the Analysis of Financial Instruments [FinAnV] into consideration. In the following First Berlin provides investors with information about the statutory provisions that are to be observed in the preparation of financial analyses.

CONFLICTS OF INTEREST

In accordance with Section 34b Paragraph 1 of the German Securities Trading Act [WpHG] and Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) financial analyses may only be passed on or publicly distributed if circumstances or relations which may cause conflicts of interest among the authors, the legal entities responsible for such preparation or companies associated with them are disclosed along with the financial analysis.

First Berlin offers a range of services that go beyond the preparation of financial analyses. Although First Berlin strives to avoid conflicts of interest wherever possible, First Berlin may maintain the following relations with the analysed company, which in particular may constitute a potential conflict of interest (further information and data may be provided on request):

- The author, First Berlin, or a company associated with First Berlin holds an interest of more than five percent in the share capital of the analysed company;
- The author, First Berlin, or a company associated with First Berlin provided investment banking or consulting services for the analysed company within the past twelve months for which remuneration was or was to be paid;
- The author, First Berlin, or a company associated with First Berlin reached an agreement with the analysed company for preparation of a financial analysis for which remuneration is owed;
- The author, First Berlin, or a company associated with First Berlin has other significant financial interests in the analysed company;

First Berlin F.S.B. Investment-Beratungsgesellschaft mbH (hereafter FBIB), a company of the First Berlin Group, holds a stake of under 0.1% of the shares in the company which has been covered in this analysis. The analyst is not subject to any restrictions with regard to his recommendation and is therefore independent, so that we believe there is no conflict of interest.

In order to avoid and, if necessary, manage possible conflicts of interest both the author of the financial analysis and First Berlin shall be obliged to neither hold nor in any way trade the securities of the company analyzed. The remuneration of the author of the financial analysis stands in no direct or indirect connection with the recommendations or opinions represented in the financial analysis. Furthermore, the remuneration of the author of the financial analysis is neither coupled directly to financial transactions nor to stock exchange trading volume or asset management fees.

If despite these measures one or more of the aforementioned conflicts of interest cannot be avoided on the part of the author or First Berlin, then reference shall be made to such conflict of interest.

INFORMATION PURSUANT TO SECTION 64 OF THE GERMAN SECURITIES TRADING ACT [WPHG] (2ND FIMANOG) OF 23 JUNE 2017, DIRECTIVE 2014/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL OF 15 MAY 2014 ON MARKETS IN FINANCIAL INSTRUMENTS AND AMENDING DIRECTIVE 2002/92/EC AND DIRECTIVE 2011/61/EU, ACCOMPANIED BY THE MARKETS IN FINANCIAL INSTRUMENTS REGULATION (MIFIR, REG. EU NO. 600/2014)

First Berlin notes that is has concluded a contract with the issuer to prepare financial analyses and is paid for that by the issuer. First Berlin makes the financial analysis simultaneously available for all interested security financial services companies. First Berlin thus believes that it fulfils the requirements of section 64 WpHG for minor non-monetary benefits.

PRICE TARGET DATES

Unless otherwise indicated, current prices refer to the closing prices of the previous trading day.

AGREEMENT WITH THE ANALYSED COMPANY AND MAINTENANCE OF OBJECTIVITY

The present financial analysis is based on the author's own knowledge and research. The author prepared this study without any direct or indirect influence exerted on the part of the analysed company. Parts of the financial analysis were possibly provided to the analysed company prior to publication in order to avoid inaccuracies in the representation of facts. However, no substantial changes were made at the request of the analysed company following any such provision.

ASSET VALUATION SYSTEM

First Berlin's system for asset valuation is divided into an asset recommendation and a risk assessment.

ASSET RECOMMENDATION

The recommendations determined in accordance with the share price trend anticipated by First Berlin in the respectively indicated investment period are as follows:

Category		1	2
Current market capitalisation (in €)		0 - 2 billion	> 2 billion
Strong Buy[1]	An expected favourable price trend of:	> 50%	> 30%
Buy	An expected favourable price trend of:	> 25%	> 15%
Add	An expected favourable price trend of:	0% to 25%	0% to 15%
Reduce	An expected negative price trend of:	0% to -15%	0% to -10%
Sell	An expected negative price trend of:	< -15%	< -10%

[1] The expected price trend is in combination with sizable confidence in the quality and forecast security of management.

Our recommendation system places each company into one of two market capitalisation categories. Category 1 companies have a market capitalisation of €0 – €2 billion, and Category 2 companies have a market capitalisation of > €2 billion. The expected return thresholds underlying our recommendation system are lower for Category 2 companies than for Category 1 companies. This reflects the generally lower level of risk associated with higher market capitalisation companies.

RISK ASSESSMENT

The First Berlin categories for risk assessment are low, average, high and speculative. They are determined by ten factors: Corporate governance, quality of earnings, management strength, balance sheet and financial risk, competitive position, standard of financial disclosure, regulatory and political uncertainty, strength of brandname, market capitalisation and free float. These risk factors are incorporated into the First Berlin valuation models and are thus included in the target prices. First Berlin customers may request the models.

INVESTMENT HORIZON

Unless otherwise stated in the financial analysis, the ratings refer to an investment period of twelve months.

UPDATES

At the time of publication of this financial analysis it is not certain whether, when and on what occasion an update will be provided. In general First Berlin strives to review the financial analysis for its topicality and, if required, to update it in a very timely manner in connection with the reporting obligations of the analysed company or on the occasion of ad hoc notifications.

SUBJECT TO CHANGE

The opinions contained in the financial analysis reflect the assessment of the author on the day of publication of the financial analysis. The author of the financial analysis reserves the right to change such opinion without prior notification.

Legally required information regarding

- **key sources of information in the preparation of this research report**
- **valuation methods and principles**
- **sensitivity of valuation parameters**

can be accessed through the following internet link: http://firstberlin.com/disclaimer-english-link/

SUPERVISORY AUTHORITY: Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) [BaFin], Graurheindorferstraße 108, 53117 Bonn and Lurgiallee 12, 60439 Frankfurt

EXCLUSION OF LIABILITY (DISCLAIMER)

RELIABILITY OF INFORMATION AND SOURCES OF INFORMATION

The information contained in this study is based on sources considered by the author to be reliable. Comprehensive verification of the accuracy and completeness of information and the reliability of sources of information has neither been carried out by the author nor by First Berlin. As a result no warranty of any kind whatsoever shall be assumed for the accuracy and completeness of information and the reliability of sources of information, and neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be liable for any direct or indirect damage incurred through reliance on the accuracy and completeness of information and the reliability of sources of information.

RELIABILITY OF ESTIMATES AND FORECASTS

The author of the financial analysis made estimates and forecasts to the best of the author's knowledge. These estimates and forecasts reflect the author's personal opinion and judgement. The premises for estimates and forecasts as well as the author's perspective on such premises are subject to constant change. Expectations with regard to the future performance of a financial instrument are the result of a measurement at a single point in time and may change at any time. The result of a financial analysis always describes only one possible future development – the one that is most probable from the perspective of the author – of a number of possible future developments.

Any and all market values or target prices indicated for the company analysed in this financial analysis may not be achieved due to various risk factors, including but not limited to market volatility, sector volatility, the actions of the analysed company, economic climate, failure to achieve earnings and/or sales forecasts, unavailability of complete and precise information and/or a subsequently occurring event which affects the underlying assumptions of the author and/or other sources on which the author relies in this document. Past performance is not an indicator of future results; past values cannot be carried over into the future.

Consequently, no warranty of any kind whatsoever shall be assumed for the accuracy of estimates and forecasts, and neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be liable for any direct or indirect damage incurred through reliance on the correctness of estimates and forecasts.

INFORMATION PURPOSES, NO RECOMMENDATION, SOLICITATION, NO OFFER FOR THE PURCHASE OF SECURITIES

The present financial analysis serves information purposes. It is intended to support institutional investors in making their own investment decisions; however in no way provide the investor with investment advice. Neither the author, nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall be considered to be acting as an investment advisor or portfolio manager vis-à-vis an investor. Each investor must form his own independent opinion with regard to the suitability of an investment in view of his own investment objectives, experience, tax situation, financial position and other circumstances.

The financial analysis does not represent a recommendation or solicitation and is not an offer for the purchase of the security specified in this financial analysis. Consequently, neither the author nor First Berlin, nor the person responsible for passing on or distributing the financial analysis shall as a result be liable for losses incurred through direct or indirect employment or use of any kind whatsoever of information or statements arising out of this financial analysis.

A decision concerning an investment in securities should take place on the basis of independent investment analyses and procedures as well as other studies including, but not limited to, information memoranda, sales or issuing prospectuses and not on the basis of this document.

NO ESTABLISHMENT OF CONTRACTUAL OBLIGATIONS

By taking note of this financial analysis the recipient neither becomes a customer of First Berlin, nor does First Berlin incur any contractual, quasi-contractual or pre-contractual obligations and/or responsibilities toward the recipient. In particular no information contract shall be established between First Berlin and the recipient of this information.

NO OBLIGATION TO UPDATE

First Berlin, the author and/or the person responsible for passing on or distributing the financial analysis shall not be obliged to update the financial analysis. Investors must keep themselves informed about the current course of business and any changes in the current course of business of the analysed company.

DUPLICATION

Dispatch or duplication of this document is not permitted without the prior written consent of First Berlin.

SEVERABILITY

Should any provision of this disclaimer prove to be illegal, invalid or unenforceable under the respectively applicable law, then such provision shall be treated as if it were not an integral component of this disclaimer; in no way shall it affect the legality, validity or enforceability of the remaining provisions.

APPLICABLE LAW, PLACE OF JURISDICTION

The preparation of this financial analysis shall be subject to the law obtaining in the Federal Republic of Germany. The place of jurisdiction for any disputes shall be Berlin (Germany).

NOTICE OF DISCLAIMER

By taking note of this financial analysis the recipient confirms the binding nature of the above explanations.

By using this document or relying on it in any manner whatsoever the recipient accepts the above restrictions as binding for the recipient.

QUALIFIED INSTITUTIONAL INVESTORS

First Berlin financial analyses are intended exclusively for qualified institutional investors.

This report is not intended for distribution in the USA and/or Canada.