PAION AG

Germany / Biotechnology
Frankfurt Prime Standard
Bloomberg: PA8 GR
ISIN: DE000A0B65S3

Update

RATING	**BUY**
PRICE TARGET	**€ 11.00**
Return Potential	117.8%
Risk Rating	High

EUROPEAN GENERAL ANESTHESIA LAUNCH BRIGHTENS OUTLOOK

PAION's lead product remimazolam was first approved in January 2020 in Japan in the indication general anesthesia (GA). It has since been approved in the US for procedural sedation (PS), in the EU for both PS and GA and in most Asian markets in either one or both indications. However, sales development has so far been disappointing. Lack of marketing muscle, difficulty in accessing physicians during the pandemic and a product recall in Japan meant that sales excluding one-off payments from licensees were not as expected in 2022. The good news is that towards the end of last year PAION concluded a marketing deal for southern Europe with a strong partner (US company, Viatris, market cap: USD12bn) and that remimazolam has been approved for GA in the EU and UK in April and August respectively. Procedures involving GA typically last 2-3 hours compared with under 30 minutes for PS. We expect PAION and its partners to generate up to €100 per patient with remimazolam in GA – up to 5x more than in PS. 10 million procedures using GA are carried out every year in the EU on the high risk patients targeted by the company. Brightening prospects are reflected in 2023 revenue guidance of €13m-€19m, which was confirmed in the Q1/23 report. The lower end of this guidance entails a trebling of product revenue relative to 2022. Based on strong preliminary Q2/23 numbers, we expect the new CEO, Tilmann Bur, who joined PAION on 1 September, to adopt identical or similar numbers in the final Q2/23 report due at the end of this month. PAION have indicated that €30m is needed to build up a sales force large enough to push the company to break-even. Financing possibilities include further licensing deals, new debt, equity, and the sale of royalties on remimazolam in one or more of Japan, South America, South Korea, Taiwan or the US. We retain our Buy recommendation but have lowered our price target from €38.0 to €11.0 to reflect lower revenue and profit forecasts compared with our last study of January 2022.

(p.t.o.)

FINANCIAL HISTORY & PROJECTIONS

	2021	2022	2023E	2024E	2025E	2026E
Revenue (€ m)	7.13	33.25	14.37	34.32	22.54	38.96
Y-o-y growth	-63.7%	366.4%	-56.8%	138.8%	-34.3%	72.8%
EBIT (€ m)	-22.08	1.50	-14.63	9.67	-4.16	4.57
EBIT margin	-309.7%	4.5%	-101.8%	28.2%	-18.4%	11.7%
Net income (€ m)	-21.79	-0.58	-17.10	6.33	-6.77	2.65
EPS (diluted) (€)	-3.11	-0.08	-2.40	0.89	-0.95	0.17
DPS (€)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (€m)	-40.38	4.36	-16.87	6.81	-6.71	2.85
Net gearing	196.7%	147.0%	n.a.	n.a.	n.a.	n.a.
Liquid assets (€ m)	6.44	10.63	3.79	19.06	1.48	2.09

RISKS

Risks to our price target include but are not limited to: acceptance of the conpany's products, financial, and regulatory risks.

COMPANY PROFILE

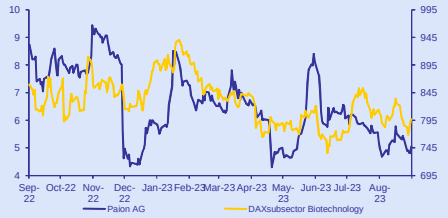
PAION is a specialty pharmaceutical company headquartered in Aachen (Germany). PAION's lead substance, remimazolam, is an intravenous ultra-short-acting benzodiazepine anaesthetic with multiple approvals in different regions and in different indications. The company has launched the vasoconstrictor, angiotensin II, and also the tetracycline-class antibiotic, eravacycline, in the EU.

MARKET DATA

As of 15 Sep 2023	
Closing Price	€ 5.05
Shares outstanding	7.13m
Market Capitalisation	€ 36.03m
52-week Range	€ 4.30 / 9.44
Avg. Volume (12 Months)	5,063

Multiples	2022	2023E	2024E
P/E	n.a.	n.a.	n.a.
EV/Sales	1.4	3.2	1.3
EV/EBIT	30.4	n.a.	4.7
Div. Yield	0.0%	0.0%	0.0%

STOCK OVERVIEW



COMPANY DATA

As of 31 Dec 2022	
Liquid Assets	€ 10.63m
Current Assets	€ 17.83m
Intangible Assets	€ 19.59m
Total Assets	€ 38.18m
Current Liabilities	€ 12.62m
Shareholders' Equity	€ 6.62m

SHAREHOLDERS

Cosmo Pharmaceuticals	8.2%
Free Float	91.8%

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Figure 1: Byfavo, Giapreza, Xerava launch history/schedule by country/region

	Remimazolam Procedural sedation	Remimazolam General anesthesia	Giapreza Distributive shock	Xerava Complicated intra-abdominal infections
Japan	2024	mid-2020	n.a.	n.a.
US	Jan 2021	2026	n.a.	n.a.
Germany	H2 2023/H1 2024	H2 2023/H1 2024	Jul 2021	August 2022
Netherlands	Q4 2021	Sep 2021	Jan 2022	H1 2022
Scandinavia	Q4 2021	H1 2024	2022	2022
UK	H2 2021	H2 2023	2022	2022
Southern Europe	H2 2023/H1 2024	H2 2023/H1 2024	2023	2023
Eastern Europe	H2 2023/H1 2024	H2 2023/H1 2024	2023	2023
China*	H2 2020	H2 2021	n.a.	n.a.
South Korea	H2 2021	March 2021	n.a.	n.a.
Taiwan	Dec 2022	2024	n.a.	n.a.
Latin America	2024	2024	n.a.	n.a.

**PAION assigned the Chinese remimazolam patents and sold the rights to future royalties to Chinese marketing partner Humanwell for €20.5m in January 2022.*

Source: PAION AG, First Berlin Equity Research forecasts

Remimazolam to be launched on four continents by end 2024 The international rollout of PAION's flagship product – the ultrashort-acting benzodiazapene anesthetic, remimazolam, began in mid-2020 in Japan in the indication GA and in early 2021 in the US in the indication PS. By the end of 2024, we expect the product to have been launched in four continents - Asia, Europe, North America and South America (see figure 1).

PAION also has exclusive European rights to sepsis drug giapreza and antibiotic xerava In January 2021 PAION acquired the exclusive rights to commercialise giapreza and xerava in Europe from the US company La Jolla Pharmaceutical (acquired by Innoviva, Inc. in August 2022). Giapreza is synthetic human angiotensin II compound. Angiotensin II is a naturally occurring peptide hormone of the renin-angiotensin-aldosterone system that causes vasoconstriction and an increase in blood pressure. Giapreza is indicated for the treatment of hypotension in adults with septic or other distributive shock who remain hypotensive despite adequate volume restitution and application of catecholamines and other available vasopressor therapies. Xerava (eravacycline) is a tetracycline-class antibacterial indicated for the treatment of complicated intra-abdominal infections in adults.

European commercialisation partnerships signed with Viatris and Medis last year In November 2022 PAION announced a distribution partnership with Viatris for the distribution of remimazolam, xerava and giapreza in Belgium, France, Greece, Italy, Poland, Romania and Spain. In February 2022, PAION concluded a cooperation agreement with Medis, d.o.o. for the supply, distribution, marketing and sale of remimazolam, xerava and giapreza in Eastern Europe. The agreement covers Estonia, Latvia, Lithuania, Czech Republic, Slovakia, Hungary, Croatia, Slovenia and Bulgaria.

Approval of remimazolam for GA in EU and UK in April and August 2023 respectively The European Commission approved remimazolam for GA in adults in early April 2023. The UK regulatory authorities followed suit at the end of August. Remimazolam was approved in the EU for PS as long ago as March 2021. So far it has been launched in the Netherlands, Scandinavia and UK. But it has not yet been launched in Germany, Eastern Europe (the Medis markets) or in the Viatris markets in either PS or GA.

10m GA procedures performed annually on high-risk patients targeted by PAION Publicly available European procedure statistics and market research indicate that approximately 29 million procedures requiring GA are performed in Europe each year. Of these, approximately 10 million are performed for high-risk patients (American Society of Anesthesiologists classifications III or higher) who are particularly prone to hemodynamic instability.

Negotiations with authorities over remimazolam price ongoing in Germany and some Viatris and Medis markets In intravenous GA remimazolam has demonstrated lower incidence of hemodynamic side effects compared with the current market leader, propofol. The decision to defer the launch of remimazolam in PS in Germany and the Medis and Viatris markets is based on the expectation that its pricing in GA will be favourable. Management wants this price to be used as the reference for the product. Price negotiations for remimazolam with the authorities in Germany and some of the Viatris and Medis markets are currently ongoing. The extended launch schedule indicated for Germany, southern Europe and eastern Europe in table 1 (H2 2023/H1 2024) reflects uncertainty as to how long these negotiations will take.

PAION looks much better placed to achieve guidance in 2023 than in 2021 or 2022 PAION's performance in 2021 and 2002 was disappointing. As figure 2 shows, PAION missed initial guidance given for the sum of revenues deriving from royalties from partners, active pharmaceutical ingredient (API) sales to partners and own sales by 17% in 2021 and 45% in 2022. We shall refer to this metric as RAO (Royalties, API, Own sales) throughout the remainder of this report. During 2021 and into 2022 business in Japan was affected by a contamination-related batch recall and in the US by the pandemic-related postponement of elective surgical procedures. Business on all markets was hampered during the pandemic by difficulty in accessing clinics and prescribing doctors.

Figure 2: Guidance history

€m	2021 guidance 30.03.21*	2021A	Δ vs. lower end of guidance	2022 guidance 30.03.22**	2022 guidance 15.11.22	2022A	Δ vs. lower end of 30.03.22 guidance	Δ vs. lower end of 15.11.22 guidance	2023 guidance 15.05.23**
Revenue from licensees of which:	7.5 to 9.0	7.1	-5.3%	25.0 to 27.0	n.a.	23.5	-6.0%	n.a.	13.0
Royalties and sales of Active Pharmaceutical Ingredient	5.0 to 6.0	4.5	-10.0%	4.5 to 6.5	n.a.	3.0	-33.3%	n.a.	12.0
Milestones	2.5 to 3.0	2.6	4.0%	0	n.a.	0.0	n.a.	n.a.	1.0
Patent sale to Humanwell	0.0	0.0	0.0%	20.5	n.a.	20.5	0.0%	n.a.	n.a.
Outlicensing	0.0	0.0	0.0%	5.0	n.a.	8.8	76.0%	n.a.	0.0
Commercialisation of Byfavo, Giapreza, Xerava in Europe	0.5	0.044	-91.2%	2.0 to 3.0	n.a.	0.6	-70.0%	n.a.	2.0 to 4.0
Total revenue	8.0 to 9.5	7.1	-11.3%	32.0 to 35.0	32.0 to 35.0	33.2	3.8%	3.8%	13.0 to 19.0
Cost of revenue	3.5 to 4.0	3.0	25.0%	5.0 to 6.0	n.a.	2.0	66.7%	n.a.	11.0 to 15.0
R&D	4.5 to 5.5	5.3	3.6%	7.0 to 9.0	n.a.	6.5	27.8%	n.a.	4.0 to 6.0
SG&A	18.0 to 20.0	19.8	1.0%	26.0 to 29.0	n.a.	21.2	26.9%	n.a.	10.0 to 13.0
EBIT*/EBITDA**	-16.5 to -21.5	-22.1	-2.8%	-9.0 to -2.5	-1.5 to 0.5	3.1	n.a.	n.a.	-15.0 to -13.0
Royalties, API, Own sales	**5.5 to 6.5**	**4.5**	**-17.4%**	**6.5 to 9.5**	**n.a.**	**3.6**	**-44.6%**	**n.a.**	**12.0 to 14.0**

Source: PAION AG

The share price is now 80% below the level reached in January 2020 following news of remimazolam's first approval in Japan for GA. PAION published the components of its 2023 guidance in the 2022 annual report. As figure 2 shows, by far the largest of these is the sale of API to partners.

Figure 3: Recent quarterly results

€m	Q1/22A	Q2/22A	H1 22A	Q3/22A	Q4/22A	FY/22A	Q1/23A	Q2/23A	H1 23A
Royalties	n.a.	n.a.	0.3	n.a.	n.a.	n.a.	n.a.	n.a.	0.5
Active pharmaceutical ingredient (API)	n.a.	n.a.	0.7	n.a.	n.a.	n.a.	n.a.	n.a.	4.7
Royalties + API	0.8	0.2	1.0	n.a.	n.a.	3.0	n.a.	n.a.	5.2
Own	0.1	0.0	0.1	n.a.	n.a.	0.9	n.a.	n.a.	0.6
Milestones	0.2	3.5	3.7	0.4	4.7	8.8	1.0	0.0	1.0
Patent sales	20.5	0.0	20.5	0.0	0.0	20.5	0.0	0.0	0.0
Total revenue	21.5	3.7	25.2	0.4	7.6	33.2	2.3	4.5	6.8
Δ	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	-89.3%	21.6%	-73.0%
RAO	0.9	0.2	1.1	0.0	2.9	3.9	1.3	4.5	5.8
Δ	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	44.4%	2150.0%	427.3%
EBIT	13.0	-3.4	9.7	-6.5	-1.7	1.5	-5.4	-4.2	-9.6
margin	*60.7%*	*-91.6%*	*38.3%*	*-1617.5%*	*-22.2%*	*4.5%*	*-233.9%*	*-94.3%*	*-141.5%*

Source: PAION AG

Revenue from royalties, API, own sales up 5x in H1/23 Preliminary H1 results published on 30 August showed a more than five-fold increase in RAO to €5.8m. In line with the guidance given in the annual report, the main driver of the rise was API sales. We believe that the biggest source of API sales this year will be the Viatris partnership followed by PAION's partner in Japan, Mundipharma. In Japan, we gather that Mundipharma is rebuilding inventory as business recovers from the contamination-related batch recall. H1/23 EBIT came in at €-9.6m (H1/22: €9.7m). The swing from profit to loss was caused by the decline in revenue income from milestones and patent sales to €1.0m (H1/22: €24.2m). Stripping out these figures the comparisons would have been: H1/23: €-10.6m (H1/22: €-14.5m).

Remimazolam gaining traction in US H1/23 results were also notable because for the first time it was possible to gain a concrete indication of the growth of remimazolam sales on the US market. The pandemic hampered the roll-out of remimazolam on all markets. However, until mid-2022 sales development in the US was also held back by the undercapitalisation of PAION's US licensee, Acacia Pharmaceuticals. In June 2022, Acacia was acquired by Eagle Pharmaceuticals. Eagle has 50 marketing people compared with 20 at Acacia. Eagle acquired two products from Acacia – Byfavo (remimazolam) and Barhemsys. Barhemsys is indicated for post-operative nausea and vomiting. Until Q2/23 Eagle's management did not break out the figures for each product separately, but indicated Barhemsys to be clearly the bigger of the two. Based on a bar-chart published in Eagle's Q2/23 report, we estimate that US sales of remimazolam climbed from USD70k in Q4/22 to USD120k in Q1/22 and USD240k in Q2/23. PAION receives a royalty of 20% on US sales of remimazolam. US sales of remimazolam are still low, but we expect recent rapid growth rates to be maintained. In its Q2/23 report Eagle pointed out that only 275 out of a targeted 4,000 health care facilities had purchased Barhemsys or remimazolam by the end of June. On 1 July the US authorities allocated remimazolam a "J-code" (reimbursement code) which is an important stop to facilitate reimbursement and expand patient access to the product. Markedly shorter onset and offset times than midazolam – one of two main competing products in PS on the US market – also suggest that remimazolam has great potential on the US market.

Tilmann Bur joined PAION as permanent CEO on 1 September On 14 August PAION announced a new CEO as successor to Gregor Siebert, who was appointed on an interim basis for a year on 1 December 2022. The new CEO is Tilmann Bur, who was previously CEO of CO.DON AG, and took up his position at PAION on 1 September. Gregor Siebert will rejoin PAION's Supervisory Board on 30 September.

We expect FY/23 guidance in final H1/23 report to be close to level in 2022 annual report In the preliminary H1/23 report PAION stated that the final "half-year financial report 2023 with financial outlook will be available…by the end of September 2023. This gives Mr. Bur the opportunity to help shape the outlook for the remainder of the fiscal year. On the day of publication of the half-year report, Mr. Tilmann Bur will introduce himself as the new CEO and explain the outlook for the remainder of the fiscal year in a public conference call." Based on the strong preliminary Q2/23 numbers, we expect the FY/23 guidance in the final H1/23 report to be similar to that published in the annual report.

We have based our 2023 forecasts (see figure 4) on the guidance given in PAION's 2022 annual report. We forecast API sales of €11m, EU and UK product revenue of €1.3m and partner royalties of €1.1m, taking overall RAO to €13.4m – a 244% increase on 2022. In January 2023, PAION's Brazilian licensee for remimazolam, Cristalia, submitted an NDA to the national regulatory authority in the indications GA and PS. The NDA triggered a €1m milestone payment to PAION.

Following the disappointing 2022 results, our RAO forecasts for 2024-2026 are more cautious than in our most recent report of 31 January 2022. Our numbers are also lower because we have removed forecasts for royalties from US sales of remimazolam in GA. We will reintroduce these once Eagle or another party acquires the rights to commercialise remimazolam in this indication.

As figure 5 below shows, management estimates combined peak sales/royalties at €200-€230m. We now see total revenues peaking at €177m in 2031.

Figure 4: Changes to our forecasts

	2023E			2024E			2025E			2026E		
in €m	Old	New	Δ	Old	New	Δ	Old	New	Δ	Old	New	Δ
Product revenues/RAO	**32.20**	**13.37**	**-58.5%**	**90.08**	**14.32**	**-84.1%**	**212.28**	**22.54**	**-89.4%**	**397.16**	**38.96**	**-90.2%**
of which:												
EU+UK product revenues	12.49	1.32	-89.5%	45.40	3.46	-92.4%	117.15	7.43	-93.7%	209.84	15.16	-92.8%
Partner royalties	6.46	1.06	-83.6%	14.69	2.86	-80.5%	31.55	6.76	-78.6%	63.30	10.71	-83.1%
API	13.25	11.00	-17.0%	29.99	8.00	-73.3%	63.57	8.35	-86.9%	124.02	13.08	-89.5%
Other operating income	5.33	1.00	-81.3%	3.15	20.00	534.9%	1.48	0.00	-100.0%	9.00	0.00	-100.0%
Total revenues	**37.53**	**14.37**	**-61.7%**	**93.23**	**34.32**	**-63.2%**	**213.76**	**22.54**	**-89.5%**	**406.16**	**38.96**	**-90.4%**
Cost of goods sold	16.87	11.00	53.3%	42.51	7.74	449.1%	94.85	8.72	987.3%	176.52	14.09	1152.5%
% revenues	52.4%	82.3%	-	47.2%	54.1%	-	44.7%	38.7%	-	44.4%	36.2%	-
Gross profit	20.67	3.37	-83.7%	50.72	26.58	-47.6%	118.91	13.82	-88.4%	229.65	24.86	-89.2%
% revenues	55.1%	23.4%	-	54.4%	77.4%	-	55.6%	61.3%	-	56.5%	63.8%	-
SG&A	29.49	12.00	145.8%	38.17	10.66	258.1%	55.06	11.46	380.3%	62.95	13.51	366.1%
% revenues	91.6%	89.7%	-	42.4%	74.4%	-	25.9%	50.9%	-	15.9%	34.7%	-
R&D	5.00	5.00	0.0%	5.00	5.25	-4.8%	5.00	5.51	-9.3%	2.00	5.79	-65.4%
% revenues	15.5%	37.4%	-	5.6%	36.7%	-	2.4%	24.5%	-	0.5%	14.9%	-
EBIT	**-13.83**	**-14.63**	**n.a.**	**7.55**	**9.67**	**n.a.**	**58.84**	**-4.16**	**n.a.**	**164.69**	**4.57**	**n.a.**
% total revenues	*-36.8%*	*-101.8%*	-	*8.1%*	*28.2%*	-	*27.5%*	*-18.4%*	-	*40.5%*	*11.7%*	-
Net income	-17.93	-17.10	n.a.	3.45	6.33	n.a.	55.43	-6.77	n.a.	162.37	2.65	n.a.
% total revenues	*-47.8%*	*-119.0%*	-	*3.7%*	*18.4%*	-	*25.9%*	*-30.0%*	-	*40.0%*	*6.8%*	-
EPS (dil., in EUR)	-0.25	-2.40	n.a.	0.04	0.89	n.a.	0.58	-0.95	n.a.	1.71	0.17	n.a.
EBITDA	**-11.89**	**-13.09**	**n.a.**	**9.49**	**11.18**	**n.a.**	**60.78**	**-2.68**	**n.a.**	**166.63**	**6.02**	**n.a.**

Source: First Berlin Equity Research forecasts

Figure 5: PAION estimates combined peak revenue and royalties at €200-€230m

	PAION's IP	Clinical Status	EU: Est. Peak Sales	Rest of World: Est. Peak Royalties
Byfavo	worldwide ex-China	Approved in the US, EU, Japan, Taiwan, South Korea	€40 - €50m (PS) €50 - €60m (GA)	€35m
Giapreza	Europe	Approved in Europe	€50m	Licensed in from LaJolla (Innoviva)
Xerava	Europe	Approved in Europe	€25 - €35m	Licensed in from LaJolla (Innoviva)

Source: PAION AG

Management has indicated that PAION requires €30m to finance the build-up of a sufficiently large sales force to push the company to break-even. Financing possibilities include further licensing deals, new debt, equity, and the sale of royalties on remimazolam in one or more of Japan, South America, South Korea, Taiwan or the US. We note that PAION realised €20.5m through the sale of the Chinese remimazolam patents and rights to future royalties to Chinese marketing partner Humanwell in January 2022.

Buy recommendation maintained. Price target reduced from €38.0 to €11.0 We think the sale of patents and future royalties to partners in one or more countries would alone suffice to raise €30m. In the presentation accompanying the 2023 AGM of 12 July, PAION broke down the sources of the required funds as follows: partnerships: (which we take to mean primarily royalty sales) 40-50%, equity raises: 35-40% and debt 15-20%. In our model we project a €40m financing requirement over and above the €5m in new debt also announced in the AGM presentation. This splits as follows: €5m debt, a €15m bond convertible at €8 and €20m in royalty sales. The €20m in royalty sales are shown under other operating income as part of our 2024 total revenue forecast. We maintain our Buy recommendation but have lowered the price target from €38.0 to €11.0.

Figure 6: Valuation model

Compound	Project (1)	Present Value	Patient Pop	Treatment Cost	Market Size	Market Share	Peak Sales	PACME Margin (2)	Discount Factor	Patent Life (3)	Time to Market
Remimazolam	PS US	€30.6M	15,000K	€35	€531.8M	10%	€65.3M	20%	12%	11	-
Remimazolam	PS EU + UK	€24.3M	11,200K	€20	€224.0M	10%	€27.9M	30%	12%	10	-
Remimazolam	PS SE ASIA	€6.3M	13,160K	€15	€197.4M	10%	€24.5M	11%	18%	10	-
Remimazolam	PS TWN	€1.8M	845K	€15	€12.7M	10%	€1.5M	30%	12%	9	-
Remimazolam	PS JAP	€2.1M	3,750K	€17	€64.8M	10%	€7.1M	16%	15%	9	1 Year
Remimazolam	PS LATAM	€3.0M	4,286K	€15	€64.3M	10%	€7.7M	20%	15%	7	1 Year
Remimazolam	GA JAP	€23.9M	3,125K	€85	€265.6M	15%	€49.5M	16%	12%	13	-
Remimazolam	GA EU + UK	€59.3M	9,375K	€88	€820.3M	5%	€51.3M	35%	12%	10	-
Remimazolam	GA SE ASIA	€13.7M	7,857K	€75	€589.2M	10%	€73.3M	10%	18%	10	-
Remimazolam	GA TWN	€1.5M	260K	€75	€19.5M	15%	€3.6M	15%	15%	8	1 Year
Remimazolam	GA LATAM	€23.8M	4,286K	€75	€321.5M	15%	€66.2M	20%	15%	7	1 Year
Giapreza	DS EU + UK	€13.9M	175K	€364	€63.6M	28%	€29.1M	26%	12%	18	-
Xerava	CIAI EU + UK	€39.9M	632K	€506	€320.0M	9%	€30.4M	40%	12%	19	-
PACME PV		€224.0M									
Costs PV (4)		€145.0M									
NPV		€79.0M									
Milestones PV		-€1.5M									
Pro forma net cash		€19.9M									
Fair Value		€97.4M									
Pro forma share count		8,850K									
Price Target		€11.00									

1) A project typically refers to a specific indication or, where necessary or relevant, a combination between indication and geographic market
PS US = Procedural Sedation in the US
PS EU + UK = Procedural Sedation in the EU + UK
PS SE ASIA = Procedural Sedation in SE Asia
PS TWN = Procedural Sedation in Taiwan
PS JAP = Procedural Sedation in Japan
PS LATAM = Procedural Sedation in Latin America
GA JAP = General Anaesthesia in Japan
GA EU + UK= General Anaesthesia in the EU + UK
GA SE ASIA = General Anaesthesia in SE Asia
GA TWN = General Anaesthesia in Taiwan
GA LATAM = General Anaesthesia in Latin America
DS EU + UK= Distributive Shock in the EU + UK
CIAI EU + UK= Complicated Intra-abdominal Infections in the EU + UK
2) PACME (Profit After Costs and Marketing Expenses) reflects the company's profit share on future revenues.
This share may be derived in the form of royalties (outsourced marketing/manufacturing) or operating EBITDA margin (in-house model),
3) Remaining patent life in years after the point of approval
4) Includes company-level R&D, G&A, Financing Costs, CapEx and working capital; COGS and S&M are factored into the PACME margin for each project

Source: First Berlin Equity Research estimates

INCOME STATEMENT

All figures in EUR '000	2021	2022	2023E	2024E	2025E	2026E
Net revenues	**4,528**	**3,948**	**13,371**	**14,322**	**22,542**	**38,958**
Other op. inc. (including milestones)	**2,600**	**29,300**	**1,000**	**20,000**	**0**	**0**
Total revenue	**7,128**	**33,248**	**14,371**	**34,322**	**22,542**	**38,958**
Cost of goods sold	3,077	1,960	11,004	7,741	8,724	14,094
Gross profit	**4,051**	**31,288**	**3,367**	**26,581**	**13,818**	**24,864**
S,G&A	19,828	21,198	12,000	10,659	11,465	13,505
R&D	5,249	6,485	5,000	5,250	5,513	5,788
Other operating income (expense)	-1,053	-2,100	-1,000	-1,000	-1,000	-1,000
Operating income (EBIT)	**-22,079**	**1,505**	**-14,633**	**9,671**	**-4,159**	**4,570**
Net financial result	-503	-1,706	-2,963	-3,841	-3,107	-2,420
Pre-tax income (EBT)	**-22,581**	**-201**	**-17,595**	**5,830**	**-7,265**	**2,150**
Income taxes	796	-378	500	500	500	500
Net income / loss	**-21,786**	**-579**	**-17,095**	**6,330**	**-6,765**	**2,650**
EPS	**-3.11**	**-0.08**	**-2.40**	**0.89**	**-0.95**	**0.17**
EBITDA	**-20,497**	**3,083**	**-13,094**	**11,180**	**-2,679**	**6,021**
Ratios						
EBIT margin	-309.7%	4.5%	-101.8%	28.2%	-18.4%	11.7%
EBITDA margin	-287.5%	9.3%	-91.1%	32.6%	-11.9%	15.5%
Net margin	-305.6%	-1.7%	-119.0%	18.4%	-30.0%	6.8%
Cash Coverage of Expenses						
Cash / G&A	0.3x	0.5x	0.3x	1.8x	0.1x	0.2x
Cash / R&D	1.2x	1.6x	0.8x	3.6x	0.3x	0.4x
Y-Y Growth						
Total revenue	-63.7%	366.4%	-56.8%	138.8%	-34.3%	72.8%
Operating income	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Net income/ loss	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.

BALANCE SHEET

All figures in EUR '000	2021	2022	2023E	2024E	2025E	2026E
Assets						
Current assets, total	**16,234**	**17,833**	**9,575**	**25,465**	**6,676**	**8,459**
Cash and cash equivalents	6,440	10,629	3,788	19,061	1,478	2,090
Receivables	1,717	2,228	1,841	2,077	1,856	2,275
Inventories	4,823	3,720	2,894	3,116	2,376	3,033
Other current assets	3,254	1,256	1,052	1,212	965	1,062
Non-current assets, total	**20,551**	**20,344**	**19,879**	**19,445**	**19,042**	**18,670**
Property, plant & equipment	178	168	172	176	180	184
Right-of-use assets	720	591	621	652	684	718
Goodw ill & other intangibles	19,653	19,585	19,086	18,617	18,178	17,767
Total assets	**36,785**	**38,177**	**29,453**	**44,910**	**25,718**	**27,129**
Shareholders' equity & debt						
Current Liabilities, Total	**10,985**	**12,616**	**9,585**	**10,259**	**8,716**	**9,724**
Short term debt	1,285	1,285	0	0	0	0
Accounts payable	6,585	8,005	6,576	6,924	5,940	6,824
Provisions	2,304	845	750	750	750	750
Lease liabilities	158	147	154	162	170	179
Other current liabilities	653	2,334	2,104	2,423	1,856	1,971
Longterm liabilities, total	**18,801**	**18,946**	**30,263**	**38,715**	**27,831**	**25,584**
Convertible bond	0	0	0	15,000	15,000	15,000
Long-term debt	18,199	18,468	29,753	23,182	12,273	10,000
Provisions	35	26	35	35	35	35
Lease liabilities	566	452	475	498	523	549
Shareholders' equity	**6,999**	**6,615**	**-10,394**	**-4,064**	**-10,830**	**-8,180**
Total consolidated equity and debt	**36,785**	**38,177**	**29,453**	**44,910**	**25,718**	**27,129**
Ratios						
Current ratio (x)	1.48	1.41	1.00	2.48	0.77	0.87
Quick ratio (x)	1.04	1.12	0.70	2.18	0.49	0.56
Net gearing	196.7%	147.0%	n.a.	n.a.	n.a.	n.a.
Book value per share (€)	0.98	0.93	-1.46	-0.57	-1.52	-1.15
Return on equity (ROE)	-154.0%	-8.5%	n.a.	n.a.	n.a.	n.a.

CASH FLOW STATEMENT

All figures in EUR '000	2021	2022	2023E	2024E	2025E	2026E
Net result	**-21,786**	**-579**	**-17,095**	**6,330**	**-6,765**	**2,650**
Depreciation and amortization	1,692	1,708	1,539	1,509	1,479	1,451
Changes in w orking capital	-2,193	2,363	-241	49	-344	-172
Income taxes	-796	378	0	0	0	0
Other items	1,904	2,071	0	0	0	0
Operating cash flow	**-21,179**	**5,941**	**-15,798**	**7,888**	**-5,630**	**3,928**
CAPEX	-19,205	-1,586	-1,074	-1,075	-1,077	-1,078
Free cash flow	**-40,384**	**4,355**	**-16,871**	**6,813**	**-6,706**	**2,850**
Convertible bond	**0**	**0**	**0**	**15,000**	**0**	**0**
Debt financing, net	**20,000**	**0**	**10,000**	**-6,571**	**-10,909**	**-2,273**
Lease financing, net	**-114**	**-126**	**30**	**31**	**33**	**35**
Equity financing, net	**7,261**	**0**	**0**	**0**	**0**	**0**
Other changes in cash	**10**	**-40**	**0**	**0**	**0**	**0**
Net cash flows	**-13,227**	**4,189**	**-6,841**	**15,273**	**-17,582**	**612**
Cash, start of the year	19,666	6,440	10,629	3,788	19,061	1,478
Cash, end of the year	**6,440**	**10,629**	**3,788**	**19,061**	**1,478**	**2,090**

Y-Y Growth						
Operating cash flow	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
Free cash flow	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
EBITDA/share	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.

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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.

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Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	2 April 2012	€0.79	Buy	€2.00
2...41	↓	↓	↓	↓
42	21 August 2019	€22.60	Buy	€42.00
43	19 February 2020	€22.20	Buy	€38.00
44	23 April 2020	€17.40	Buy	€36.00
45	9 July 2020	€29.30	Buy	€49.00
46	17 August 2020	€26.90	Buy	€49.00
47	9 December 2020	€24.50	Buy	€49.00
48	12 July 2021	€19.10	Buy	€41.00
49	31 January 2022	€13.90	Buy	€38.00
50	Today	€5.05	Buy	€11.00

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