

TubeSolar AG

Germany / Renewable Energy
 Düsseldorf, XETRA, m:access
 Bloomberg: 9TS
 ISIN: DE000A2PXQD4

H1 figures &
 strategic cooperation

RATING
PRICE TARGET

Return Potential
 Risk Rating

BUY
€ 7.50

51.2%
 High

STRATEGIC COOPERATION WITH ASCENT SOLAR

The strategic cooperation recently agreed with Ascent Solar (ASTI) secures TubeSolar's long-term supply of large volumes of thin-film photovoltaic foils for its glass tube modules. It includes the establishment of a joint production facility in Germany in a joint venture (TubeSolar share: 30%, Ascent Solar: 70%) as well as a cooperation for the development of CIGS perovskite tandem solar cells. These cells are characterised by high efficiency and low production costs and therefore have disruptive potential in the solar industry, as the market-leading mono-crystalline silicon cells are getting closer and closer to their practical maximum efficiency. Following TubeSolar's \$2.5m investment in ASTI in January, the collaboration agreement provides the basis for a secure second source of PV foil supply alongside its existing European supplier. As expected, TubeSolar did not generate any revenues in the first half of the year, and posted a net loss of €1.2m. Following the delay in module certification, we have pushed back our investment and financing plan somewhat. We have also incorporated the expected investment costs for setting up the joint venture with Ascent Solar into our model. Our updated DCF valuation now yields a price target of €7.50 (previously: €7.70). We confirm our Buy recommendation.

H1 characterised by set-up activities In addition to the further build-up of manual production, TubeSolar worked on the conceptual design and further development of highly automated production, which is targeted for 2022 with a capacity of 20 MW and is to be expanded to 250 MW in the medium term. Following the delayed certification of the module by TÜV, the company expects the final result of the test to be available in the fourth quarter of 2021.

(p.t.o.)

FINANCIAL HISTORY & PROJECTIONS

	2019	2020	2021E	2022E	2023E	2024E
Revenue (€m)	0.00	0.00	0.00	6.40	46.80	75.60
Y-o-y growth	n.a.	n.a.	n.a.	n.a.	631.3%	61.5%
EBIT (€m)	-0.25	-2.32	-4.72	0.69	3.18	10.67
EBIT margin	n.a.	n.a.	n.a.	10.9%	6.8%	14.1%
Net income (€m)	-0.25	-1.40	-4.09	0.08	1.32	5.21
EPS (diluted) (€)	-0.03	-0.14	-0.34	0.01	0.09	0.34
DPS (€)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (€m)	-0.25	-4.33	-16.90	-20.63	-39.76	-27.20
Net gearing	-37.5%	-36.5%	8.1%	12.4%	108.3%	154.7%
Liquid assets (€m)	3.95	6.13	3.18	10.05	5.29	7.08

RISKS

The main risks are: technological risk, financing risk, product and production risks, and increasing competition.

COMPANY PROFILE

TubeSolar AG is a manufacturer of solar modules. The patented technology, which integrates solar cells into a glass tube, aims particularly at power generation on sites which are used for agriculture at the same time, and on green roofs. TubeSolar is located in Augsburg, Germany.

MARKET DATA

As of 29 Sep 2021

Closing Price	€ 4.96
Shares outstanding	12.00m
Market Capitalisation	€ 59.52m
52-week Range	€ 4.82 / 8.33
Avg. Volume (12 Months)	5,396

Multiples	2021E	2022E	2023E
P/E	n.a.	786.1	45.1
EV/Sales	0.0	4.4	0.6
EV/EBIT	n.a.	40.8	8.9
Div. Yield	0.0%	0.0%	0.0%

STOCK OVERVIEW



COMPANY DATA

As of 30 Jun 2021

Liquid Assets	€ 5.52m
Current Assets	€ 6.35m
Intangible Assets	€ 12.64m
Total Assets	€ 23.84m
Current Liabilities	€ 0.29m
Shareholders' Equity	€ 20.83m

SHAREHOLDERS

TSG 1. Vermögensverw. GmbH	46.0%
BD Vermögensverw. GmbH	10.1%
Solar Invest International SE	8.8%
BF Holding GmbH	4.6%
Free Float	30.5%



Far-reaching cooperation with green roof system manufacturer ZinCo In April, TubeSolar agreed on a far-reaching, exclusive cooperation with ZinCo GmbH, a leading global company for green roofs. TubeSolar's grid-like modules with their solar and water permeability are not only suitable for agri-PV, but also for electricity production on green roofs. Due to the significantly smaller wind attack surface compared to flat modules the elevation can be dimensioned smaller.

In Germany, approx. 7 million m² of roof space is planted with greenery every year. This results in an annual market potential of approx. 200 MW for the German market alone, without taking into account already existing green roof areas. With the cooperation with ZinCo, TubeSolar is harnessing the green roof PV market in addition to the agri-PV market.

STRATEGIC COOPERATION WITH ASCENT SOLAR

In September, TubeSolar signed a far-reaching cooperation agreement with US-based Ascent Solar Technologies, Inc. (ASTI), establishing a strategic partnership between the two companies. Tubesolar had already invested \$2.5m in Ascent Solar in January, representing a stake of approximately 15% in ASTI.

The collaboration includes:

- a long-term supply agreement for custom PV foil for TubeSolar;
- a one-time engineering fee of up to \$4m, payable by TubeSolar to Ascent Solar in three parts for the custom PV foil design. We expect all three parts to be paid in 2022;
- The establishment of a joint venture (JV Ascent Solar Germany, share Ascent Solar: 70%, TubeSolar: 30%) to build a new production facility in Germany to supply PV foil exclusively to TubeSolar. Associated with this are milestone payments from TubeSolar to Ascent Solar of up to \$13.5m in four phases. These will be triggered when the manufacturing facility achieves certain benchmarks in terms of specific production capacity and/or cost structure;
- Joint efforts to develop high-efficiency CIGS perovskite tandem cells;

The long-term supply agreement calls for ASTI to supply the following quantities of PV foil to TubeSolar:

- 2022 up to 3 MW
- 2023 up to 15 MW
- 2024 up to 60 MW
- up to 2,000 MW thereafter.

Until the German production factory is fully commissioned, the supply of PV foil in 2021 and 2022 will come from Ascent Solar's existing facility in Thornton, Colorado, USA.

This cooperation implements TubeSolar's "second-source strategy" and taps into another source of supply in addition to its existing European supplier for flexible copper indium gallium diselenide (CIGS) PV cells. As a result, TubeSolar has significantly reduced its supplier risk for the most important input material item, even at very strong growth. For this risk reduction and the 30% stake in the joint venture, TubeSolar will pay a price in the form of a \$4m milestone-linked engineering fee, as well as milestone payments for the joint PV film manufacturing facility totalling \$13.5m.

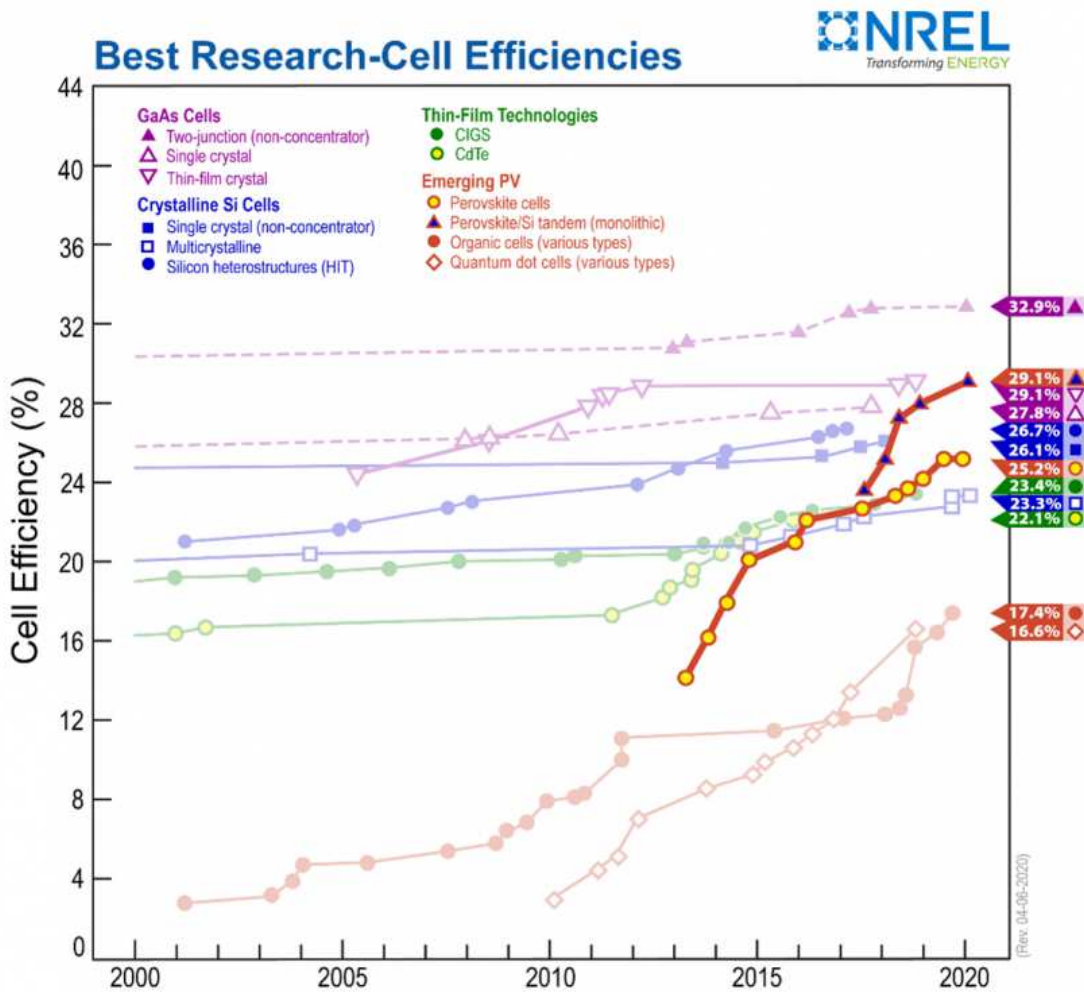


PV TECHNOLOGY WITH DISRUPTIVE POTENTIAL: CIGS-PEROVSKITE TANDEM CELLS

If the joint development of high-efficiency CIGS perovskite tandem cells (FBe: efficiency >20%) can be successfully commercialised (FBe: 2026 at the earliest), both companies will possess a potentially disruptive PV technology, characterised by high efficiency and low production costs.

Figure 1 shows the highest cell efficiencies achieved for PV cells in the laboratory. The market-leading mono-crystalline (mono-Si) modules have higher efficiencies than multi-Si modules (26.1% versus 23.3%). CIGS thin film is slightly ahead of multi-Si technology with an efficiency of 23.4%, while CdTe thin film achieves 22.1%.

Figure 1: Highest cell efficiency in the laboratory



Source: First Berlin Equity Research, NREL

Perovskite has made enormous progress in efficiency in recent years. After about 3% in 2006 and about 16% in 2014, 25.2% was reached in 2020. Perovskites are a family of materials with a specific crystal structure, named after the mineral with that structure. The soft material has a high tolerance to defects. In the production of solar cells, perovskites have demonstrated their potential for high performance and low production costs. Their properties make material deposition compatible with almost all known scalable deposition techniques. Many of these techniques are relatively simple, affordable, accessible, and capable of producing high-quality perovskite thin films at low temperatures. For commercial success, existing hurdles related to cell stability and degradation, as well as the translation



of laboratory production to scalable and reproducible mass production processes, must still be overcome.

Perovskites can be tuned to different colours in the solar spectrum by changing the material composition, and a variety of compositions have demonstrated high performance. This bandgap flexibility opens up another useful application for perovskite solar cells in high-performance tandem architectures with potential efficiencies exceeding 30%. Such tandem architectures are being intensively explored by the solar industry, as crystalline technology will reach its practical efficiency limit of about 26% in a few years.

By the end of 2020, Oxford PV demonstrated a world record efficiency of 29.5% for a c-Si/perovskite tandem cell structure and anticipates a practical efficiency potential of about 35%. In February 2021, thin-film producer Miasolé announced that it had achieved 26.5% efficiency with a perovskite-CIGS thin-film tandem cell in collaboration with European Solliance Solar Research.

H1 REPORT: AS EXPECTED, NO SALES YET

As expected, TubeSolar did not generate any significant revenue in the first half of the year. Gross profit amounted to €2.3m. We assume that this is mainly attributable to capitalised own work.

Figure 2: Reported figures versus forecasts

EBIT	H1-21A	H1-21E	Delta	H1-20A	Delta
Sales	0.0	0.0	-	0.0	-
EBIT	-0.6	-1.6	-	-1.2	-
margin	-	-	-	-	-
Net income	-1.2	-1.6	-	-1.5	-
margin	-	-	-	-	-

Source: First Berlin Equity Research, TubeSolar AG

Personnel expenses of €1.6m, depreciation and amortization of €0.6m, and other operating expenses of €0.6m resulted in EBIT of €-0.6m. Tax expenses of €0.6m resulted in a net result of €-1.2m.

The balance sheet reflects the build-up of the company. Total assets increased by 27% from €18.8m to €23.8m compared to the beginning of the year. Fixed assets increased by 42% to €17.4m. Property, plant and equipment rose from €1.2m to €2.8m, and financial assets, which include the Ascent Solar share package, amounted to €2.0m. Cash and cash equivalents decreased by 10% YTD to €5.5m.

The liabilities side was dominated by equity, which increased by 34% from €15.5m to €20.8m, due mainly to the capital increase. The equity ratio amounted to more than 87% compared to more than 82% at the end of 2020 (see figure 3 overleaf). The H1 report does not include a cash flow statement.

**Figure 3: Selected balance sheet positions**

in €m	H1-21A	2020A	Delta
Intangible goods & goodwill	12.6	11.0	14%
Property, plant & equipment	2.8	1.2	123%
Financial assets	2.0	0.0	n.m.
Non-current assets, total	17.4	12.3	42%
Inventories	0.0	0.0	n.m.
Receivables	0.8	0.3	157%
Cash and cash equivalents	5.5	6.1	-10%
Current assets, total	6.3	6.5	-3%
Equity	20.8	15.5	34%
<i>Equity ratio</i>	<i>87.4%</i>	<i>82.4%</i>	-
Provisions	0.4	0.2	56%
Liabilities	0.3	1.3	-78%
Deferred tax liabilities	2.3	1.7	34%
Balance sheet total	23.8	18.8	27%

Source: First Berlin Equity Research, TubeSolar AG

Milestone payments to Ascent Solar included in model We assume that the engineering fee (totalling up to \$4m or approx. €3.4m) will flow in 2022 and that the milestone payments (up to \$13.5m or approximately €11.5m) for the joint production facility could start in ca. 2024. We assume that Ascent Solar will meet the conditions for the payments and have included the payments in our model. After talking to management, we assume that the payments will be accounted for as capital expenditures and will not impact the income statement.

Forecasts adjusted Following the delay in module certification, we have pushed back our investment and financing plan slightly. This results in an amended depreciation and interest payment schedule, leading to higher earnings in 2021-23. Otherwise, we leave our revenue and earnings estimates unchanged.

Figure 4: Revisions to forecasts

All figures in €m	2021E			2022E			2023E		
	Old	New	Delta	Old	New	Delta	Old	New	Delta
Sales	0.0	0.0	-	6.4	6.4	0.0%	46.8	46.8	0.0%
EBIT	-5.2	-4.7	-	0.0	0.7	-	1.0	3.2	217.9%
<i>margin</i>	-	-	-	-	10.9%	-	2.1%	6.8%	-
Net income	-4.5	-4.1	-	-0.9	0.1	-	-0.9	1.3	-
<i>margin</i>	-	-	-	-14.1%	1.2%	-	-1.9%	2.8%	-
EPS (diluted)	-0.37	-0.34	-	-0.07	0.01	-	-0.06	0.09	-

Source: First Berlin Equity Research

Buy reiterated at slightly lower price target An updated DCF model yields a new price target of €7.50 (previously: €7.70). We confirm our Buy recommendation.



VALUATION MODEL

DCF valuation model								
All figures in EUR '000								
	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
Net sales	0	6,400	46,800	75,600	134,000	162,500	184,659	207,154
NOPLAT	-4,717	676	2,946	8,434	20,475	23,074	26,964	30,772
+ depreciation & amortisation	1,726	3,285	6,470	10,539	14,814	18,801	17,282	15,021
Net operating cash flow	-2,991	3,961	9,416	18,973	35,289	41,874	44,246	45,793
- total investments (CAPEX and WC)	-14,529	-23,988	-47,555	-42,952	-31,926	-14,820	-13,546	-14,452
Capital expenditures	-14,190	-23,064	-44,234	-40,378	-26,130	-11,168	-10,139	-10,659
Working capital	-339	-924	-3,321	-2,574	-5,796	-3,652	-3,407	-3,793
Free cash flows (FCF)	-17,520	-20,027	-38,139	-23,979	3,363	27,054	30,700	31,340
PV of FCF's	-17,009	-17,282	-29,252	-16,341	2,037	14,565	14,690	13,325

All figures in thousands

PV of FCFs in explicit period (2021E-2035E)	23,940
PV of FCFs in terminal period	55,950
Enterprise value (EV)	79,890
+ Net cash / - net debt (pro forma)	31,173
+ Investments / minority interests	2,083
Shareholder value	113,146
Diluted number of shares (discounted)	15,128
Fair value per share in EUR	7.48

Terminal growth	2.0%
Terminal EBIT margin	14.5%

WACC		Terminal growth rate							
		8.5%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%
Cost of equity	14.1%	9.5%	11.85	12.19	12.57	13.00	13.49	14.05	14.71
Pre-tax cost of debt	5.0%	10.5%	9.77	10.14	10.40	10.69	11.02	11.39	11.81
Tax rate	30.0%	11.5%	8.21	8.51	8.70	8.90	9.13	9.38	9.66
After-tax cost of debt	3.5%	12.5%	6.94	7.20	7.33	7.48	7.64	7.81	8.01
Share of equity capital	85.0%	13.5%	5.90	6.13	6.22	6.33	6.44	6.57	6.71
Share of debt capital	15.0%	14.5%	5.16	5.23	5.17	5.38	3.27	5.56	5.66
Price target	7.50	15.5%	4.43	4.48	4.40	4.59	4.66	4.72	4.80

* for layout purposes the model shows numbers only to 2028, but runs until 2035



INCOME STATEMENT

All figures in EUR '000	2019A	2020A	2021E	2022E	2023E	2024E	2025E
Revenues	0	0	0	6,400	46,800	75,600	134,000
Own work	0	3,481	3,960	3,960	0	0	0
Cost of goods sold	0	1,626	4,200	6,400	23,400	39,161	71,629
Gross profit	0	-1,626	-4,200	0	23,400	36,439	62,371
Personnel costs	297	1,921	3,904	7,500	9,820	10,698	12,082
Other operating income	177	538	3,500	10,400	749	756	1,340
Other operating expenses	134	1,592	2,347	2,880	4,680	5,292	9,258
EBITDA	-254	-1,120	-2,991	3,980	9,649	21,205	42,371
Depreciation and amortisation	0	1,197	1,726	3,285	6,470	10,539	14,814
Operating income (EBIT)	-254	-2,317	-4,717	695	3,179	10,666	27,557
Net financial result	0	-2	-400	-600	-1,625	-3,225	-3,950
Non-operating expenses	0	0	0	0	0	0	0
Pre-tax income (EBT)	-254	-2,319	-5,117	95	1,554	7,441	23,607
Income taxes	0	-917	-1,023	19	233	2,232	7,082
Minority interests	0	0	0	0	0	0	0
Net income / loss	-254	-1,402	-4,094	76	1,321	5,209	16,525
Diluted EPS (in €)	-0.03	-0.14	-0.34	0.01	0.09	0.34	1.07

Ratios

Gross margin	n.m.	n.m.	n.m.	0.0%	50.0%	48.2%	46.5%
EBITDA margin on revenues	n.m.	n.m.	n.m.	62.2%	20.6%	28.0%	31.6%
EBIT margin on revenues	n.m.	n.m.	n.m.	10.9%	6.8%	14.1%	20.6%
Net margin on revenues	n.m.	n.m.	n.m.	1.2%	2.8%	6.9%	12.3%
Tax rate	0.0%	39.5%	20.0%	20.0%	15.0%	30.0%	30.0%

Expenses as % of revenues

Personnel costs	n.m.	n.m.	n.m.	117.2%	21.0%	14.2%	9.0%
Depreciation and amortisation	n.m.	n.m.	n.m.	51.3%	13.8%	13.9%	11.1%
Other operating expenses	n.m.	n.m.	n.m.	45.0%	10.0%	7.0%	6.9%

Y-Y Growth

Revenues	n.m.	n.m.	n.m.	n.m.	631.3%	61.5%	77.2%
Operating income	n.m.	n.m.	n.m.	n.m.	357.7%	235.5%	158.4%
Net income/ loss	n.m.	n.m.	n.m.	n.m.	1644.9%	294.3%	217.2%



BALANCE SHEET

All figures in EUR '000	2019A	2020A	2021E	2022E	2023E	2024E	2025E
Assets							
Current assets, total	4,174	6,509	3,555	11,478	11,432	17,097	24,975
Cash and cash equivalents	3,950	6,133	3,178	10,051	5,288	7,083	6,496
Short-term investments	0	0	0	0	0	0	0
Receivables	0	0	1	526	3,847	6,421	11,681
Inventories	0	1	1	526	1,923	3,219	6,423
Other current assets	224	375	375	375	375	375	375
Non-current assets, total	6,845	12,280	26,912	46,691	84,455	114,294	125,610
Property, plant & equipment	0	1,237	13,365	35,029	74,475	105,910	118,132
Goodwill & other intangibles	0	11,043	11,464	9,579	7,897	6,301	5,396
Other assets	6,845	0	2,083	2,083	2,083	2,083	2,083
Total assets	11,019	18,788	30,467	58,169	95,887	131,391	150,585
Shareholders' equity & debt							
Current liabilities, total	384	1,317	504	630	2,027	3,322	10,991
Short-term debt	0	476	0	0	0	0	5,000
Accounts payable	65	738	400	526	1,923	3,219	5,887
Current provisions	0	0	0	0	0	0	0
Other current liabilities	319	104	104	104	104	104	104
Long-term liabilities, total	94	1,986	7,571	17,571	52,571	81,571	76,571
Long-term debt	0	0	5,000	15,000	50,000	79,000	74,000
Deferred revenue	0	0	0	0	0	0	0
Other liabilities	94	1,986	2,571	2,571	2,571	2,571	2,571
Minority interests	0	0	0	0	0	0	0
Shareholders' equity	10,541	15,486	22,392	39,968	41,289	46,498	63,022
Share capital	10,000	11,000	13,000	15,500	15,500	15,500	15,500
Capital reserve	795	6,142	15,642	30,642	30,642	30,642	30,642
Other reserves	0	0	0	0	0	0	0
Treasury stock	0	0	0	0	0	0	0
Loss carryforward / retained earnings	-254	-1,656	-5,750	-5,674	-4,353	856	17,381
Total consolidated equity and debt	11,019	18,788	30,467	58,169	95,887	131,391	150,585
Ratios							
Current ratio (x)	10.86	4.94	7.06	18.22	5.64	5.15	2.27
Quick ratio (x)	10.86	4.94	7.05	17.39	4.69	4.18	1.69
Net debt	-3,950	-5,658	1,822	4,949	44,712	71,917	72,504
Net gearing	-37.5%	-36.5%	8.1%	12.4%	108.3%	154.7%	115.0%
Equity ratio	95.7%	82.4%	73.5%	68.7%	43.1%	35.4%	41.9%
Book value per share (in €)	1.05	1.55	1.87	2.85	2.66	3.00	4.07
Return on equity (ROE)	-2.4%	-9.1%	-18.3%	0.2%	3.2%	11.2%	26.2%
Days of sales outstanding (DSO)	0.0	0.0	0.0	30.0	30.0	31.0	31.8
Days inventory outstanding	0.0	0.2	0.1	30.0	30.0	30.0	32.7
Days in payables (DIP)	0.0	165.6	34.8	30.0	30.0	30.0	30.0



CASH FLOW STATEMENT

All figures in EUR '000	2019A	2020A	2021E	2022E	2023E	2024E	2025E
EBIT	-254	-2,317	-4,717	695	3,179	10,666	27,557
Depreciation and amortisation	0	1,197	1,726	3,285	6,470	10,539	14,814
EBITDA	-254	-1,120	-2,991	3,980	9,649	21,205	42,371
Changes in working capital	0	306	-339	-924	-3,321	-2,574	-5,796
Other adjustments	0	-1,504	623	-619	-1,858	-5,457	-11,032
Operating cash flow	-254	-2,318	-2,706	2,437	4,470	13,174	25,543
Investments in PP&E	0	-1,299	-12,190	-23,000	-44,000	-40,000	-25,460
Investments in intangibles	0	-715	-2,000	-64	-234	-378	-670
Free cash flow	-254	-4,332	-16,896	-20,627	-39,764	-27,204	-587
Acquisitions & disposals, net	0	40	-2,083	0	0	0	0
Other investments	0	0	0	0	0	0	0
Investment cash flow	0	-1,974	-16,273	-23,064	-44,234	-40,378	-26,130
Debt financing, net	0	476	4,525	10,000	35,000	29,000	0
Equity financing, net	0	6,000	11,500	17,500	0	0	0
Dividends paid	0	0	0	0	0	0	0
Other financing	0	0	0	0	0	0	0
Financing cash flow	0	6,476	16,025	27,500	35,000	29,000	0
FOREX & other effects	0	0	0	0	0	0	0
Net cash flows	-254	2,184	-2,955	6,873	-4,764	1,796	-587
Cash, start of the year	0	3,950	6,133	3,178	10,051	5,288	7,083
Cash, end of the year	-254	6,134	3,178	10,051	5,288	7,083	6,496
EBITDA/share (in €)	-0.03	-0.11	-0.25	0.28	0.62	1.37	2.73
Y-Y Growth							
Operating cash flow	n.m.	n.m.	n.m.	n.m.	83.4%	194.7%	93.9%
Free cash flow	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.
EBITDA/share	n.m.	n.m.	n.m.	n.m.	119.0%	119.8%	99.8%

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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.

RECOMMENDATION & PRICE TARGET HISTORY

Report No.:	Date of publication	Previous day closing price	Recommendation	Price target
Initial Report	29 October 2020	€6.60	Buy	€9.40
2...1	↓	↓	↓	↓
2	4 December 2020	€7.15	Buy	€9.40
3	8 January 2021	€6.95	Buy	€9.40
4	1 April 2021	€6.65	Buy	€9.40
5	12 July 2021	€5.95	Buy	€7.70
6	Today	€4.96	Buy	€7.50

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 timely manner in connection with the reporting obligations of the analysed company or on the occasion of ad hoc notifications.

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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: <https://firstberlin.com/disclaimer-english-link/>

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