

TubeSolar AG

Germany / Renewable Energy
 Düsseldorf
 Bloomberg: 9TS
 ISIN: DE000A2PXQD4

Successful capital
 increase & investment

RATING
BUY

PRICE TARGET
€ 9.40

Return Potential 35.3%
 Risk Rating High

INVESTMENT SECURES ACCESS TO THIN-FILM PV

Following the successful capital increase in December 2020, in which TubeSolar placed one million shares at EUR 6.00 per share with shareholders and institutional investors, the company entered a contract for a USD 2.5m stake in the US-American thin-film photovoltaic technology manufacturer Ascent Solar Technologies, Inc (ASTI). ASTI produces CIGS (Copper Indium Gallium Selenium) cells and modules. With this step, TubeSolar secures a future stake of approx. 15% in ASTI. In addition to the European supplier TubeSolar will thus have a second source of supply for the thin-film, which is integrated into the TubeSolar tubes. We think taking the stake in ASTI is an important step to avoid dependence on just one supplier for such a central input. In addition, the cooperation should make it easier for TubeSolar to gain a foothold in the US market for agrophotovoltaics, which we believe has great growth potential. We will adjust our model after the transaction has been completed and confirm our €9.40 price target with a Buy recommendation.

€6m cash inflow from capital increase Many shareholders have made use of their subscription rights. Unsubscribed shares were placed with institutional investors with demand exceeding supply. The issue increases the share capital by one million shares to a total of 11 million shares. The additional funds amounting to €6m will be used for the partial financing of the highly automated production facility and the Ascent Solar stake.

Strategic stake in Ascent Solar TubeSolar acquires a \$2.5m stake in ASTI, receiving shares at \$0.0001 per share and will thus hold approximately 15% of the company in the future. ASTI produces thin-film cells and modules based on CIGS technology on a flexible plastic substrate.

(p.t.o.)

FINANCIAL HISTORY & PROJECTIONS

	2018	2019	2020E	2021E	2022E	2023E
Revenue (€m)	0.00	0.00	0.00	0.00	25.60	84.24
Y-o-y growth	n.a.	n.a.	n.a.	n.a.	n.a.	229.1%
EBIT (€m)	0.00	-0.25	-2.66	-1.17	0.46	13.46
EBIT margin	n.a.	n.a.	n.a.	n.a.	1.8%	16.0%
Net income (€m)	0.00	-0.25	-2.94	-1.10	-0.88	9.60
EPS (diluted) (€)	0.00	-0.03	-0.29	-0.09	-0.06	0.62
DPS (€)	0.00	0.00	0.00	0.00	0.00	0.00
FCF (€m)	0.00	-0.25	-8.93	-21.24	-39.29	-24.92
Net gearing	0.0	-37.5%	-7.5%	33.5%	40.5%	75.4%
Liquid assets (€m)	0.00	3.95	2.02	7.78	20.49	0.57

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. TubeSolar is located in Augsburg, Germany.

MARKET DATA

As of 07 Jan 2021

Closing Price	€ 6.95
Shares outstanding	11.00m
Market Capitalisation	€ 76.45m
52-week Range	€ 2.26 / 9.07
Avg. Volume (12 Months)	4,045

Multiples	2020E	2021E	2022E
P/E	n.a.	n.a.	n.a.
EV/Sales	n.a.	n.a.	1.4
EV/EBIT	n.a.	n.a.	75.6
Div. Yield	0.0%	0.0%	0.0%

STOCK OVERVIEW



COMPANY DATA

As of 30 Jun 2020

Liquid Assets	€ 2.06m
Current Assets	€ 2.25m
Intangible Assets	€ 9.56m
Total Assets	€ 12.61m
Current Liabilities	€ 3.03m
Shareholders' Equity	€ 9.41m

SHAREHOLDERS

TSG 1. Vermögensverw. GmbH	55.2%
BD Vermögensverw. GmbH	11.1%
Solar Invest International SE	9.7%
BF Holding GmbH	5.1%
Free Float	18.9%



The modules are characterised by very low weight and great flexibility. ASTI's unique monolithic integration process achieves relatively high module efficiency and very good durability. Thus, Ascent Solar offers an attractive alternative to the current European thin-film supplier. With its stake in Ascent Solar, TubeSolar gains access to a second source of supply for thin-film and thus reduces its dependence on a single supplier. The thin-film that is integrated into TubeSolar's glass tubes (see our Initiating Coverage of 29 October 2020) is a central input for its modules. The cooperation with the US company is also advantageous in providing TubeSolar with an entrée to the US market for agrophotovoltaics (APV).

Ascent Solar has compelling technology and an intelligent strategy Ascent Solar was founded in 2005 and produces in Thornton, Colorado in a production facility with a nameplate capacity of 30 MWp. To avoid tough competition with very low prices per watt peak, ASTI deliberately does not operate in the PV mass markets for ground-mounted and roof-top systems. Instead, the company is active in niche markets in which it can exploit the advantages of its product. ASTI focuses on high-quality PV applications for customers in the space, aviation, defence, and leisure segments. The company has more than 80 US and international patents and published patent filings. The Japan Aerospace Exploration Agency (JAXA) is currently testing ASTI's technology. The Japanese space agency is planning a mission to Jupiter.

Ascent Solar is among the few survivors in the thin-film PV industry. Most thin-film PV companies did not survive the very sharp cost and price reductions in competing crystalline silicon technology. This tremendous competitive pressure did not leave Ascent Solar unscathed, which is reflected in the very low share price of approx. \$0.006 and a weakened balance sheet. The company is currently in the final phase of financial restructuring, from which we believe it will emerge better capitalised. Therefore, historic balance sheets do not provide a current and adequate picture of ASTI, and current figures have not yet been published.

Is the stake in Ascent Solar a good investment for TubeSolar? At its current price of approximately \$0.006 per share, Ascent Solar is valued at ca. \$109m (currently 18.1bn shares). TubeSolar is purchasing the shares at a price of USD 0.0001 per share. This corresponds to about 1/60th of the current share price and is therefore currently a very cheap entry point for TubeSolar. However, Ascent Solar's share price is highly volatile; it was around \$0.002 in the week before Christmas. From January to the end of September 2020, the price fluctuated between \$0.0001 and \$0.0002.

With the expected delivery contract with TubeSolar, ASTI can guarantee a basic capacity utilisation in the future, which should lead to a reduction of the cost per watt. According to our first assessment, Ascent Solar has a strong technological base that is very well protected by patents, a proven and functioning production process and a convincing product range for high-priced niche markets. Against this background, TubeSolar's \$2.5m stake in ASTI, which, after outstanding capital adjustments, should correspond to around 15% of Ascent Solar's share capital, seems to be a good investment.

Buy rating confirmed at unchanged price target Based on unchanged estimates, an updated DCF model still yields a €9.40 price target. We confirm our Buy recommendation.



VALUATION MODEL

DCF valuation model								
All figures in EUR '000	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E
Net sales	0	0	25,600	84,240	140,000	167,500	192,777	218,715
NOPLAT	-2,925	-1,166	458	11,771	24,166	28,021	30,863	34,481
+ depreciation & amortisation	1,192	2,910	6,492	10,495	13,420	15,304	16,125	14,742
Net operating cash flow	-1,733	1,744	6,950	22,266	37,586	43,325	46,987	49,223
- total investments (CAPEX and WC)	-7,180	-23,055	-44,909	-45,015	-29,914	-11,948	-12,992	-14,215
Capital expenditures	-6,880	-22,190	-44,256	-40,421	-24,662	-8,360	-9,131	-9,802
Working capital	-300	-865	-653	-4,593	-5,252	-3,589	-3,861	-4,413
Free cash flows (FCF)	-8,913	-21,311	-37,960	-22,749	7,672	31,377	33,995	35,009
PV of FCF's	-8,913	-18,905	-29,818	-15,823	4,723	17,105	16,410	14,964

All figures in thousands	
PV of FCFs in explicit period (2020E-2034E)	45,250
PV of FCFs in terminal period	51,262
Enterprise value (EV)	96,513
+ Net cash / - net debt (pro forma)	41,804
+ Investments / minority interests	0
Shareholder value	138,317
Diluted number of shares (discounted)	14,687
Fair value per share in EUR	9.40

WACC		Terminal growth rate							
		8.9%	0.5%	1.0%	1.5%	2.0%	2.5%	3.0%	3.5%
Cost of equity	14.6%	9.9%	14.19	14.36	14.55	14.76	15.01	15.29	15.61
Pre-tax cost of debt	5.0%	10.9%	12.21	12.31	12.43	12.57	12.72	12.88	13.07
Tax rate	30.0%	11.9%	10.60	10.67	10.74	10.83	10.92	11.02	11.13
After-tax cost of debt	3.5%	12.9%	9.28	9.32	9.37	9.42	9.47	9.54	9.60
Share of equity capital	85.0%	13.9%	8.17	8.20	8.23	8.26	8.29	8.33	8.37
Share of debt capital	15.0%	14.9%	7.24	7.25	7.27	7.29	7.31	7.33	7.36
Price target	9.40	15.9%	6.44	6.45	6.46	6.47	6.48	6.50	6.51

* for layout purposes the model shows numbers only to 2027, but runs until 2034



INCOME STATEMENT

All figures in EUR '000	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Revenues	0	0	0	25,600	84,240	140,000	167,500
Cost of goods sold	0	1,956	2,500	12,800	42,120	72,545	89,841
Gross profit	0	-1,956	-2,500	12,800	42,120	67,455	77,659
Personnel costs	297	2,142	2,904	4,084	9,821	10,698	13,082
Other operating income	177	512	6,000	2,995	1,348	1,400	1,675
Other operating expenses	134	1,625	3,347	4,762	9,688	11,200	11,893
EBITDA	-254	-1,466	1,744	6,950	23,959	46,957	54,360
Depreciation and amortisation	0	1,192	2,910	6,492	10,495	13,420	15,304
Operating income (EBIT)	-254	-2,658	-1,166	458	13,464	33,537	39,055
Net financial result	0	-12	-400	-1,710	-2,175	-2,300	-2,275
Non-operating expenses	0	0	0	0	0	0	0
Pre-tax income (EBT)	-254	-2,670	-1,566	-1,252	11,289	31,237	36,780
Income taxes	0	267	-470	-376	1,693	9,371	11,034
Minority interests	0	0	0	0	0	0	0
Net income / loss	-254	-2,937	-1,096	-876	9,596	21,866	25,746
Diluted EPS (in €)	-0.03	-0.29	-0.09	-0.06	0.62	1.41	1.66
Ratios							
Gross margin	n.m.	n.m.	n.m.	50.0%	50.0%	48.2%	46.4%
EBITDA margin on revenues	n.m.	n.m.	n.m.	27.1%	28.4%	33.5%	32.5%
EBIT margin on revenues	n.m.	n.m.	n.m.	1.8%	16.0%	24.0%	23.3%
Net margin on revenues	n.m.	n.m.	n.m.	-3.4%	11.4%	15.6%	15.4%
Tax rate	0.0%	-10.0%	30.0%	30.0%	15.0%	30.0%	30.0%
Expenses as % of revenues							
Personnel costs	n.m.	n.m.	n.m.	16.0%	11.7%	7.6%	7.8%
Depreciation and amortisation	n.m.	n.m.	n.m.	25.4%	12.5%	9.6%	9.1%
Other operating expenses	n.m.	n.m.	n.m.	18.6%	11.5%	8.0%	7.1%
Y-Y Growth							
Revenues	n.m.	n.m.	n.m.	n.m.	229.1%	66.2%	19.6%
Operating income	n.m.	n.m.	n.m.	n.m.	2839.8%	149.1%	16.5%
Net income/ loss	n.m.	n.m.	n.m.	n.m.	n.m.	127.9%	17.7%



BALANCE SHEET

All figures in EUR '000	2019A	2020E	2021E	2022E	2023E	2024E	2025E
Assets							
Current assets, total	3,950	2,325	8,983	23,645	10,951	24,402	57,618
Cash and cash equivalents	3,950	2,025	7,783	20,489	565	5,937	34,039
Short-term investments	0	0	0	0	0	0	0
Receivables	0	200	200	2,104	6,924	11,960	14,852
Inventories	0	100	1,000	1,052	3,462	6,505	8,727
Other current assets	0	0	0	0	0	0	0
Non-current assets, total	7,070	14,364	35,058	72,822	102,749	113,991	107,046
Property, plant & equipment	0	6,742	28,494	67,080	97,689	109,478	102,859
Goodwill & other intangibles	0	7,397	6,339	5,518	4,835	4,288	3,962
Other assets	7,070	225	225	225	225	225	225
Total assets	11,020	16,689	44,041	96,468	113,700	138,393	164,664
Shareholders' equity & debt							
Current liabilities, total	418	417	452	1,755	4,391	8,219	23,744
Short-term debt	0	0	0	0	0	1,000	15,000
Accounts payable	65	65	100	1,403	4,039	6,866	8,391
Current provisions	0	0	0	0	0	0	0
Other current liabilities	352	352	352	352	352	352	352
Long-term liabilities, total	61	2,667	19,082	44,082	49,082	48,082	33,082
Long-term debt	0	1,000	16,000	41,000	46,000	45,000	30,000
Deferred revenue	0	0	0	0	0	0	0
Other liabilities	61	1,667	3,082	3,082	3,082	3,082	3,082
Minority interests	0	0	0	0	0	0	0
Shareholders' equity	10,541	13,604	24,507	50,631	60,227	82,092	107,839
Share capital	10,000	11,000	12,500	15,500	15,500	15,500	15,500
Capital reserve	795	5,795	16,295	40,295	40,295	40,295	40,295
Other reserves	0	0	0	0	0	0	0
Treasury stock	0	0	0	0	0	0	0
Loss carryforward / retained earnings	-254	-3,191	-4,288	-5,164	4,432	26,298	52,044
Total consolidated equity and debt	11,020	16,689	44,041	96,468	113,700	138,393	164,664
Ratios							
Current ratio (x)	9.45	5.57	19.85	13.47	2.49	2.97	2.43
Quick ratio (x)	9.45	5.33	17.64	12.87	1.71	2.18	2.06
Net debt	-3,950	-1,025	8,217	20,511	45,435	40,063	10,961
Net gearing	-37.5%	-7.5%	33.5%	40.5%	75.4%	48.8%	10.2%
Equity ratio	95.7%	81.5%	55.6%	52.5%	53.0%	59.3%	65.5%
Book value per share (in €)	1.05	1.36	2.04	3.62	3.89	5.30	6.96
Return on equity (ROE)	-2.4%	-21.6%	-4.5%	-1.7%	15.9%	26.6%	23.9%
Days of sales outstanding (DSO)	0.0	0.0	0.0	30.0	30.0	31.2	32.4
Days inventory outstanding	0.0	18.7	146.0	30.0	30.0	32.7	35.5
Days in payables (DIP)	0.0	12.1	14.6	40.0	35.0	34.5	34.1



CASH FLOW STATEMENT

All figures in EUR '000	2019A	2020E	2021E	2022E	2023E	2024E	2025E
EBIT	-254	-2,658	-1,166	458	13,464	33,537	39,055
Depreciation and amortisation	0	1,192	2,910	6,492	10,495	13,420	15,304
EBITDA	-254	-1,466	1,744	6,950	23,959	46,957	54,360
Changes in working capital	0	-300	-865	-653	-4,593	-5,252	-3,589
Other adjustments	0	-279	70	-1,334	-3,868	-11,671	-13,309
Operating cash flow	-254	-2,045	949	4,962	15,497	30,034	37,462
Investments in PP&E	0	-6,880	-22,190	-44,000	-40,000	-24,000	-7,614
Investments in intangibles	0	0	0	-256	-421	-662	-746
Free cash flow	-254	-8,925	-21,241	-39,294	-24,924	5,372	29,102
Acquisitions & disposals, net	0	0	0	0	0	0	0
Other investments	0	0	0	0	0	0	0
Investment cash flow	0	-6,880	-22,190	-44,256	-40,421	-24,662	-8,360
Debt financing, net	0	1,000	15,000	25,000	5,000	0	-1,000
Equity financing, net	0	6,000	12,000	27,000	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	7,000	27,000	52,000	5,000	0	-1,000
FOREX & other effects	0	0	0	0	0	0	0
Net cash flows	-254	-1,925	5,759	12,706	-19,924	5,372	28,102
Cash, start of the year	0	3,950	2,025	7,783	20,489	565	5,937
Cash, end of the year	-254	2,025	7,783	20,489	565	5,937	34,039
EBITDA/share (in €)	-0.03	-0.15	0.15	0.50	1.55	3.03	3.51
Y-Y Growth							
Operating cash flow	n.m.	n.m.	n.m.	422.9%	212.3%	93.8%	24.7%
Free cash flow	n.m.	n.m.	n.m.	n.m.	n.m.	n.m.	441.8%
EBITDA/share	n.m.	n.m.	n.m.	241.6%	211.4%	96.0%	15.8%

Imprint / Disclaimer

First Berlin Equity Research

First Berlin Equity Research GmbH ist ein von der BaFin betreffend die Einhaltung der Pflichten des §85 Abs. 1 S. 1 WpHG, des Art. 20 Abs. 1 Marktmissbrauchsverordnung (MAR) und der Markets Financial Instruments Directive (MiFID) II, Markets in Financial Instruments Directive (MiFID) II Durchführungsverordnung und der Markets in Financial Instruments Regulations (MiFIR) beaufsichtigtes Unternehmen.

First Berlin Equity Research GmbH is one of the companies monitored by BaFin with regard to its compliance with the requirements of Section 85 (1) sentence 1 of the German Securities Trading Act [WpHG], art. 20 (1) Market Abuse Regulation (MAR) and Markets in Financial Instruments Directive (MiFID) II, Markets in Financial Instruments Directive (MiFID) II Commission Delegated Regulation and Markets in Financial Instruments Regulations (MiFIR).

Anschrift:

First Berlin Equity Research GmbH
Mohrenstr. 34
10117 Berlin
Germany

Vertreten durch den Geschäftsführer: Martin Bailey

Telefon: +49 (0) 30-80 93 9 680

Fax: +49 (0) 30-80 93 9 687

E-Mail: info@firstberlin.com

Amtsgericht Berlin Charlottenburg HR B 103329 B

UST-Id.: 251601797

Ggf. Inhaltlich Verantwortlicher gem. § 6 MDStV

First Berlin Equity Research GmbH

Authored by: Dr. Karsten von Blumenthal, Analyst

All publications of the last 12 months were authored by Dr. Karsten von Blumenthal.

Company responsible for preparation: First Berlin Equity Research GmbH, Mohrenstraße 34, 10117 Berlin

The production of this recommendation was completed on 8 January 2021 at 14:31

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

Copyright© 2021 First Berlin Equity Research GmbH No part of this financial analysis may be copied, photocopied, duplicated or distributed in any form or media whatsoever without prior written permission from First Berlin Equity Research GmbH. First Berlin Equity Research GmbH shall be identified as the source in the case of quotations. Further information is available on request.

INFORMATION PURSUANT TO SECTION 85 (1) SENTENCE 1 OF THE GERMAN SECURITIES TRADING ACT [WPHG], TO ART. 20 (1) OF 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 ART. 37 OF COMMISSION DELEGATED REGULATION (EU) NO 2017/565 (MIFID) II.

First Berlin Equity Research GmbH (hereinafter referred to as: "First Berlin") prepares financial analyses while taking the relevant regulatory provisions, in particular section 85 (1) sentence 1 of the German Securities Trading Act [WpHG], art. 20 (1) of Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) and art. 37 of Commission Delegated Regulation (EU) no. 2017/565 (MiFID II) 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 art. 37 (1) of Commission Delegated Regulation (EU) no. 2017/565 (MiFID) II and art. 20 (1) of Regulation (EU) No 596/2014 of the European Parliament and of the Council of April 16, 2014, on market abuse (market abuse regulation) investment firms which produce, or arrange for the production of, investment research that is intended or likely to be subsequently disseminated to clients of the firm or to the public, under their own responsibility or that of a member of their group, shall ensure the implementation of all the measures set out in Article 34 (3) of Regulation (EU) 2017/565 in relation to the financial analysts involved in the production of the investment research and other relevant persons whose responsibilities or business interests may conflict with the interests of the persons to whom the investment research is disseminated. In accordance with art. 34 (3) of Regulation (EU) 2017/565 the procedures and measures referred to in paragraph 2 (b) shall be designed to ensure that relevant persons engaged in different business activities involving a conflict of interests carry on those activities at a level of independence appropriate to the size and activities of the investment firm and of the group to which it belongs, and to the risk of damage to the interests of clients.

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;

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], 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 it 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.

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	Today	€6.95	Buy	€9.40

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

SUPERVISORY AUTHORITY: Bundesanstalt für Finanzdienstleistungsaufsicht (German Federal Financial Supervisory Authority) [BaFin], Graurheindorferstraße 108, 53117 Bonn and Marie-Curie-Straße 24-28, 60439 Frankfurt am Main

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.