co.don AG

Rating: Buy **Risk: Medium**
Price: EUR 2.35
Price target: EUR 4.20

Reuters: CNWK.DE **Bloomberg:** CNWK:GR

Preservation prior to replacement

Leading supplier of tissue engineering
With more than 7,200 applications, co.don ranks among Europe's leading providers of autologous cell and tissue transplants for regeneration and functional restoration after traumatic and degenerative knee-joint-cartilage and spinal-disc damage. Treatment is based exclusively on cultivated autologous cells derived from patients' own biological carrier materials, minimizing the risk of rejection responses, inflammation or infection. A minimally invasive application procedure significantly reduces patients' surgery times and rehabilitation periods.

Cleanroom technology as a unique selling proposition
To comply with maximum hygiene requirements, co.don has developed a proprietary cleanroom technology known as Integrated Isolator Technology (IIT). This "cleanroom in a cleanroom" integrates all equipment necessary for the cultivation of cartilage transplants in cleanroom Class A isolators. Cartilage is cultivated without the use of antibiotics, growth factors or genetic modification.

EU-wide approval as the next milestone
After the envisaged completion of clinical trials and central EU-wide approval by the European Medicines Agency (EMA), presumably in 2017e, the addressable market will quadruple to 240,000 chondrocyte treatments, or a revenue volume of approximately EUR 1.2bn, per annum. To serve this market, co.don plans to set up production facilities and in-house sales capacities in other European countries and issue exclusive and non-exclusive distribution licenses.

Significant increase in profitability expected
For 2014e, we are penciling in EBITDA of EUR -0.3mn before strategic costs, which would mean that the company fell just short of breakeven at the operating level. We are looking for a further improvement in operating EBITDA, to EUR -0.1mn, in the current fiscal year, followed by a marked earnings leap once EU-wide approval has been granted, allowing co.don to become profitable at all earnings levels for the first time in its corporate history.

Initiation of coverage with Buy, price target EUR 4.20
Our price target of EUR 4.20 has been derived from a three-phase discounted-cash-flow (DCF) model (primary method), which is confirmed by multiples from a peer group consisting of biotechnology companies (secondary method). The upside versus yesterday's closing price of EUR 2.35 is approximately 78.7%. We are initiating our research coverage of the co.don stock with a Buy rating.

Weaknesses and risks
There is a risk that **(1)** external capital will have to be raised before the company breaks even, despite cash on hand of EUR 4.1mn (at yearend 2014e); **(2)**; EU-wide approval will be delayed further into the future or refused altogether; and **(3)** the envisaged internationalization of business activities cannot be driven forward fast enough.

ISIN/WKN: DE000A1K0227 / A1K022
Indices: CDAX, General All-Share
Transparency level: General Standard
Weighted number of shares: 13.7mn
Market cap.: EUR 32.2mn
Daily trading volume: 30,000 shares
AGM: 14 July 2015

EUR mn (31/12)	2013	2014e	2015e	2016e
Revenues	3.6	4.4	5.4	7.4
EBITDA	-2.5	-2.5	-2.6	-0.2
EBIT	-2.7	-2.8	-2.9	-0.5
EBT	-2.7	-2.8	-2.9	-0.5
EAT	-2.7	-2.8	-2.9	-0.5

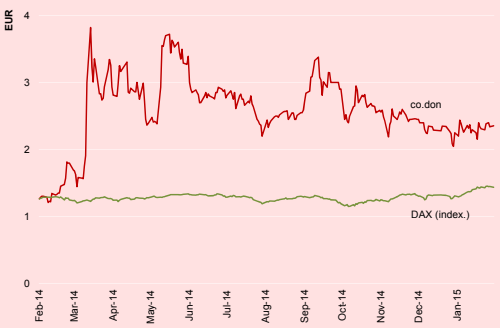
% of revenues	2013	2014e	2015e	2016e
EBITDA	-68.4%	-58.0%	-48.9%	-3.1%
EBIT	-73.5%	-63.0%	-53.2%	-6.4%
EBT	-74.0%	-63.0%	-53.2%	-6.4%
EAT	-74.1%	-63.2%	-53.4%	-6.5%

Per share (EUR)	2013	2014e	2015e	2016e
EPS	-0.24	-0.20	-0.21	-0.04
Dividend	0.00	0.00	0.00	0.00
BVPS	0.16	0.29	0.08	0.05
CFPS	-0.14	-0.14	-0.19	-0.01

%	2013	2014e	2015e	2016e
Equity ratio	53%	68%	34%	20%
Gearing	-66%	-103%	-114%	-126%

X	2013	2014e	2015e	2016e
P/ER	n/a	n/a	n/a	n/a
EV/sales	5.06	8.10	6.19	4.48
EV/EBITDA	n/a	n/a	n/a	n/a
P/BR	9.4	7.8	28.6	50.1

EUR mn	2014e	2015e
Guidance: Revenues	-	-
Guidance: EBITDA excl.strategic costs	-	>0



SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

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Content

Please note that every chapter starts with an extensive Executive Summary.

Executive Summary

Technology leader in autologous cartilage cell transplants
Established in 1993, co.don is one of Germany's leading commercial producers of cell and tissue transplants from autologous cells for use in cartilage defects. The company's primary product, co.don chondrosphere, has already been applied successfully to considerably more than 6,000 patients for regeneration and functional restoration after traumatic (e.g. due to sports accidents) and knee-joint cartilage degeneration. Application success has been highly significant. The company's secondary product, co.don chondrotransplant DISC, which has been marketed since 1997, is an autologous spinal-disc cell transplant for biological repair of degenerated spinal discs, e.g. after spinal disc herniation episodes.

Driver of a change in paradigm
Artificial joint implantations (endoprostheses) are still the preferred method of treatment for severe cartilage damage, e.g. in the knee. co.don chondrosphere, the method offered by co.don, is a matrix-associated autologous chondrocyte transplantation method (MACT for short) based on regeneration of patients' own (autologous) articular cartilage. This approach can be applied in a minimally invasive (arthroscopic) procedure, which can help avoid the frequently observed side-effects of joint replacement surgery. The company's motto "joint preservation prior to joint replacement" could thus become one of the key drivers of a change in paradigm.

A platform technology also suitable for other joints
In principle, the approval granted by the Paul-Ehrlich-Institut (PEI), the German Medicines Agency, allows co.don to treat all joints. In the past, treatments were thus not just limited to knee-joint and spinal-disc defects, but also covered diseases of the shoulder and hip, the ankle, the elbow and even smaller joints such as the metatarsophalangeal joint of the big toe.

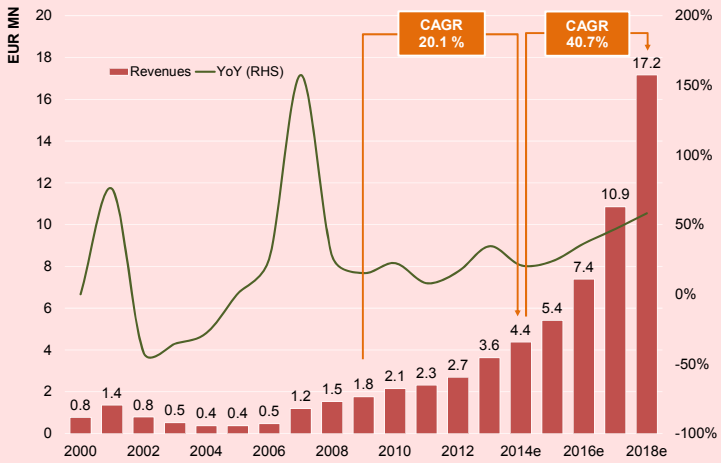
EU-wide approval as a medicinal product to usher in the next stage
Due to the high strategic expenses incurred in efforts to obtain EU-wide approval of the articular-cartilage product, co.don's cash-burn rate is still very high. Since we expect approval-related costs to decline noticeably in the coming years, however, the current capital base should suffice to weather the two upcoming loss-making years without any further injections of external funds. Following of EU-wide approval in 2017e, an upward trend in product prices and expansion of co.don's international business should, in our opinion, lead to a significant leap in earnings, allowing co.don to generate an operating profit for the first time in its corporate history.

Initiation of coverage with Buy, price target of EUR 4.20 per share
We have valued the co.don stock on the basis of standardized a three-phase discounted-cash-flow (DCF) model (primary method) as well as peer group multiples (secondary method). Our DCF model results in a price target of EUR 4.20 per share in our base-case scenario. The bear-case and bull-case scenarios indicate price targets of EUR 4.00, and EUR 4.40 per share, respectively, which are also well above the current stock price of EUR 2.35. The results of the DCF model are confirmed by a market-dependent peer group approach focusing on German biotechnology companies. The upside versus yesterday's closing price of EUR 2.35 is approximately 78.7%. We are therefore initiating our research coverage of the co.don stock with a Buy rating.

Weaknesses and risks
Key risks for the realization of our price target are: **(1)** the possibility of further equity or equity-like capital having to be raised, despite cash on hand of EUR 4.1mn (December 2014e), before the company breaks even; **(2)**; a greater delay than planned in obtaining EU-wide approval as a medicinal product; and **(3)** lack of success in driving the envisaged internationalization of business activities forward fast enough.

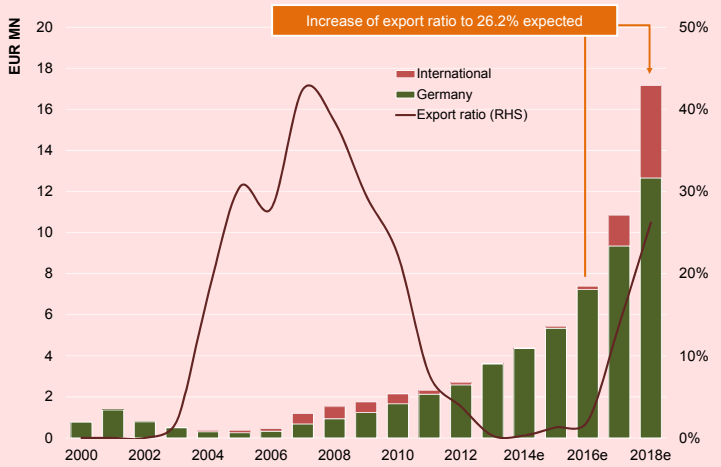
Business Profile

REVENUES AND REVENUE GROWTH



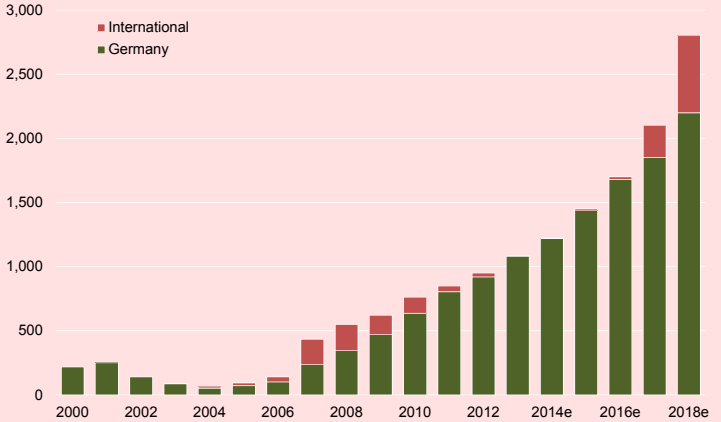
In the last six years, average revenue growth came to 20.1% per annum. After EU-wide approval (anticipated for 2017e), which will quadruple co.don's addressable market volume to 240,000 transplants per annum, and …

REVENUES BY REGION



… market entry across the EU, which will have been orchestrated by then, we expect average annual growth rates to accelerate significantly (CAGR 2014e-18e 40.7%).

NUMBER OF TRANSPLANTS AT HOME AND ABROAD

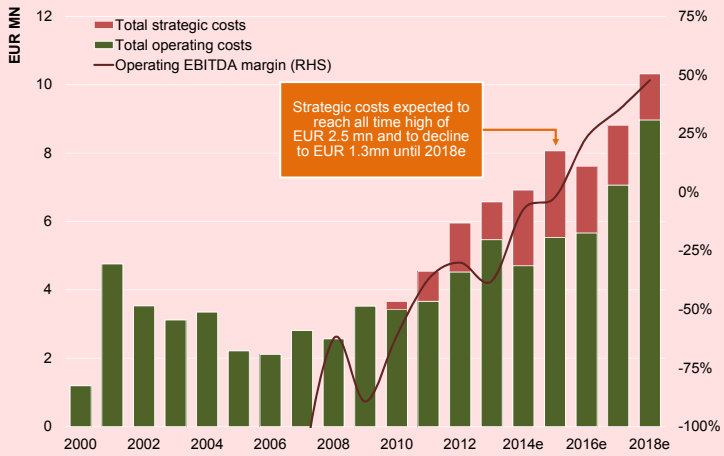


Last year, co.don carried out an estimated 1,220 chondrocyte transplants (previous year: 1,085). For the German market, we are penciling in comparable growth rates until the end of our planning horizon in 2018e. In other European countries, patients will probably be treated with co.don chondrosphere for the first time in 2017e.

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

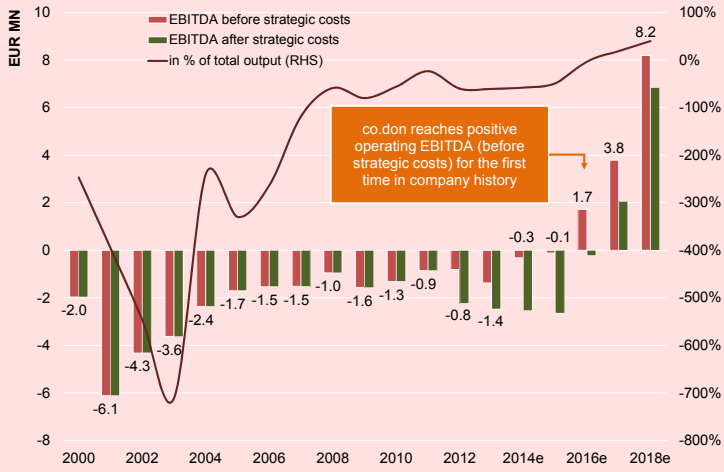
Business Profile (cont.)

STRATEGIC VS. OPERATING COSTS



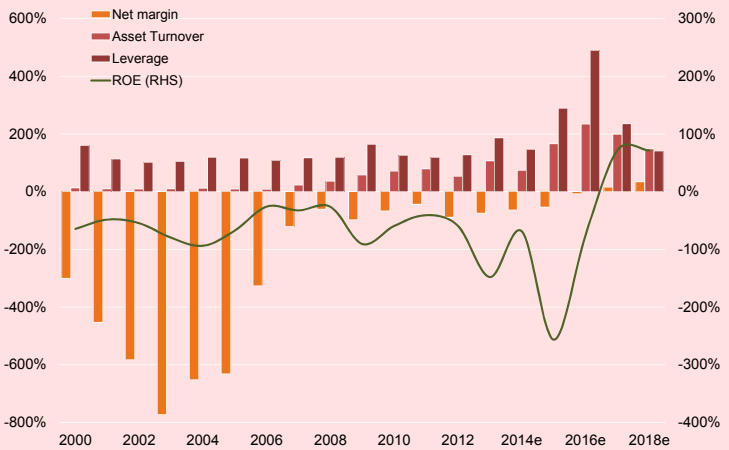
By the end of the last fiscal year, "strategic" costs noticeably in excess of EUR 10.0mn had been incurred in connection with efforts to obtain EU-wide approval of the articular cartilage product. We expect annual expenditure to peak out in the current fiscal year and gradually decline once EU approval has been granted in 2017e.

EBITDA AND EBITDA MARGIN



Due to high approval costs, the earnings situation continued to deteriorate in 2012 and 2013. Despite declining public grants, the 2014 EBITDA-based loss before deduction of strategic costs was probably only in the low six-digit numbers (EUR -0.3mn). For 2016e (2017e), we expect the company to post its first profit before (after) strategic costs.

RETURN ON EQUITY

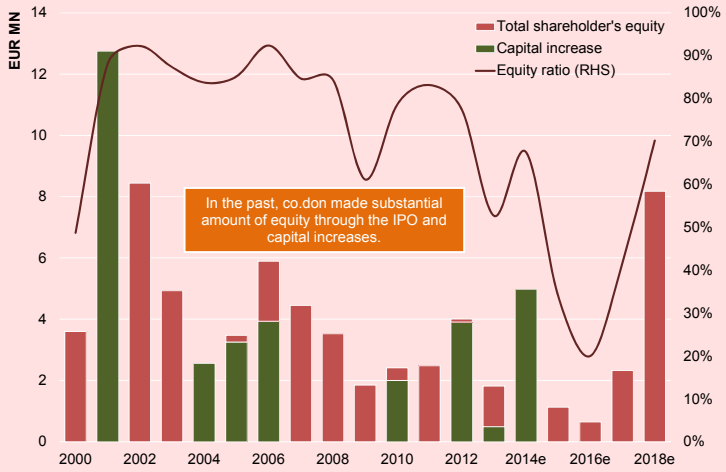


According to the DuPont system, the return-on-equity drivers will not become visible until after-tax profitability is achieved in 2017e.

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

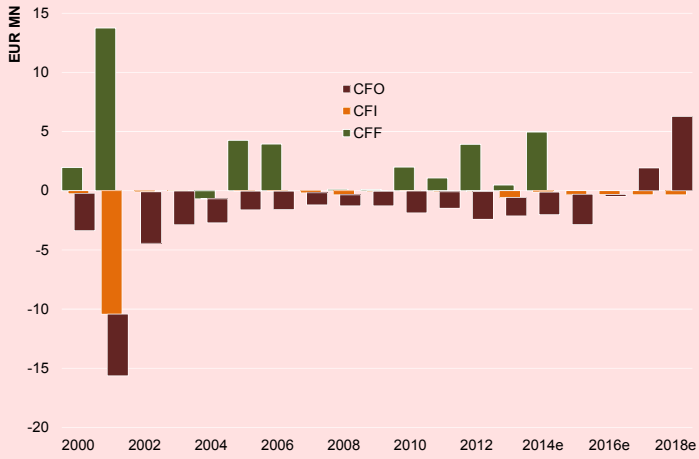
Business Profile (cont.)

EQUITY AND EQUITY RATIO



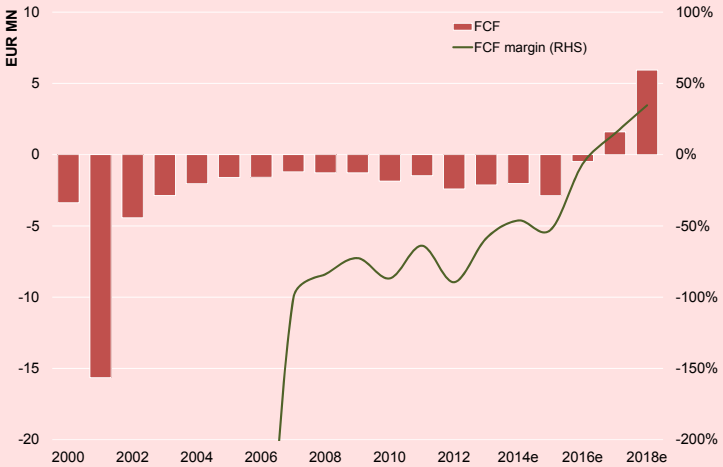
Since the IPO in 2001, co.don has raised substantial external funds via capital increases, which were mostly required to avoid balance-sheet overindebtedness. Most recently, equity was increased by EUR 5.0mn last year. Our projection model indicates that the company's current capitalization should suffice to weather the coming two loss-ridden years without any further injections of external funds, before the company begins to generate initial positive cash flows from 2017e onwards, according to our estimates.

CASH-FLOW COMPONENTS



In the last few years, liquidity outflows from the operating business could only be offset by raising external funds. As of 2017e, we expect operating and free cash flows to move into positive territory.

FREE CASH FLOW AND FCF MARGIN

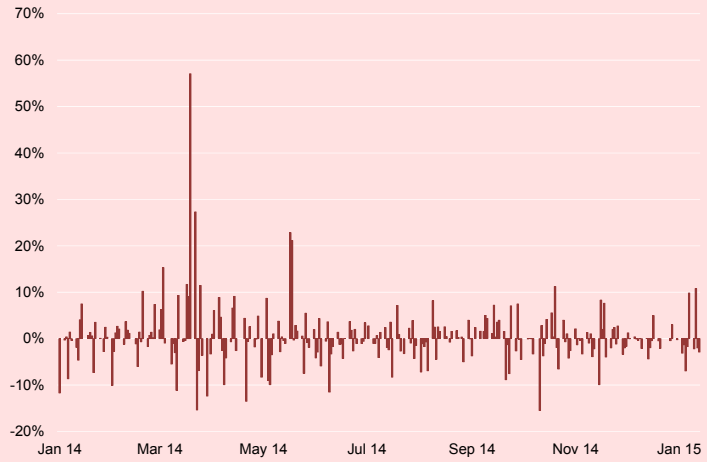


The typically very protracted approval periods for medicinal products in Germany and Europe have prevented co.don from generating positive free cash flows since its IPO in 2001. The company should succeed in returning to positive figures for the first time in 2017e. For 2018e, we then expect the free cash-flow margin to increase to 34.6%.

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

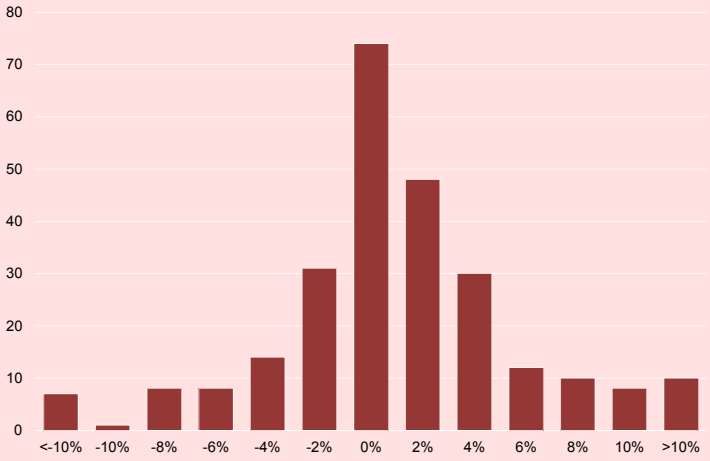
Stock Performance and Volatility

VOLATILITY



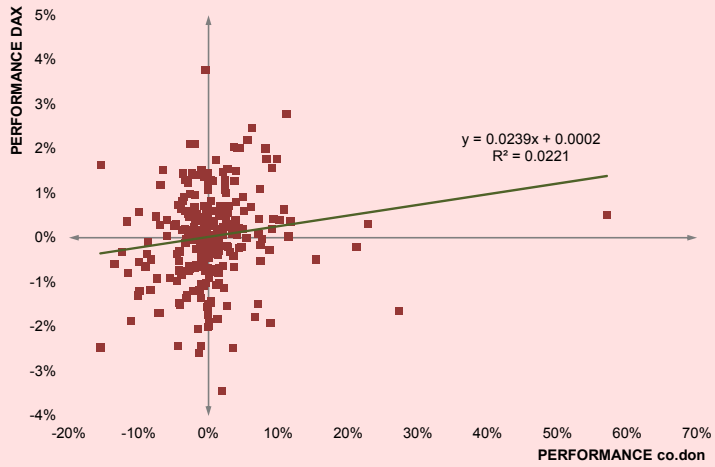
In the past twelve months, the co.don stock displayed above-average volatility. Intraday fluctuations quite frequently exceeded ±10% – with a clear upside bias: shareholders' average daily yield stood at approximately 0.3% in the last twelve months.

DISTRIBUTION OF DAILY YIELDS, LTM



The chart shows a slightly positive skew in the distribution of daily yields. The dispersion of intra-day fluctuations mainly lies within a range of -2% and +4%. Extreme outliers are discernible, too.

ESTIMATED BETA OF DAILY YIELDS, LTM



There is a clear positive correlation between co.don's stock price and the DAX.

SOURCE: SPHENE CAPITAL

Price target of EUR 4.20 per share – Buy

We have valued the stock of co.don AG on the basis of a standardized three-phase discounted-cash-flow (DCF) model (primary method) as well as market-dependent peer group multiples (secondary method).

In the last few years, co.don's earnings situation was subject to high strategic burdens associated with efforts to obtain EU-wide approval. Adjusted for these expenses, co.don probably only just fell short of breaking even in its operating business in the last fiscal year, with EBITDA coming to EUR -0.3mn. At the same time, the company reported double-digit revenue growth rates, generating revenues of EUR 4.4mn in 2014e according to our estimates. On the strength of EU-wide approval of the co.don chondrosphere and co.don chondrotransplant DISC medicinal products, we expect the favorable revenue trend to continue and the company to achieve after-tax profitability in the coming four years, which are our detailed-planning phase. In the ten-year period that follows, which corresponds to the transition phase in our three-phase DCF model and ends with the terminal-value phase at the end of the 2028e fiscal year, we have assumed average annual growth rates of 4.5% for the company's operating profit. For the terminal value, we have modelled annual FCFF growth of 0.5%, corresponding to the virtually risk-free interest rate in the form of long-term German Bunds. For our bear-case and bull-case scenario analyses, we have used alternative revenue and earnings scenarios. On the basis of approximately 13.7mn shares, our DCF model results in a price target of EUR 4.20 per share in our base-case scenario. The bear-case and bull-case scenarios indicate price targets of EUR 4.00, and EUR 4.40 per share, respectively.

The intrinsic value obtained from the DCF model is confirmed by market-dependent valuation methods. For lack of direct pure-play peers from the cartilage environment, we have selected German small-cap biotechnology stocks without additional industry focus and valued their EV/Sales multiples on the basis of the 2015e and 2016e fiscal years. On the basis of our revenue projections for co.don and consensus estimates for the peer group, we arrive at price targets of EUR 3.50 and EUR 3.70 per share for the co.don stock for 2015e and 2016e, respectively.

All in all, the upside versus the most recent closing price of EUR 2.35 is 78.7% (DCF model) and 57.5% (2016e EV/Sales). We regard the DCF model as the primary valuation method and are initiating our research coverage of the co.don stock with a Buy rating and a medium-term price of EUR 4.20.

Our primary valuation method for co.don is a standardized three-phase and fully integrated DCF model

Basically, co.don's business model is characterized by low capital intensity. Capital requirements for investments in tangible fixed assets have been negligible in the last few years, and working capital has been flat for a number of years. The funding of further growth will thus not require high net capex. Against this backdrop, a high cash conversion rate can, in principle, be deduced from co.don's business model. In conjunction with our growth-scenario assumption, a standardized three-phase DCF model with a long-term orientation is therefore the most suitable valuation approach for the co.don stock (primary method).

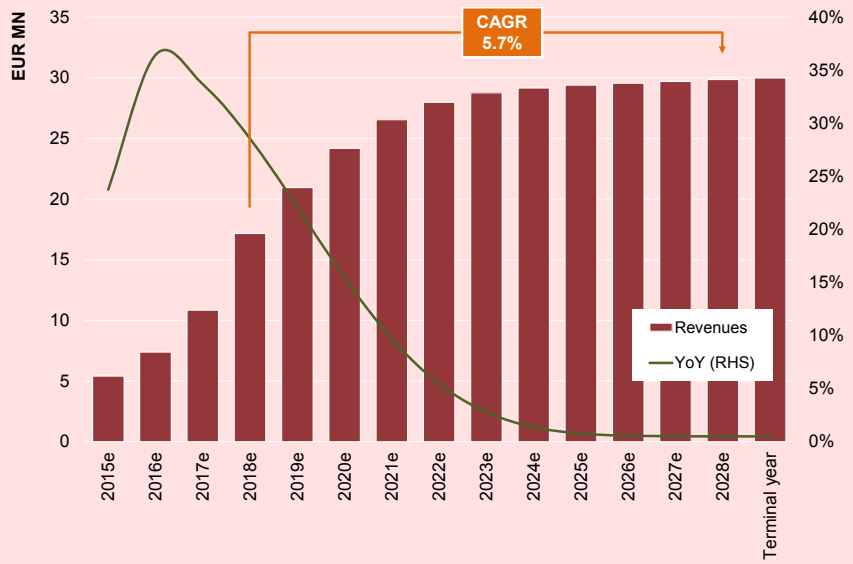
Up to and including 2018e, our model is based on our detailed income-statement and balance-sheet projections for that period. Then follows a second, ten-year rough-planning phase ending in 2028e. After that, we model the terminal value.

Growth assumptions for the DCF model

Our three-phase DCF model is based on the following growth assumptions:

- In **phase 1** of the DCF model (detailed-planning phase), we have used our detailed segment, revenue, earnings, cash-flow and balance-sheet projections through 2018e as our basis and expect revenues to grow by an annual average rate of 40.7% in the 2014e-18e period.
- For the subsequent **phase 2** (rough-planning phase), which ends in 2028e, we have assumed CAGR of 5.7% for net revenues. In accordance with the life-cycle theory, we are pencilling in declining revenue growth rates over time. A further assumption is that key performance indicators will approach sustainable long-term levels during the rough-planning phase.
- For **phase 3**, the terminal value phase in which growth can, by definition, only be achieved without taking on operating risks, the growth rate we have used in our model corresponds to the virtually risk-free interest on ten-year German Bunds, which currently stands at 0.5%.

FIGURE 1: REVENUES AND REVENUE GROWTH



The average annual growth rates during the detailed and rough-planning phases are 40.7% and 5.7%, respectively.

SOURCE: SPHENE CAPITAL PROJECTIONS

Our standardized three-phase DCF model is based on the following detailed assumptions:

Our projections assume significant improvements in the earnings situation once EU-wide approval has been granted.

- Generation of the anticipated revenue growth on the basis of the current organizational structures (**status-quo assumption**) without any unusual expansion capex (e.g. investments in a further cleanroom plant or a new site).
- A gradual increase in **EBIT margins** (in terms of revenues) from 38.4% in 2018e to 39.4% in 2028e (peak margins).
- An **operating margin** of 20.0% in the subsequent terminal-value phase.
- A fundamental **beta** of 1.4., derived, for lack of statistically significant stock prices, from the following macroeconomic and enterprise-specific risk factors:

TABLE 1: DERIVATION OF FUNDAMENTAL BETA, 2015E

Degree of diversification	0.10
Competitive intensity	0.00
Business model maturity	0.00
Regulatory risks	0.10
Financial risks	0.10
Corporate forecast risks	0.10
Market beta	1.00
Fundamental beta	**1.40**

SOURCE: SPHENE CAPITAL

- A decline in the **capex-to-net-revenues ratio** over time, which can be justified with increasing business model maturity, as observable in the past and expected for the future.
- A **marginal tax rate** that will be in line with the respective minimum tax rate through 2022e due to tax-loss carryforwards of EUR 36.2mn (own estimate) and, after these are exhausted, correspond to the average level of 32.0% customary in Germany.
- A **probability of default** of 3.0% per annum, which is based on the CCC

rating category we have currently derived for co.don.

- Discounting of cash flows generated by co.don in 2015e with weighted average cost of capital (**WACC**) of 10.2%. Apart from the fundamental beta of 1.4, the company's WACC is based on a virtually risk-free interest rate of currently 0.5%, corresponding to the yield on long-term (ten-year) German Bunds, and an implied current equity risk premium for the broad market (assumption of the geometric mean) of 9.0%. In addition, we have included a small-cap premium of 1.5%, composed of dependence on the management team (1.0%) and an equity liquidity premium (0.5%). Given an expected rating of CCC, we regard the debt risk premium of currently approximately 8.0% as fair. Lastly, we have assumed that co.don envisages a 50%/50% target capital structure for the equity and debt market values.

TABLE 2: WACC

Cost of equity pursuant to CAPM		
Virtually risk-free interest rate (10-year Bunds)	%	0.5%
Beta		1.4
Implied risk premium	%	9.0%
Cost of equity	**%**	**13.1%**
Small cap premium	**%**	**1.5%**
Management premium	%	1.0%
Liquidity premium	%	0.5%
Private-company premium	%	0.0%
Envisaged target capital structure	%	50.0%
Weighted cost of equity	**%**	7.3%
Cost of debt		
Virtually risk-free interest rate (10-year Bunds)	%	0.5%
Debt risk premium	%	8.0%
Cost of debt	%	8.5%
Tax rate	%	32.0%
Cost of debt after taxes	%	5.8%
Envisaged target capital structure	%	50.0%
Weighted cost of debt	**%**	**2.9%**
WACC based on fair market values	**%**	**10.2%**

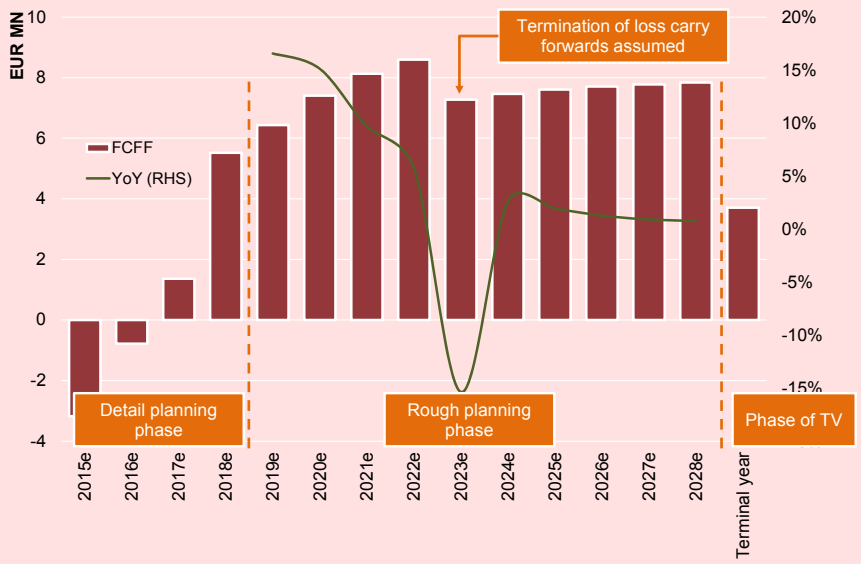
SOURCE: SPHENE CAPITAL

- No discounting of **negative free cash flows**, but rather compounding with the weighted cost of capital to the current valuation date (investor risk aversion axiom).
- **A cost of capital for co.don in the terminal value** phase that is similar to that of other mature companies; consequently, we have assumed that WACC will decline from currently 10.2% to 5.5% (which would correspond to a long-term risk premium of 5.0% in Germany on the basis of current interest rates).

Dynamic trend in free cash flows

These assumptions result in the dynamic trend in free cash flows in the 2015e-2028e period shown below (see Figure 2). The exhaustion of tax-loss carryforwards prompts the expectation of declining free cash flows in 2023e. Due to the model-inherent increase in the reinvestment ratio, we have modelled a decline in free cash flows in the terminal-value phase, which, in turn, is the basis for the perpetuity computation.

FIGURE 2: FCFF AND FCFF GROWTH



SOURCE: SPHENE CAPITAL PROJECTIONS

Our base-case scenario indicates a price target of EUR 4.20 per share over a medium-term horizon

In these computations, 29.2% of total enterprise value is derived from the terminal value and 70.8% from cash flows generated in the rough-planning phase.

The DCF model results in a price target of EUR 4.20 per share

TABLE 3: DCF MODEL – SUMMARY OF THE RESULTS

PV (terminal value)	EUR mn	15.8
PV (cash flow over 10 years)	EUR mn	38.2
Total PV	**EUR mn**	**54.0**
Financial debt	EUR mn	0.0
Cash	EUR mn	4.1
Value of equity	**EUR mn**	**58.2**
Number of shares	mn	13.7
Price target per share	**EUR**	**4.20**

SOURCE: SPHENE CAPITAL PROJECTIONS

We have used the following scenarios and assumptions in our stress test:

Our scenario analysis indicates a value of equity of EUR 4.00 per share in the bear case and EUR 4.40 per share in the bull case.

- **Bear-case scenario:** In our bear-case scenario, we have revised the terminal-value EBIT margin downward by 300 basis points, from an assumed 20.0% to 17.0%, and reduced the average annual growth rate during the terminal-value phase from 0.5% to -0.4%. We would thus be assuming that competitive intensity will increase, especially in the euro zone, and that co.don will not succeed in expanding its regional footprint to the expected extent. In this bear-case scenario, co.don's enterprise value would decline by EUR 0.20 to EUR 4.00 per share.
- **Bull-case scenario:** A bull-case scenario would result, above all, from more pronounced expansion of operating margins due to higher-than-expected acceptance of newly introduced products. In our bull-case scenario, we have assumed average annual growth of 1.4% (rather than 0.5%) for the free cash flows in the terminal-value phase and an improvement in operating margins to 23.0%. In this case, we would increase our price target by EUR 0.20 to EUR 4.40 per share.

FIGURE 3: STOCK PRICE TREND AND FORECAST

Over a medium-term horizon, we see a price target of EUR 4.20 per share, the prerequisite being achievement of our earnings forecasts. In our bear-case scenario (EUR 4.00), we have assumed an increase in competitive intensity. In our bull-case scenario (EUR 4.40), the company will succeed in growing and expanding its margins even faster.

SOURCE: SPHENE CAPITAL PROJECTIONS

In addition to an intrinsic DCF model (primary method), we have valued the co.don stock on the basis of market multiples (secondary method). On the basis of 2015e and 2016e consensus estimates and our own projections for co.don and using our preferred EV/Sales multiples for German biotechnology companies, we arrive at price targets for co.don of EUR 3.50 (2015e) and EUR 3.70 (2016e) For 2017e, a year for which no consensus estimates are available at present, the price target for the co.don stock derived from the peer group should increase further. If our forecasts prove correct, this will confirm the results of the DCF model, which suggest substantial undervaluation of the co.don stock.

In addition to a DCF model, comparison of co.don with other biotechnology companies of a similar size is a useful tool

Apart from using a DCF model to determine the enterprise's intrinsic value, comparison with a peer group of listed biotechnology companies can also be used to calculate a fair market value for co.don. In this connection, we have used the Deutsche Börse Biotechnology Subindex as our yardstick. A further prerequisite for inclusion in the peer group is company size: in our valuation, we have considered only companies with a market capitalization of less than EUR 100mn.

TABLE 4: STOCK PRICE DATA OF THE PEER GROUP

	Price (EUR)	**Number of shares** (mn)	**Market cap.** (EUR mn)
4SC	0.83	50.8	42.2
Biofrontera	1.99	22.2	44.2
Epigenomics	5.30	15.5	82.0
Medigene	4.00	13.9	55.7
Paion	1.98	50.5	99.8
Wilex	2.20	7.8	17.2

SOURCE: ONVISTA, SPHENE CAPITAL

Business models of the peer group

The market capitalization of the companies we have selected ranges between EUR 17.2mn and EUR 99.8mn and is thus in most cases significantly higher than co.don's current enterprise value.

The biotechnology companies in the peer group are active in the following areas:

- **4SC** discovers and develops targeted, small-molecule drugs for the treatment of cancer and autoimmune diseases.
- **Biofrontera** develops drugs for the treatment of skin diseases and medicinal cosmetics for the regenerative care of damaged skin.
- **Epigenomics** is a molecular diagnostics company developing and marketing proprietary products for the screening and diagnosis of cancer.
- **Medigene** develops personalized immunotherapy platforms with a focus on hematological malignancies.
- **Paion** develops and markets medicinal products for the treatment of thrombotic and cardiovascular diseases as well as central nervous system disorders.
- **Wilex** has a clinical portfolio of diagnostic and therapeutic product candidates in the oncology sector.

The EV/Sales multiple is the only suitable approach for co.don
Biotechnology companies' business models are essentially research-intensive and – at least during the development phase – characterized by high average growth rates, low profitability ratios and the absence of profit distribution rates. Due to the lack of profitability not just at co.don, but among many members of the peer group, we consider the EV/Sales multiple to be the relevant valuation parameter. If we use the median as a suitable measure of central tendency with a view to excluding extreme values, the 2015e and 2016e consensus estimates result in valuation multiples of 8.07x and 6.40x, respectively. The co.don stock, by contrast, has EV/Sales multiples of 5.17x and 3.79x, respectively, suggesting that this enterprise is noticeably undervalued. At EUR 3.50 (2015e) and EUR 3.70 (2016e) per share, the equity values that can be derived for co.don from these multiples are below the value of EUR 4.20 computed in the DCF model and exceed the current stock price level in both cases.

Table 5 below shows the current valuation multiples of co.don's peer group:

TABLE 5: PEER-GROUP VALUATION OVERVIEW

	EV/Sales	
	2015e	**2016e**
4SC	6.02x	6.64x
Biofrontera	13.18x	6.15x
Epigenomics	10.74x	10.24x
Medigene	3.45x	3.16x
Paion	9.44x	8.39x
Wilex	6.69x	5.45x
Median	**8.07x**	**6.40x**
co.don	**5.17x**	**3.79x**

SOURCE: CONSENSUS ESTIMATES, SPHENE CAPITAL PROJECTIONS

Relatively heterogeneous valuation multiples
The dispersion of the 2016e valuation multiples is much narrower than that of their 2015e counterparts: Table 5 above shows that the range (defined as maximum value minus minimum value) for the EV/Sales multiples on the basis of 2015e consensus estimates is 9.73x, while the corresponding figure on the basis of 2016e consensus estimates is 7.08x.

Be that as it may, even the peer group's 2016e range is too broad to permit reliable enterprise valuation, which is not only due to the heterogeneity of their business models, but also to the fact that the individual companies are in completely different stages of the development pipeline.

Optimized results through use of growth-adjusted EV/Sales multiples
To arrive at meaningful results, we have compared the pure valuation multiples

The capital market tends to pay higher multiples for high-growth

with an operating indicator, i.e. 2014e-16e revenue growth. In this connection, we have assumed that the capital market tends to pay higher multiples for high-growth biotechnology companies than for enterprises featuring less buoyant growth rates. Figure 4 below illustrates this hypothesis, where we have plotted revenue growth as the operating indicator complementing the EV/Sales multiple ("what you get") on the horizontal axis and compared it with the enterprise valuation ("what you pay"), represented by the EV/Sales multiple, on the vertical axis.

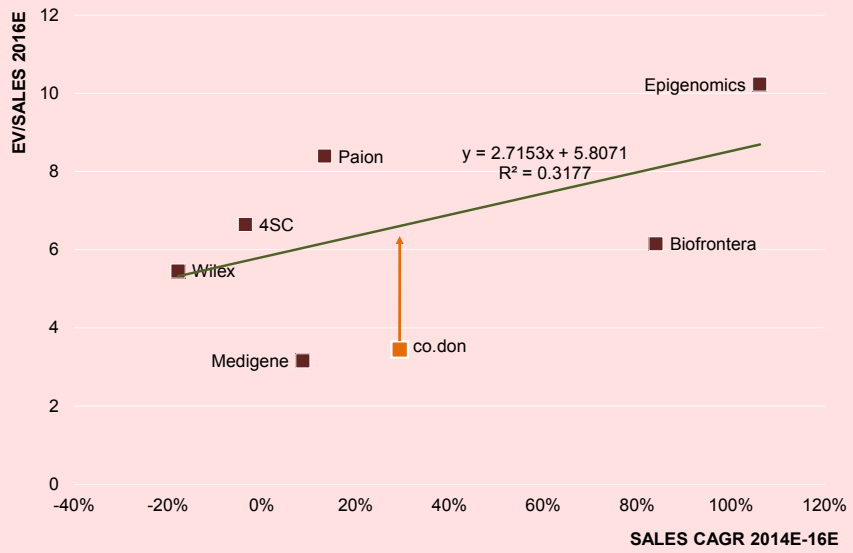
companies than for enterprises featuring slower growth rates.

Yield-adjusted price target of EUR 3.50 over a twelve-month horizon

In this methodology, neutral valuation of the co.don stock would be achieved if it were valued at approximately 6.5 times co.don's 2016e revenues. Over a twelve-month horizon, this translates into a price target of EUR 3.50 per share.

The yield-adjusted price target from the peer-group comparison over a twelve-month horizon is EUR 3.50 per share.

FIGURE 4: PEER-GROUP VALUATION



As expected, the correlation between enterprise growth and stock valuation has a positive tilt with an R2 of 0.3859.

SOURCE: SPHENE CAPITAL

Valuation on the basis of 2017e/18e not possible due to lack of consensus data

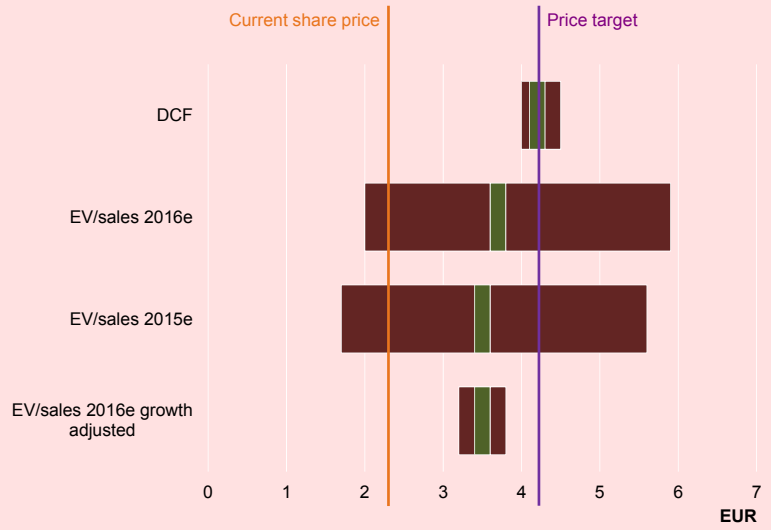
The valuation approach we prefer cannot be applied to 2017e or 2018e revenue expectations, because no consensus estimates for the peer group are available for those years. As co.don will, in all likelihood, feature higher revenue-growth rates than the companies in the peer group due to the commencement of EU-wide marketing, which is expected for 2017e, valuation on the basis of 2017e or 2018e projections should lead to higher price targets than those computed on the basis of 2015e or 2016e estimates.

Summary of results

Figure 5 below summarizes the results of the valuation approaches presented. The peer group valuation shows the minimum, average and maximum values and the DCF model the bear-case, base-case and bull-case scenarios.

The summary of valuation results highlights the undervaluation of the co.don stock

FIGURE 5: PRICE TARGET OVERVIEW



We expect multiple expansion for the co.don stock. Initially, the stock price should be driven up when the 2015e earnings estimates are priced in, followed by a further boost in the wake of EU approval. We therefore consider our price target of EUR 4.20, derived from the DCF model, to be achievable.

SOURCE: SPHENE CAPITAL FORECASTS

We regard the DCF model as the relevant price finding method: Buy

Given the trend in co.don's operating earnings, we think that a long-term DCF model is the superior valuation method. We think that the company will reach its price target of EUR 4.20 per share within a period of 12 to 24 months, implying price upside of 78.7% compared to the most recent closing price of EUR 2.35 per share. We are therefore initiating our research coverage of the co.don stock with a Buy rating.

On the basis of our financial forecasts and upon realization of the value of equity we have calculated (base-case scenario), the co.don stock would feature the following valuation multiples:

TABLE 6: VALUATION MULTIPLES – CURRENT VS. PRICE TARGET

X	Valuation at current price		Valuation at price target of EUR 4.20	
	2016e	2017e	2016e	2017e
P/E	n/a	19.2	n/a	34.4
EV/Sales	4.48	3.19	7.91	5.53
EV/EBIT	n/a	17.0	n/a	29.4
P/BV	50.1	13.9	89.5	24.8

SOURCE: SPHENE CAPITAL PROJECTIONS

Stock performance catalysts

Catalysts for realization of the computed price target

In our view, the most important catalysts for co.don's stock performance in the coming months are: **(1)** statements on the current status of EU-wide approval, **(2)** statements on the status of the clinical trials for the co.don chondrosphere and co.don chondrotransplant DISC medicinal products, **(3)** a further year-on-year earnings improvement in 2015e; **(4)** statements on the company's anticipated liquidity situation.

Risks for achievement of our price target

The main risks for achievement of our price target are the following: **(1)** On-schedule improvement in operating profit, which is dependent on revenue growth and decreasing approval costs, is crucial for the realization of our price target; any delays in earnings improvement would result in adjustments in the valuation process. **(2)** co.don's business activities have so far been financed by capital increases. Despite a cash position of EUR 4.1mn (12/2014e), there is a

risk of additional capital having to be raised before breakeven. **(3)** Delays in EU-wide approval might give rise to a situation in which the envisaged internationalization of business activities no longer makes economic sense.

Repair with patients' own cells

Traumatic and degenerative articular cartilage damage has become a widespread disease of major importance due to its frequent occurrence and the high risk of developing osteoarthritis, especially in the load-bearing joints of the lower extremities, with all the associated follow-up costs. In Germany alone, more than 180,000 knee replacements are performed every year, resulting in costs of more than EUR 3.0bn per annum for the initial implantations alone. In addition, at least 16% of patients require revision surgery every year. However, alternative treatments for cartilage damage that avoid the use of endoprostheses, or at least significantly delay them, are now available. They include transplantation of patients' own (autologous) chondrocytes, a treatment that is now available in the third generation and, according to estimates, could help avoid up to 20% of endoprosthetic operations. With more than 1,200 treatments per annum, the Teltow-based co.don AG is one of Europe' leading providers of this procedure, known as "matrix-associated autologous chondrocyte transplantation" (MACT).

Cartilage 101 – an introduction

Broadly defined, cartilage is a type of connective tissue. This tough, compression-resistant, flexible and avascular supporting tissue can be found in many areas of the body. It can bear high mechanical stresses without undergoing permanent deformation.

Cartilage is classified into three types, which have developed to fulfil different functional requirements and differ fundamentally in their composition:

- **Hyaline cartilage** is particularly compression-resistant and occurs in articular surfaces as well as in rib and nose cartilage, in the cartilage of the trachea, in the growth plates of long bones (the so-called epiphyseal plates) and in the embryonic skeleton. Hyaline cartilage enables friction-less joint movement, minimizes peak stresses in the joint and thus protects other joint and tissue areas including the underlying bone. Only a few millimeters in diameter, hyaline cartilage can absorb loads corresponding to up to five times the body's weight.
- **Elastic cartilage** is the most cell-rich cartilaginous tissue in the body. It is histologically similar to hyaline cartilage, but also contains elastic fibers, making it compression-resistant and flexible. Elastic cartilage occurs in the auricle, the external auditory channel, the auditory tube, the epiglottis and the small bronchi.
- **Fibrocartilage**, also known as "connective tissue cartilage", contains fewer cells than the two above-mentioned types, but, instead, many collagen fibrils. It is mainly found where shearing forces are applied and "shock absorbers" are needed, e.g. in the fibrous ring of spinal discs, the pubic symphysis, the articular labrum and the menisci.

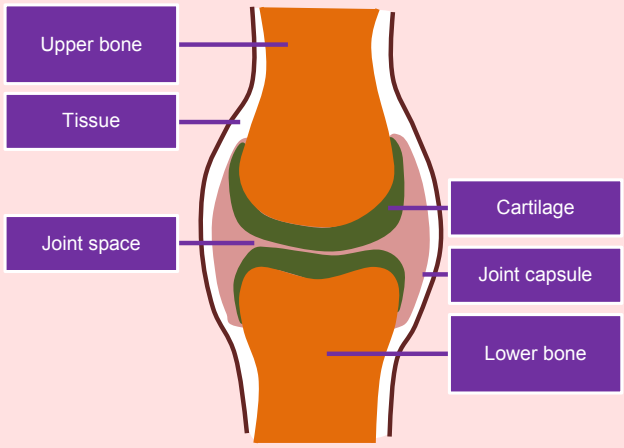
Hyaline articular cartilage is the lubricant of joints

Hyaline (Greek for "glassy appearance") cartilage is found at the ends of articulating bones. They are covered with a thin layer of cartilage, which serves the purpose of minimizing friction between the structures forming the joint. In adults, the cartilaginous tissue consists of chondrocytes and an extracellular matrix (abbreviation: ECM). The cellular component of the cartilage makes up only 2% to 10% of total cartilaginous volume, while the extracellular matrix, which is composed of collagen fibrils and proteoglycans, accounts for the lion's share.

Since cartilage does not have its own blood supply, it is mainly nourished by synovial fluid, which seeps into the cartilage during movement, and to a limited extent via the underlying bones. The movement of a joint, the interplay between loading and unloading of joints, is thus essential for cartilage nourishment. During loading, consumed nutrients are pressed out of the cartilage, and in the unloading phase, the cartilage soaks up new synovia and fresh nutrients.

The medical term for degenerative cartilage changes is "chondrosis". If the subchondral bone is affected, too, the condition is called "osteochondrosis".

FIGURE 6: INSIDE VIEW OF A JOINT



SOURCE: SPHENE CAPITAL

Adult cartilaginous tissue consists of chondrocytes and the product they synthesize, i.e. extracellular cartilage matrix (ECM). The share of cells in cartilage is only 2-10%, while ECM accounts for the remaining 90-98%.

Hyaline cartilage damage

Cartilage damage is either caused by injuries/traumas and/or inflammatory diseases or is the consequence of chronic degeneration. The latter is brought on by the natural aging process, genetic propensity or anatomical changes. Joint load intensity can also be a cause of chronic degeneration, with malalignments, in particular, potentially leading to premature degenerative changes, often accompanied by a narrowing of the intra-articular space and joint instability. In such situations, the body tries to replace damaged cartilage with bone attachments, which usually results in diseases of the joint that have serious consequences (e.g. osteoarthritis).

Given the lack of blood supply, isolated cartilage damage only leads to nonspecific symptoms or discomfort.

Cartilage has limited self-healing properties

Intact articular cartilage ranks among the most resilient tissues in the human body. Despite its elastic, shock-absorbing and low-friction properties, articular cartilage is avascular tissue and thus has limited ability to regenerate itself. If the articular cartilage is damaged to such an extent that the underlying (subchondral) bone is penetrated, too, regeneration takes the form of increased bone augmentation and fibrocartilage growth rather than the formation of normal hyaline cartilage. From a biomechanical perspective, however, fibrocartilage cannot withstand the compressive forces that occur in the joint. This leads to permanent damage, which has the unpleasant tendency of worsening over time. If small articular cartilage defects remain untreated, they will eventually have a physical and chemical "domino effect" that also damages or degrades the surrounding healthy articular cartilage, the ultimate consequence being more extensive or deeper cartilage damage.

Due to the limited self-healing properties of articular cartilage, any damage immediately leads to functional impairment and eventually to degradation of the cartilage.

This process is accelerated by the fact that cartilage is devoid not only of blood vessels, but also of nerves. For this reason, superficial damage usually does not give rise to pain. Not until the damage becomes worse and cartilage defects spread to the subchondral bone (below the cartilage) will the blood supply of the bone trigger a regeneration process leading to the growth of low-grade cartilage.

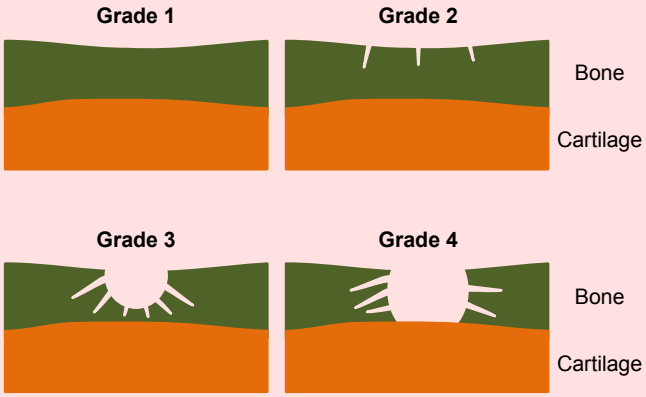
To assess cartilage damage levels, **four severity grades** have been established (the so-called "Outerbridge classification", defined in 1961):

- **Grade 1:** Cartilage softening with intact surface. This degeneration stage is mainly caused by years of monotonous loads. In the knee, for example, this condition is encouraged by varus or valgus leg malalignment, gout or rheumatism, meniscus or cruciate ligament damage.
- **Grade 2:** Roughening of the surface with fissures extending down to < 50% of cartilage depth. In this state, the cartilage layer is only half as thick as normal and severely frayed; in some instances, detached, loose cartilage fragments are discernible.
- **Grade 3:** Crater-shaped cartilage defect of more than 50% of cartilage

thickness, with fissures potentially reaching the bone layer. This condition, which the organism cannot repair without external help, is already classified as severe cartilage damage. Pain is still bearable and not yet interpreted as a relevant warning sign by the patient.

- **Grade 4:** Complete cartilage breakdown with exposed subchondral bone, known as "chondral defect". In terminal stage 4, the cartilage has been pulverized completely, and bone grinds on bone.

FIGURE 7: CARTILAGE DAMAGE CLASSIFICATION



With advancing age, cartilage gets less and less flexible. At the same time, water content in the cartilage structure decreases, impairing its shock-absorbing effect. The formerly smooth cartilage surface becomes brittle and develops fissures; in extreme cases, small cartilage particles may even become detached. After complete cartilage degradation, any movement leads to the two bone surfaces grinding directly on each other.

SOURCE: SPHENE CAPITAL

ICRS classification

In addition to Outerbridge, the International Cartilage Repair Society (ICRS) published a new score for the evaluation of cartilage injury in 2003. This package includes an extended classification of cartilaginous tissue lesions that facilitates precise description and evaluation of cartilage damage and is now considered to be the international standard classification:

- **Grad 0:** Normal, no visible defects
- **Grad 1a:** Nearly normal, fibrillations and/or soft indentation of the cartilage
- **Grad 1b:** Additional superficial cracks and fissures
- **Grad 2:** Lesions extending down to <50% of cartilage depth
- **Grad 3a:** Severely abnormal cartilage. Lesions extending down to >50% of cartilage depth, but not to the calcified layer
- **Grad 3b:** Lesions extending down to >50% of cartilage depth and down to the calcified layer
- **Grad 3c:** Lesions extending down to >50% of cartilage depth and down to the subchondral bone
- **Grad 3d:** Lesions extending down to >50% of cartilage depth with blister formation
- **Grad 4a/b:** Full cartilage lesion penetrating the subchondral bone

In severe degenerative diseases of the joints, such as osteoarthritis, or severe traumatic injuries of the knee, e.g. due to accidents, full or partial replacement of human knee joints by an endoprosthesis is currently the standard treatment in Germany – despite the fact that this may lead to serious long-term complications. The latter are all the more frequent, the higher the load to which the joint is exposed. Substantial forces of up to one ton are exerted on knee joint endoprostheses, in particular, with the consequences ranging from premature prosthesis wear to prosthesis exchange, known as revision surgery.

Overview of treatment measures
Minor cartilage damage is usually initially treated with a number of conservative, i.e. non-operative therapeutical measures such as drug-based pain therapy, joint injections, physiotherapy, bandages or inlays. In such cases, treatment focuses on restoring the functionality of the joint, stabilizing the cartilage and thus alleviating the symptoms of cartilage damage, but not on regenerating the cartilage; this is generally impossible to achieve with conservative treatment methods. In addition, bone-marrow-stimulating procedures tend to be used in the initial stages of cartilage injury. They lead to a shift in the cartilage-to-bone boundary layer, i.e. the remaining cartilage is no longer as deep as before.

The extreme case: artificial joints
Knee replacement surgery can trace its origins back to the 19th century. As far back as in 1890, Themistocles Gluck, a German physician, performed operations implanting artificial joints on several patients. The ivory implants were anchored into the bone with a mixture of colophony and gypsum. However, the results were not very encouraging, as patients suffered from unmanageable infections and the materials used were not suitable. It was not until the 1950s that knee joint prosthesis implantation was performed with biocompatible cobalt-chromium-molybdenum alloys. In the decades that followed, the materials used were gradually improved, the diversity of prostheses broadened and clinical processes standardized. Nowadays, surgeons use femur components consisting of a metallic zirconium-niobium alloy and featuring surfaces that have been transformed into purely ceramic zirconium oxide by means of an oxidation and heat-treatment process.

Exactly 125 years ago, a German physician implanted the first artificial knee joint.

FIGURE 8: ARTIFICIAL KNEE JOINT ENDOPROSTHESIS

Degenerative joint diseases are on the increase worldwide. This is mainly due to two trends: first, similar demographic developments can be seen in all countries, and second, older people continue to engage in sporting activities for longer, with degenerative diseases thus becoming more prevalent.

SOURCE: SMITH & NEPHEW GMBH

The extreme case is already the norm in Germany
For years, regularly published OECD studies have shown that Germany exceeds the OECD-wide average by far in numerous invasive surgical procedures such and hip and knee replacements. In 2012, for instance, an average of 295 hip prostheses (OECD 154; rank 1) and 213 knee prostheses (OECD 122; rank 2) per 100,000 inhabitants were inserted in Germany. In absolute figures, this corresponds to approximately 275,000 hip prostheses and more than 180,000 knee prostheses per annum. Given average cost of EUR 7,500 per patient in the

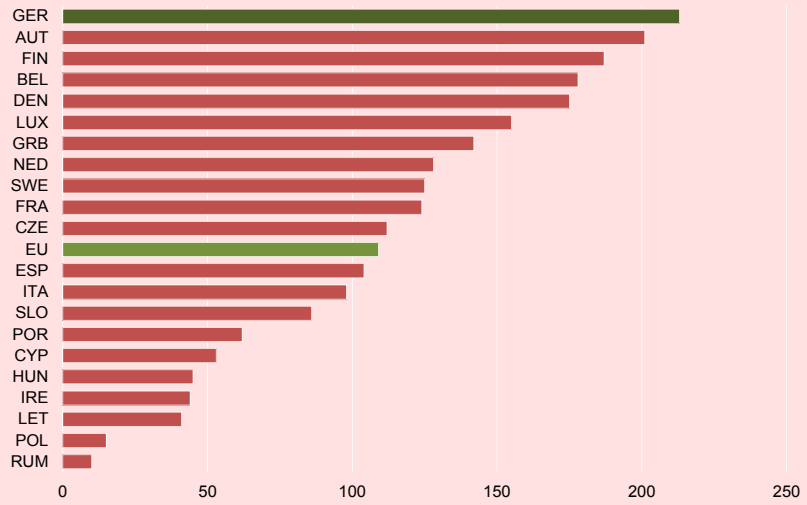
first post-surgery year alone, the annual costs of knee operations probably amount to up to 1.0% of total costs incurred by Germany's statutory health-insurance companies.

Endoprostheses may lead to severe side effects in some cases

Apart from general complications such as thrombosis, blood vessel and nerve injuries, swelling and pain, and also bacterial infections, which are still not fully under control even 125 years after the first knee joint replacement was performed, endoprosthetic surgery also involves risks specifically affecting the joint. They include adhesions and concrescence in the joint, especially when it is not exercised sufficiently during the first few days after surgery, dislocation of individual components of the prosthesis and calcification of the surrounding muscle tissue, which may cause pain and restrict patients' ability to move. In addition, endoprostheses may loosen, e.g. due to improper handling, impact or long-term wear. A follow-up replacement of the prosthesis, called "revision surgery", is required in such cases. Further problems may arise due to the use of standardized prosthesis sizes and unisex prostheses.

More than three million people in Germany have artificial joints. Some 275,000 artificial hip joints, 180,000 artificial knee joints and 12,000 artificial shoulder joints are inserted every year.

FIGURE 9: KNEE PROSTHESES PER 100,000 INHABITANTS, INITIAL IMPLANTATION (2012)



SOURCE: OECD (2012), SPHENE CAPITAL

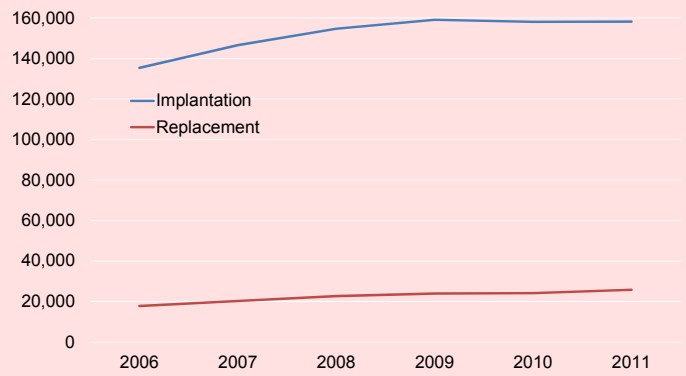
"Germany is considered to be the world champion in knee and hip endoprostheses, and experts doubt whether the increase in case numbers is necessary."
Daniel Bahr, German Federal Health Minister, 2011-2013

Specific problems of knee joint endoprostheses

The high loads to which knee joints are exposed are particularly problematic in knee joint endoprostheses: mere walking exerts forces corresponding to three to four times a person's body weight on the 3 to 5-millimeter thick cartilage, while walking down stairs may increase this force to up to half a ton. Jumping doubles the load on the articular cartilage of the knee joint to levels of up to one ton. This leads to premature wear of prostheses: long-term studies have indicated an endoprosthesis survival rate of 80% to 85% for primary knee joint replacements. Statistically speaking, this means that between 15% to 20% of knee prostheses will have to removed or replaced after ten years.

The demographic change and the trend to insert endoprostheses in younger patients, too, will probably lead to a further increase in implantation numbers. In the US, annual growth rates of approximately 25% are expected for the knee endoprosthesis market.

FIGURE 10: KNEE ENDOPROSTHESES IN GERMANY, 2006-2011



Due to various complications including wear-induced loosening, the number of knee endoprosthesis revision operations in Germany came to 25,829 in 2011. Compared with the total number of knee-joint endoprosthesis operations, this means that approximately one out of six operations was a revision.

SOURCE: GERMAN FEDERAL STATISTICAL OFFICE, SPHENE CAPITAL

Shorter durability of revision implants

In addition to initial endoprosthesis implants, more than 25,000 prostheses exchange operations are performed in Germany from a statistic point of view – giving rise to high socioeconomic and macroeconomic costs. In this context, it should be noted that the durability of endoprostheses implanted in revision surgery is shorter than that of the replacements used in the primary surgery.

The main reason why joint replacement methods have gained acceptance in Germany is the failure of alternative treatment methods to bring about articular cartilage regeneration or the fact that they merely stimulate the growth of biomechanically lower-grade fibrocartilage. Joint replacement methods have mainly gained increasing acceptance because alternative treatment methods have either failed to bring about articular cartilage regeneration or have merely stimulated the growth of biomechanically lower-grade fibrocartilage. Even bone-marrow-stimulating surgical procedures are no alternative in patients with major defects. Treatment methods such as three-dimensional chondrocyte transplantation have only been developed in the last few years. Despite their excellent success rates, however, these methods are still used in relatively few cases.

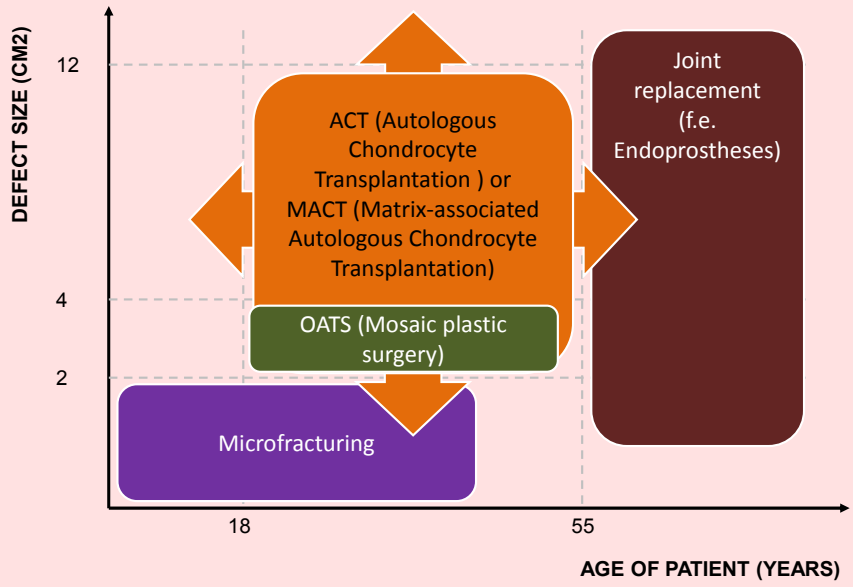
Joint-preserving treatment methods

Apart from conservative and joint-replacing methods, patients also have joint-preserving treatments at their disposal. The efficiency of these methods has improved significantly over the last few decades.

- In **cartilage shaving or débridement**, a method which has been used since 1980, frayed cartilage edges are smoothed with a mini blade device. The shavings are then removed with an endoscopic joint lavage. At best, however, such removal of the aggressive enzymes that develop during cartilage breakdown may lessen further cartilage degeneration. Cartilage regeneration will not be achieved.
- In **bone-marrow-stimulating techniques** (microfracturing), used since 1985 mainly for smaller defects of less than 2 square centimeters, the surgeon removes the damaged cartilaginous tissue by arthroscopy and creates several fractures in the subchondral bone plate, using special tools. Blood seeps out of the fractures, creating a clot consisting of bone marrow stem cells that can later transform into fibrocartilaginous scar tissue called "bioprosthesis". However, such "regeneration islands" only rarely grow into a continuous cartilage scar; in addition, the repair tissue (fibrocartilage) cannot bear the same loads as hyaline cartilage.
- In **osteochondral autograft transplantation surgery** (OATS for short), colloquially also known as mosaic plastic surgery, several osteochondral grafts with a diameter of 6 to 10 millimeters each are harvested from non-weight-bearing areas of the joint and implanted in the prepared damaged cartilage area. The advantage of this method is that immediately functioning hyaline cartilage is transferred to the defect area, which normally leads to

good healing. This method is particularly well suited to cartilage defects with additional damage to the subchondral bone, but is limited to defect sizes of 2 to 4 square meters, as otherwise discomfort may be triggered in the area of the donor cartilage itself. In addition, holes are created at the harvest site and the ensuing cartilage gaps and height differences might lead to discomfort, too.

FIGURE 11: OVERVIEW OF TREATMENT METHODS



Joint-preserving treatment methods are only promising when the cartilage and bones adjacent to the defect are virtually undamaged, no more than two cartilage defects occur in the same joint and the cartilage area opposite to the defect is intact.

SOURCE: SRH HOCHSCHULE BERLIN, SPHENE CAPITAL

- **Autologous chondrocyte transplantation (ACT)**, also known as **autologous chondrocyte implantation (ACI)**, a method used for the first time in the mid-1980s, is a surgical technique involving the implantation of chondrocytes propagated in specialized laboratories in the injured joint. In the first stage, a biopsy is performed in which healthy cartilage material is sampled from a less-weight-bearing area of the joint in a minimally invasive procedure, mostly arthroscopy. This sample is combined with blood also drawn from the patient, and autologous chondrocytes are isolated, prepared and cultivated in-vitro in special cleanrooms meeting the highest sterility requirements. After about eight weeks in the nutrient solution, the dissolved cells from the cartilage biopsy have propagated and aggregated in three-dimensional spheroids consisting only of the patient's own (autologous) cells and matrix formed by these cells themselves. In a second, minimally invasive or arthroscopic surgical procedure, these cellular spheroids are re-implanted in the damaged joint. The implanted autologous cartilaginous tissue then forms hyaline or hyaline-like cartilage that has biochemical and biomechanical properties similar to those of the physiological articular cartilage and gradually grows into the defective area, progressively filling it up. The key advantage versus material implants is that the cultivation of autologous cells eliminates the risk of allergic immunological rejection. In addition, larger cartilage defects of more than 10 square centimeters can be repaired.

Tissue engineering is the treatment and healing of tissue defects with living, mostly autologous, cells. They are sampled from the patient, propagated through natural growth processes in specialized laboratories and subsequently reimplanted. Compared to alternative procedures using the cells of other living organisms (xenogous grafts) or other human donors (allogenous grafts), the risk of infection or immunological rejection can be reduced significantly.

All surgical cartilage-preserving and cartilage-replacing treatment methods require a prolonged post-surgery relief phase of four to eight weeks and intensive physiotherapeutical follow-up treatment.

First, second, third and fourth-generation ACT

Repair with autologous cells

In the last 25 years, chondrocyte transplantation has made great progress. The ACT procedures that are now available are even called third- or fourth-generation techniques:

- In **first-generation ACT procedures** (periosteal and collagen-covered au-

tologous chondrocyte implantation ACI), the cell suspension was injected under a periosteal flap patching the cartilage defect. This original technique for chondrocyte transplantation, called ACI-P, was modified in subsequent years by using different resorbable biomaterials that were also suited to perform comparable patching functions (this technique was called ACI-C).

- In **second-generation procedures**, the cultivated chondrocytes were embedded in resorbable biomaterials during the in-vitro phase, e.g. clinical membranes and liners made of collagen, polymer or hyaluronic acid. Because these carrier materials, known as "scaffolds", are of an artificial nature or of animal origin, they have to be transformed or reabsorbed by the body and might thus also trigger inflammatory immune responses. This eventually led to the development of …
- … three-dimensional chondrocyte structures known as "spheroids", which can be embedded in the joint defect without foreign (e.g. animal) carrier materials or polymers of synthetic origin. In this procedure, chondrocytes are isolated through enzymatic digestion with subsequent propagation and in-vitro growth in a single-layer culture. Eventually, the chondrocytes are transformed into a three-dimensional culture state, either a pellet culture or hanging droplets or other three-dimensional systems with a high cell density. This **third-generation procedure**, called matrix-associated autologous chondrocyte transplantation (MACT), or ACT3D, simplifies the operation because the cell-loaded carrier materials can be applied directly to the prepared cartilage defect without any further patching, sealing or suturing. Use of allogenic fibrin glue, a blood derivative pooled from many different donors, is not required either. Adhesion of the spheroids to the prepared articular cartilage defect base is achieved via adhesion proteins; arthroscopic application is possible, minimizing potential trauma in the joint.
- Most recently, a further surgical technique has been developed in which the sampled cartilage is ground up during the operation and immediately reimplanted. This approach therefore does not involve cultivation. The cells are fixed with fibrin glue or suturing. This **fourth-generation procedure** is still in its infancy.

FIGURE 12: SPHEROIDS IN A HANGING DROPLET

SOURCE: CO.DON

Cell-free methods: A mix of microfracturing and MACT

In addition to the cell-based methods described above, there are also cell-free approaches. A single-stage treatment of this type relies on the fact that chondrocytes and stem cells immigrate from the surrounding tissue and form articular cartilage after acellular gels are applied to the cartilage defect and fixed with the help of fibrin glues. Implants are available in various thicknesses and diameters and can be cut to any size.

TABLE 7: COMPARISON OF CELL-BASED AND CELL-FREE TREATMENT METHODS

	Cell-based	Cell-free
Average treatable defect depth	III-IV (Outerbridge score)	III-IV (Outerbridge score)
Average treatable defect size	1-15 sq.cm	2-10 sq.cm
Treatment approach	Two-stage	Single-stage
Average duration of cell cultivation	3.7 weeks	-
Application	Open, miniarthrotomic, arthroscopic	Open, miniarthrotomic
Application price (EUR)	From 4,000	Approx. 800
Clinical result	Demonstrably positive	Inconclusive

SOURCE: COMPANY DATA, SPHENE CAPITAL

Superiority of the MACT approach with spheroids
Compared to the hitherto used cartilage-replacement methods, the MACT approach offers substantial benefits:

- The MACT approach ensures active integration of the cartilage generated in the surrounding undamaged tissue, which prevents inflammatory responses.
- The fact that no growth factors or antibiotics, no animal carrier material or synthetic polymers are used speeds up the healing process considerably in many cases, avoiding rejection responses into the bargain.
- Due to active integration of the spheroids into the defect, pre-formation of the cartilage generated is unnecessary. The form of defect is irrelevant for successful healing.

Long-term studies confirm good treatment success
The ACT procedure was the first instance in medical science in which artificially produced tissue was used. Its success was the result of a combined effort on the part of surgeons, bioengineers, material-science engineers and chemists whose goal was to improve chondrocyte survival rates and integration properties. From the outset, the ACT procedure boasted excellent treatment success. An initial long-term study involving first-generation patients, most of whom had been treated as far back as in the 1990s, found that 75.3% of the patients that had been operated on had experienced no complications for an average of 12.8 years after surgery.

According to more recent studies, 92.0% of the patients that had undergone this procedure would choose this type of surgery again. Alongside the clinical part of the long-term studies, MRT analyses have shown that the transplanted cartilage has virtually the same quality as the surrounding cartilage 9 to 18 years after surgery. Estimates indicate that matrix-associated chondrocyte transplantations could help avoid 20% of the approximately 180,000 prosthetic knee joint replacements performed every year.

The MACT procedure leads to genuine articular cartilage regeneration and restores the functionality of the knee joint.

In 1997, co.don was the first biopharmaceutical company in Europe to be granted permission to produce autologous cartilage and bone cell transplants. At present, the company produces and markets two products for the treatment of joint and spinal-disc diseases: co.don chondrosphere, a three-dimensional chondrocyte transplant for regenerative articular-cartilage treatment, especially in the knee joint, and co.don chondrotransplant DISC, for the biological repair of degenerated spinal discs. co.don is thus not only a pioneer in the cultivation of autologous tissue for the biological repair of articular-cartilage and spinal-disc damage, but also one of the leading companies in this area in Germany with more than 7,200 treated patients.

A leading provider of the MACT procedure
In 1997 – only four years after its establishment – co.don was the first biopharmaceutical company in Europe to be granted permission to produce autologous cartilage and bone cell transplants. In the years to 2006, first-generation autologous chondrocyte implantation was marketed under the name co.don chondrotransplant. Since 2004, co.don has been one of the leading third-generation MACT providers with its patent-protected co.don chondrosphere process. Taking

The co.don procedure is based on a hybrid carrier matrix. This matrix is of autologous origin and synthesized by the chondrocytes. Together with this carrier matrix, the chondrocytes form a three-dimensional structure, which is the prerequisite for three-dimensional

account of its two main products, co.don's autologous cartilage transplants have saved more than 7,200 patients from immediate prosthesis insertion since 1993.

filling of cartilage damage.

Oligopolistic market for MACT products
Given the high research costs, only a handful of companies have carved up the market for MACT applications among themselves. The main differences in treatment methods lie in the biomaterials used. Suppliers of such transplants either rely on completely autologous transplant cultivation or use collagen-based carrier materials, hyaluronic-acid-based products or hybrid carrier materials consisting of collagen and at least one further biomaterial. Other producers have gone back to using cell-free medicinal products only, in order to avoid the expensive drug approval process including clinical studies.

Table 8 below shows a selection of leading providers of MACT procedures in Europe, their mechanisms of action and track records to date:

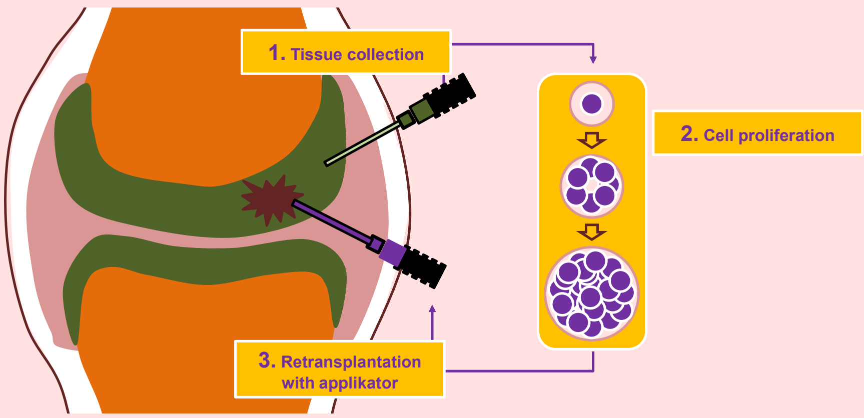
TABLE 8: PROVIDERS OF MACT PRODUCTS IN EUROPE (SELECTION)

Provider	Product	Share in implantations	Mechanism of action
co.don (GER)	co.don chondrosphere	~40%	Autologous adhesive spheroids without patch
TETEC Tissue Engineering Technologies AG (GER)	Novocart 3D	~60%	Autologous cells in 3D-bovine matrix
Tigenix (BEL)	ChondroCelect	<1%	Autologous cells in suspension, which are injected under a membrane (2D)

SOURCE: COMPANY DATA, SPHENE CAPITAL

A detailed look at the co.don procedure
The biomaterials used by co.don are exclusively autologous spheroids. The company's approach to chondrocyte transplantation is a three-stage process.

FIGURE 13: THREE-STAGE PROCESS OF AUTOLOGOUS CHONDROCYTE TRANSPLANTATION



The principle of autologous chondrocyte transplantation comprises three individual steps carried out within a time interval of several weeks. Chondrocytes isolated from an autologous cartilage biopsy sample are propagated in an in-vitro process and subsequently retransplanted into the cartilage defect.

SOURCE: SPHENE CAPITAL

- **Stage 1:** The physician in charge examines the cartilage damage arthroscopically to determine whether chondrocyte transplantation is possible. If the physician decides in favor of the latter, he/she will use a wooden cylinder system with 4 mm thickness to remove about 200 mg of intact cartilaginous tissue from a non-weight-bearing area of the joint outside the main weight-bearing area. This sample is then inserted into a sterile buffer solution made available in a transport vessel and, together with 200 milliliters of the patient's venous whole blood, transported to co.don AG in Teltow near Berlin, where …
- **Stage 2:** … the cells are cultivated in specialized, certified cleanroom isolators at workplaces meeting maximum sterility requirements, without the use

of antibiotics, growth factors or genetic modification. In this process, the cells are first isolated from the cartilage biopsy sample and propagated over a period of about three weeks. Cell propagation takes place in special culture bottles in single-layer cultures with addition of the blood taken from the patient and in compliance with all regulations under the German Medicinal Products Act, Good Manufacturing Practice and Quality Management Standards (AMG, GMP, DIN EN ISO 9001:2008). After a further three to four weeks and following transfer to the spheroid culture, the envisaged number of cells is reached and the cultivated white to yellowish spheroids can be …

- **Stage 3:** … implanted into the damaged joint in a second minimally invasive or arthroscopic procedure (10 to 70 spheroids per square centimeter). For this step, the physician in charge can use an applicator co.don has developed, known as "co.fix", which is loaded with spheroids by co.don and delivered as a ready-to-use system. The surgical wound is then closed without any additional covering of the defect. Prerequisites for successful transplantation are careful preparation of the base of the cartilage defect and smooth cartilage edges to intact adjacent cartilage areas. The spheroids adhere to the defect by themselves within 20 minutes. No sealing or suturing is required. After implantation into the cartilage defect, the transplant is integrated into the defect and new hyaline cartilaginous tissue resembling the intact articular cartilage from a histological, biochemical and biomechanical perspective begins to grow.

FIGURE 14: CO.FIX APPLICATOR

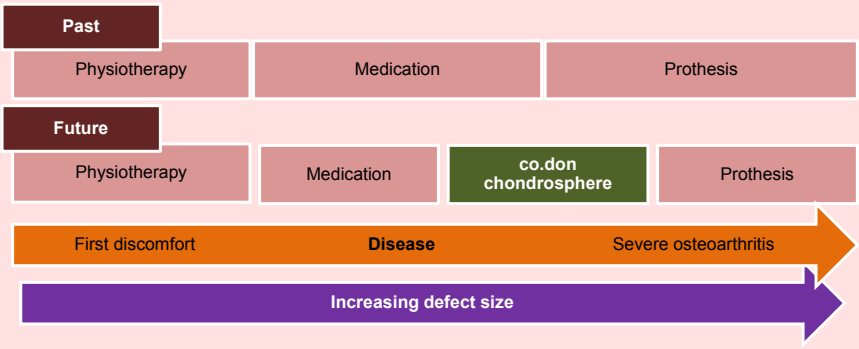
SOURCE: CO.DON

Away from prosthetics, toward joint preservation

At present, co.don chondrosphere is mainly used for the treatment of traumatic and degenerative articular cartilage injuries. co.don has positioned itself as a joint-preserving therapeutic option prior to function-replacing endoprosthetics. However, studies have shown that chondrosphere treatment may also improve joint function in patients with early-stage osteoarthritis. Inclusion of osteoarthritic damage would broaden co.don's addressable market considerably.

According to "Deutsche Arthrose-Hilfe", some 5 million people in Germany suffer from health issues caused by osteoarthritis – and the trend is pointing up.

FIGURE 15: CO.DON'S POSITIONING: JOINT PRESERVATION PRIOR TO JOINT REPLACEMENT



Positive clinical results in autologous cell repair are inducing more and more orthopedic and trauma surgeons to change their approach – away from prosthetics toward joint-preserving measures.

SOURCE: COMPANY DATA

In addition to cartilage treatment in joints, co.don has focused on the treatment of herniated discs in the last few years. This is another widespread medical condition, afflicting 180,000 patients per annum throughout Germany. co.don's platform technology can also be used to treat this condition. At present, co.don is working on obtaining national approval for the treatment of spinal disc defects; until such approval is granted, marketing of the method called co.don chondrotransplant DISC can be continued in Germany.

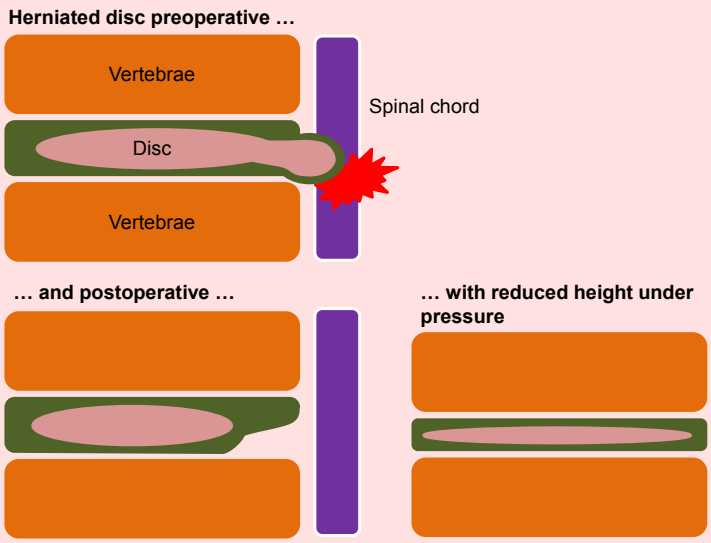
Spinal discs …
Spinal discs are flexible, fibrocartilaginous intervertebral connectors. The human spine has a total of 23 spinal discs, which thus account for about one quarter of its total length. Spinal discs are comprised of an outer fibrous ring and a gel-like inner core. They lose liquid during the day and soak it up again like sponges during sleep. Their functions are to ensure spinal flexibility and to act as shock absorbers at the same time.

… and their most frequent disease, spinal disc herniation
In spinal disc herniation, parts of the spinal disc bulge out into the spinal channel – the area that houses the spinal cord – (see Figure 16) or press on the nerves protruding laterally from the spinal channel. In many cases, this is caused by overstress of a previously damaged spinal disc. Symptoms of herniated discs are severe pain radiating into the extremities, frequent numbness in the supply of the compressed nerve roots and also occasional signs of paralysis. Every year, some 180,000 patients suffer from spinal disc herniation episodes in Germany, with 70-80,000 of them undergoing operations.

Spinal discs lack self-healing powers, too
Spinal discs, which also consist of cartilaginous tissue, cannot repair injury or operation-induced tissue loss. Degenerative processes after herniation frequently lead to a gradual decrease in the height and mass of the intervertebral disc space, with shock-absorbing properties being lost as a result. This, in turn, leads to irritation of the small vertebral joints and spinal nerve structures that may be so severe that many patients suffer from renewed back pain after their operation and have to undergo repeated surgical procedures.

What is more, tissue is torn out during the surgical removal of the herniated disc. The remaining tissue remnants are no longer capable of forming new homologous tissue. At best, scars develop.

FIGURE 16: SPINAL DISC HERNIATION REDUCES THE HEIGHT OF THE INTERVERTEBRAL DISC



Operations aimed at treating herniated discs invariably aim at removing the tissue that has bulged out of the spinal disc to relieve the pressure on the compressed nerves. After surgery, however, the gel-like inner core, which has a water content of about 80%, no longer exists in its original shape. This loss of spinal disc tissue is irreversible, because spinal discs, like knee cartilage, lack self-healing powers.

SOURCE: SPHENE CAPITAL

Overview of treatment methods
Five treatment options exist for spinal disc herniation: **(1)** physiotherapy and back exercises, which, however, can only address the symptoms; **(2)** surgical

removal of the protruding gel-like inner core; **(3)** implantation of an artificial spinal disc; **(4)** stiffening of the adjacent vertebral bodies through total discectomy of the damaged spinal disc (fusion, blocking) and **(5)** spinal disc regeneration through extracorporeal cultivation of autologous tissue.

Autologous disc-derived chondrocyte transplantation
As is the case with the MACT procedure, cultivation of autologous spinal disc cells outside the body and subsequent transplantation into the damaged spinal disc can help build up new spinal disc cell tissue. This method, called autologous disc-derived chondrocyte transplantation (ADCT), can stop the progressive degenerative process typically observed after spinal disc herniation and thus prevent further degeneration of the spinal disc. Experts have estimated that the ADCT procedure could avoid up to 15% of the 70-80,000 operations per annum performed on patients suffering from herniated discs. Depending on the indication, the treatment is now reimbursed by Germany's statutory health insurance companies within the context of a surgical procedure.

After surgical removal of herniated discs, the tissue remnants left in the spinal discs are no longer capable of forming new homologous tissue. At best, non-shock-absorbing scar tissue is formed. Transplantation of autologous spinal disc chondrocytes can replace lost spinal disc tissue and stabilize the height of the spinal disc.

In the first stage of the treatment, a volume of about one cubic centimeter of damaged, i.e. excess, spinal disc tissue is removed in a minimally invasive procedure. In most cases, this is done during the spinal disc operation, and the sample is taken from spinal disc tissue that has to be removed anyhow. This tissue is then used as the initial base of the newly cultivated cells. Together with a blood sample of about 200 milliliters drawn from the patient, the tissue sample is then shipped to co.don in a sterile container, where the spinal disc cells are isolated from the tissue sample and propagated under sterile conditions. Once the opened fibrous ring has healed (up to three months after removal of the spinal disc tissue), the newly grown cells are reinjected into the inner core of the damaged spinal disc under local anesthesia. After completion of the rehab process, the natural shock-absorbing function of the disc can thus be restored.

co.don's platform technology is also suitable for other joints
In principle, the national approval granted by the Paul-Ehrlich-Institut (PEI), the German Medicines Agency, allows co.don to treat all joints – large and small ones. In the past, treatments were thus not just limited to knee joint defects, but also covered diseases of the shoulder and hip, the ankle, the elbow and even smaller joints such as the metatarsophalangeal joint of the big toe. For the hip, no method permitting minimally invasive or arthroscopic surgery previously existed. We therefore regard co.don as the world's leading and often sole provider of regenerative cartilage treatment in the hip. Spinal disc transplants are also marketed in Germany under the supervision of the competent state and federal authorities.

One essential element in co.don's treatment methods is the isolator facility at the company's site in Teltow near Berlin. This "cleanroom in a cleanroom" integrates the entire equipment necessary for the cultivation of cartilage transplants in cleanroom Class A isolators (Integrated Isolator Technology - IIT). Contamination risks are thus minimized.

Compliance with maximum sterility requirements
Cultivation of cartilage or spinal disc cells is a highly sensitive process. Autologous cell transplants cannot withstand thermal sterilization. However, conventional cleanrooms are subject to considerable contamination risks through employees or cross-contamination from other biopsy samples. For this reason, conventional laminar air flow conditions, where open workbenches are subjected to directional – mostly vertical – low-turbulence air flows in order to blow away potential airborne particles and ultimately leave only sterile air in the room, are not sufficient for co.don's purposes.

co.don's cleanroom technology
To comply with maximum hygiene requirements, co.don has developed a proprietary cleanroom technology, known as Integrated Isolator Technology (IIT). This is a "cleanroom in a cleanroom" integrating the entire equipment necessary for the cultivation of cartilage transplants in cleanroom Class A isolators. In particular, this includes heating cabinets, freezers, coolers, centrifuges and microscopes as well as accessories for production and microbiology. The production rooms themselves are likewise subject to the cleanroom standards and only

The Integrated Isolator Technology (ITT) can dramatically reduce the number of germs.

accessible via separate, monitored airlocks. Pressure differences between the various rooms prevent contamination from one room to another.

FIGURE 17: CO.DON'S CLEANROOM

Shortly after the inauguration of its cleanroom, the pharmaceutical industry conferred an award on co.don for this facility.

SOURCE: CO.DON, SPHENE CAPITAL

In the last few years, co.don has gradually expanded its customer base. The success of the company's efforts, due, first of all, to the regenerative treatment methods themselves and, second, to the fact that health insurance companies have been prepared to bear the costs of its knee and spinal-disc treatments since 2007 and 2008, respectively. Today, more than 100 hospitals in Germany are applying co.don chondrosphere.

Setup of a direct distribution network
Originally, co.don tried to set up a Europe-wide distribution network with external distribution partners. To this end, the company concluded a number of regional distribution partnerships and sales cooperations, e.g. in Germany, Switzerland, Italy, Greece and Spain. After an amendment to the European legal framework in late 2012, however, co.don was forced to suspend its distribution activities outside Germany until EU-wide approval was obtained.

In Germany, by contrast, co.don decided to set up its own direct distribution network in early 2013 on the basis of a so-called "hospital exemption" from the EU regulation on advanced therapy medicinal products (ATMP). The company now employs ten sales and product management employees who are not only responsible for coordinating the Fourth Berlin Cartilage Symposium (see below), scheduled to take place this year, but also, in their capacity of biologists, medical and biological-technological experts, for organizing numerous hands-on workshops for physicians in the role of "surgeons' partners".

co.don's customer base includes leading German hospitals Clinical surgeons and, increasingly, also external physicians with hospital affiliation for inpatient treatment are a key target group of the company's sales activities. In the last few years, co.don has won numerous German hospitals as customers. These facilities also play the role of opinion leaders for co.don. The list includes:

- **Berlin:** Charité Hospital and Vivantes Hospital
- **Bochum:** Viktoria Klinik Bochum
- **Düsseldorf:** Chianos-Klinik
- **Freiburg:** Medical Center – University of Freiburg
- **Giessen/Marburg:** Universitätsklinik Giessen & Marburg (UKGM)
- **Essen:** Grönemeyer Clinic Essen
- **Hamburg:** Facharztklinik
- **Heidelberg:** ATOS Klinik Heidelberg
- **Munich:** Ludwig-Maximilians-Universität

- **Pforzheim:** Arcus Sportklinik
- **Potsdam:** Klinik Sanssouci
- **Nationwide:** Asklepios Clinics

According to the management, co.don has so far lost hardly a single hospital to alternative treatment methods or competitors. Customer retention can thus be regarded as long-term.

Berlin Cartilage Symposium
The Berlin Cartilage Symposium, which will be held for the fourth time in 2015, is a scientific platform providing a comprehensive overview of the latest research results in reconstructive cartilage therapy. In a number of speeches, specialists present numerous case studies and discuss recent research results. co.don is the main sponsor of this one-day event.

Cost coverage by health insurance companies
In Germany, MACT treatment with autologous chondrocyte transplants in the knee joint and the hip are currently reimbursed by the statutory health insurance companies. In the future, other indications, such as the treatment of shoulder and ankle joints, may also be eligible for reimbursement and have already been reimbursed in individual cases upon request. In private health insurance, the type of treatment covered depends on the terms of the individual policy agreed with the insurance company, so general statements are not possible. Based on past experience, however, cost coverage of treatment with autologous chondrocyte transplants has not been a problem at private insurance companies.

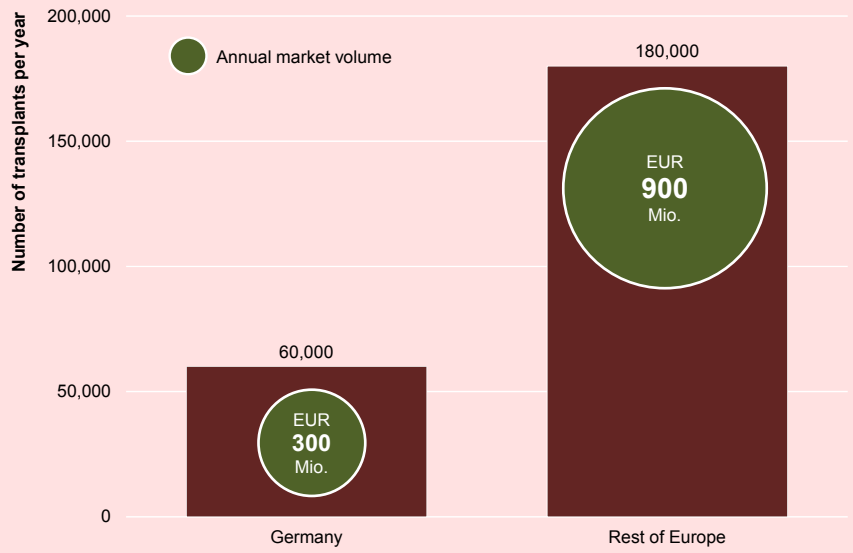
co.don's corporate strategy envisages obtaining EU-wide marketing authorization from the European Medicines Agency (EMA) and extending treatment methods to new areas of application. The company's business plan does not provide for external growth.

Strategy at a glance
co.don's corporate strategy rests on two pillars: **first**, obtaining EU-wide approval, and **second**, extending treatment methods to new areas of applications and indications.

EU-wide marketing authorization by EMA
The most important pillar of co.don's corporate strategy is central, EU-wide marketing authorization from the European Medicines Agency (EMA), which the company expects to obtain in 2017e. Key milestones of the approval process are an effectiveness and safety study and comparability with other standard treatment methods. An initial long-term clinical study, comprising 75 patients with cartilage defect sizes between 4 and 10 square centimeters in the knee joint, has already furnished positive evidence; the patients are now in the follow-up observation period. A further randomized clinical comparative study is still ongoing. In this trial, which is being conducted in accordance with GCP standards, all patients were included last year. Results are not to be expected until 2017.

After completion of the clinical studies and EU-wide approval, co.don plans to set up production facilities and in-house sales capacities in other European countries and issue exclusive and non-exclusive distribution licenses. Concurrently, production and distribution licenses are to be granted in countries outside the European Union. According to its own statements, co.don has set its sights on gaining a market share of 20% in Europe in the long term, corresponding to approximately 48,000 transplants per annum.

FIGURE 18: COMPARISON OF MARKET POTENTIAL, GERMANY AND REST OF EUROPE



After EU-wide approval, which co.don does not expect until 2017e, the addressable market will quadruple to 240.000 chondrocyte treatments or a revenue volume of approximately EUR 1.2bn. As product prices achievable abroad tend to be higher, we expect the total market volume in Europe to even exceed co.don's estimates.

SOURCE: CO.DON PROJECTIONS

Current status of clinical research and development
In 2013 and 2014, co.don's R&D activities focused on enhanced projects in non-clinical development, as required by the European Medicines Agency (EMA). Inter alia, new analytical procedures for product characterization and quality assurance were driven forward, and initial quantitative proof was furnished.

Furthermore, cooperations with network partners such as Ludwig-Maximilians-Universität Munich, the Fraunhofer Institut research organization or TRM Leipzig (Translational Center for Regenerative Medicine) for preclinical development and product characterization of co.don chondrosphere were continued and completed. New cooperation projects are currently in the planning stage.

In the area of clinical research, several clinical trials are being conducted with co.don chondrosphere and co.don chondrotransplant DISC:

- A Phase III clinical trial is examining safety and effectiveness compared with the standard treatment method of bone-marrow-stimulating procedures (microfracturing) for small defects in the knee. Patient recruitment for this trial was completed in December 2014. At present, the clinical trial is in the follow-up observation and documentation period.
- A further Phase II clinical trial examines potential dose dependence of larger defects at different localizations in the knee joint. After completion of patient inclusion in 2012 (i.e. recruitment of the necessary number of patients), this clinical trial reached its primary endpoint in 2013 and is currently in the follow-up observation phase.
- In 2014, a cooperation project with Berlin-Brandenburger Centrum für Regenerative Therapien (BCRT) for co.don chondrotransplant DISC was launched. This cooperation focuses on shared non-clinical projects.
- In December 2013, co.don was granted approval for national marketing of the co.don chondrosphere medicinal product pursuant to Section 4b of the German Medicinal Products Act (AMG) by the Paul-Ehrlich-Institut (PEI), the German Medicines Agency.
- In addition, co.don is seeking national approval for the chondrotransplant DISC medicinal product. At present, sale of this product at the national level is still possible.

Expansion of treatment areas as second strategic pillar
In December 2013, co.don was the first company to receive national approval pursuant to Section 4b AMG from the Paul-Ehrlich-Institut (PEI). Approval was

granted for the company's co.don chondrosphere product for all joints. Regarding the extension of application areas beyond orthopedic cell transplants, entry into the treatment of spinal disc herniation via ADCT marks the first step in the direction of neurosurgical cell transplantation.

According to the company's statements, expansion of the product portfolio in the direction of bone cell transplantation, which was still under development at the time of the IPO under the product names of co.don osteotransplant BONE and DENT, is currently not on the agenda.

Corporate History and Management

Established in 1993, the company was granted the first authorization in Europe for the cultivation of autologous cartilage and bone cell transplants in 1997. The IPO on the Frankfurt Stock Exchange followed in 2001. In the meantime, more than 7,200 patients have been treated with chondrocyte implants for joints and spinal discs, making co.don one of the leading providers in the field, and not just in the German-speaking area.

A corporate history spanning four phases

co.don's corporate history can be subdivided into four phases: **first**, the period from the company's establishment to the IPO, when the foundation for today's market position was laid; **second**, the first few years after going public, when the company used the IPO proceeds for massive investments in new products, and **third**, the subsequent restructuring phase, starting in 2007/09, during which co.don refocused on chondrocyte transplantation under its current management team. A **fourth phase** should be dominated by EU-wide approval, which we expect in 2017e, and the subsequent internationalization of business activities.

Established in 1993, co.don specialized early on in the cultivation of autologous cartilage and bone cells. Initially, the company had set its sights on a broad product range that also included jaw bones, the treatment of long bones, heart-valve and vessel coating, but these activities have now been discontinued. In 1997, co.don was granted the first authorization in Europe for the cultivation of autologous cartilage and bone cell transplants. Since then, more than 6,000 patients have been treated with chondrocyte implants for knee indications and more than 600 patients for spinal disc indications. The IPO on the Frankfurt Stock Exchange took place in 2001; today, the stock is listed in the General Standard segment.

FIGURE 19: CORPORATE HISTORY - TIMELINE

	1993	1996	1999	2002	2005	2008	2011	2014
Corporate	**1993** Foundation of co.don GmbH	**1998** Capital increase and entry of financial investors	**2000** Launch of IIT proprietary cleanroom technology	**2001** IPO at Neuer Markt of Frankfurt Stock Exchange	**2005** Restructuring of sales approach for European countries		**2010** Restructuring of shareholder structure	**2014** Capital increase at EUR 1.90 per share
Segments		**1997** Certificate according to DIN EN ISO 9001 in all segments	**1997** Production licence for autologous cartilage and bone cell transplants in Europe	**1997** Launch of co.don chondotransplant DISC	**2004** First application of spheroids in knee-joint		**2010** Start clinical trial 2 und 3 ACT3D	**2012** Final Assessment Study 2
Market	**1987** First ACI surgery with periosteal flap			**2005** First arthroscopic surgery of knee damage with chondrosphere	**2007** Reimbursement by statutory health insurance companies in Germany		**2011** First hip treatment	**2012** Fourth Berlin Cartilage Symposium
Financials			**2000** Sales EUR 0.8 mn EBIT -2.3 mn	**2004** Sales EUR 0.4 mn EBIT EUR -2.6 mn	**2007** Sales EUR 1.2 mn EBIT EUR -1.7 mn		**2010** Sales EUR 2.1 mn EBIT EUR -1.4 mn	**2014e** Sales EUR 4.4 mn EBIT EUR -2.8 mn

SOURCE: COMPANY DATA, SPHENE CAPITAL

co.don is a manager-led company. Its two-person Management Board is supported by a six-person Supervisory Board, whose members can look back on many years of relations and contacts in the pharmaceutical industry.

Management

The majority of co.don's employees have a background in biology, biotechnology, pharmaceutics or other scientific fields. On average, employees have been with the company for eight years. After various changes on the Management Board in the 2000s, the company has been headed by the following two man-

agement board members since 2009:

- **Dr Andreas Baltrusch** has been CEO of co.don AG since 2009. After studying business and engineering at Technische Universität Berlin, Dr Baltrusch gathered 15 years of experience in various managerial and business development positions at ALBA Gruppe, Cleanaway Deutschland AG and MECO/CAB Invest GmbH. His operating focus is on business development, turnaround, financing, sales and product management. In addition, Dr Baltrusch is responsible for investor relations.
- After obtaining an engineering diploma in veterinary medicine and postgraduate studies at TFH Berlin in industrial engineering, **Vilma Methner** started her career in 1986 in the medical immunology department at Charité Hospital. From 1992, she set up cell culture activities at the Research Department of Henning Berlin GmbH. She joined the newly established co.don GmbH in 1993 and was appointed member of the Management Board of co.don AG in 2007. As the company's COO and CSO, she is responsible for Clinical Research and R&D and manages the company's Regulatory Affairs with all associated approval-relevant activities. In addition, she is Head of Production and has played a crucial role in the development of co.don's cell-biological products and Integrated Isolator Technology (IIT). She is responsible for production, quality control and management, technology, IT and is managing director of co.don Schweiz GmbH.

Supervisory Board

The six-person Supervisory Board is remarkable for a company of co.don's size. Three members of the Supervisory Board boast special expertise in the pharmaceutical and biotechnology industry, and three have a consulting and capital markets background. One member of the Supervisory Board, Dr Bernd Wegener, undoubtedly deserves special attention. Having held positions at the Boehringer Ingelheim pharmaceutical company, at Degussa's pharmaceutical group, Marion Merrell Dow and Henning Berlin GmbH, Dr Wegener established BRAHMS Diagnostica GmbH in 1994, assuming the role of managing partner. From 2000 until the end of last year, Dr Wegener was Chairman of the German Federal Pharmaceutical Industry Association (BPI).

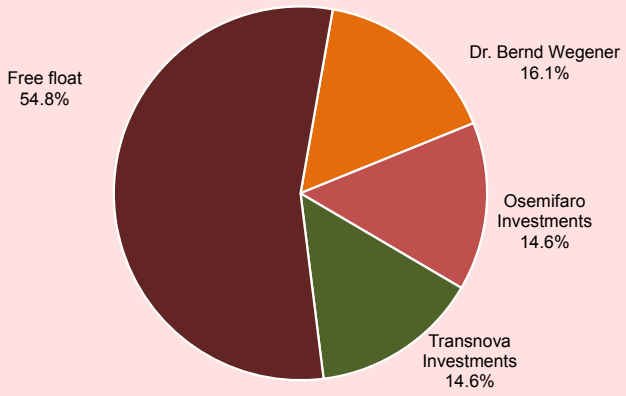
Shareholder Structure

Since the IPO in 2001, which involved a EUR 19.5mn capital increase, additional funds of EUR 21.3mn have been raised in further cash capital increases. So far, co.don has financed itself exclusively from equity. At present, the company's share capital is subdivided into slightly under 13.7mn shares. Three investors have shareholdings exceeding the reporting threshold of 10%, controlling a combined stake of 43.6% of co.don's share capital. Free-float market capitalization currently stands at EUR 17.7mn.

Listing in the General Standard on the Frankfurt Stock Exchange
The shares of co.don AG are listed in the General Standard segment of the Frankfurt Stock Exchange. The IPO was handled by BW Bank, with which the company has, according to its own statements, not had any more business relations for years, however. The total placement volume of the IPO amounted to EUR 19.5mn (EUR 22.5mn including greenshoe). Since the IPO, additional funds totaling EUR 21.3mn have been raised in seven capital increases. 2011 saw a one-time capital reduction of EUR 6.0mn.

A manager-led company
One of the single largest shareholders of co.don AG is Dr Bernd Wegener, former Chairman of the German Federal Pharmaceutical Industry Association (BPI), who owns a stake of 16.1%. In addition, two investment companies hold stakes of 14.6% each. Free float accounts for 54.8% of the company's shares. This corresponds to free-float market capitalization of currently EUR 17.7mn.

FIGURE 20: SHAREHOLDER STRUCTURE (AS AT FEBRUARY 2015)



SOURCE: COMPANY DATA, SPHENE CAPITAL

We do not expect any dividends until the end of our forecast horizon
co.don is a growth company par excellence, which is why we regard it as unlikely that the company will distribute any dividends in the foreseeable future. We have therefore not modeled any payouts during our forecast horizon, which ends in 2018e.

We do not expect dividend distribution until 2018e at the earliest.

Strengths & Weaknesses, Opportunities & Threats

Strengths

We see the following company-specific **strengths** of co.don:

- **Chondrocyte tissue engineering:** co.don specializes in the development, production and marketing of biological medicinal products that comply with the highest quality and purity standards. The critical advantage of co.don's products is the fact that treatment is based exclusively on cultivated autologous cells derived from patients' own extracellular matrix (ECM) ("tissue engineering"). This approach minimizes the risk of rejection responses, inflammations or infections. Minimally invasive application significantly reduces patients' surgery times and rehabilitation periods.
- **Technology leadership:** For the cultivation of autologous cell material and quality control of cell transplants, co.don has set up a dedicated cleanroom production facility based on its proprietary Integrated Isolator Technology (IIT). With this approach, co.don has positioned itself as an international standard setter.
- As a **pure play**, co.don focuses on the treatment of traumatic and degenerative articular cartilage and spinal disc injuries, which are typical diseases of civilization afflicting an increasing number of people worldwide. By contrast, co.don osteotransplant DENT, a cell transplant facilitating the growth of bone tissue through autologous bone cells, is not being marketed actively by the company and can be classified as a pipeline product.
- **Classification as a matrix-associated method:** With the Paul-Ehrlich-Institut (PEI), the German Medicines Agency, having granted national approval for co.don chondrosphere pursuant to Section 4b of the German Medicinal Products Act (AMG), nationwide marketing of this medicinal product is ensured.
- co.don's **active customer acquisition** focuses on select hospitals and physicians, most of whom have so far been approached directly. Broad-based and, hence, expensive marketing campaigns via traditional advertising media are thus unnecessary.
- Due to the high product quality and, in our opinion, low competitive intensity, **customer relationships** are of a decidedly long-term nature. Theoretically, it is possible that a hospital or physician in charge discontinues the use of co.don's medicinal products, but this has happened only rarely to date.
- We see efficient and safe **order processing** as one of co.don's key strengths. The high precision of a biopharmaceutical company producing under GMP conditions is not least showcased by co.don's proprietary IIT cleanroom technology. This "cleanroom in a cleanroom" ensures the highest possible level of sterility and minimizes contamination risks.
- **High-profile unique selling proposition:** co.don is considered to be the pioneer in chondrocyte transplantation in Europe. Through the establishment of the Berlin Cartilage Symposium, which will be held for already the fourth time this year, co.don has succeeded in establishing a scientific platform for the exchange of information about joint-preserving surgery, noticeably enhancing its own name recognition in Germany and internationally. In addition, co.don is involved in various bodies such as working groups of the German Federal Pharmaceutical Industry Association (BPI), BioDeutschland and the Regenerative Medicine Initiative Berlin-Brandenburg (RMIB) and the Healthcare Committee of the Germany Industry and Trade Chamber Association (DIHK).
- **First mover:** co.don was one of the first companies in Germany to be granted national authorization pursuant to Section 4b of the German Medicinal Products Act (AMG) for the treatment of all human joints by the Paul-Ehrlich-Institut (PEI), the competent supreme German federal authority. Even though no final evaluation of effectiveness is available, such approval illustrates the fact that the agency assumes, on the basis of the information submitted on co.don chondrosphere, that this medicinal product offers pa-

tients a favorable benefit/risk ratio.

- **Price leader:** co.don is the clear price leader in the cell-based market. In other EU member states, alternative providers such as Tigenix offer their products for more than EUR 15,000 in some instances. co.don thus has substantial scope for alignment in the course of EU-wide expansion of its footprint.
- **Phantom stock issuance:** Both members of the Management Board benefit from increases in the company's value via virtual, or phantom, stocks. They can notionally sell these stocks to the company, provided that the average value of the co.don share exceeds a price of EUR 1.29 per share. In this case, the difference between the average price and the notional initial value of EUR 1.00 is paid out to the members of the Management Board. These phantom shares can also be offered to the company in a change-of-control situation. To cover the exercise of phantom stock options, the company has set aside provisions in the last few years; according to the management, the cash-flow effect of these phantom stocks has been taken into account in the business plan. This ensures the management's long-term affiliation with the company.

Weaknesses

We see the following company-specific **weaknesses** of co.don:

- **Lack of profitability:** High research and approval expenses have so far prevented co.don from making its business model profitable. The cumulative pre-tax loss incurred over the last ten years (2004-13) was EUR -17.9mn; for last year, we expect a further pre-tax loss of EUR -2.8mn. Business activities have mainly been financed from capital increases, which have been used to collect a total of EUR 21.3mn so far. Despite cash on hand of EUR 4.1mn (estimate for yearend 2014e), there is a danger that further capital will have to be raised to break even.
- **EMA approval:** So far, co.don has generated its revenues virtually exclusively in the domestic market. Central EU-wide approval by EMA is required for the internationalization of distribution within the EU. The economic viability of product marketing in non-EU countries depends on the respective national (reimbursement) regulations as well as the transportation costs that would be incurred.
- **Sales-tax risks:** Last year's annual financial statements cited a risk arising from court rulings on tax matters of EUR 3.6mn regarding potential sales-tax back payments for 2004-13. This was due to the risk that the fiscal authorities might treat co.don AG's revenues as exempt from sales tax and might thus reclaim the input tax amounts that were deducted for those years. Given the current status of the ongoing company tax audit, input tax amounts of EUR 1.0mn for 2004-08 can already be regarded as a given. We believe that further insights into the reassessment of subsequent years, for which the back payment risk has not yet been substantiated, should be available by the time the 2014 annual financial statements have been prepared.
- **Share liquidity risk:** Large institutional investors might regard the market capitalization of the share as insufficient for investments. However, trading volumes of an average of 30,000 shares per day significantly exceed the level normally expected of a company with free-float market capitalization of EUR 17.7mn.

Opportunities

The **opportunities** described below apply to all companies active in the same industries as co.don:

- **Trend from joint replacement to cartilage preservation:** Apart from general complications such as thrombosis, blood vessel and nerve injuries, swelling and pain as well as bacterial infections, endoprosthetic surgery also involves risks specifically affecting the joint. They include adhesions and concrescence in the joint, dislocation of the individual components of the prosthesis and calcification of the surrounding muscle tissue. As a result, some 16% of endoprosthesis patients have to undergo further operations, resulting in high follow-up costs. We believe that these potential complications and risks will encourage the trend toward promotion of cartilage-preserving measures.

- The high research intensity of the business model and the need for EU-wide approval create **high market-entry barriers**. Further barriers are discernible on the medical side, where customer relationships tend to be long-term due to protracted bureaucratic approval procedures.
- **Potential takeover speculation:** As a debt-free small cap, which moreover might be on the verge of a potential turnaround, the company is, in our view, basically an acquisition target for big, globally active pharmaceutical companies, which are continuously searching for approved, patent-protected medicinal products.

Risks

The **threats** described below apply to all companies active in the same industries as co.don:

- **Cost reimbursement:** Cultivation of chondrocytes will only make economic sense if cost reimbursement by health insurance companies is ensured in the future, too. This applies to both DRG revenues and additional charges. If these amounts were no longer covered by health insurance companies, we would expect a significant impact on the demand for chondrocyte implants.
- **Systemic disadvantages of chondrocyte transplantation:** Acceptance of the procedure is hampered by (1) the cost-intensive, custom-made cultivation of transplants and (2) the fact that two separate surgical procedures are required: one for cartilaginous tissue removal and another for transplantation. Mention should also be made of the fact that the treatment involves a lot of red tape.
- **Little market muscle:** As a small enterprise, co.don has to stand its ground in the market among significantly larger international pharmaceutical groups with much more financial clout.

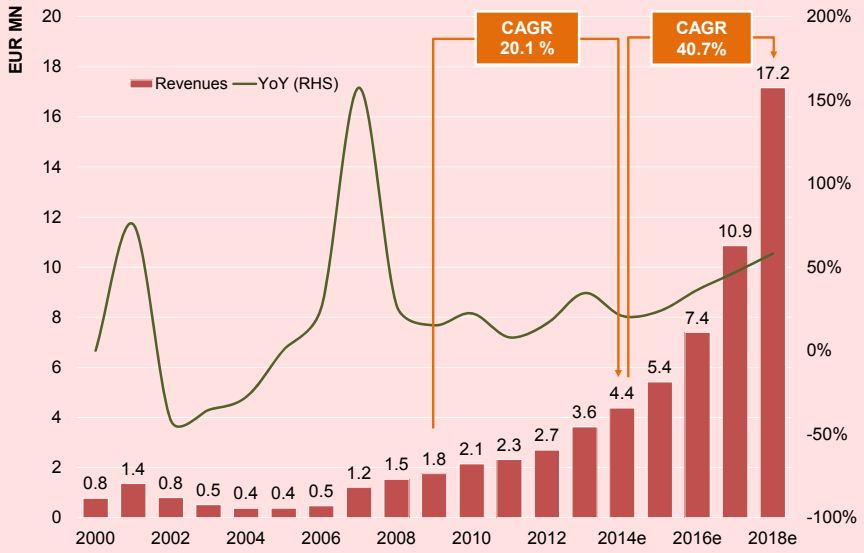
Income-statement & balance-sheet projections

The revenues co.don generates are solely transaction-dependent ones from the cultivation of autologous chondrocyte transplants. The cost side is dominated by staff expenses. In addition, high costs are still being incurred through the company's efforts to obtain EU-wide approval; we expect these costs to gradually fade away from 2016e onwards. In the last fiscal year, we estimate revenues and EBITDA after strategic costs of EUR 4.4mn (+20.8% YoY) and EUR -2.5mn, respectively. We are looking for virtually flat EBITDA on revenues of EUR 5.4mn (+23.8%) in the current year, due to persistently high strategic approval-related costs, before the company becomes profitable at all earnings levels for the first time in its corporate history in 2017e.

co.don generates exclusively transaction-dependent revenues
co.don bills its customers – mainly hospitals and private practices – once transplants have been delivered to the physician in charge. We are looking for the company to have generated revenues of EUR 4.4mn in the last fiscal year. This corresponds to revenue growth of 20.8% versus the previous year, in which co.don posted revenues of EUR 3.6mn. Given revenues of EUR 3.2mn reported in co.don's nine-month results, which corresponded to growth of 21.6%, we feel that our forecast is well supported. Our projection indicates annual revenue growth (CAGR) of 20.1%. over the last five years (2009-14e). On balance, co.don thus succeeded in boosting its revenues by a factor of more than 2.5 over this period.

The final figures for the last fiscal year will probably be published on 30 April 2015.

FIGURE 21: REVENUES AND REVENUE GROWTH

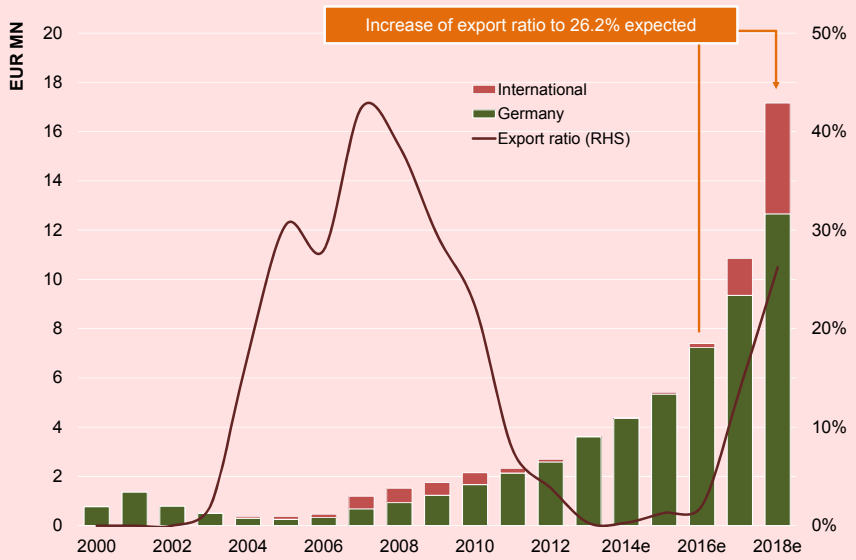


SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

In the last fiscal year, co.don executed approximately six orders per work day. The average price per completed order is thus about EUR 3,800. By way of comparison: providers in other countries earn up to EUR 15,000 per product in some cases.

We expect revenue CAGR of 40.7% for the 2014e-18e period
We are looking for a significant increase in co.don's average annual revenue growth rates once the company has been granted EU-wide approval, which we expect to happen in 2017e. Based on this assumption, we see co.don generate revenues of EUR 17.2mn by the end of our detailed-planning phase in 2018e. This corresponds to an average annual growth rate (CAGR) of 40.7% in the 2014e-18e period.

FIGURE 22: DOMESTIC AND INTERNATIONAL GROWTH



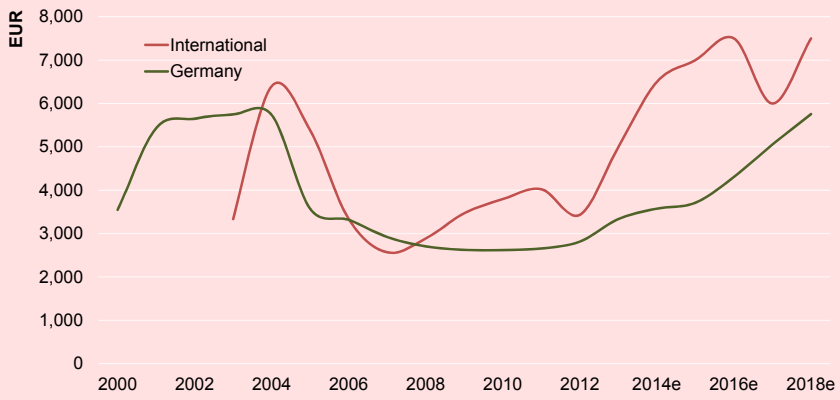
SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Our growth rate forecast is based on a mix of domestic and international growth. In Germany, we project an average annual growth rate of 28.7% during our 2014e-18e forecast period. Revenues abroad will not play a role until EU-wide approval has been obtained, which we expect to happen in 2017e.

Growth driver #1: rising transplantation numbers

We expect the company's revenue growth will be boosted by two drivers: **(1)** rising transplantation numbers and **(2)** higher prices per transplant. We estimate co.don to have performed some 1,220 transplantations last year (previous year: 1,085. +12.6% YoY) and forecast an increase to 2,800 (CAGR 18.5%) by 2018e, with 600 thereof already sold outside Germany.

FIGURE 23: AVERAGE PRICES PER TRANSPLANT



SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

We expect co.don to succeed in raising its prices both on the domestic and international markets in the coming years, with price increases abroad showing much greater momentum, leading to a further widening of the gap between prices billed at home and abroad.

Growth driver #2: an increase in product prices

In Germany, the net fee for chondrocyte cultivation, or product manufacturing, has ranged between EUR 4,000 and EUR 4,300 per order since mid-2014; while up to EUR 7,500 per transplant can be billed in other countries according to the company's statements. This means that co.don is, in its own words, closer to the lower end of the price range customary in the market both at home and abroad. Market research has shown that competitors sell their cell-based methods in Europe at prices in excess of EUR 15,000 per application. On a medium-term horizon, co.don's management thus plans to adjust its prices to those of the competition. In our model, we have therefore assumed that prices will have increased noticeably in both the domestic and international markets by the end

of our forecast horizon.

Staff-expenses ratio of major P&L importance
The production of autologous chondrocyte transplants is a relatively personnel-intensive business model. At the end of 2014, co.don had 63 employees, i.e. 18 more than two years earlier. According to our estimates, staff expenses as a percentage of revenues stood at 72.8% last year, and average per-capita wages amounted to approximately EUR 47,500 per annum.

However, this includes substantial strategic staff expenses associated with the EU-wide approval process: adjusted for this factor, we estimate last year's purely operational staff-expenses ratio at 54.2%. In the coming years, we expect the share of strategic staff expenses to trend down, while per-capita revenues should tend to go up. This should lead to a situation in which the ratio of purely operational staff-expenses to revenues should be more than halved, to 19.8% by the end of our detailed-planning phase in 2018e.

We expect a significant decline in the cost-of-materials ratio…
Our estimate for last year's cost of materials of EUR 1.7mn yields a cost-of-materials ratio of 39.2% (previous year: 33.0%). Here, too, strategic costs probably amounted to approximately EUR 1.1mn of this total. Adjusted for strategic costs, we are penciling in a cost-of-materials ratio of 14.1% for 2014e (previous year: 15.9%).

This results in gross profit margins of 60.8% (including strategic cost of materials) and 85.9% (only operating costs). We assume that such an operating gross profit margin corresponds to the level that can normally be achieved. The decline in strategic cost of materials that we anticipate should, in our view, thus translate into an increase in co.don's gross profit margin to 84.2% by 2018e.

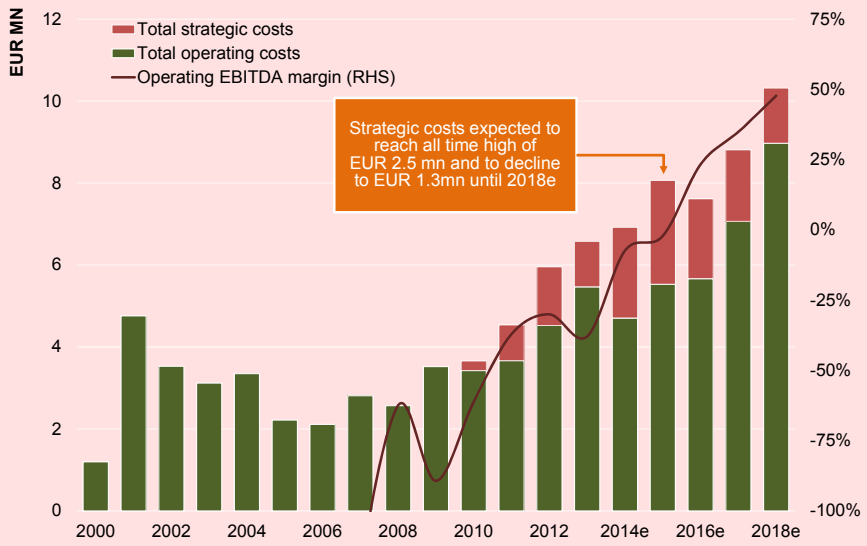
… and other operating expenses as a percentage of revenues
The "other operating expenses" item mainly subsumes marketing expenses, including those incurred for the organization of the Berlin Cartilage Symposium, and typical operating costs (mainly energy and transport costs, rent and leasing, insurance costs, fees, marketing and sales expenses as well IR, legal and consulting costs, IT, telecommunications and travel costs, etc.).

In the last fiscal year, other operating expenses of EUR 2.0mn, or 45.8% of consolidated revenues, played an even more significant role than cost of materials. Although strategic operating expenses are only of subordinate significance, we are looking for the operating-expenses ratio to trend downward on the wings of the business volume growth we anticipate, and then level off at an industry-typical level of around 20.7% by 2018e.

Significance of strategic costs waning overall
Since 2007/08, co.don's corporate strategy has focused on obtaining EU-wide approval of the co.don chondrosphere product. The total costs incurred for these projects, which the company internally classifies as "strategic", have now probably exceeded the EUR 10mn threshold, taking a significant toll on the company's earnings and liquidity situation in the last few years. This cost item placed particularly heavy burdens on staff and other operating expenses and, albeit to a lesser extent, also on cost of materials.

According to our estimates, strategic costs came to approximately EUR 2.2mn in fiscal 2014e alone. We expect them to increase further in the current fiscal year, followed by a gradual decline from 2016e onwards.

FIGURE 24: STRATEGIC VS. OPERATING COSTS



SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

The earnings situation is still burdened by high strategic costs. We expect these expenses to peak out in 2015e and subsequently decline gradually.

Significant improvement in EBITDA and EBIT anticipated

According to our estimates, co.don's 2014e EBITDA before strategic costs came to EUR -0.3mn, which means that the company fell just short of breakeven at the operating level. We are looking for a further improvement in operating EBITDA, to EUR -0.1mn, in the current fiscal year, followed by a marked earnings leap in 2017e once EU-wide approval has been granted, allowing co.don to generate an operating profit for the first time in its corporate history. By the end of our detailed-planning phase in 2018e, we anticipate a further increase in operating profit, to EUR 8.2mn (EUR 6.8mn after deduction of strategic costs). On the basis of the company's overall performance, this corresponds to 2018e EBITDA margins of 47.7% and 39.9% before and after strategic costs.

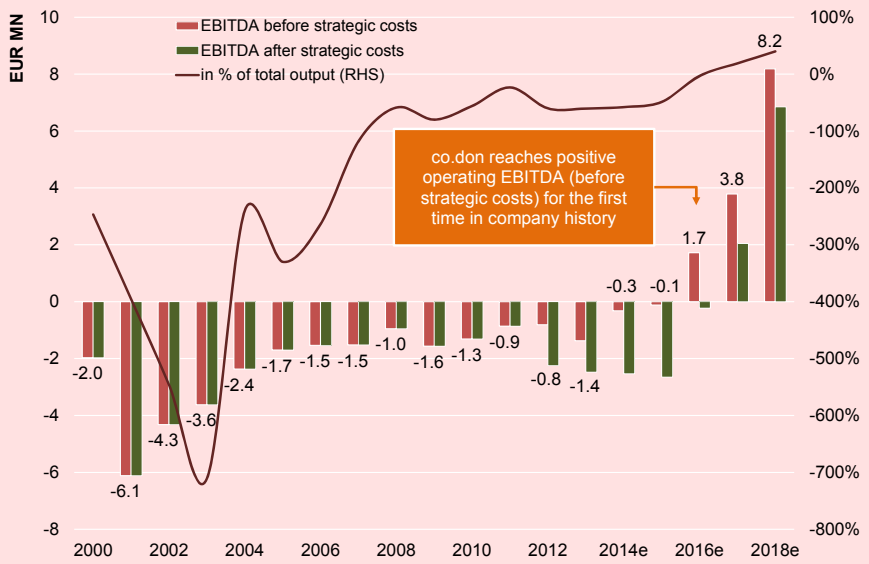
Earnings before tax on a similar trajectory as EBITDA

Since its IPO, co.don has been a debt-free company from a gross perspective. As a result, net finance costs were negligible. Our financial-planning model indicates that co.don will show its last – and low – cash burn in 2016e, with its cash flow turning positive as of 2017e in our view. At the same time, the cash-burn rate up to 2016e should be so low that the current liquidity level should suffice to avoid any further capital increases. Similarly, our scenario does not include any debt funding, especially since we do not think that there are any liquidity-consuming plant-and-equipment investments in the pipeline.

In the next two years, the monthly cash-burn rate should decrease from EUR 168,000 in 2014e to EUR 40,000. For 2017e, we see the first positive free cash flow in co.don's corporate history.

Due to high tax-loss carryforwards of EUR 36.2mn (own estimate at yearend 2014e), we have assumed that co.don's tax rate will not exceed the minimum tax rate during our detailed-planning phase. With depreciation likewise more or less unchanged over the same period, we expect earnings before and after tax to move in sync with EBITDA. For 2014e, we therefore forecast a loss before tax of EUR -2.8mn (previous year: EUR -2.7mn). For 2015e, we expect a further and final deterioration in earnings before tax to a loss EUR -2.9mn, before a significant improvement drives earnings before tax up to EUR -0.5mn in 2016e. In 2017e, we see the company post its first profit before tax in its corporate history – an estimated EUR 1.8mn.

FIGURE 25: EBITDA AND EBITDA MARGIN



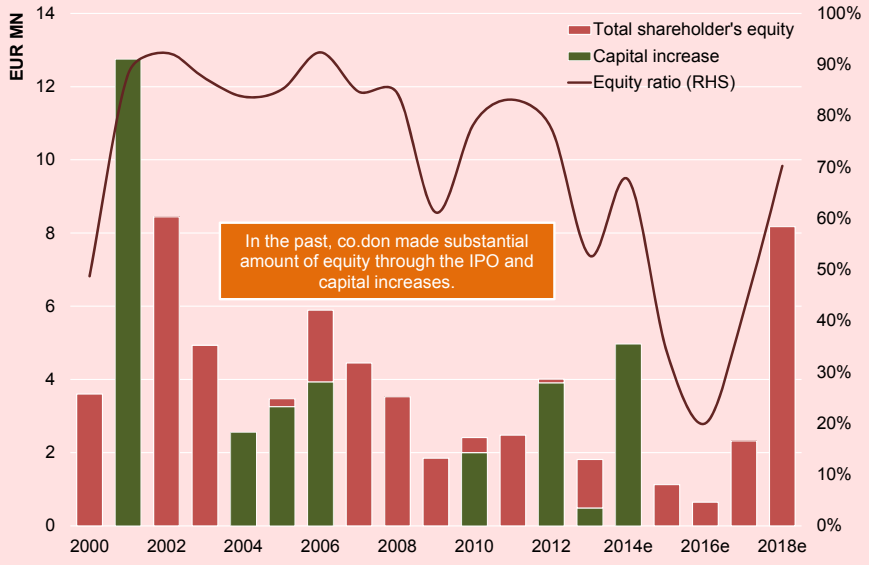
Last year, co.don probably fell just short of breakeven, with EBITDA of EUR –0.3mn before adjustment for strategic approval-related expenses. We expect the company to post earnings in a similar order of magnitude in 2016e, before generating the first positive operating EBITDA before strategic costs in its corporate history. This increase in earnings will mainly be fueled by the revenue growth we anticipate and the associated economies of scale. Once EU-wide approval has been granted, EBITDA including strategic costs should also turn positive from the following year onward.

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Net annual income and earnings per share

After taxes, we arrive at net annual income of EUR -2.8mn and EUR -2.9mn for 2014e and 2015e, respectively. On the basis of 13.7mn shares, our projections translate into earnings per share (EPS) of EUR -0.20 in 2014e and EUR -0.21 in 2015e. Our 2016e EPS projection is EUR -0.04.

FIGURE 26: SHAREHOLDERS' EQUITY AND EQUITY RATIO



Since the IPO in 2001, various capital increases have been required to prevent the company from becoming overindebted. Most recently, in 2014, co.don's shareholders' equity was raised by a total of EUR 5.0mn. Our planning model indicates that the current capital base should suffice to weather the two upcoming loss-making years without any further external fund injections. In 2017e, we expect co.don to generate the first positive cash flow in its corporate history.

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Shareholders' equity within a comfortable range

Due to the losses incurred in the past, a number of capital increases were necessary to avert balance-sheet overindebtedness. Most recently, co.don's shareholders' equity was raised by a total of EUR 5.0mn in 2014. These measures have kept the equity ratio of the company, which is debt-free from a gross perspective, consistently north of the 50% mark ever since the IPO. At the end of

the last fiscal year, the equity ratio presumably stood at 67.5%. Our planning model indicates that the current capital base should suffice to weather the upcoming two loss-making years without any further external fund injections, before the company's cash flow becomes positive for the first time in 2017e.

We do not expect any dividends in the foreseeable future

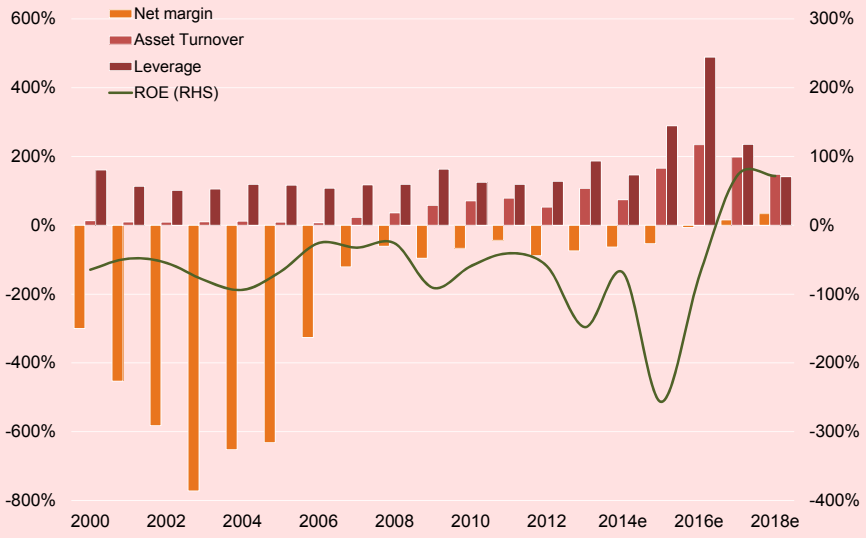
Due to the lack of profitability, co.don has not distributed any dividends to shareholders since its IPO. Even after breaking even – an event we expect to happen in 2017e – investments in the company's future growth will, in our view, clearly take precedence over profit appropriation. We therefore do not expect the company to pay out any dividends in the period after 2017e either, but regard retention of the profits generated as the more likely scenario.

co.don is unlikely to pay dividends during our forecast horizon through 2018e.

Return on equity to turn positive for the first time in 2017e

co.don has not generated a positive return on equity (ROE) since its IPO. For the last fiscal year, we estimate co.don's ROE at -68.9%, which would correspond to an improvement of 791 basis points versus the previous year (ROE of -148.0%).

FIGURE 27: DUPONT SYSTEM FOR RETURN ON EQUITY (ROE)



SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

In our view, co.don will not become a company generating value for its shareholders until 2017e, when its ROE should reach an estimated 72.3%, turning positive for the first time in the company's history.

Net working capital

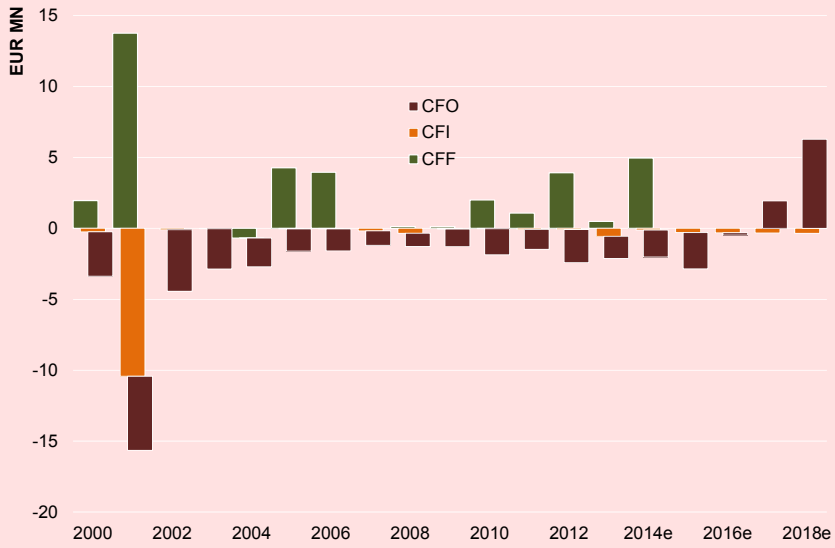
Although revenues increased by a factor of almost 10 between 2006 (with its low revenue level) and 2014e, working capital fluctuated within a narrow range of EUR 0.1mn to EUR 0.4mn over this period. The ratio of net working capital to revenues has thus improved noticeably since the IPO, reaching 4.0% in 2014e according to our estimates (by way of comparison: the corresponding 2009 figure stood at 9.0%). This has been due to the fact that trade accounts receivable and trade accounts payable have been on a parallel track and inventories do not play a noteworthy role at co.don.

Working capital has remained virtually constant since 2006, despite a significant increase in business volume.

Cash flow in sync with earnings

In the last few years, operating cash flows more or less moved in sync with operating earnings, as illustrated by Figure 26 below.

FIGURE 28: CASH FLOW TREND



In the last few years, external funds were required to offset cash out-flows from operating activities. We expect co.don's operating and free cash flows to turn positive as of 2017e.

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Management guidance

In the past, the Management Board of co.don AG announced earnings-before-tax forecasts at capital markets conferences. We assume that the management will confirm the previous year's guidance, i.e. a nearly positive operating result before strategic expenses, within the context of the preparation of the annual financial statements.

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Profit and loss account, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
Revenues	**EUR mn**	**0.4**	**0.4**	**0.5**	**1.2**	**1.5**	**1.8**	**2.1**
YoY	%	-27.8%	0.5%	25.7%	157.4%	27.2%	15.2%	22.4%
Other operating income	EUR mn	0.6	0.1	0.1	0.1	0.1	0.2	0.2
Total output	**EUR mn**	**1.0**	**0.5**	**0.6**	**1.3**	**1.6**	**2.0**	**2.3**
YoY	%	n/a	n/a	n/a	n/a	25.7%	20.8%	20.0%
Material costs	EUR mn	-0.2	-0.1	-0.2	-0.8	-0.3	-1.0	-0.7
In % of total output	EUR mn	-17.5%	-14.8%	-28.1%	-63.2%	-19.4%	-51.0%	-28.5%
Costs of goods	EUR mn	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.3
Costs of goods	%	-0.1	0.0	-0.1	-0.6	-0.1	-0.8	-0.3
Gross profit	**EUR mn**	**0.8**	**0.4**	**0.4**	**0.5**	**1.3**	**1.0**	**1.7**
YoY	%	n/a	n/a	n/a	n/a	175.6%	-26.5%	74.9%
Personnel costs	EUR mn	-1.4	-1.1	-0.9	-1.0	-1.2	-1.4	-1.7
Wages and salaries	EUR mn	-1.2	-1.0	-0.8	-0.8	-1.1	-1.2	-1.5
Social security	EUR mn	-0.2	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2
In % of total output	%	-143.0%	-209.9%	-148.0%	-74.6%	-74.9%	-70.6%	-71.0%
Other operating expenses	EUR mn	-1.8	-1.1	-1.1	-1.0	-1.0	-1.1	-1.3
In % of total output	%	-179.3%	-205.2%	-187.6%	-80.3%	-64.4%	-58.4%	-56.4%
Other operating earnings	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
In % of total output	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA after strategic costs	**EUR mn**	**-2.4**	**-1.7**	**-1.5**	**-1.5**	**-1.0**	**-1.6**	**-1.3**
In % of total output	%	n/a	n/a	n/a	n/a	-58.7%	-80.0%	-55.9%
Depreciation	EUR mn	-0.2	-0.7	-0.2	-0.1	-0.1	-0.1	-0.1
thereof amortisation	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**EUR mn**	**-2.6**	**-2.4**	**-1.7**	**-1.7**	**-1.1**	**-1.7**	**-1.4**
YoY	%	n/a	n/a	n/a	n/a	-35.8%	59.0%	-15.2%
YoY	EUR mn	n/a	n/a	n/a	n/a	0.6	-0.6	0.3
In % of total output	%	n/a	n/a	n/a	n/a	-65.7%	-86.5%	-61.1%
Income from participations	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net financial result	EUR mn	0.2	0.0	0.1	0.2	0.1	0.0	0.0
Extraordinary items	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	**EUR mn**	**-2.4**	**-2.3**	**-1.7**	**-1.4**	**-0.9**	**-1.7**	**-1.4**
YoY	%	n/a	n/a	n/a	n/a	-36.4%	81.7%	-14.4%
In % of total output	%	n/a	n/a	n/a	n/a	-56.8%	-85.4%	-60.9%
Taxes	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
In % of EBT (implied tax rate)	%	0.0%	0.0%	-1.8%	0.0%	0.0%	0.4%	0.0%
Taxes	EUR mn	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Net income	**EUR mn**	**-2.4**	**-2.3**	**-1.5**	**-1.4**	**-0.9**	**-1.7**	**-1.4**
In % of total output	%	n/a	n/a	n/a	n/a	-57.0%	-85.7%	-61.1%
Minorities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nr of shares	mn	5.0	8.0	11.9	11.9	11.9	11.9	13.1
Nr of shares (diluted)	mn	5.0	8.0	11.9	11.9	11.9	11.9	13.1
EPS	**EUR**	**-0.48**	**-0.29**	**-0.13**	**-0.12**	**-0.08**	**-0.14**	**-0.11**
EPS (diluted)	**EUR**	**-0.48**	**-0.29**	**-0.13**	**-0.12**	**-0.08**	**-0.14**	**-0.11**

SOURCE: COMPANY DATA, SPHENE CAPITAL

Profit and loss account, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
Revenues	**EUR mn**	**2.7**	**3.6**	**4.4**	**5.4**	**7.4**	**10.9**	**17.2**
YoY	%	16.3%	34.5%	20.8%	23.8%	36.4%	46.9%	58.2%
Other operating income	EUR mn	1.0	0.5	0.0	0.0	0.0	0.0	0.0
Total output	**EUR mn**	**3.7**	**4.1**	**4.4**	**5.4**	**7.4**	**10.9**	**17.2**
YoY	%	0.9%	10.2%	7.0%	23.5%	36.4%	46.9%	58.2%
Material costs	EUR mn	-1.4	-1.4	-1.7	-2.1	-2.0	-2.5	-2.7
In % of total output	EUR mn	-36.8%	-33.0%	-39.2%	-39.0%	-27.3%	-22.8%	-15.8%
Costs of goods	EUR mn	-0.4	-0.5	-0.4	-0.5	-0.5	-0.6	-0.7
Costs of goods	%	-0.9	-0.9	-1.3	-1.6	-1.5	-1.9	-2.0
Gross profit	**EUR mn**	**2.3**	**2.7**	**2.7**	**3.3**	**5.4**	**8.4**	**14.4**
YoY	%	1.2%	16.8%	-2.9%	23.9%	62.8%	55.9%	72.6%
Personnel costs	EUR mn	-2.1	-2.8	-3.2	-3.7	-3.5	-3.6	-4.1
Wages and salaries	EUR mn	-1.8	-2.4	-2.8	-3.3	-3.1	-3.2	-3.6
Social security	EUR mn	-0.3	-0.4	-0.4	-0.4	-0.4	-0.4	-0.5
In % of total output	%	-57.0%	-68.1%	-72.8%	-69.1%	-47.4%	-33.2%	-23.6%
Other operating expenses	EUR mn	-2.5	-2.4	-2.0	-2.2	-2.1	-2.7	-3.5
In % of total output	%	-66.5%	-59.3%	-45.8%	-40.8%	-28.4%	-25.2%	-20.7%
Other operating earnings	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
In % of total output	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
EBITDA after strategic costs	**EUR mn**	**-2.2**	**-2.5**	**-2.5**	**-2.6**	**-0.2**	**2.0**	**6.8**
In % of total output	%	-60.3%	-60.5%	-57.9%	-48.9%	-3.1%	18.8%	39.9%
Depreciation	EUR mn	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3
thereof amortisation	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBIT	**EUR mn**	**-2.4**	**-2.7**	**-2.8**	**-2.9**	**-0.5**	**1.8**	**6.6**
YoY	%	134.5%	11.8%	3.5%	4.5%	-83.6%	-480.1%	267.7%
YoY	EUR mn	-1.4	-0.3	-0.1	-0.1	2.4	2.3	4.8
In % of total output	%	-64.1%	-65.0%	-62.9%	-53.2%	-6.4%	16.5%	38.4%
Income from participations	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net financial result	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Extraordinary items	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EBT	**EUR mn**	**-2.4**	**-2.7**	**-2.8**	**-2.9**	**-0.5**	**1.8**	**6.6**
YoY	%	136.2%	12.7%	2.7%	4.5%	-83.6%	-480.1%	267.7%
In % of total output	%	-64.0%	-65.5%	-62.9%	-53.2%	-6.4%	16.5%	38.4%
Taxes	EUR mn	0.0	0.0	0.0	0.0	0.0	-0.1	-0.7
In % of EBT (implied tax rate)	%	0.0%	0.0%	0.0%	0.0%	0.0%	-5.7%	-10.9%
Taxes	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income	**EUR mn**	**-2.4**	**-2.7**	**-2.8**	**-2.9**	**-0.5**	**1.7**	**5.9**
In % of total output	%	-64.1%	-65.6%	-63.1%	-53.4%	-6.5%	15.5%	34.1%
Minorities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nr of shares	mn	10.7	11.1	13.7	13.7	13.7	13.7	13.7
Nr of shares (diluted)	mn	10.7	11.1	13.7	13.7	13.7	13.7	13.7
EPS	**EUR**	**-0.22**	**-0.24**	**-0.20**	**-0.21**	**-0.04**	**0.12**	**0.43**
EPS (diluted)	**EUR**	**-0.22**	**-0.24**	**-0.20**	**-0.21**	**-0.04**	**0.12**	**0.43**

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Balance sheet, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
ASSETS								
Non-current assets	**EUR mn**	**1.1**	**0.9**	**0.9**	**1.1**	**1.0**	**0.9**	**0.8**
Intangible assets	EUR mn	0.0	0.1	0.0	0.2	0.3	0.2	0.2
Property, plant & equipment	EUR mn	1.1	0.9	0.9	0.9	0.8	0.7	0.7
thereof property and buildings	EUR mn	0.8	0.7	0.7	0.6	0.6	0.5	0.5
thereof machines	EUR mn	0.1	0.0	0.1	0.1	0.1	0.0	0.1
thereof equipment	EUR mn	0.2	0.1	0.1	0.2	0.1	0.1	0.1
thereof advances	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shares in affiliated companies	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current assets	**EUR mn**	**3.0**	**5.4**	**4.3**	**3.1**	**2.0**	**2.1**	**2.1**
Inventory	EUR mn	0.0	0.0	0.0	0.0	0.0	0.1	0.1
in % of gross revenues	d	9.4%	3.7%	2.4%	1.9%	2.2%	2.7%	3.6%
Trade receivables	EUR mn	0.1	0.1	0.2	0.1	0.2	0.2	0.2
DSO	d	92	55	55	30	40	36	39
Other receivables	EUR mn	0.0	0.2	0.1	0.1	0.1	0.1	0.4
Paid advances	EUR mn	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Securities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash & cash equivalents	EUR mn	2.8	5.1	3.9	2.8	1.6	1.7	1.3
Deferred items	EUR mn	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total assets	**EUR mn**	**4.1**	**6.4**	**5.3**	**4.2**	**3.0**	**3.1**	**3.0**
LIABILITIES AND EQUITY								
Total shareholder's equity	**EUR mn**	**3.5**	**5.9**	**4.4**	**3.5**	**1.8**	**2.4**	**2.5**
Equity ratio	%	85.2%	92.4%	84.7%	84.4%	61.1%	78.7%	83.2%
Issued capital	EUR mn	8.0	11.9	11.9	11.9	11.9	13.1	7.1
Capital reserves	EUR mn	21.2	21.2	21.2	21.2	21.2	22.0	0.0
Retained earnings	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit carried forward	EUR mn	-25.7	-27.2	-28.7	-29.6	-31.3	-32.7	-4.6
Profit/Loss of period	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax reserves	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	EUR mn	0.4	0.4	0.7	0.5	1.0	0.4	0.3
Non-current liabilities	**EUR mn**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Bank debt	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current liabilities	**EUR mn**	**0.2**	**0.1**	**0.1**	**0.1**	**0.2**	**0.3**	**0.2**
Bank debt	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trade payables	EUR mn	0.1	0.0	0.0	0.0	0.1	0.2	0.2
in % of revenues	d	23.5%	7.7%	3.5%	1.9%	4.5%	8.7%	6.9%
Trade payables	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	EUR mn	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Liabilities to subsidiaries	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities to close parties	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provisions	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred items	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	**EUR mn**	**4.1**	**6.4**	**5.3**	**4.2**	**3.0**	**3.1**	**3.0**

SOURCE: COMPANY DATA, SPHENE CAPITAL

Balance sheet, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
ASSETS								
Non-current assets	**EUR mn**	**0.8**	**1.1**	**1.0**	**1.1**	**1.2**	**1.3**	**1.3**
Intangible assets	EUR mn	0.1	0.2	0.2	0.3	0.3	0.3	0.3
Property, plant & equipment	EUR mn	0.6	0.9	0.8	0.9	0.9	0.9	1.0
thereof property and buildings	EUR mn	0.4	0.4	0.3	0.4	0.4	0.4	0.4
thereof machines	EUR mn	0.1	0.2	0.2	0.2	0.2	0.2	0.2
thereof equipment	EUR mn	0.2	0.3	0.3	0.3	0.3	0.4	0.4
thereof advances	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Shares in affiliated companies	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Current assets	**EUR mn**	**4.3**	**2.2**	**4.8**	**2.1**	**2.0**	**4.2**	**10.2**
Inventory	EUR mn	0.1	0.1	0.1	0.1	0.2	0.3	0.3
in % of gross revenues	d	2.8%	2.4%	2.4%	2.4%	2.4%	2.5%	1.7%
Trade receivables	EUR mn	0.6	0.5	0.6	0.7	1.0	1.5	1.6
DSO	d	86	48	47	47	47	50	33
Other receivables	EUR mn	0.8	0.5	0.0	0.0	0.0	0.0	0.0
Paid advances	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Securities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash & cash equivalents	EUR mn	2.8	1.2	4.1	1.3	0.8	2.4	8.3
Deferred items	EUR mn	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Total assets	**EUR mn**	**5.2**	**3.4**	**5.9**	**3.3**	**3.2**	**5.5**	**11.6**
LIABILITIES AND EQUITY								
Total shareholder's equity	**EUR mn**	**4.0**	**1.8**	**4.0**	**1.1**	**0.6**	**2.3**	**8.2**
Equity ratio	%	77.5%	52.7%	67.5%	33.9%	20.0%	41.9%	70.2%
Issued capital	EUR mn	10.7	11.1	13.7	13.7	13.7	13.7	13.7
Capital reserves	EUR mn	0.4	0.4	2.8	2.8	2.8	2.8	2.8
Retained earnings	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Profit carried forward	EUR mn	-7.0	-9.7	-12.5	-15.3	-15.8	-14.2	-8.3
Profit/Loss of period	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tax reserves	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other provisions	EUR mn	0.7	1.0	0.0	0.0	0.0	0.0	0.0
Non-current liabilities	**EUR mn**	**0.0**	**0.0**	**1.2**	**1.4**	**1.5**	**1.7**	**1.8**
Bank debt	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	EUR mn	0.0	0.0	1.2	1.4	1.5	1.7	1.8
Current liabilities	**EUR mn**	**0.4**	**0.6**	**0.7**	**0.8**	**1.1**	**1.6**	**1.6**
Bank debt	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Trade payables	EUR mn	0.4	0.4	0.5	0.6	0.8	1.3	1.4
in % of revenues	d	13.1%	11.9%	11.4%	11.5%	11.4%	12.1%	8.0%
Trade payables	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other current liabilities	EUR mn	0.1	0.2	0.2	0.2	0.2	0.3	0.3
Liabilities to subsidiaries	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Liabilities to close parties	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Provisions	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Deferred items	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total liabilities	**EUR mn**	**5.2**	**3.4**	**5.9**	**3.3**	**3.2**	**5.5**	**11.6**

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Normalized balance sheet, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
ASSETS								
Non-current assets	**%**	**27%**	**15%**	**18%**	**27%**	**34%**	**30%**	**28%**
Intangible assets	%	1%	1%	1%	5%	8%	8%	6%
Property, plant & equipment	%	26%	14%	18%	21%	25%	22%	22%
thereof property and buildings	%	19%	12%	13%	15%	19%	17%	15%
thereof machines	%	2%	0%	2%	1%	2%	2%	2%
thereof equipment	%	5%	2%	2%	4%	4%	4%	5%
thereof advances	%	0%	0%	0%	0%	0%	0%	0%
thereof advances	%	0%	0%	0%	0%	0%	0%	0%
Shares in affiliated companies	%	0%	0%	0%	0%	0%	0%	0%
Current assets	**%**	**72%**	**85%**	**81%**	**73%**	**66%**	**68%**	**70%**
Inventory	%	1%	0%	1%	1%	1%	2%	3%
Trade receivables	%	2%	1%	3%	3%	6%	7%	8%
Other receivables	%	1%	3%	3%	3%	3%	2%	13%
Paid advances	%	0%	0%	0%	0%	2%	0%	1%
Securities	%	0%	0%	0%	0%	0%	0%	0%
Cash & cash equivalents	%	68%	80%	75%	66%	53%	57%	45%
Deferred items	%	0%	0%	0%	0%	0%	2%	2%
Total assets	**%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
LIABILITIES AND EQUITY								
Total shareholder's equity	**%**	**85%**	**92%**	**85%**	**84%**	**61%**	**79%**	**83%**
Issued capital	%	196%	187%	227%	286%	395%	428%	238%
Capital reserves	%	519%	332%	403%	507%	701%	716%	0%
Retained earnings	%	0%	0%	0%	0%	0%	0%	0%
Currency adjustments	%	0%	0%	0%	0%	0%	0%	0%
Profit carried forward	%	-630%	-427%	-546%	-709%	-1035%	-1066%	-155%
Profit/Loss of period	%	0%	0%	0%	0%	0%	0%	0%
Minorities	%	0%	0%	0%	0%	0%	0%	0%
Tax reserves	%	0%	0%	0%	0%	0%	0%	0%
Other provisions	%	10%	6%	13%	13%	33%	12%	9%
Non-current liabilities	**%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**	**0%**
Bank debt	%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities	%	0%	0%	0%	0%	0%	0%	0%
Current liabilities	**%**	**5%**	**1%**	**2%**	**3%**	**5%**	**9%**	**8%**
Bank debt	%	0%	0%	0%	0%	0%	0%	0%
Trade payables	%	2%	1%	1%	1%	3%	6%	5%
Trade payables	%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities	%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities	%	3%	1%	1%	2%	3%	3%	2%
Liabilities to subsidiaries	%	0%	0%	0%	0%	0%	0%	0%
Liabilities to close parties	%	0%	0%	0%	0%	0%	0%	0%
Provisions	%	0%	0%	0%	0%	0%	0%	0%
Deferred items	%	0%	0%	0%	0%	0%	0%	0%
Total liabilities	**%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

SOURCE: COMPANY DATA, SPHENE CAPITAL

Normalized balance sheet, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
ASSETS								
Non-current assets	**%**	**15%**	**33%**	**18%**	**33%**	**37%**	**23%**	**11%**
Intangible assets	%	3%	7%	4%	8%	9%	6%	3%
Property, plant & equipment	%	12%	26%	14%	26%	28%	17%	9%
thereof property and buildings	%	8%	11%	6%	11%	11%	7%	3%
thereof machines	%	1%	6%	3%	6%	6%	4%	2%
thereof equipment	%	3%	10%	5%	10%	10%	6%	3%
thereof advances	%	0%	0%	0%	0%	0%	0%	0%
thereof advances	%	0%	0%	0%	0%	0%	0%	0%
Shares in affiliated companies	%	0%	0%	0%	0%	0%	0%	0%
Current assets	**%**	**84%**	**65%**	**81%**	**65%**	**61%**	**76%**	**88%**
Inventory	%	1%	3%	2%	4%	5%	5%	2%
Trade receivables	%	12%	14%	10%	21%	30%	27%	13%
Other receivables	%	15%	13%	0%	0%	0%	0%	0%
Paid advances	%	0%	0%	0%	1%	1%	0%	0%
Securities	%	0%	0%	0%	0%	0%	0%	0%
Cash & cash equivalents	%	55%	35%	70%	39%	25%	43%	72%
Deferred items	%	1%	2%	1%	2%	2%	1%	1%
Total assets	**%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**
LIABILITIES AND EQUITY								
Total shareholder's equity	**%**	**78%**	**53%**	**68%**	**34%**	**20%**	**42%**	**70%**
Issued capital	%	206%	323%	231%	413%	426%	248%	118%
Capital reserves	%	7%	12%	46%	83%	86%	50%	24%
Retained earnings	%	0%	0%	0%	0%	0%	0%	0%
Currency adjustments	%	0%	0%	0%	0%	0%	0%	0%
Profit carried forward	%	-136%	-282%	-210%	-462%	-492%	-255%	-71%
Profit/Loss of period	%	0%	0%	0%	0%	0%	0%	0%
Minorities	%	0%	0%	0%	0%	0%	0%	0%
Tax reserves	%	0%	0%	0%	0%	0%	0%	0%
Other provisions	%	14%	29%	0%	0%	0%	0%	0%
Non-current liabilities	**%**	**0%**	**0%**	**21%**	**41%**	**47%**	**30%**	**16%**
Bank debt	%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities	%	0%	0%	21%	41%	47%	30%	16%
Current liabilities	**%**	**9%**	**18%**	**12%**	**25%**	**33%**	**28%**	**14%**
Bank debt	%	0%	0%	0%	0%	0%	0%	0%
Trade payables	%	7%	13%	8%	19%	26%	24%	12%
Trade payables	%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities	%	0%	0%	0%	0%	0%	0%	0%
Other current liabilities	%	2%	5%	3%	6%	7%	5%	2%
Liabilities to subsidiaries	%	0%	0%	0%	0%	0%	0%	0%
Liabilities to close parties	%	0%	0%	0%	0%	0%	0%	0%
Provisions	%	0%	0%	0%	0%	0%	0%	0%
Deferred items	%	0%	0%	0%	0%	0%	0%	0%
Total liabilities	**%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Cashflow statement, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
Net income	EUR mn	-2.3	-1.5	-1.4	-0.9	-1.7	-1.4	-1.0
Depreciation & Amortisation	EUR mn	0.7	0.2	0.1	0.1	0.1	0.1	0.2
Income from sale of assets	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ inventory	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ trade receivables	EUR mn	-0.1	0.0	-0.1	0.1	-0.1	0.0	0.0
Δ other receivables	EUR mn	1.1	-0.2	0.1	0.0	0.0	0.0	-0.3
Δ deferred tax assets	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ provisions	EUR mn	0.1	0.0	0.3	-0.2	0.5	-0.6	-0.1
Δ other short-term provisions	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ trade payables	EUR mn	0.0	-0.1	0.0	0.0	0.0	0.1	0.0
Δ deferred liabilities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operational adjustments	EUR mn	-1.0	0.0	0.0	0.0	-0.2	0.0	0.0
Operating cash flow	**EUR mn**	**-1.6**	**-1.5**	**-1.0**	**-0.9**	**-1.2**	**-1.8**	**-1.4**
Investments in financial assets	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investments in intangible assets	EUR mn	-0.7	-0.2	-0.1	-0.3	-0.2	-0.1	-0.1
Investments in tangible assets	EUR mn	0.6	0.2	0.0	0.0	0.1	0.1	0.0
Other operational adjustments	EUR mn	0.0	0.0	0.0	-0.1	0.0	0.0	0.0
Cash flow from investing	**EUR mn**	**0.0**	**0.0**	**-0.2**	**-0.3**	**-0.1**	**0.0**	**-0.1**
Free cash flow	**EUR mn**	**-1.6**	**-1.6**	**-1.2**	**-1.3**	**-1.3**	**-1.9**	**-1.5**
Δ Capital stock	EUR mn	3.0	3.9	0.0	0.0	0.0	1.2	-6.0
Δ Capital reserves	EUR mn	0.3	0.0	0.0	0.0	0.0	0.8	-22.0
Δ Bank debt	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operational adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less prior-year dividend	EUR mn	1.0	0.0	0.0	0.1	0.1	0.0	29.1
Financing cash flow	**EUR mn**	**4.3**	**3.9**	**0.0**	**0.1**	**0.1**	**2.0**	**1.1**
Net cash inflow	EUR mn	2.7	2.4	-1.2	-1.2	-1.2	0.1	-0.4
Currency adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash opening balance	EUR mn	0.1	2.8	5.1	3.9	2.8	1.6	1.7
Net cash closing balance	**EUR mn**	**2.8**	**5.1**	**3.9**	**2.8**	**1.6**	**1.7**	**1.3**

SOURCE: COMPANY DATA, SPHENE CAPITAL

Cashflow statement, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
Net income	EUR mn	-2.4	-2.7	-2.8	-2.9	-0.5	1.7	5.9
Depreciation & Amortisation	EUR mn	0.1	0.2	0.2	0.2	0.2	0.3	0.3
Income from sale of assets	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ inventory	EUR mn	0.0	0.0	0.0	0.0	0.0	-0.1	0.0
Δ trade receivables	EUR mn	-0.4	0.2	-0.1	-0.1	-0.3	-0.5	-0.1
Δ other receivables	EUR mn	-0.4	0.3	0.5	0.0	0.0	0.0	0.0
Δ deferred tax assets	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ provisions	EUR mn	0.4	0.3	-1.0	0.0	0.0	0.0	0.0
Δ other short-term provisions	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Δ trade payables	EUR mn	0.2	0.2	1.3	0.3	0.4	0.6	0.2
Δ deferred liabilities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operational adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Operating cash flow	**EUR mn**	**-2.3**	**-1.6**	**-1.9**	**-2.6**	**-0.2**	**1.9**	**6.3**
Investments in financial assets	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Investments in intangible assets	EUR mn	-0.1	-0.3	-0.2	-0.3	-0.3	-0.3	-0.3
Investments in tangible assets	EUR mn	0.0	-0.3	0.1	0.0	0.0	0.0	0.0
Other operational adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cash flow from investing	**EUR mn**	**-0.1**	**-0.6**	**-0.1**	**-0.3**	**-0.3**	**-0.3**	**-0.3**
Free cash flow	**EUR mn**	**-2.4**	**-2.1**	**-2.0**	**-2.9**	**-0.5**	**1.6**	**5.9**
Δ Capital stock	EUR mn	3.6	0.4	2.6	0.0	0.0	0.0	0.0
Δ Capital reserves	EUR mn	0.4	0.0	2.4	0.0	0.0	0.0	0.0
Δ Bank debt	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other operational adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Less prior-year dividend	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Financing cash flow	**EUR mn**	**3.9**	**0.5**	**5.0**	**0.0**	**0.0**	**0.0**	**0.0**
Net cash inflow	EUR mn	1.5	-1.6	2.9	-2.9	-0.5	1.6	5.9
Currency adjustments	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net cash opening balance	EUR mn	1.3	2.8	1.2	4.1	1.3	0.8	2.4
Net cash closing balance	**EUR mn**	**2.8**	**1.2**	**4.1**	**1.3**	**0.8**	**2.4**	**8.3**

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

Segments, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
Number of transplants		**93**	**140**	**434**	**549**	**620**	**762**	**849**
thereof Germany		72	101	236	346	471	636	805
thereof International		21	39	198	203	149	126	44
YoY	**%**	**47.6%**	**50.5%**	**210.0%**	**26.5%**	**12.9%**	**22.9%**	**11.4%**
thereof Germany	%	35.8%	40.3%	133.7%	46.6%	36.1%	35.0%	26.6%
thereof International	%	110.0%	85.7%	407.7%	2.5%	-26.6%	-15.4%	-65.1%
Number of transplants		**93**	**140**	**434**	**549**	**620**	**762**	**849**
thereof co.don chondrosphere		79	110	367	480	539	694	807
thereof co.don chondrotransplant DISC		6	21	52	56	81	68	42
thereof co.don osteotransplant DENT		8	9	15	12	0	0	0
thereof others		0	0	0	1	0	0	0
Regions								
Gross sales	**EUR mn**	**0.4**	**0.5**	**1.2**	**1.5**	**1.8**	**2.1**	**2.3**
Germany	EUR mn	0.3	0.3	0.7	0.9	1.2	1.7	2.1
International	EUR mn	0.1	0.1	0.5	0.6	0.5	0.5	0.2
YoY	**%**	**n/a**	**n/a**	**n/a**	**27.2%**	**15.2%**	**22.4%**	**8.0%**
Germany	%	n/a	n/a	n/a	35.8%	32.1%	34.9%	28.3%
International	%	n/a	n/a	n/a	15.4%	-11.8%	-7.5%	-63.0%
as of total sales	**%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Germany	%	69.5%	72.0%	57.6%	61.5%	70.5%	77.7%	92.4%
International	%	30.5%	28.0%	42.4%	38.5%	29.5%	22.3%	7.6%
Revenues per transplant	**EUR**	**3,978**	**3,321**	**2,758**	**2,772**	**2,827**	**2,815**	**2,728**
thereof Germany	EUR	3,569	3,317	2,919	2,705	2,624	2,621	2,657
thereof International	EUR	5,381	3,333	2,566	2,887	3,470	3,794	4,023
YoY	**%**	**-31.9%**	**-16.5%**	**-17.0%**	**0.5%**	**2.0%**	**-0.4%**	**-3.1%**
thereof Germany	%	-37.8%	-7.1%	-12.0%	-7.3%	-3.0%	-0.1%	1.4%
thereof International	%	-15.9%	-38.1%	-23.0%	12.5%	20.2%	9.3%	6.0%
Employees		**17**	**16**	**20**	**28**	**30**	**35**	**39**
Germany		17	16	20	28	30	35	39
thereof admission and R&D		16	15	18	26	28	33	37
thereof technical		n/a	n/a	n/a	n/a	n/a	n/a	n/a
thereof sales and administration		n/a	n/a	n/a	n/a	n/a	n/a	n/a
thereof board members		1	1	2	2	2	2	2
thereof others		n/a	n/a	n/a	n/a	n/a	n/a	n/a

SOURCE: COMPANY DATA, SPHENE CAPITAL

Segments, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
Number of transplants		**950**	**1,085**	**1,222**	**1,450**	**1,700**	**2,100**	**2,800**
thereof Germany		920	1,083	1,220	1,440	1,680	1,850	2,200
thereof International		30	2	2	10	20	250	600
YoY	**%**	**11.9%**	**14.2%**	**12.6%**	**18.7%**	**17.2%**	**23.5%**	**33.3%**
thereof Germany	%	14.3%	17.7%	12.7%	18.0%	16.7%	10.1%	18.9%
thereof International	%	-31.8%	-93.3%	0.0%	400.0%	100.0%	1150.0%	140.0%
Number of transplants		**950**	**1,085**	**1,222**	**1,450**	**1,700**	**2,100**	**2,800**
thereof co.don chondrosphere		906	1,045	1,165	1,389	1,637	1,965	2,641
thereof co.don chondrotransplant DISC		44	40	57	61	63	135	159
thereof co.don osteotransplant DENT		0	0	0	0	0	0	0
thereof others		0	0	0	0	0	0	0
Regions								
Gross sales	**EUR mn**	**2.7**	**3.6**	**4.4**	**5.4**	**7.4**	**10.9**	**17.2**
Germany	EUR mn	2.6	3.6	4.4	5.3	7.2	9.4	12.7
International	EUR mn	0.1	0.0	0.0	0.1	0.2	1.5	4.5
YoY	**%**	**16.3%**	**34.5%**	**20.8%**	**23.8%**	**36.4%**	**46.9%**	**58.2%**
Germany	%	21.1%	39.5%	20.7%	22.5%	35.4%	29.2%	35.4%
International	%	-41.8%	-90.3%	30.0%	438.5%	114.3%	900.0%	200.0%
as of total sales	**%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Germany	%	96.2%	99.7%	99.7%	98.7%	98.0%	86.2%	73.8%
International	%	3.8%	0.3%	0.3%	1.3%	2.0%	13.8%	26.2%
Revenues per transplant	**EUR**	**2,835**	**3,338**	**3,579**	**3,734**	**4,345**	**5,167**	**6,129**
thereof Germany	EUR	2,815	3,335	3,575	3,711	4,307	5,054	5,755
thereof International	EUR	3,433	5,000	6,500	7,000	7,500	6,000	7,500
YoY	**%**	**3.9%**	**17.8%**	**7.2%**	**4.3%**	**16.4%**	**18.9%**	**18.6%**
thereof Germany	%	5.9%	18.5%	7.2%	3.8%	16.1%	17.3%	13.9%
thereof International	%	-14.7%	45.6%	30.0%	7.7%	7.1%	-20.0%	25.0%
Employees		**45**	**52**	**63**	**64**	**70**	**75**	**80**
Germany		45	52	63	64	70	75	80
thereof admission and R&D		11	13	14	13	13	11	9
thereof technical		23	26	30	32	35	42	46
thereof sales and administration		9	11	17	17	20	20	23
thereof board members		2	2	2	2	2	2	2
thereof others		0	0	0	0	0	0	0

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

One view I, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
Key data								
Sales	EUR mn	0.4	0.5	1.2	1.5	1.8	2.1	2.3
Gross profit	EUR mn	0.4	0.4	0.5	1.3	1.0	1.7	2.3
EBITDA	EUR mn	-1.7	-1.5	-1.5	-1.0	-1.6	-1.3	-0.9
EBIT	EUR mn	-2.4	-1.7	-1.7	-1.1	-1.7	-1.4	-1.0
EBT	EUR mn	-2.3	-1.7	-1.4	-0.9	-1.7	-1.4	-1.0
Net income	EUR mn	-2.3	-1.5	-1.4	-0.9	-1.7	-1.4	-1.0
Nr. of employees		17	16	20	28	30	35	39
Per share data								
Price high	EUR	14.34	7.19	4.43	2.51	1.47	2.95	2.45
Price low	EUR	0.99	3.86	1.97	1.04	0.71	0.78	0.72
Price average/last	EUR	4.42	5.16	3.20	1.78	1.07	1.91	1.43
Price average/last	EUR	5.94	4.47	2.10	1.23	1.04	2.25	0.87
EPS	EUR	-0.29	-0.13	-0.12	-0.08	-0.14	-0.11	-0.14
BVPS	EUR	0.43	0.49	0.37	0.30	0.15	0.18	0.35
CFPS	EUR	-0.20	-0.13	-0.09	-0.08	-0.10	-0.14	-0.20
Dividend	EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Price target	EUR							
Performance to price target	%							
Profitability ratios (based on revenues)								
EBITDA margin	%	-459.7%	-329.5%	-127.1%	-62.4%	-89.3%	-61.1%	-37.1%
EBIT margin	%	-637.1%	-374.2%	-138.5%	-69.9%	-96.5%	-66.9%	-43.8%
Pretax margin	%	-632.9%	-362.6%	-120.9%	-60.4%	-95.3%	-66.7%	-43.5%
Net margin	%	-631.6%	-326.2%	-120.6%	-60.6%	-95.7%	-66.8%	-43.5%
FCF margin	%	-433.2%	-341.1%	-100.6%	-84.0%	-72.6%	-86.8%	-63.9%
ROE	%	-67.3%	-25.7%	-32.5%	-26.2%	-90.8%	-59.3%	-40.7%
NWC/Sales	%	n/a	n/a	n/a	n/a	9.0%	4.6%	8.0%
Revenues per head	EURk	22	29	60	54	58.4	61.3	59.4
EBIT per head	EURk	-138.7	-108.8	-82.9	-38.0	-56.4	-41.0	-26.0
Capex/Sales	%	-175.6%	-41.1%	4.0%	-3.2%	-5.9%	-4.1%	-1.1%
	%	484.3%	573.2%	207.8%	358.2%	165.4%	240.1%	298.6%
Growth ratios								
Sales	%	0.5%	25.7%	157.4%	27.2%	15.2%	22.4%	8.0%
Gross profit	%	-46.0%	-4.8%	13.3%	175.6%	-26.5%	74.9%	38.2%
EBITDA	%	-28.1%	-9.9%	-0.7%	-37.6%	64.8%	-16.3%	-34.5%
EBIT	%	-9.4%	-26.2%	-4.7%	-35.8%	59.0%	-15.2%	-29.3%
EBT	%	-1.7%	-28.0%	-14.2%	-36.4%	81.7%	-14.4%	-29.6%
Net income	%	-2.6%	-35.1%	-4.8%	-36.1%	81.7%	-14.6%	-29.6%
EPS	%	-39.1%	-56.5%	-4.8%	-36.1%	81.7%	-22.3%	30.1%
CFPS	%	-51.6%	-33.9%	-33.8%	-8.8%	29.8%	37.8%	40.5%

SOURCE: COMPANY DATA, SPHENE CAPITAL

One view I, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
Key data								
Sales	EUR mn	2.7	3.6	4.4	5.4	7.4	10.9	17.2
Gross profit	EUR mn	2.3	2.7	2.7	3.3	5.4	8.4	14.4
EBITDA	EUR mn	-2.2	-2.5	-2.5	-2.6	-0.2	2.0	6.8
EBIT	EUR mn	-2.4	-2.7	-2.8	-2.9	-0.5	1.8	6.6
EBT	EUR mn	-2.4	-2.7	-2.8	-2.9	-0.5	1.8	6.6
Net income	EUR mn	-2.4	-2.7	-2.8	-2.9	-0.5	1.7	5.9
Nr. of employees		45	52	63	64	70	75	80
Per share data								
Price high	EUR	1.38	1.66	3.70				
Price low	EUR	0.72	0.70	1.16				
Price average/last	EUR	1.02	0.95	2.46				
Price average/last	EUR	0.93	1.54	2.28	2.35	2.35	2.35	2.35
EPS	EUR	-0.22	-0.24	-0.20	-0.21	-0.04	0.12	0.43
BVPS	EUR	0.38	0.16	0.29	0.08	0.05	0.17	0.60
CFPS	EUR	-0.22	-0.14	-0.14	-0.19	-0.01	0.14	0.46
Dividend	EUR	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Price target	EUR							4.20
Performance to price target	%							78.7%
Profitability ratios (based on revenues)								
EBITDA margin	%	-83.1%	-68.4%	-58.0%	-48.9%	-3.1%	18.8%	39.9%
EBIT margin	%	-88.4%	-73.5%	-63.0%	-53.2%	-6.4%	16.5%	38.4%
Pretax margin	%	-88.3%	-74.0%	-63.0%	-53.2%	-6.4%	16.5%	38.4%
Net margin	%	-88.4%	-74.1%	-63.2%	-53.4%	-6.5%	15.5%	34.1%
FCF margin	%	-89.5%	-58.7%	-46.2%	-52.8%	-6.5%	14.8%	34.6%
ROE	%	-59.4%	-148.0%	-68.9%	-256.6%	-74.8%	72.3%	71.6%
NWC/Sales	%	13.9%	4.0%	4.0%	4.0%	4.0%	4.2%	2.8%
Revenues per head	EURk	59.8	69.7	69.4	84.6	105.5	144.7	214.5
EBIT per head	EURk	-52.9	-51.2	-43.7	-45.0	-6.7	23.9	82.3
Capex/Sales	%	-0.8%	7.6%	-2.1%	0.8%	0.6%	0.4%	0.3%
	%	450.4%	260.6%	362.0%	202.5%	234.2%	427.7%	980.2%
Growth ratios								
Sales	%	16.3%	34.5%	20.8%	23.8%	36.4%	46.9%	58.2%
Gross profit	%	1.2%	16.8%	-2.9%	23.9%	62.8%	55.9%	72.6%
EBITDA	%	160.8%	10.6%	2.4%	4.4%	-91.3%	n/a	235.1%
EBIT	%	134.5%	11.8%	3.5%	4.5%	-83.6%	n/a	267.7%
EBT	%	136.2%	12.7%	2.7%	4.5%	-83.6%	n/a	267.7%
Net income	%	136.1%	12.7%	3.0%	4.5%	-83.3%	n/a	249.1%
EPS	%	57.4%	8.2%	-16.6%	4.5%	-83.3%	n/a	249.1%
CFPS	%	11.4%	-35.7%	-1.6%	34.8%	-93.5%	n/a	225.4%

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

One view II, 2005-11

IFRS (31.12.)		2005	2006	2007	2008	2009	2010	2011
Balance sheet ratios								
Fixed assets	EUR mn	1.1	0.9	0.9	1.1	1.0	0.9	0.8
Current assets	EUR mn	3.0	5.4	4.3	3.1	2.0	2.1	2.1
Equity	EUR mn	3.5	5.9	4.4	3.5	1.8	2.4	2.5
Liabilities	EUR mn	0.6	0.5	0.8	0.7	1.2	0.7	0.5
Equity ratio	%	85.2%	92.4%	84.7%	84.4%	61.1%	78.7%	83.2%
Gearing	%	-79.9%	-87.0%	-88.1%	-78.3%	-86.7%	-72.0%	-53.7%
Working Capital	EUR mn	0.2	0.1	0.3	0.2	0.2	0.1	0.2
	x	0.1	0.1	0.2	0.4	0.6	0.7	0.8
Enterprise Value								
Nr. of shares	1,000	8,014	11,949	11,949	11,949	11,949	13,144	7,109
Market cap.	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Market cap.	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Market cap.	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Market cap.	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net debt	EUR mn	-2.8	-5.1	-3.9	-2.8	-1.6	-1.7	-1.3
Pension reserves	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excess Cash	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EV high	EUR mn	-2.8	-5.1	-3.9	-2.8	-1.6	-1.7	-1.3
EV low	EUR mn	2.8	5.1	3.9	2.7	1.6	1.7	1.3
EV average	EUR mn	2.8	5.1	3.9	2.7	1.6	1.7	1.3
Enterprise Value	EUR mn	2.8	5.1	3.9	2.7	1.6	1.7	1.3
Valuation ratios								
EV/sales high	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/sales low	x	7.50	11.02	3.28	1.80	0.91	0.81	0.58
EV/sales average	x	7.50	11.02	3.28	1.80	0.91	0.81	0.58
EV/sales	x	7.50	11.02	3.28	1.80	0.91	0.81	0.58
EV/EBITDA high	x	n/a	n/a	n/a	n/a	1.0	1.3	1.6
EV/EBITDA low	x	-1.63	-3.35	-2.58	-2.89	n/a	n/a	n/a
EV/EBITDA average	x	-1.63	-3.35	-2.58	-2.89	n/a	n/a	n/a
EV/EBITDA	x	-1.63	-3.35	-2.58	-2.89	n/a	n/a	n/a
EV/EBIT high	x	1.2	2.9	2.4	2.6	0.9	1.2	1.3
EV/EBIT low	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBIT average	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBIT	x	-1.18	-2.95	-2.36	-2.58	n/a	n/a	n/a
P/E high	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/E low	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/E average	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/E	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/BV last	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
FCF yield	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Dividend-yield	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Cash flow								
Cash flow from Operations	EUR mn	-1.6	-1.5	-1.0	-0.9	-1.2	-1.8	-1.4
Cash flow from Investments	EUR mn	0.0	0.0	-0.2	-0.3	-0.1	0.0	-0.1
Free Cash flow	EUR mn	-1.6	-1.6	-1.2	-1.3	-1.3	-1.9	-1.5
Cash flow from Financing	EUR mn	4.3	3.9	0.0	0.1	0.1	2.0	1.1

SOURCE: COMPANY DATA, SPHENE CAPITAL

One view II, 2012-18e

IFRS (31.12.)		2012	2013	2014e	2015e	2016e	2017e	2018e
Balance sheet ratios								
Fixed assets	EUR mn	0.8	1.1	1.0	1.1	1.2	1.3	1.3
Current assets	EUR mn	4.4	2.3	4.9	2.2	2.0	4.3	10.3
Equity	EUR mn	4.0	1.8	4.0	1.1	0.6	2.3	8.2
Liabilities	EUR mn	1.2	1.6	1.9	2.2	2.6	3.2	3.5
Equity ratio	%	77.5%	52.7%	67.5%	33.9%	20.0%	41.9%	70.2%
Gearing	%	-70.8%	-66.3%	-103.3%	-114.3%	-125.6%	-103.8%	-102.1%
Working Capital	EUR mn	0.4	0.1	0.2	0.2	0.3	0.5	0.5
	x	0.5	1.1	0.7	1.6	2.3	2.0	1.5
Enterprise Value								
Nr. of shares	1,000	10,663	11,108	13,722	13,722	13,722	13,722	13,722
Market cap.	EUR mn	14.7	18.4	50.8				
Market cap.	EUR mn	7.7	7.8	15.9				
Market cap.	EUR mn	10.9	10.6	33.8				
Market cap.	EUR mn	9.9	17.1	31.3	32.2	32.2	32.2	32.2
Net debt	EUR mn	-2.8	-1.2	-4.1	-1.3	-0.8	-2.4	-8.3
Pension reserves	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minorities	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Excess Cash	EUR mn	0.0	0.0	0.0	0.0	0.0	0.0	0.0
EV high	EUR mn	11.9	17.2	46.6				
EV low	EUR mn	10.5	9.0	20.1				
EV average	EUR mn	13.7	11.8	37.9				
Enterprise Value	EUR mn	12.8	18.3	35.4	33.5	33.1	34.7	40.6
Valuation ratios								
EV/sales high	x	4.41	4.76	10.66	n/a	n/a	n/a	n/a
EV/sales low	x	3.90	2.48	4.59	n/a	n/a	n/a	n/a
EV/sales average	x	5.09	3.25	8.67	n/a	n/a	n/a	n/a
EV/sales	x	4.74	5.06	8.10	6.19	4.48	3.19	2.37
EV/EBITDA high	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBITDA low	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBITDA average	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBITDA	x	n/a	n/a	n/a	n/a	n/a	17.0	5.9
EV/EBIT high	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBIT low	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBIT average	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
EV/EBIT	x	n/a	n/a	n/a	n/a	n/a	19.4	6.2
P/E high	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/E low	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/E average	x	n/a	n/a	n/a	n/a	n/a	n/a	n/a
P/E	x	n/a	n/a	n/a	n/a	n/a	19.2	5.5
P/BV last	x	2.5	9.4	7.8	28.6	50.1	13.9	3.9
FCF yield	%	-24.3%	-12.4%	-6.5%	-8.9%	-1.5%	5.0%	18.4%
Dividend-yield	%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Cash flow								
Cash flow from Operations	EUR mn	-2.3	-1.6	-1.9	-2.6	-0.2	1.9	6.3
Cash flow from Investments	EUR mn	-0.1	-0.6	-0.1	-0.3	-0.3	-0.3	-0.3
Free Cash flow	EUR mn	-2.4	-2.1	-2.0	-2.9	-0.5	1.6	5.9
Cash flow from Financing	EUR mn	3.9	0.5	5.0	0.0	0.0	0.0	0.0

SOURCE: COMPANY DATA, SPHENE CAPITAL PROJECTIONS

DCF model

		2015e	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	TV
Revenues	**EUR mn**	**5.4**	**7.4**	**10.9**	**17.2**	**21.0**	**24.2**	**26.5**	**28.0**	**28.8**	**29.2**	**29.4**	**29.5**	**29.7**	**29.8**	**30.0**
YoY	%	23.8%	36.4%	33.7%	28.6%	22.1%	15.4%	9.7%	5.5%	2.8%	1.4%	0.8%	0.6%	0.5%	0.5%	0.5%
EBIT	**EUR mn**	**-2.9**	**-0.5**	**1.8**	**6.6**	**8.1**	**9.3**	**10.3**	**10.8**	**11.2**	**11.4**	**11.5**	**11.6**	**11.7**	**11.7**	**6.0**
EBIT margin	%	-53.2%	-6.4%	16.5%	38.4%	38.5%	38.6%	38.7%	38.8%	38.9%	39.0%	39.1%	39.2%	39.3%	39.4%	20.0%
Tax	EUR mn	0.0	0.0	-0.1	-0.7	-1.4	-1.6	-1.8	-1.9	-3.6	-3.6	-3.7	-3.7	-3.7	-3.8	-1.9
Tax ratio (τ)	%	0.0%	0.0%	-5.7%	-10.9%	-16.8%	-17.1%	-17.3%	-17.4%	-32.0%	-32.0%	-32.0%	-32.0%	-32.0%	-32.0%	-32.0%
EBIT(1-τ)	**EUR mn**	**-2.9**	**-0.5**	**1.7**	**5.9**	**6.7**	**7.7**	**8.5**	**9.0**	**7.6**	**7.7**	**7.8**	**7.9**	**7.9**	**8.0**	**4.1**
Capex	EUR mn	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.4	-0.4	-0.3	-0.3	-0.2	-0.2	-0.1	-0.1	-0.4
FCFF	**EUR mn**	**-3.2**	**-0.8**	**1.4**	**5.5**	**6.4**	**7.4**	**8.1**	**8.6**	**7.3**	**7.5**	**7.6**	**7.7**	**7.8**	**7.8**	**3.7**
WACC	%	10.2%	10.2%	10.2%	10.2%	9.8%	9.3%	8.9%	8.5%	8.1%	7.6%	7.2%	6.8%	6.4%	5.9%	5.5%
Discount ratio	%	100.0%	90.8%	82.4%	74.7%	68.1%	62.3%	57.2%	52.7%	48.8%	45.3%	42.3%	39.6%	37.2%	35.1%	
PV FCFF	**EUR mn**	**-3.2**	**-0.9**	**1.1**	**4.1**	**4.4**	**4.6**	**4.6**	**4.5**	**3.5**	**3.4**	**3.2**	**3.1**	**2.9**	**2.8**	

Terminal Cash flow	EUR mn	3.7
Terminal Cost of Capital	%	0.0
Insolvency risk in TV	%	3.0%
Terminal Value	EUR mn	45.0
PV (Terminal Value)	EUR mn	15.8
PV (CF next 10 years)	EUR mn	38.2
Total present value	**EUR mn**	**54.0**
Financial debt	EUR mn	0.0
Cash	EUR mn	4.1
Value of equity	**EUR mn**	**58.2**
Number of shares	EUR mn	13.7
Value per share	**EUR mn**	**4.20**

TV EBIT margin	**EUR**	**Long-term annual growth rates**						
		-0.4%	**-0.1%**	**0.2%**	**0.5%**	**0.8%**	**1.1%**	**1.4%**
	17%	4.00	4.00	4.00	4.10	4.10	4.10	4.10
	18%	4.10	4.10	4.10	4.10	4.10	4.20	4.10
	19%	4.10	4.10	4.20	4.20	4.20	4.20	4.20
	20%	4.20	4.20	4.20	**4.20**	4.30	4.30	4.20
	21%	4.20	4.30	4.30	4.30	4.30	4.30	4.30
	22%	4.30	4.30	4.30	4.40	4.40	4.40	4.30
	23%	4.30	4.40	4.40	4.40	4.40	4.40	4.40

SOURCE: SPHENE CAPITAL PROJECTIONS

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Buy: We expect a stock to rise by at least 10%.
Hold: We expect a stock to move within 10% of the benchmark.
Sell: We expect a stock to fall by at least 10% and underperform the benchmark.

Risk Assessment (12 months investment period)

Estimated probability that the result of the analyzed company differs from our forecast earnings by more than 20% due to company-or market-specific reasons:

Risk	Estimated probability
Very high	>80%
High	50-80%
Medium	20-50%
Low	<20%

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Date:	Price target:	Rating:	Conflict of Interest (key)
10/02/2015	EUR 4.20	Buy	1; 2; 8

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