

Research Report (Anno)

SYGNIS AG



"Next Generation SYGNIS" The planned acquisition of Expedeon creates great potential for sales in the USA and Asia Post-money target price raised

Target price: EUR 3.95

Rating: BUY

IMPORTANT NOTE:

Please take note of the disclaimer/risk warning, as well as the disclosure of potential conflicts of interest as required by section 34b of the Securities Trading Act (WpHG) from page 18

Completion: 16/06/2016 First Publication: 16/06/2016



SYGNIS AG*4,5a,5b,6a,7,10,11

BUY

Price Target: EUR 3.95

current price 1.44

15/6/2016 / ETR / closing price

currency: EUR

Key date:

ISIN: DE000A1RFM03 WKN: A1RFM0 Ticker symbol: LIO1 Number of shares³: 13.495 Marketcap³: 19.43 EnterpriseValue³: 16.57 ³ in m / in EUR m Freefloat: 52.8 %

Transparency Level: Prime Standard Market Segment: Regulierter Markt Accounting Standard: IFRS

Financial year-end: 12/31

Designated Sponsor: EQUINET AG

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* catalogue of potential conflicts of interests on page 19

Company Profile

Sector: Biotechnology

Focus: development and commercialisation of

DNA-technologies

Employees: 21 (31/03/2016)

Founded in: 1997

Headquarter: Heidelberg

Executive Board: Pilar de la Huerta



SYGNIS AG, headquartered in Heidelberg and Madrid, is a life sciences company listed in the Prime Standard of the German Stock Exchange (Deutsche Börse). The company focuses on the development and marketing of innovative molecular biology technologies in the NGS (next-generation sequencing) sector. Its most important products currently on the market are TruePrime[™] (DNA amplification) and SunScrip[™] (translating RNA into DNA), which are sold both through their own marketing and through non-exclusive sales partnerships. Other products (e.g. DNA amplification through liquid biopsy) will shortly be launched to enter into high-volume markets (e.g. hospitals). SYGNIS AG is currently planning on acquiring Expedeon Holdings Ltd. through a capital increase in kind. This will expand the product range into the field of proteomics, the second most important sector in the field of life science. This will have important synergy effects, especially in the sales area, as Expedeon has a direct sales network in the most important life sciences markets worldwide.

P&L in EURm	31/12/2015	31/12/2016e	31/12/16e*	31/12/2017e	31/12/2018e
Revenue	0.56	3.66	5.53	9.59	15.25
EBITDA	-3.48	-2.10	-1.99	0.22	6.23
EBIT	-3.86	-3.27	-3.15	-0.94	5.06
Net Profit	-4.01	-3.36	-3.24	-1.08	4.75

*Pro forma consolidation, as if Expedeon Holding Ltd. was already consolidated per 01.01.2016

		-		
Ratios				
EV/Revenue	30.10	4.56	1.74	1.10
EV/EBITDA	neg.	neg.	76.64	2.68
EV/EBIT	neg.	neg.	neg.	3.30
P/E	neg.	neg.	neg.	4.12
P/B	1.88			

Financial Schedule

20.06.2016: Annual General Meeting

11.08.2016: Financial Report Q2 09.11.2016: Financial Report Q3 Date: publication / price target in € / rating

17/12/2015: RG / 3.75 / BUY

26/11/2015: RG / 3.75 / BUY

20/11/2015: RG / 3.75 / BUY

8/10/2015: RG / 3.75 / BUY

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EXECUTIVE SUMMARY

- SYGNIS AG plans on passing a resolution for a capital increase of up to 20.54m new shares at the Annual General Meeting on 20 June 2016. The core component of this capital measure is the acquisition of the life sciences company Expedeon through a planned capital increase in kind whereby the shareholders of Expedeon Holdings Ltd. will be able to transfer their participation in full against 15.72m SYGNIS shares (plus a cash settlement of EUR 1.70m).
- After the conclusion of this planned transaction, SYGNIS AG will have a majority shareholding in Expedeon Group, which is based in the UK and operates in the proteomics sector. This will combine the second important sector of molecular biology beside the core genetics segment within SYGNIS AG, leading to a horizontal expansion of the product range. This means that SYGNIS AG will have a presence in the fastest growing markets in the life sciences industry. Average annual growth of 20.8% is predicted for the core NGS (next-generation sequencing) market up to 2021. The proteomics sector should increase by an average of 15.4% annually up to 2019. A significant factor in this dynamic development is the high level of technological progress which should further increase the massive economies of scale, while at the same time an entry into high-volume markets (e.g. the hospital sector) will follow.
- With its products, SYGNIS AG is in an excellent position to participate in this development. With the completion of the product development, the company focuses now on the marketing of existing products and the short-term launch of new products. The planned acquisition of Expedeon will lead to an expansion of the product range and also to a quick growth in sales capacity. The Expedeon Group has direct sales channels in the UK, Germany, France, Asia and the USA, which is the largest market for life sciences applications. Furthermore, various OEM agreements have been closed in recent years, thus opening up additional sales channels. Synergy effects will result from the combination of production and administrative structures.
- We have included these in our consolidated (post-money) estimates. Both companies combined should grow more strongly due to the stated synergy effects than they would in their current standalone status. The expected high growth in revenue should result in breakeven in financial year 2018, and breakeven should even be reached on a quarterly basis in 2017. Expedeon Holdings Ltd. has already shown positive results for several years, and also has good internal financing capability.
- We have included the consolidated revenue and earnings estimates and the planned capital increase in our adjusted DCF valuation model. The resulting fair value per share at the end of the 2016 financial year corresponds to a target price of EUR 3.95 per share. We have therefore slightly raised the previous target price of EUR 3.75. The target price increase is due to the improved risk structure of the consolidated company (SYGNIS AG + Expedeon Holdings Ltd.) and reflects the potential synergy effects arising from the merger of the two companies. Based on the current share price of EUR 1.44, we rate it a BUY.



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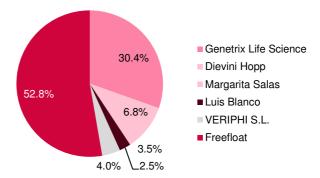
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COMPANY

Shareholder Structure

Shareholder	in %
Genetrix Life Science	30.4%
Dievini Hopp	6.8%
Margarita Salas	3.5%
Luis Blanco	2.5%
VERIPHI S.L.	4.0%
Freefloat	52.8%
Source: SYGNIS AG; GBC AG	



Capital measures for financing the acquisition of Expedeon

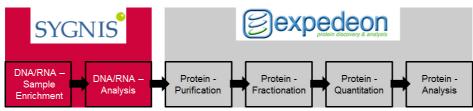
SYGNIS AG is planning on passing a resolution for a capital increase of up to 20.54m new shares at the Annual General Meeting on 20 June 2016, granting the shareholders subscription rights in a ratio of 9:11. The subscription price is expected to be set after the AGM, based on the current share price at that time.

For those shares that are not acquired by the company's shareholders through their subscription rights, the shareholders of Expedeon Holdings Ltd. (Expedeon) can participate in the capital increase in exchange for contributions in kind (the contributions in kind are their Expedeon shares). 15.72m SYGNIS shares could be issued to Expedeon shareholders if all the Expedeon shares are contributed. In addition to the capital increase in kind, an additional cash payment of EUR 1.7m will be made to the Expedeon shareholders (mixed contribution in kind).

Expedeon Holdings Ltd. product range

After the conclusion of this planned transaction, SYGNIS AG will acquire Expedeon Group which operates in the proteomics sector. This will combine genetics and proteomics, the two important sectors and growth markets of life science, within SYGNIS AG.

The Expedeon Group product range covers all significant elements and important key applications in the proteomics market. Expedeon sells products (gels) for electrophoresis, one of the most important applications for protein analysis. The Expedeon Group also sells mass spectrometers (protein measurement) and applications for protein processing and protein separation. The SYGNIS product range will be broadened horizontally with the acquisition of the Expedeon Group, as proteomics is a downstream to genomics in the sector of microbiology.



Source: SYGNIS AG; GBC AG



SYGNIS AG product range

The core activity of SYGNIS AG focuses on marketing the two products TruePrimeTM and SunScriptTM. The company also has partially out-licensed products such as SensiPhi[®] (out-licensed to Qiagen), Double Switch (out-licensed to SYSTASY and Thermo-Fisher) and Caco-2 (various licensing agreements).

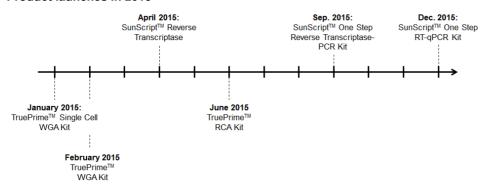
TruePrime[™]

The TruePrimeTM product family, based on the PrimPol enzyme, is used in the amplification of entire genomes from individual cells. It is based on multiple displacement amplification (MDA) technology, which requires a lower initial amount of DNA than comparable technologies. A further development in the SYGNIS TruePrimeTM products eliminates the need for a primer for the amplification of DNA (note: primer is the designation for the specific DNA section that is to be amplified). This means that primer-induced artefacts and distortions that normally occur are completely avoided. Overall, the use of TruePrimeTM provides high quality results and reproducibility together with high sensitivity.

SunScript[™]

This product family includes a series of kits that are based on a proprietarily developed reverse transcriptase (RT), which are some of the most thermostable and fastest commercially available enzymes. A reliable image of the original genetic information can be obtained through the conversion of genetic information from RNA to DNA. The Sun-ScriptTM kits available in the market are suitable for use in PCR analysis and for building up complementary DNA libraries, as they are required for example for next-generation sequencing applications. Products in the SunScriptTM family feature high thermal stability (up to 85° C) together with high reaction speed and overall high sensitivity.

Product launches in 2015



Source: SYGNIS AG; GBC AG

Three new products were launched in each in the TruePrimeTM and in the SunScriptTM product family in financial year 2015, which significantly expanded the product range. The TruePrimeTM product will expand in the field of liquid biopsy. The first TruePrimeTM liquid biopsy kit will be launched onto the market in the current financial year 2016. Liquid biopsy is an important area of application in the laboratory testing of liquid test material (urine, blood, etc.) in the main research area of cell-free DNA. For example, DNA or RNA fragments (e.g. tumour cells) that are transferred to the blood can be detected, reproduced and analysed. Using this procedure allows an earlier and minimally invasive diagnosis and also significantly reduced expenditure in time and costs. In our opinion, the liquid biopsy kit being launched in 2016 is a major step forward in breaking into the high-volume hospital market.



Planned new products in FY 2016



Source: SYGNIS AG; GBC AG



MARKET UND MARKET ENVIRONMENT

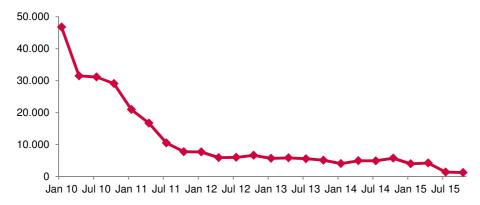
Market environment for SYGNIS products

The DNA analysis range of applications is now highly diversified, not only because of the technological development but also because of the associated cost advantages. Typical users of DNA sequencing include those involved in the pharmaceutical industry and clinical laboratories with an emphasis on medical applications. Moreover, genetic analysis is now also applied in other areas, such as in agriculture or in the chemical production of consumer goods. The upshot of this is that the long-term potential of SYGNIS technology is not tied to just one industry, although the use in medical research and diagnostics is likely to continue to predominate.

Overall, the NGS market has a high growth potential. The market research organisation MarketsandMarkets expects a compound annual growth rate (CAGR) between 2016 and 2021 of 20.8 %, or USD 10.3 billion (2016: USD 4.0 billion). Technological development and a related increasing number of areas of application for next generation sequencing are cited as important factors. This assumes an increasing shift of NGS from research (laboratories) to volume markets (hospitals).

A significant driving force in this is personalised medicine, with its related identification of biomarkers. Improved application of DNA amplification and DNA sequencing are the basis of market growth. With the new sequencing techniques, it has become possible to read the human genome at a reasonable cost and in a lesser amount of time. While reading a genome still cost USD 95m in 2001, it only cost around USD 47,000 in 2010 and only around USD 1,245 in 2015. This huge drop in costs, primarily driven by technology, enables the application of genetic analysis on an industrial scale, thus opening up new revenue sources.

Sequencing costs per genome (in USD)



Source: National Human Genome Research Institute; GBC AG

For example, biomarkers contribute to identifying the individual genetic characteristics of a patient that caused a disease to develop. Reading the genetic information of a patient using DNA sequencing is a critical factor. These genetic data are then used as the basis for patient-specific, individualized treatment. The greatest benefit of personalized medicine is highly individualised treatment that usually provokes a better response from the patient. Due to early identification and elimination of incompatibilities, treatment effectiveness (prevention of serious disease outcomes, fewer side effects, and avoidance of additional measures and personnel costs) is improved, which also results in improved efficiency and, consequently, cost savings in the health system. This would be of particular benefit in the field of DNA sequencing, although this is only a partial area of applica-



tion. Specifically, technological progress would open up new market sectors for providers of DNA sequencing.

With its product range, SYGNIS AG operates in a market environment that is likely to be characterised by high growth rates from the medical side alone. Furthermore, new areas of application for DNA sequencing and DNA amplification should ensure additional growth.

Market environment for Expedeon products

Along with the NGS market, the proteomics market will mainly benefit from technological development and increasing demand for applications related to personalised medicine. Proteomics focuses on the structure and function of proteins, with the important aim of cataloguing all the proteins in an organism and deciphering their functions. The structural plans of proteins are found in the more static genetic materials (genetics), where DNA acts as an information carrier and proteins consisting of amino acids assume a variety of tasks (antibodies, enzymes, etc.).

Key technologies for protein analysis include protein purification and the quantitative analysis of protein expression. These subfields are covered by Expedeon. Since all processes in the human organism are determined by proteins, new active pharmaceutical ingredients are built on findings from proteomics. Thus for example, individual damaged proteins that have been identified and analysed as relating to a specific illness can be blocked using newly-developed compounds and thus be deactivated.

The structural market drivers of the proteomics market are thus associated with the diagnosis and medical development sectors. The proteomics market had an estimated volume of USD 10.2 billion in 2013 and should increase at an average compound annual growth rate (CAGR) of 15.4% to USD 22.8 billion by 2019. Major drivers in this are the pharmaceutical industry and the technological developments in gene and protein analysis (Source: Global Proteomics Market - Segmented by Technology, Services, Application and by Geography - Growth, Trends and Forecasts (2014 - 2019)).

The most important regions for the proteomics market are North America (40% market share), followed by Europe and Asia. This order is not likely to change in the next few years, although the Asian market is expected to catch up. With its sales focus in the USA, the UK, Europe and Asia, Expedeon has a presence in the most important proteomics markets.



KEY DATA

Key Data - SYGNIS AG

Revenue and earnings performance

P&L (in EURm)	FY 2013	FY 2014	FY 2015	Q1/2016
Revenue	0.48	0.39	0.56	0.09
EBIT	-4.28	-3.21	-3.86	-0.67
Net profit	-3.20	-3.48	-4.01	-0.68

Source: SYGNIS AG; GBC AG

As is to be expected, SYGNIS AG still exhibits a small revenue base. The revenue achieved in 2015 of EUR 0.56m (previous year: EUR 0.39m) was below expectations (company forecast in the 2015 half-year report: EUR 0.5m - EUR 0.7m).

The company focused on the introduction of kits for its TruePrimeTM and SunScriptTM product families in 2015 and on expanding non-exclusive sales partnerships for next-generation sequencing (NGS) in the most important regions. Although SYGNIS AG recorded increasing interest in the six kits that were introduced in 2015, it had to give large discounts to customers and distributors since it was still early in the marketing phase. According to the company, increased demand and follow-up orders from customers were evident in the second half of 2015. As in the same period in the previous year, the predominant share of revenue was generated through the marketing of Caco-2 licence rights in the USA, amounting to EUR 0.25m (previous year: EUR 0.3m). Revenue was also generated by kit sales, licence revenue from the double-switch technology and for the QualiPhi technology out-licensed to Qiagen.

The trend toward higher kit sales noted in the second half of the year continued into the first quarter of 2016. Altogether, revenue increased to EUR 0.09m in the first quarter of 2016 (Q1 2015: EUR 0.08m).

SYGNIS AG has significantly reduced R&D-expenses based on the now fully developed technologies. The company is now clearly focused on building a mostly non-exclusive sales network as a basis for expanding its own marketing. While the out-licensing of products developed in-house was a focus in the past, it should be possible to make more intensive use of the sales potential in marketing the company's own products with the help of sales partnerships.

Marketing expenses vs. R&D-expenses (in EURm)



Source: SYGNIS AG; GBC AG; *special effect in the amount of EUR 0.15m

This strategy entails a fundamental reduction in R&D applications together with an increase in sales costs. This can be seen as evidence of the higher market maturity of SYGNIS' product pipeline. In this context, in April 2015 Dr. Miguel Viribay has been named the new Vice President of Marketing and Sales. In addition, the SYGNIS online



shop was set up in January 2015, promotional material was developed and contact with opinion leaders in molecular biology was sought.

In light of the still low revenue base, operating profit (on an EBIT basis) is still negative, as expected, at EUR -3.86m (previous year: EUR -3.21m). The decline in EBIT is primarily a result of non-recurring expenses in the administrative and R&D areas. The adjustment to administrative structures by a reduction in the number of employees in administration and the move to smaller offices in Heidelberg (no more basic research) were accompanied by non-recurring extraordinary expenses of EUR 0.67m. Adjusted EBIT of EUR -3.19m was thus slightly above the previous year's figure.

The adjustment to administrative structures had a slightly positive effect on the earnings performance in the first three months of 2016. The decrease in administrative expenses led to a slight improvement in EBIT to EUR -0.67m (Q1 2015: EUR -0.72m).

Balance sheet and financial situation as of 31/03/2016

in EURm	31/12/2014	31/12/2015	31/03/2016
Shareholder's Capital	8.34	10.41	9.72
Equity ratio (in %)	66.5%	74.2%	75.7%
Liquid assets	3.76	4.56	3.37
Operating Cashflow	-3.58	-3.82	-1.06
Investment – Cashflow	-0.62	-0.53	-0.12
Financing - Cashflow	5.44	4.74	0.00

Source: SYGNIS AG; GBC AG

In the company's current stage, in which the marketing the company's own products, which were primarily launched in 2015, is still at a low level, special attention is being paid to the cash position of SYGNIS AG. After the successful capital increase carried out in December 2015 (gross inflow: EUR 6.20) liquidity as of 31 December 2015 increased to EUR 4.56m. This fell to EUR 3.37m as of 31 March 2016, due to the still low revenue base and the lack of cash inflow from the operating business. According to company data, the available liquid assets, bearing in mind the business plan, will be sufficient to achieve the planned breakeven on a quarterly basis in 2017.

With a high equity ratio of 75.7% (31/12/2015), it is evident that SYGNIS AG is financed primarily by equity, which has been acquired in the last few financial years primarily through capital increases. Losses carried forward recognised in equity of EUR 84.06m (31/12/2015) are an important asset, lowering the future tax burden when positive revenue contributions occur. Debt consists largely of government interest-free development ("soft") loans of EUR 2.11m. Only EUR 0.2m is due for repayment over the next twelve months.



Key Data - Expedeon Holdings Ltd.

Revenue and earnings performance

P&L (in GBPm)	FY 2013	FY 2014	FY 2015
Revenue	1.58	1.82	1.93
EBITDA	0.22	0.20	0.26
EBIT	0.09	0.13	0.17
Net profit	0.09	0.15	0.14

Source: AGM-Invitation of SYGNIS AG

Sales and revenue figures for the soon-to-be-acquired company Expedeon Holdings Ltd. were published in the invitation to the SYGNIS Annual General Meeting released on 9 May 2016. The figures shown in the AGM invitation and used by us are part of a business valuation of SYGNIS AG and Expedeon conducted by valuation company Bioscience Valuation BSV GmbH.

Due to the sale of protein analysis products, Expedeon achieved a significantly higher level of revenue of GBP 1.93m compared with SYGNIS AG. The prefabricated gels are marketed as part of an analysis system to customers that do not produce these kinds of consumer products themselves. The company's most important customers are OEMs and, just like SYGNIS' customers, laboratories and research institutions.

Expedeon has been able to establish a positive level of earnings over the last few financial years. The company generated EBITDA of GBP 0.26m in financial year 2015 (previous year: GBP 0.2m), corresponding to an EBITDA margin of 13.5 % (previous year: 11.0 %). The fact that a positive operating result was achieved at this revenue level is an indication of the company's lean cost structure, with operating costs of only GBP 1.67m (previous year: GBP 1.62m). Achieving a higher level of revenue should be accompanied by economies of scale, and therefore a disproportionate increase in earnings.

Balance sheet and financial situation as of 31/12/2015

in Mio. GBP	31/12/2013	31/12/2014	31/12/2015
Shareholder's Capital	1.23	1.36	1.52
Equity ratio (in %)	78.8%	65.4%	62.3%
Liquid assets	0.24	0.25	0.46
Operating Cashflow	0.13	0.14	0.27
Investment – Cashflow	-0.15	-0.48	-0.11
Financing – Cashflow	0.04	0.35	0.05

Source: AGM-Invitation of SYGNIS AG

The most important finding in the Expedeon balance sheet and statement of cash flow shown in the AGM invitation is the internal financing capability that the company has already achieved. Against the background of its established breakeven status, the operating cash inflow in the previous financial year 2015 was sufficient for the company to finance necessary investments from its own funds. Basically, this means that the financing of operations is carried out using its own resources, without any injections of capital. In our opinion, Expedeon is as much as two years ahead of SYGNIS AG in its business development in this regard.



FORECASTS AND VALUATION

Reasons for the acquisition of Expedeon Holdings Ltd.

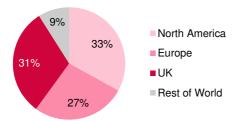
We have developed the following revenue and earnings estimates based on a consolidation (post-money) of the two companies SYGNIS AG and Expedeon Holdings Ltd. We have summarised the stand-alone estimates of each company, taking into account any anticipated synergy effects.

Access to sales channels and sales team in the USA and Asia

The strongest argument for the planned acquisition is access to already established sales channels and the related acquisition of an in-house sales team. Currently SYGNIS markets its products through sales partnerships and via its own sales channels, primarily via the online shop. SYGNIS AG has not yet had any influence on the intensity of the marketing activities of its sales partners, especially when marketing through sales partnerships. Furthermore, a higher level of technical support is required in the demanding application of SYGNIS products, which can only be provided by non-exclusive sales partners on a very limited basis, so the user has to turn directly to SYGNIS AG customer service in Madrid or Heidelberg, which can be more expensive, depending on the country.

The development of its own multinational sales team would actually be necessary given the context, but there would be a high cost attached. SYGNIS regards the marketing of the technologically fully developed products as the most important criterion for rapidly growing revenue.

Sales regions of the Expedeon group



Source: SYGNIS-presentation (may 2016)

The Expedeon Group has direct sales channels in the UK, Germany, France, Asia and the USA, the largest and most important market for life sciences applications. This means that the Expedeon Group derives more than half of its revenue from its own direct sales. SYGNIS AG can use the distribution channels and sales team of the Expedeon Group to significantly increase the presence of its products in the most important markets.

Furthermore, the Expedeon Group has concluded various OEM agreements over the last few years. For example, an OEM agreement was concluded in December 2015 with TANON, a Chinese market leader in the proteomics sector. As a result, the Expedeon Group has acquired direct access to the Chinese market. Since SYGNIS products could also be incorporated under Expedeon's OEM agreements, this would lead to an additional boost in sales revenue and worldwide presence.



Pooling production capacities

Possible synergy effects will also result from pooling of production capacities and manufacturing processes, which should result in a noticeable drop in operations costs, and a consequent increase in product-related profit margins. It is planned to make joint use of Expedeon's existing production facilities in the USA (San Diego, California) and in the UK (Cambridge) in the future.

In the 2015 financial year, the operating focus of SYGNIS AG was on launching new products and building up sales channels. Due to the still low level of revenue, the company's operating profit was negative, as expected. Expedeon, the company to be acquired, has, in contrast, operated profitably for several years and achieved an EBITDA margin of 13.5 % in 2015. Overall, after the merger both companies should be in a position to optimise costs, and thus also rapidly achieve breakeven on an overall company basis. Basically, the aim will then be to achieve significant economies of scale.

Consolidated revenue and earnings estimates

P&L (in EURm)	FY 16e (Pro Forma)*1	FY 2016e ^{*2}	FY 2017e	FY 2018e
Revenue	5.53	3.66	9.59	15.25
EBITDA	-1.99	-2.10	0.22	6.23
EBIT	-3.15	-3.27	-0.94	5.06
Net profit	-3.24	-3.36	-1.08	4.75

Source: GBC AG; consolidated forecasts (Post Money) of SYGNIS AG und Expedeon Holdings Ltd., ¹Pro forma consolidation, as if Expedeon Holding Ltd. was already consolidated per 01.01.2016; ²Expedeon is expected to be consolidated from Q3 2016 on

Consolidated revenue estimates

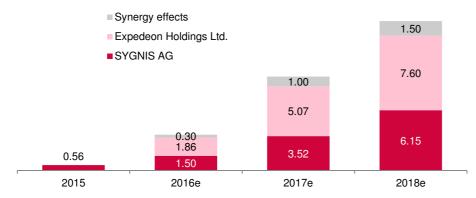
The respective stand-alone estimates for the two companies, taking into account the following synergy effects and additional integration costs, form the basis for our consolidated estimates. Thus, we expect revenue for SYGNIS AG for the current 2016 financial year of EUR 1.5m (SYGNIS guidance as per 2015 Annual Report: EUR 1.2m - 1.5m). In the previous 2015 financial year, Expedeon had revenue of GBP 1.95m (EUR 2.62m), and should experience a revenue increase to GBP 2.75m (EUR 3.73m) in 2016.

As expected, SYGNIS revenue will be characterised by higher demand for its own TruePrimeTM and SunScriptTM technologies that have already been launched onto the market, and for upcoming new products. The planned expansion of the TruePrimeTM product range in 2016 through the field of DNA amplification in the context of liquid biopsy, an important area of application in laboratory testing of liquid test material (urine, blood, etc.), is a particular factor in this. Earlier and minimally invasive diagnosis and significantly reduced expenditure in time and money can be achieved using this procedure. In our opinion, the liquid biopsy kit being launched in 2016 is a major step forward in breaking into the high-volume hospital market. It is our basic assumption that NGS applications with increasing cost efficiency are becoming increasingly attractive for commercial applications.

Along with this, we expect an acceleration in revenue growth at Expedeon Holdings Ltd. due to further OEM agreements. Our revenue and earnings estimates for Expedeon Holdings Ltd. are based on the estimates presented in the invitation to the SYGNIS AGM. It is important to note that Expedeon will only be fully consolidated in the third quarter 2016 and therefore the revenues and earnings are only recognized on a proportionate basis for the current fiscal year 2016.



Consolidated revenue forecasts (in EURm)

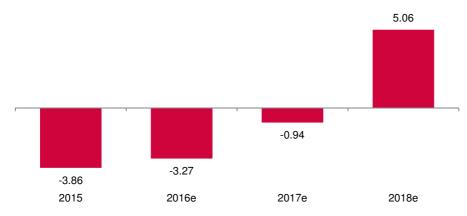


Source: GBC AG

We have also taken into consideration possible synergy effects of the consolidation of the sales channels, with a particular focus on the use of Expedeon's direct sales channels in the most important markets for life science applications, and the use of existing and new OEM partnerships. Further additional revenue potential of EUR 1.5m should be generated by financial year 2018.

Consolidated earnings estimates

Consolidated EBIT-estimates (in EURm)



Source: GBC AG

Possible synergy effects, particularly in connection with the consolidation of administrative structures and production capacities, play an important role in our earnings estimates. However, initially the current capital measures and the subsequently planned acquisition of Expedeon will be accompanied by additional expenses. Along with the costs directly related to the transaction, we have also taken into consideration such items as PPA amortisation from access to Expedeon intangible assets (IP and licensing rights) in our earnings estimates. As Expedeon has already generated positive results for several financial years, this ought to be the case for (consolidated) SYGNIS AG in financial year 2018. On a quarterly basis, the breakeven should be reached in the next 2017 financial year.

High profit margins are possible as a consequence of economies of scale and synergy effects. We anticipate an EBITDA margin of 50% and an EBIT margin of over 45% in the long term.



Accounting for capital measures in our DCF model

SYGNIS AG is planning on passing a resolution for a capital increase through issuing 20.54m new shares, which grants the shareholders subscription rights in a ratio of 9:11. The subscription price is yet to be determined and will be based on the current share price at that time.

For those shares that are not acquired through subscription rights, the shareholders of Expedeon Holdings Ltd. can participate in the capital increase by making contributions in kind. 15.72m SYGNIS shares could be issued to Expedeon shareholders if all the Expedeon shares are contributed, together with an additional cash settlement of EUR 1.70m.

We anticipate that 4.82m shares will be issued through the exercise of subscription rights and that 15.72m shares will be issued through the capital increase in kind.



Valuation

Model assumptions

We rated SYGNIS AG using a three-stage DCF model. Starting with the specific consolidated estimates for the years 2016-2018 in phase 1, the outlook for 2019 to 2023 was developed in phase 2 using value drivers. We expect increases in revenue of 15.0 %. We have set 50.0% as the target EBITDA margin. We have included the tax rate in phase 2 at 15.0%, based on the remaining losses carried forward. Additionally, after the end of the forecast horizon, a residual value is determined in the third phase by means of a perpetual annuity. As the final value, we assume a growth rate of 3.0 %.

Determining the capital costs

The weighted average cost of capital (WACC) of SYGNIS AG is calculated from the equity cost and the cost of debt. The market premium, the company-specific beta, as well as the risk-free interest rate have to be determined in order to determine the equity cost.

The risk-free interest rate is derived from the current structured interest rate curves for risk-free bonds in accordance with the recommendations from the "Fachausschuss für Unternehmensbewertung und Betriebswirtschaft" (FAUB, Special Committee for Business Valuation and Business Management) of the "Institut der Wirtschaftsprüfer in Deutschland e.V." (Institute of Public Auditors in Germany). This is based on the zero bond interest rate calculated using the Svensson Method published by the German Bundesbank. In order to compensate for short-term market fluctuations, the average returns for the previous three months are used and the result is rounded up to the nearest 0.25 basis points. The value currently used for the risk-free interest rate is 1.00 % (previously: 1.50 %).

We set the historical market premium of 5.50 % as a reasonable expectation of the market premium. This is supported by historical analyses of equity market returns. The market premium reflects in a percentage the improved return expected from equity markets relative to low-risk government bonds.

According to GBC estimates, a beta of 1.41 is currently determined (previously: 1.61). The reduction of a specific beta is due to the stabilisation of earnings and cash flow as a result of the consolidation of Expedeon Holdings Ltd. Using the premises provided, the equity cost is calculated at 8.78 % (previously: 9.84 %) (beta multiplied by risk premium plus risk-free interest rate). As we assume a sustainable weighting of the equity cost of 90 % (previously: 85 %), the result is a weighted average cost of capital (WACC) of 8.43 % (previously: 9.15 %).

Valuation results

The discounting of future cash flows is based on the entity approach. We have calculated the corresponding weighted average cost of capital (WACC) to be 8.43%. The resulting fair value per share at the end of the 2016 financial year corresponds to the stock target price of EUR 3.95. We have therefore slightly raised the previous price target of EUR 3.75. The target price increase is due to the improved risk structure of the consolidated company (SYGNIS AG + Expedeon Holdings Ltd.) and reflects the potential synergy effects arising from the merger of the two companies.



DCF-model

SYGNIS AG - Discounted Cashflow (DCF) model scenario

Value driver of the DCF - model after the estimate phase:

consistency - phase	
Revenue growth	15.0%
EBITDA-Margin	50.0%
Depreciation to fixed assets	8.5%
Working Capital to revenue	2.7%

final - phase	
Eternal growth rate	3.0%
Eternal EBITA - margin	50.0%
Effective tax rate in final phase	27.0%

three phases DCF - model:									
phase	estimate			consist	ency				final
in €m	FY 16e	FY 17e	FY 18e	FY 19e	FY 20e	FY 21e	FY 22e	FY 23e	value
Revenue	3.66	9.59	15.25	17.53	20.16	23.19	26.66	30.66	
Revenue change	560.3%	161.7%	58.9%	15.0%	15.0%	15.0%	15.0%	15.0%	3.0%
Revenue to fixed assets	0.33	0.88	1.23	1.23	1.70	1.70	1.70	1.70	
EBITDA	-2.10	0.22	6.23	8.77	10.08	11.59	13.33	15.33	
EBITDA-Margin	-57.4%	2.3%	40.9%	50.0%	50.0%	50.0%	50.0%	50.0%	
EBITA	-3.27	-0.94	5.06	7.71	8.87	10.58	12.17	14.00	
EBITA-Margin	-89.1%	-9.8%	33.2%	44.0%	44.0%	45.7%	45.7%	45.7%	50.0%
Taxes on EBITA	0.00	-0.03	-0.51	-0.77	-0.89	-1.59	-1.83	-2.10	
Taxes to EBITA	0.0%	-2.9%	10.0%	10.0%	10.0%	15.0%	15.0%	15.0%	27.0%
EBI (NOPLAT)	-3.27	-0.97	4.55	6.94	7.98	9.00	10.35	11.90	
Return on capital	-202.6%	-9.5%	43.5%	55.8%	54.1%	72.5%	72.5%	72.5%	61.1%
Working Capital (WC)	-1.00	-0.50	0.00	0.47	0.54	0.63	0.72	0.83	
WC to revenue	-27.3%	-5.2%	0.0%	2.7%	2.7%	2.7%	2.7%	2.7%	
Investment in WC	0.38	-0.50	-0.50	-0.47	-0.07	-0.08	-0.09	-0.11	
Operating fixed assets (OAV)	11.20	10.95	12.43	14.29	11.86	13.64	15.68	18.04	
Depreciation on OAV	-1.16	-1.16	-1.17	-1.06	-1.21	-1.01	-1.16	-1.33	
Depreciation to OAV	10.4%	10.6%	9.4%	8.5%	8.5%	8.5%	8.5%	8.5%	
Investment in OAV	-10.13	-0.91	-2.65	-2.92	1.22	-2.79	-3.21	-3.69	
Capital employed	10.20	10.45	12.43	14.76	12.40	14.26	16.40	18.87	
EBITDA	-2.10	0.22	6.23	8.77	10.08	11.59	13.33	15.33	
Taxes on EBITA	0.00	-0.03	-0.51	-0.77	-0.89	-1.59	-1.83	-2.10	
Total investment	-17.94	-1.41	-3.15	-3.39	1.14	-2.87	-3.30	-3.79	
Investment in OAV	-10.13	-0.91	-2.65	-2.92	1.22	-2.79	-3.21	-3.69	
Investment in WC	0.38	-0.50	-0.50	-0.47	-0.07	-0.08	-0.09	-0.11	
Investment in Goodwill	-8.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cashflows	-20.04	-1.22	2.58	4.60	10.34	7.14	8.21	9.44	202.04

Value operating business (due date)	142.01	155.20
Net present value explicit free Cashflows	27.33	30.85
Net present value of terminal value	114.68	124.35
Net debt	-5.32	-3.99
Value of equity	147.33	159.19
Minority interests	0.00	0.00
Value of share capital	147.33	159.19
Outstanding shares in m	37.34	37.34
Fair value per share in €	3.95	4.26

capital		7.4%	7.9%	WACC 8.4%	8.9%	9.4%
<u>8</u>	59.1%	4.75	4.25	3.84	3.50	3.22
ē	60.1%	4.82	4.31	3.89	3.55	3.26
Ξ	61.1%	4.89	4.37	3.95	3.60	3.31
Return	62.1%	4.96	4.43	4.00	3.64	3.35
Œ	63.1%	5.03	4.49	4.05	3.69	3.39

Cost of capital:	
Risk free rate	1.00/
	1.0%
Market risk premium	5.5%
Beta	1.41
Cost of equity	8.8%
Target weight	90.0%
Cost of debt	7.0%
Target weight	10.0%
Taxshield	25.0%
WACC	8.4%



ANNEX

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