GBC AG
Investment Research

Research Report (Anno)

SYGNIS AG

SYGNIS

„Commercialisation of the main product has started; substantial improvement in revenue and earnings expected“

Target price: 6.00 €

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) on page 19

Completion: 15/04/2014 **First Publication: 16/04/2014**

SYGNIS AG[*4;5]

BUY
Price Target: € 6.00

current price 4.52
15/4/2014 / ETR / 12:08
currency: EUR

Key date:

ISIN: DE000A1RFM03
WKN: A1RFM0
Ticker symbol: LIO1
Number of shares[3]: 10.535
Marketcap[3]: 47.51
EnterpriseValue[3]: 47.38
[3] in m / in EUR m
Freefloat: 16.0 %

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

Financial year-end: 12/31

Designated Sponsor:
EQUINET

Analyst:

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* catalogue of potential conflicts of interests on page 20

Company profile

Sector: Biotechnology

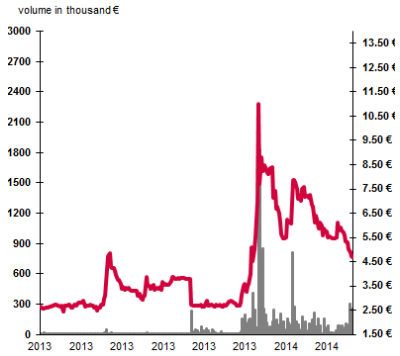
Focus: development and commercialisation of DNA-technologies

Employees: 19 (31/12/2013)

Founded in: 1997

Headquarter: Heidelberg

Executive Board: Pilar de la Huerta



SYGNIS AG, headquartered in Heidelberg and Madrid, is a life sciences company listed on the Prime Standard of the German Stock Exchange. According to the new business strategy outlined in 2012, the company focuses on the development and commercialisation of novel molecular biology technologies, for example in the area of DNA amplification and sequencing. In July 2012, the company closed an exclusive global licensing agreement with Qiagen for the commercialisation of the lead product "SensiPhi" (formerly known as QualiPhi), an improved polymerase for DNA amplification. The product portfolio further includes new tools for next-generation sequencing (NGS) technologies, such as QualiPhi mutants and PrimPol, both close to market launch. Out-licensing is additionally planned for the fourth technology, DoubleSwitch, which allows for the measurement of protein-protein interactions.

P&L in EURm \ Due Date	31/12/2013	31/12/2014e	31/12/2015e	31/12/2016e
Revenue	0.48	2.52	3.91	8.22
EBITDA	-3.40	-1.05	0.18	4.30
EBIT	-4.28	-1.17	0.03	4.15
Net profit	-3.20	-0.93	-0.04	3.43

Figures in EUR				
Net profit per share	-0.30	-0.09	0.00	0.32
Dividende per share	0.00	0.00	0.00	0.00

Ratios				
EV/Revenue	98.71	18.80	12.12	5.77
EV/EBITDA	neg.	neg.	263.24	11.02
EV/EBIT	neg.	neg.	1579.43	11.42
P/E	neg.	neg.	neg.	13.84
P/B	7.98			

Financial Schedule:
13/05/2014: Financial Report Q1
14/08/2014: Financial Report Q2
11/11/2014: Financial Report Q3

**last research published by GBC:
Date: publication / price target in € / rating
25/11/2013: RS / 4.35 / BUY
29/10/2013: RS / 4.35 / BUY
4/10/2013: RS / 4.35 / BUY
17/7/2013: RG / 4.55 / BUY
3/7/2013: RS / 4.55 / BUY
** the research reports can be found on our website www.gbc-ag.de or can be requested at GBC AG, Halderstr. 27, D86150 Augsburg

EXECUTIVE SUMMARY

- As expected, SYGNIS AG still generated low revenues in the completed 2013 financial year, reaching a figure of EUR 0.48 million (PY: EUR 0.21 million). This is attributable to the lack of commercialisation revenues in the 2013 financial year for the current main product SensiPhi®, whose marketing (marketing partner: Qiagen) commenced in the first quarter of 2014.

- SYGNIS AG has successfully ended the restructuring and thus adjustment of the organisation to the new business model and should thus profit from economies of scale in the future. In the 2013 financial year already, the operational costs at €4.77m were substantially below those of the previous year (pro forma figures FY 2012: €9.89m). This indicates a lean organisational structure.

- SYGNIS AG has a well-filled pipeline with three products, for which an outlicensing is to be assumed for the current 2014 financial year. The main product SensiPhi® (former name: QualiPhi®) was already outlicensed in the 2012 financial year to the marketing partner Qiagen, one of the leading companies for sample and test technologies. The marketing of SensiPhi®, which constitutes the basis for two Qiagen kits for the amplification of complete genomes (DNA) and transcriptomes (RNA) from individual cells (REPLI-g WTA Single Cell Kit and REPLI-g Cell WGA & WTA Kit) started in the first quarter of 2014. The strong strategic alignment of Qiagen to the NGS market is of benefit here, meaning that an intensive and continuous marketing is to be assumed.

- In the 2013 financial year, SYGNIS AG substantially improved its liquidity situation both via a capital increase (net proceeds: €2.84m) and via loans from major shareholders. As of 31/12/2013, the liquid funds amount to €2.20m and, in our opinion, should be sufficient until the break-even is reached.

- On an EBIT basis, the company should be able to reach the break-even pursuant to the current estimate in the forthcoming 2015 financial year. The basis of this forecast is primarily the expected marketing revenues of SensiPhi®, as well as the outlicensing and marketing of other products that have already been fully developed. For the 2014 financial year, we are anticipating revenues amounting to €2.52m (company guidance: €2.00m - €2.50m). In the forthcoming financial years, it is expected that significant amounts will be generated from the marketing of the product pipeline. We are anticipating revenues amounting to €3.91m (FY 2015e) and €8.22m (FY 2016e).

- In light of the increasing revenue basis and a lean organisational structure, the growth of earnings should be higher compared to revenue growth. This reflects our long-term expected high EBIT margin of 65.0%.

- Based on a DCF model, we have determined a fair value per share of €6.00. In light of the current price levels, we are renewing our BUY rating.

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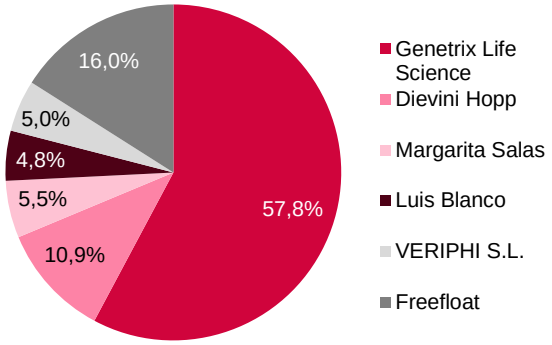
COMPANY

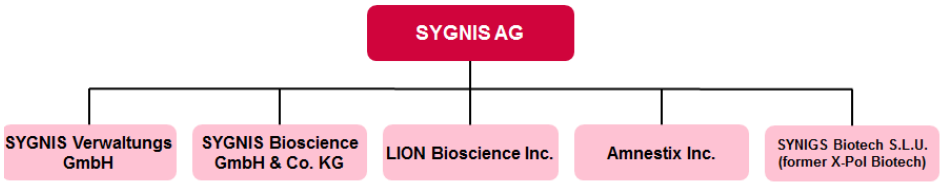
Shareholder structure

Shareholder	in %
Genetrix Life Sciences A.B.	57.8
Dievini Hopp Bio Tech Holding GmbH & Co. KG	10.9
Margarita Salas	5.5
Luis Blanco	4.8
VERIPHI S.L.	5.0
Freefloat	**16.0**

Source: SYGNIS AG; GBC AG



Company structure



Source: SYGNIS AG; GBC AG

In 2012, the company merger between SYGNIS Biotech S.L.U. (formerly X-Pol Biotech S.L.U.) and the former SYGNIS Pharma AG took place, which resulted in both structurally and operationally substantial changes. The current consolidation group of SYGNIS AG is depicted by five fully-owned subsidiaries, with the regional focus on Heidelberg and Tres Cantos (Madrid), Spain. At both sites, the company has business and laboratory premises with a total area of almost 1,000 sqm. The operational activities and thus the development tasks are currently located in the subsidiaries SYGNIS Biotech S.L.U. and SYGNIS Bioscience GmbH & Co. KG.

Product portfolio

With the company merger conducted in 2012 (as part of a “reverse acquisition”), the development activities of the former SYGNIS Pharma AG were relinquished. Whereas the focus up to now was on the comparatively time and capital-intensive drug development (for instance the KIBRA project, which was ceased in full in 2012), the current focus is on the development of new biotechnological products in the field of molecular biology. As no lengthy clinical sampling phases are necessary for these products, the company has a lower risk profile as well as a shorter “time to market” after the restructuring was carried out.

The current number of projects incorporates seven projects, of which four are already developed products ready for market that are specifically tailored to the requirements of the Next Generation Sequencing (NGS: accelerated procedure for the reading of sequence information of a DNA molecule). Based on the following depiction, it becomes clear that the project portfolio of SYGNIS AG has projects that are already in a far-developed stage.

Product portfolio of SYGNIS AG

Project	Field of application	Research & development	Marketing	License	Market
SensiPhi (formerly: QualiPhi)	DNA-Amplification				
Novel QualiPhi mutants	DNA/Next Generation Sequencing				
PrimPol	DNA/Next Generation Sequencing				
Double Switch	Protein-Protein-Interaction screening technology				
DNA repair KIT	DNA-Amplification				
ProPhi	Proteomics				
TransPhect	Cell transphection				

Source: SYGNIS AG; GBC AG

SensiPhi® (formerly QualiPhi®)

The main product of the company, SensPhi®, is an improved version of the phi-29 DNA polymerase and, according to company information, offers better features than the polymerases currently available on the market. It is an enzyme that has been developed by the company, meaning that DNA multiplication from smaller input volumes, with less time and greater efficiency is possible. This is beneficial in particular in light of the fact that in most cases the existing DNA is only available in small quantities and is thus not sufficient for diagnostic, forensic or scientific analyses. Because of the said benefits, SYGNIS AG ascribes SensiPhi® the potential to replace already existing technologies in many applications.

With the outlicensing of SensiPhi® to Qiagen, one of the global leaders in sample and test technologies, the proof of concept has already been provided. The SYGNIS technology forms the basis for two amplification kits, REPLI-g WTA Single Cell Kit and REPLI-g Cell WGA & WTA Kit for the multiplication of the entire DNA (WGA; whole genome amplification) or RNA (WTA, whole transcriptome amplification) from just individual cells. These are now marketed globally by Qiagen under the licence agreement dating from 2012, which will result in revenue-dependent licence earnings for SYGNIS AG.

REPLI-g WTA Single Cell KIT

price: 1.207,00 €

REPLI-g Cell WGA & WTA Kit

price: 835,00 €

Source: Qiagen N.V.

In this regard, the strategic alignment of Qiagen is of fundamental importance as, in our opinion, the strategy of the marketing partner is a decisive factor for the success of the SYGNIS product. According to the latest company reports from Qiagen, it becomes clear that the company places a strong focus on the NGS market in its product development strategy and conducts continuous marketing (communication at specialist congresses, etc.).

Novel QualiPhi® mutants

The Phi29 polymerases are not only used in amplification but also facilitate at the same time the reading of the nucleotide sequence (sequence of the individual components of a DNA). The requirements profile of a polymerase used for this differs, however, from the pure DNA amplification with regard to the reading accuracy and the process activity. In order to also cover this area of application, SYGNIS develops new QualiPhi mutants in line with requirements and which are specifically adapted to the requirements of Next Generation Sequencing (NGS).

PrimPol

As a new enzyme which was developed for the amplification of RNA and/or DNA (explanatory note: DNA reflects the genetic characteristics of a person, e.g. a predisposition to develop a certain illness, whereas the RNA reflects the resulting processes in a cell), PrimPol has shown improved features. Due to the possibility, for instance, of also reliably multiplying damaged DNA material or preserved samples, PrimPol should also generate a high degree of interest. In light of this, the current technology is not yet designed for damaged input materials, meaning that the technology developed by SYGNIS AG is to be seen as an innovation in this area.

DoubleSwitch

The determination of protein-protein interactions is a fundamental element for the understanding of molecular processes, e.g. in the development of illnesses. A protein-protein interaction is to be seen as an interaction between two or more proteins and plays a key role in all biological processes in which proteins are involved. Such interactions can be measured with the modularly structured DoubleSwitch technology developed by SYGNIS, which ultimately facilitates the development of customised active ingredients. The technology is protected by two fundamental patents that were awarded in both Europe and the USA and have a term until 2023/2024.

DNA repair KIT

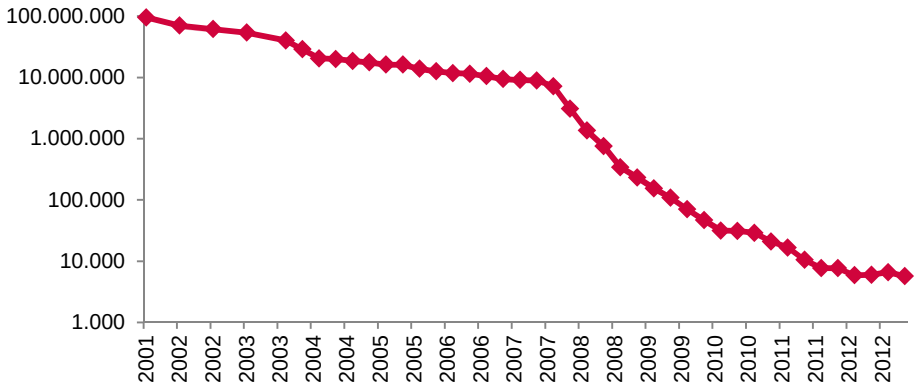
Pursuant to the company strategy, according to which new products are to be continually developed and then marketed, the development activities concerning a DNA repair KIT were started. The aim is the restoration of damaged DNA material which can then be analysed. This project could, for instance, be marketed after its completion in combination with the Sygnis products already described.

According to company information, the development focus of the ongoing financial year will be on the DNA repair kit and on other products already initiated. With the development already started of the products ProPhi and TransPhect, SYGNIS AG is also intending to address the associated areas of proteomics (deciphering and categorisation of all proteins in the organism) and of transfection (transfer of foreign DNA to a host cell).

MARKET AND MARKET ENVIRONMENT

An important determinant of the market environment for the DNA sequencing and DNA amplification, i.e. for the products of SYGNIS AG, is to be found primarily in the technological progress in this area. Increasing technological progress in combination with a resulting development in costs and efficiency when reading and multiplying the DNA should facilitate a more intensive and broader application of this technology. Here, technological progress is visible in particular in the cost development in genome analysis.

Sequencing costs - Cost per genome (in US-Dollar), logarithmic scale



Source: NIH (National Human Genome Research Institute; GBC AG

The drastic price reduction in genome analysis has facilitated its use in various areas of application. Although the spectrum of use of DNA analysis is broad, SYGNIS AG sees the fundamental driver in the paradigm change in medicine. The trend for personalised medicine, i.e. the diagnosis and treatment of patients customised to the individual, forms the basis of a growing demand for bio markers.

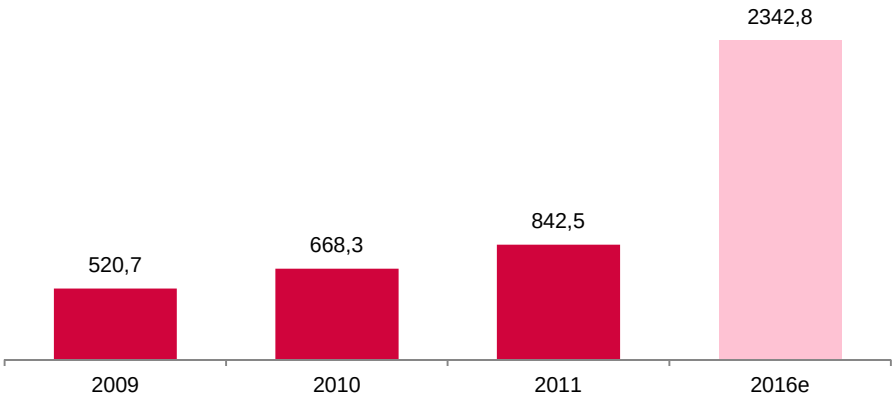
Biomarkers contribute to the understanding of a patient's genetic makeup that forms the basis of disease development (Source: Pharmazeutische Zeitung; Author: Theodor Dingermann). A crucial element is the read-out of genetic data for patients, which are generated using DNA sequencing. These genetic data form the basis of a patient-related and individualised therapy. The increasing importance of personalised medicine is best reflected through the use of biomarkers in clinical studies, which also explore personalisation. Between 1990 and 2005, the proportion of studies that include biomarkers rose from 4.0% to 20.0% (Source: Medizinische Biotechnologie in Deutschland 2011 [Medicinal biotechnology in Germany], BCG report). A particular area of focus is oncology, accounting for over onethird of all studies employing biomarkers.

The greatest use of personalised medicine lies in the high variability regarding response to therapy, as personalisation usually leads to higher response rates. As a result of the early identification and elimination of tolerability issues, the therapy's efficiency improves (avoidance of serious disease progression, fewer side effects, prevention of additional measures and personnel costs), leading to overall efficiency improvements and hence savings to the healthcare system. Based on these advantages, personalised medicine is projected to grow to US$148.4bn worldwide by 2015. Between 2010 and 2015 this corresponds to a 5-year CAGR of +11.6%. MarketsandMarkets expects the growth of biomarkers to be slightly higher, projecting a 5-year CAGR of +14.8% between 2011 and 2016.

DNA sequencing should be one of the beneficiaries of this growth, even though it is only a partial application. The technological progress in particular should allow providers of DNA sequencing to tap into new market segments.

Accordingly, NGS technologies should experience strong growth in the coming years. MarketsandMarkets estimates that that global market should grow to US$2.34bn by 2016. This translates to average annual growth of +22.7% compared to FY 2011 (US$842.5m).

NGS-Market revenue (in million US-Dollar)



Source: MnM Analysis; GBC AG

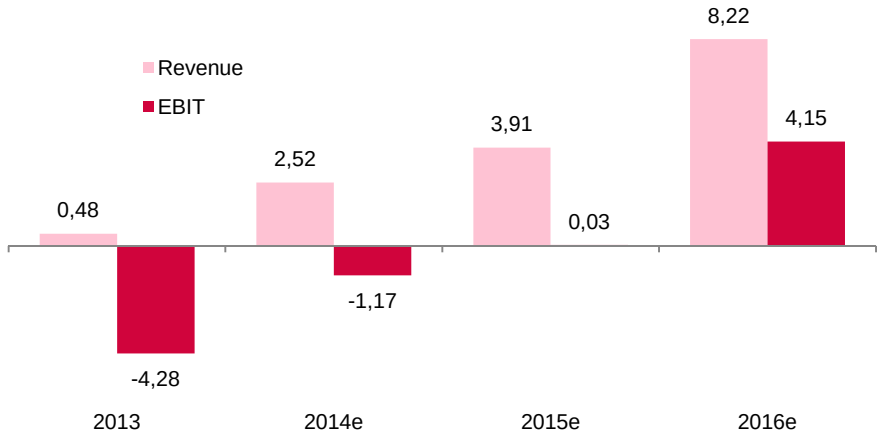
Based on its product QualiPhi and two additional projects in the NGS space (novel QualiPhi mutants and PrimPol), SYGNIS AG is well positioned to participate in the future market growth described above. Preliminary evidence for this is the signed licensing agreement with Qiagen, one of the world's largest providers of sample and assay technologies in the area of molecular diagnostics tests.

DEVELOPMENT OF THE COMPANY & FORECAST

Overview of the figures

P&L (in million €)	FY 2012	FY 2013	FY 2014e	FY 2015e	FY 2016e
Revenue	0.21	0.48	2.52	3.91	8.22
Distribution expenses	-0.20	-0.37	-0.29	-0.30	-0.32
Administrative expenses	-0.37	-1.76	-1.72	-1.81	-1.90
Research & Development	-1.00	-2.23	-1.00	-1.05	-1.10
Amortisation	-1.01	-0.59	-0.18	-0.19	-0.20
Other operating result	0.01	0.18	-0.50	-0.53	-0.55
EBIT	**-2.35**	**-4.28**	**-1.17**	**0.03**	**4.15**
Financial expenses	-0.04	-0.18	-0.16	-0.09	-0.11
Financial income	0.01	0.01	0.00	0.00	0.00
Other financial income	-0.01	0.00	0.00	0.00	0.00
Profit before taxes	**-2.40**	**-4.45**	**-1.33**	**-0.06**	**4.04**
Income Taxes	0.00	1.25	0.40	0.02	-0.61
Net profit	**-2.40**	**-3.20**	**-0.93**	**-0.04**	**3.43**
EBITDA	-1.35	-3.40	-1.05	0.18	4.30
EBITDA-margin	*neg.*	*neg.*	*neg.*	*4.6%*	*52.3%*
EBIT	-2.35	-4.28	-1.17	0.03	4.15
EBIT-margin	*neg.*	*neg.*	*neg.*	*0.8%*	*50.5%*
Earnings per share in €	-0.32	-0.34	-0.09	0.00	0.32
Number of shares in million	7.41	9.51	10.63	10.63	10.63

Source: SYGNIS AG; GBC AG



Business development FY 2013

in million €	FY 2012	FY 2012 (pro forma)*	FY 2013
Revenue	0.21	0.47	0.48
EBITDA	-1.35	-6.98	-3.40
EBIT	-2.35	-9.42	-4.28
Net profit	-2.40	-1.39	-3.20

*Source: SYGNIS AG; GBC AG; *Based on a full-year consolidation of X-Pol Biotech and SYGNIS AG*

Revenue development FY 2013

In the analysis of the development of revenue and earnings of SYGNIS AG, the special effects in connection with the "reverse acquisition" on 04/12/2012 need to be considered. This refers in particular to the comparison of the figures of the 2013 financial year with the figures of the 2012 financial year, which are not directly comparable due to changes in the scope of consolidation. The figures of the 2012 financial year contain the business figures of X-Pol Biotech S.L.U. (now: SYGNIS Biotech S.L.U.) for the period from January to December but solely only for the month of December the business figures of the former SYGNIS Pharma AG (now SYGNIS AG). However, both companies' figures are reflected for the full 2013 financial year.

For better comparability, the company is also presenting pro forma information for the 2012 financial year in order to depict the effects of a full-year inclusion of the two companies. We view this pro forma information as meaningful, particularly as it was subjected to an audit by the auditing company Ernst & Young GmbH during the creation of the securities prospectus.

Compared to the pro forma figures in 2012, the revenues, as expected, do not indicate any notable changes, with €0.48m (PY: €0.47m). This development is attributable to the marketing activities of the product pipeline which have not yet started as of 31/12/2013. The revenues generated in the completed financial year 2013 are associated with the marketing of the Caco-2 licence rights in the USA (€0.20m) and also include one-off outlicensing revenues associated with a Qiagen licence agreement (€0.15m). Parallel to this, the company obtained service revenues amounting to €0.13m.

In our last published forecasts (GBC forecasts pursuant to the research study dated 08/10/2013), we also anticipated still very low marketing activity with expected revenues for the 2013 financial year amounting to €1.05m. The discrepancy to the published revenue figures results from a postponement of the marketing of the main product SensiPhi®, which we had already anticipated for the second half of 2013.

Earnings development FY 2013

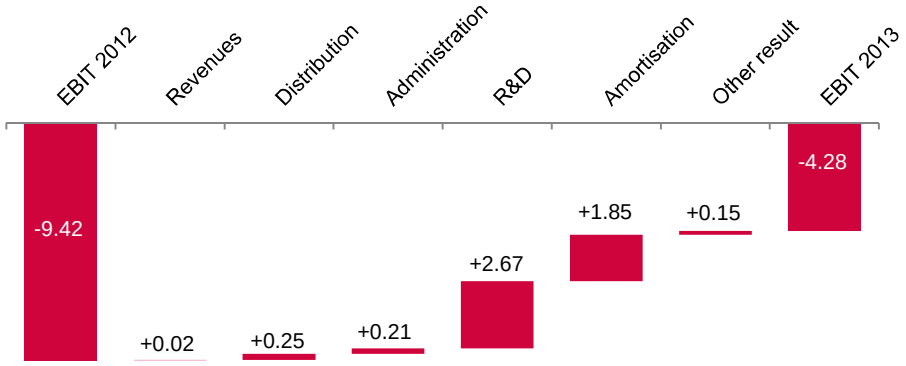
In light of the expected low revenue basis, a recovery of costs was not possible and consequently SYGNIS AG posts a negative EBIT amounting to €-4.28m (pro forma PY: €-9.42m). The substantial improvement in earnings compared to the previous year, with otherwise unchanged revenues, is an effect of the cost reduction and restructuring measures carried out. For instance, under these measures, the number of employees was reduced from 29 (31/12/2012) to 19, which meant the operational costs were almost halved to €4.77m (PY: €9.89m). The overriding percentage of the SYGNIS employees are still employed in research and development (14 employees), which is to be seen as proof of the company's strategic alignment. This is also highlighted by the development of the individual cost items, among which the R&D costs account for the largest share:

EBIT-Development (in million €)

Source: SYGNIS AG; GBC AG

The focus of the research activities in the 2013 financial year was the further development of the product pipeline. Compared to the former SYGNIS projects, the current projects are accompanied by a significantly lower development time, lower financing requirements and thus a lower risk. SYGNIS AG has achieved most of the savings in this area. Compared to the pro forma figures of the 2012 financial year, the R&D costs declined to €2.23m (PY: €4.90m). The following EBIT-bridge highlights the declining cost development of SYGNIS AG overall:

EBIT-Bridge (in million €)



Source: SYGNIS AG; GBC AG
The EBIT-bridge represents the cost development compared to the forma figures of the FY 2012

In addition to the substantial decline in the R&D costs, the company also posts a reduction in amortisation. The majority of the amortisation in the 2012 financial year were incurred in the old product portfolio of SYGNIS AG in connection with the relinquishment of development projects.

Financial Situation

in million €	31/12/2012	Δ 2012/2013	31/12/2013
Shareholder‘s capital	6.30	-5.5%	5.95
Equity ratio (in %)	*65.6%*	*-13.0 pP.*	*52.6%*
Operating assets	2.58	-29.4%	1.82
Working capital	-1.22	58.9%	-1.94
Net Debt	1.00	-113.0%	-0.13

Source: SYGNIS AG; GBC AG

Despite the unchanged negative volume with the net result for the FY 2013 of €-3.20m, the equity of SYGNIS AG declined only slightly to €5.95m (31.12.12: €6.30m). This is attributable to a capital increase successfully implemented in the second half of 2013. This had resulted in net issue proceeds of €2.84m and could thus almost compensate for the negative post-tax earnings:

Changes in equity (in million €)

Source: SYGNIS AG; GBC AG

In addition to the successfully implemented capital increase, SYGNIS AG took up borrowed capital totalling €1.26m both from existing as well as new major shareholders. In addition, in the 2013 financial year, the company collected interest-free and long-term research loans amounting to €1.41m from Spanish institutions. Accordingly, the liquidity situation, which is important for researching companies, at the end of the 2013 financial year, is substantially more relaxed than as of 31/12/2012. Taking into account an earnings-related negative cash flow, the cash and cash equivalents as of 31/12/2013 amount to €2.20m (31/12/12: €0.47m).

However, the respective cash-burn rate based on the operative cash flow (incl. CAPEX and investments in development costs) is to be rated as low at 0.6 (31/12/12: 0.7) despite the expansion in liquidity. Nevertheless, this is only to be understood as a snapshot. In the course of the marketing already done for the main product SensiPhi®, a substantial increase in the operational cash flow is to be anticipated, which should then result in a significant reduction in the liquidity consumption.

The mentioned capital measures (equity and borrowed capital) also resulted in an increase in the balance sheet total in addition to the expansion of liquidity. The decline in the equity ratio to 52.6% (31/12/12: 65.6%) is to be understood against this background. In an industry comparison, SYGNIS AG continues to be endowed with above-average equity.

SWOT-Analysis

Strengths	Weaknesses
• The partnership with Qiagen, one of the world's market leaders in the field of samples and test technologies, is to be seen as a very strong sales channel for SensiPhi. • The homogeneous product pipeline is accompanied by low research costs and a short development time. • The experienced management is supported by a very experienced supervisory board. • The major shareholders also underlined their commitment to the company in the 2013 financial year. • For two products, the company already has corresponding patents in the most important markets for life science. • The successfully implemented capital measure suggests strong investor interest.	• The marketing of the product pipeline did not start until the 2014 financial year. There is thus no reliable track record. • Up to now, the company has only been able to outlicense one product. • The range of the current liquidity depends heavily on the marketing success of the product SensiPhi. • At the current revenue level, the break-even has not yet been reached. • Currently, the corporate success depends strongly on the marketing efforts of the licence partner Qiagen.
Opportunities	**Risks**
• The first commercialisation revenues are to be expected for the current 2014 financial year. • The outlicensing of other projects is deemed probable for the current 2014 financial year. • As a result of the quick TTM (time to market), SYGNIS AG can react flexibly to changes. • The company has a lean organisational structure, which means that economies of scale quickly take effect. • SensiPhi could become the new standard for isothermal DNA amplification. • The two sites in Germany and Spain mean that the respective expertise can be shared and thus higher probabilities of success realised with new developments.	• There is a high dependency on licensees. As the company does not have any sales channels, the licence business is generally very important for the company's success. • The business success of SYGNIS AG currently still depends on a few products. • It might not be possible to successfully market newly developed products. • Overall, the company is in an intensely competitive market environment which is defined by rapid development cycles.

Forecasts

P&L (in million €)	FY 2014e	FY 2015e	FY 2016e
Revenue	2.52	3.91	8.22
EBITDA	-1.05	0.18	4.30
EBITDA-margin	*neg.*	*4.6%*	*52.3%*
EBIT	-1.17	0.03	4.15
EBIT-margin	*neg.*	*0.8%*	*50.5%*
Net income	-0.93	-0.04	3.43
EPS in €	-0.09	0.00	0.32

Source: GBC AG

Business and marketing strategy

With the outlicensing and marketing now conducted for the main SYGNIS product SensiPhi®, the company has now provided a proof of concept with regard to the corporate strategy. At the same time, a blueprint can be derived from this for the further project pipeline of the company.

According to the corporate strategy, the products that the company develops itself and that are protected by patents are to be outlicensed to marketing partners under licence agreements. In the process, the manufacture of the products which are to be delivered to the licence partners is to be carried out by SYGNIS AG or by external contractors, depending on resources. From a current perspective, no investments are required for the production. In light of this, it is easier for the company to benefit from economies of scale and thus break even at a comparatively low level of revenues.

The revenues contain both so-called one-off front-up fees and ongoing licence revenues. The front-up fees (revenues in the event of outlicensing) under the Qiagen partnership model amounted to EUR 0.35 million in the 2012 financial year and accordingly were of subordinate importance. The licence earnings, however, for which there are no reliable data yet at the time the study was created, constitute revenues dependent on turnover. With the Qiagen agreement, we are anticipating licence earnings usual in the industry of around 8.0 % - 10.0 % of the revenues generated during commercialisation. In light of this, the revenues situation of SYGNIS AG depends strongly on the marketing activities and efforts of the licence partner.

The marketing of the further product pipeline should be carried out on a similar basis. A decisive factor in this context is the short development time of the products which do not have to be subjected to any clinical tests at all and can thus soon commence marketing. A rapid expansion and a high speed of innovation and development of the product pipeline are therefore realistic. As the SYGNIS products are so-called consumables for the laboratory and test industry, they are not subject to any regulatory risks either.

In addition to the marketing of SensiPhi®, the Novel QualiPhi® mutants, PrimPol and the Double-Switch technology platform are also particularly promising and have therefore been taken into consideration in our specific platforms. These products have already been fully developed ready for the market and merely require minimal optimisation effort for a possible integration into the licensee's product range.

According to company information, a high probability of a prompt outlicensing is seen for the enzyme PrimPol which was developed for the RNA and DNA replication market. Specific discussions already took place in the past financial year 2013 with major companies from the NGS sector. As a result, the company sees a high probability of a licence agreement being successfully concluded in the ongoing 2014 financial year.

With the Double-Switch technology platform too, which facilitates the measurement of protein-protein interactions, concrete discussions have already taken place with two potential partners. SYGNIS AG is anticipating a non-exclusive licence agreement here in the first half of 2014.

Parallel to this, the project pipeline is being continually expanded and strengthened by new developments. In addition to the development of the DNA repair KIT, the focus of current development activities is on the products ProPhi and TransPhect. The related areas of proteomics (deciphering and categorisation of all proteins in the organism) and transfection (transfer of foreign DNA to a host cell) are also to be addressed. SYGNIS AG continues to look for other projects. Collaboration with companies in the field of molecular diagnostics and DNA tools would be conceivable. The identification and development of new projects is an important factor in the future business development of SYGNIS AG.

Revenue forecasts

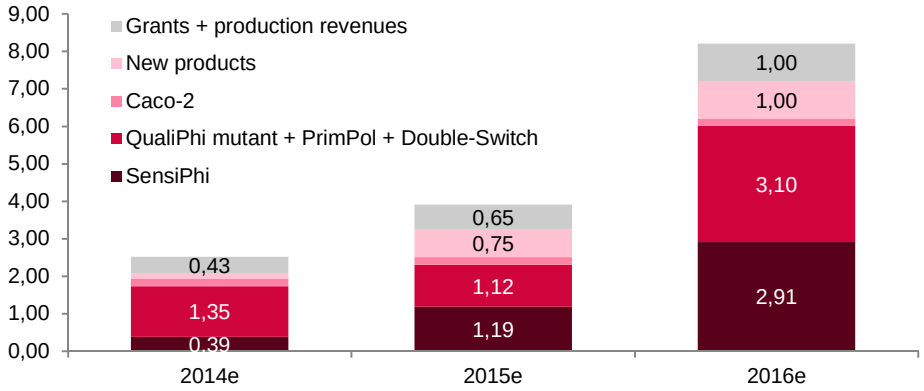
A decisive factor in our revenue forecasts are the expectations with regard to the outlicensing or the marketing timing of the individual SYGNIS projects. Our revenue forecasts are based on the following assumptions:

Product	Licensing	Commercialization
SensiPhi®	Done	1. HY 2014
PrimPol	1. HY 2014	1. HY 2015
Novel QualiPhi® mutants	1./2. HY 2014	1. HY 2015
Double-Switch	1./2. HY 2014	1. HY 2015
New projects	2. HY 2014	1. HY 2015

Source: SYGNIS AG; GBC AG

These assumptions reflect the company's expectations that it will be able to implement further outlicensing in the current 2014 financial year. The most promising projects here are PrimPol, Novel QualiPhi® mutants and Double-Switch. The front-up fees to be realised from this will be primarily supported by the expected marketing revenues from SensiPhi® (licence revenues from the marketing partner Qiagen).

Revenue breakdown by product (in million €)



Source: GBC AG

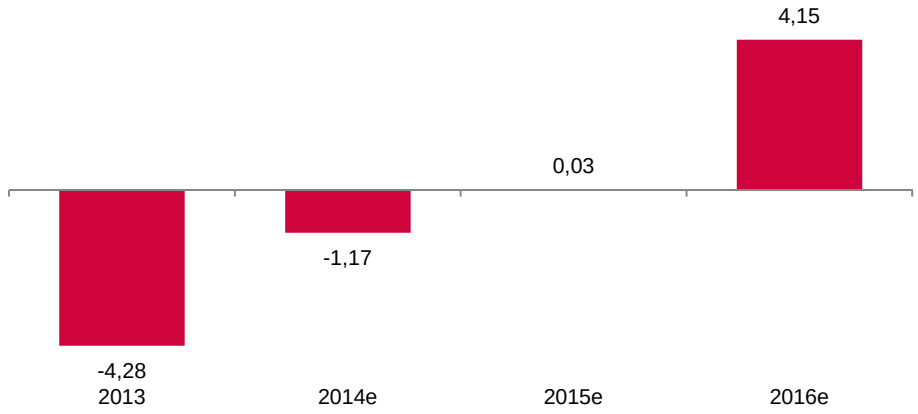
In addition, our forecasts take into account revenues from the Caco-2 licence rights (€0.20m) and to a small extent production revenues and revenues from government funding.

Here, it becomes clear that we see a dominance of the products not yet outlicensed at the present time in our revenue planning for the current 2014 financial year. This is based on the assumption that the so-called front-up fees under the expected outlicensing should be higher than the marketing revenues of SensiPhi®. In the 2014 financial year, the expected overall revenues is €2.52m and thus in the range of the corporate guidance (€2.0m - €2.5m). Our revenue forecasts to date for 2014 (see research study dated 04/07/2013) were substantially higher at €4.13m but were based on an earlier than expected marketing start for SensiPhi®. In the forthcoming financial years, it is expected that the revenue-dependent licence earnings will gain substantially in importance. Accompanied by new projects and those developed in a timely manner, we are anticipating revenues of €3.91m (FY 2015e) and €8.21m (FY 2016e).

Earnings forecasts

The continued lean organisational structure of SYGNIS AG plays an important role in our earnings forecasts, in addition to the circumstance that the products marketed have a high profitability. In our opinion, neither high investments nor substantial organisational adjustments are necessary to attain a higher revenue-level. Accordingly, high economies of scale should come into effect. At the same time, the products of SYGNIS AG are proprietary technologies protected by patents and which entail comparatively low production costs and thus high gross yield margins. At EBIT level, according to our expectations, a break-even is already realistic from a revenue level of €3.91m (FY 2015e). In light of stronger economies of scale, increasing revenues should be accompanied by a disproportionate development of EBIT. We have taken this into account in our earnings forecasts:

EBIT-Development (in million €)



Source: GBC AG

The substantial easing in the liquidity situation as of 31.12.13 (liquidity: €2.20m) is also to be seen as a high safety factor. In the event of any bottlenecks in liquidity, SYGNIS AG has various options for correcting them. For instance, equity can be taken up at short notice under a SEDA (Standby Equity Distribution Agreement). In light of the attractive price levels, the SEDA option was already used in the current 2014 financial year and fresh equity amounting to €0.60m taken up.

VALUATION

Model assumptions

We valued SYGNIS AG using a three-phase DCF model. Starting from the real-life estimates for the years 2014 to 2016 in phase 1, the second phase from 2017 to 2021 forecasts the effect of value drivers. We hereby expect revenue to increase by 15.0%. We took as our target an EBITDA margin of 65.0%. The tax ratio applied in phase 2 was 27.0%. For the third phase beyond the forecast horizon, a residual value was calculated using a perpetual annuity formula. For the final value we assume a growth rate of 3.0%.

Calculation of cost of capital

The weighted average cost of capital (WACC) for SYGNIS AG is calculated on the basis of cost of equity and cost of debt. In order to determine the internal cost of capital, the fair market premium, the company beta and the risk-free interest rate need to be established.

The interest rate for 10-year German government bonds is taken as the risk-free interest rate. This is currently 2.00%.

We used a equity risk premium of 5.50% as a suitable expectation of equity premium. This is supported by historical analyses of stock market yields. The market premium reflects the percentage of the expected excess return of the stock market over the low-risk government bonds.

Using the GBC estimation method there is currently a beta of 1.76.

Applying the chosen premises, the costs of equity are calculated at 11.70% (beta multiplied with equity risk premium plus 10-year interest rate). As we assume a long-term weighting of equity of 85%, the weighted average cost of capital (WACC) is 10.74%.

Valuation result

Discounting future cash flows was carried out using the entity approach. We calculated the relevant capital cost (WACC) at 10.74%. The resulting fair value per share at the end of financial year 2014 corresponds to a target price of €6.00.

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	65.0%
Depreciation to fixed assets	4.7%
Working Capital to revenue	4.2%

final - phase	
Eternal growth rate	3.0%
Eternal EBITA - margin	63.3%
Effective tax rate in final phase	27.0%

three phases DCF - model:

phase	estimate			consistency					final
in €m	FY 14e	FY 15e	FY 16e	FY 17e	FY 18e	FY 19e	FY 20e	FY 21e	value
Revenue	2.52	3.91	8.22	9.45	10.86	12.48	14.35	16.49	
Revenue change	422.1%	55.2%	110.4%	15.0%	15.0%	15.0%	15.0%	15.0%	3.0%
Revenue to fixed assets	1.01	1.30	2.57	2.57	2.57	2.57	2.57	2.57	
EBITDA	-1.05	0.18	4.30	6.14	7.06	8.11	9.33	10.72	
EBITDA-Margin	-41.6%	4.6%	52.3%	65.0%	65.0%	65.0%	65.0%	65.0%	
EBITA	-1.17	0.03	4.15	5.99	6.88	7.91	9.10	10.46	
EBITA-Margin	-46.6%	0.8%	50.5%	63.4%	63.4%	63.4%	63.4%	63.4%	63.3%
Taxes on EBITA	0.35	-0.01	0.00	-0.90	-1.86	-2.14	-2.46	-2.82	
Taxes to EBITA	30.0%	30.0%	0.0%	15.0%	27.0%	27.0%	27.0%	27.0%	27.0%
EBI (NOPLAT)	-0.82	0.02	4.15	5.09	5.03	5.78	6.64	7.63	
Return on capital	696.1%	0.9%	129.6%	146.3%	123.3%	123.3%	123.3%	123.3%	110.3%
Working Capital (WC)	-0.20	0.20	0.28	0.40	0.46	0.52	0.60	0.69	
WC to revenue	-7.9%	5.1%	3.4%	4.2%	4.2%	4.2%	4.2%	4.2%	
Investment in WC	-1.74	-0.40	-0.08	-0.12	-0.06	-0.07	-0.08	-0.09	
Operating fixed assets (OAV)	2.50	3.00	3.20	3.68	4.23	4.86	5.59	6.42	
Depreciation on OAV	-0.13	-0.15	-0.15	-0.15	-0.17	-0.20	-0.23	-0.26	
Depreciation to OAV	5.0%	5.0%	4.7%	4.7%	4.7%	4.7%	4.7%	4.7%	
Investment in OAV	-0.81	-0.65	-0.35	-0.63	-0.72	-0.83	-0.96	-1.10	
Capital employed	2.30	3.20	3.48	4.08	4.68	5.38	6.19	7.11	
EBITDA	-1.05	0.18	4.30	6.14	7.06	8.11	9.33	10.72	
Taxes on EBITA	0.35	-0.01	0.00	-0.90	-1.86	-2.14	-2.46	-2.82	
Total investment	-2.54	-1.05	-0.43	-0.75	-0.78	-0.90	-1.03	-1.19	
Investment in OAV	-0.81	-0.65	-0.35	-0.63	-0.72	-0.83	-0.96	-1.10	
Investment in WC	-1.74	-0.40	-0.08	-0.12	-0.06	-0.07	-0.08	-0.09	
Investment in Goodwill	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Free cashflows	-3.24	-0.88	3.87	4.50	4.42	5.08	5.84	6.71	98.71

Value operating business (due date)	66.45	74.46
Net present value explicit free Cashflows	18.11	20.93
Net present value of terminal value	48.34	53.53
Net debt	2.67	3.64
Value of equity	63.78	70.82
Minority interests	0.00	0.00
Value of share capital	63.78	70.82
Outstanding shares in m	10.63	10.63
Fair value per share in €	**6.00**	6.66

Cost of capital:

Risk free rate	2.0%
Market risk premium	5.5%
Beta	1.76
Cost of equity	11.7%
Target weight	85.0%
Cost of debt	7.0%
Target weight	15.0%
Taxshield	25.0%
WACC	**10.7%**

Return on capital	WACC				
	9.7%	**10.2%**	**10.7%**	**11.2%**	**11.7%**
108.3%	6.91	6.38	5.92	5.51	5.16
109.3%	6.97	6.42	5.96	5.55	5.20
110.3%	7.02	6.47	**6.00**	5.59	5.23
111.3%	7.07	6.52	6.04	5.63	5.27
112.3%	7.12	6.56	6.09	5.67	5.30

ANNEX

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