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SILBER  
GUTE GESTALTUNG  
GOOD DESIGN  
AUSGEZEICHNET  
VOM DEUTSCHEN  
DESIGNER  
CLUB (DDC)



# Engineering Biology

# BRAIN Group financial highlights

in € million

2015/16

2014/15

2013/14

## Consolidated income statement data:

Revenue	22.8	21.1	10.4
<b>Total operating performance<sup>1</sup></b>	<b>26.1</b>	<b>25.7</b>	<b>13.8</b>
Operating result (EBIT)	-13.8	-4.6	-4.8
<b>Adjusted operating result (adjusted EBIT)<sup>2</sup></b>	<b>-7.6</b>	<b>-4.4</b>	<b>-4.8</b>
Net loss for the reporting period	-14.9	-5.9	-5.5

## Consolidated balance sheet data:

Total equity	26.9	5.7	12.1
<b>Equity ratio (in %)</b>	<b>57 %</b>	<b>19 %</b>	<b>48 %</b>
Total assets	47.5	30.4	25.3

## Consolidated cash flow data:

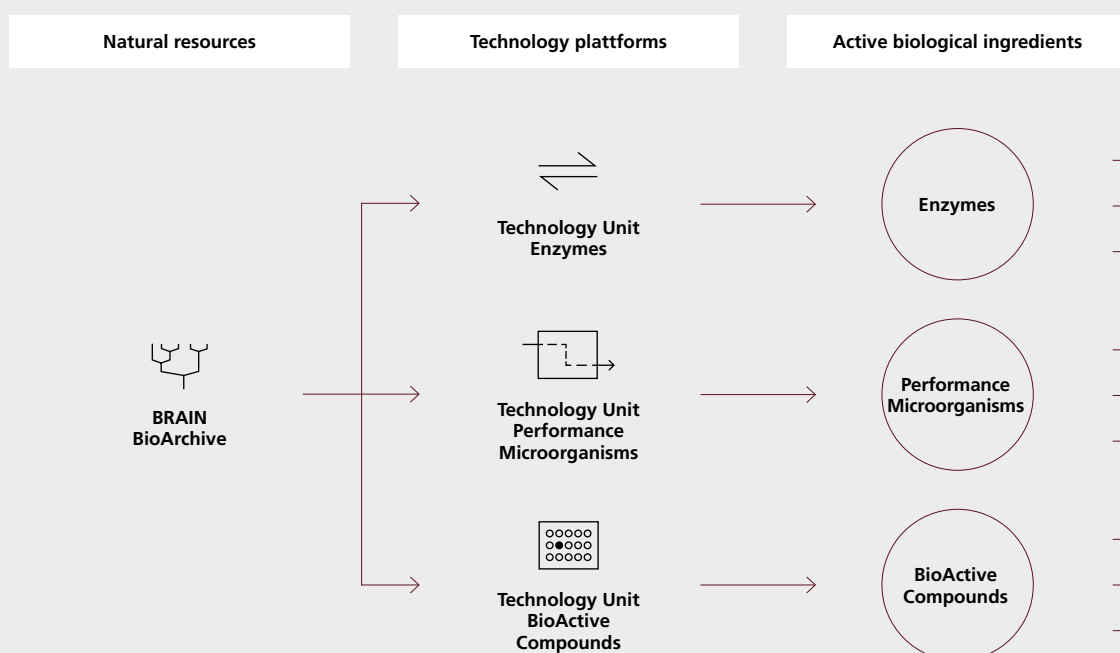
<b>Cash flows from operating activities</b>	<b>-8.7</b>	<b>-4.1</b>	<b>-3.9</b>
Cash flows from investing activities <sup>3</sup>	-11.2	-0.5	-1.5
Cash flows from financing activities	25.0	3.4	0.6

<sup>1</sup> Defined as the sum of revenue, other income and changes in inventories of finished goods and work in progress

<sup>2</sup> Adjusted for IPO costs (€ 974 thousand) and share-based compensation costs relating to BRAIN AG (€ 3,857 thousand) and its subsidiary AnalytiCon Discovery GmbH (€ 1,766 thousand).

<sup>3</sup> In 2015/16, € 10 million of this amount was invested in short-term deposit accounts with an original term of three months, which cannot be reported as cash or cash equivalents due to the accounting principles applied.

## FROM THE BIOARCHIVE TO THE B2B MARKET: THE BRAIN VALUE CHAIN



# Mission Statement

BRAIN represents the introduction of bio-based processes to industry for sustainable, bio-based economic activity and is on the way to becoming a fully integrated bioeconomy company. To this end, BRAIN develops and produces bio-active compounds, enzymes and performance micro-organisms based on the company's proprietary BioArchive. These bio-active ingredients serve to improve products and processes in the speciality and consumer goods industries.

NUMBER OF COLLEAGUES  
IN THE BRAIN GROUP

237

NUMBER OF CHARACTERISED MICROORGANISMS  
IN BRAIN'S BIOARCHIVE

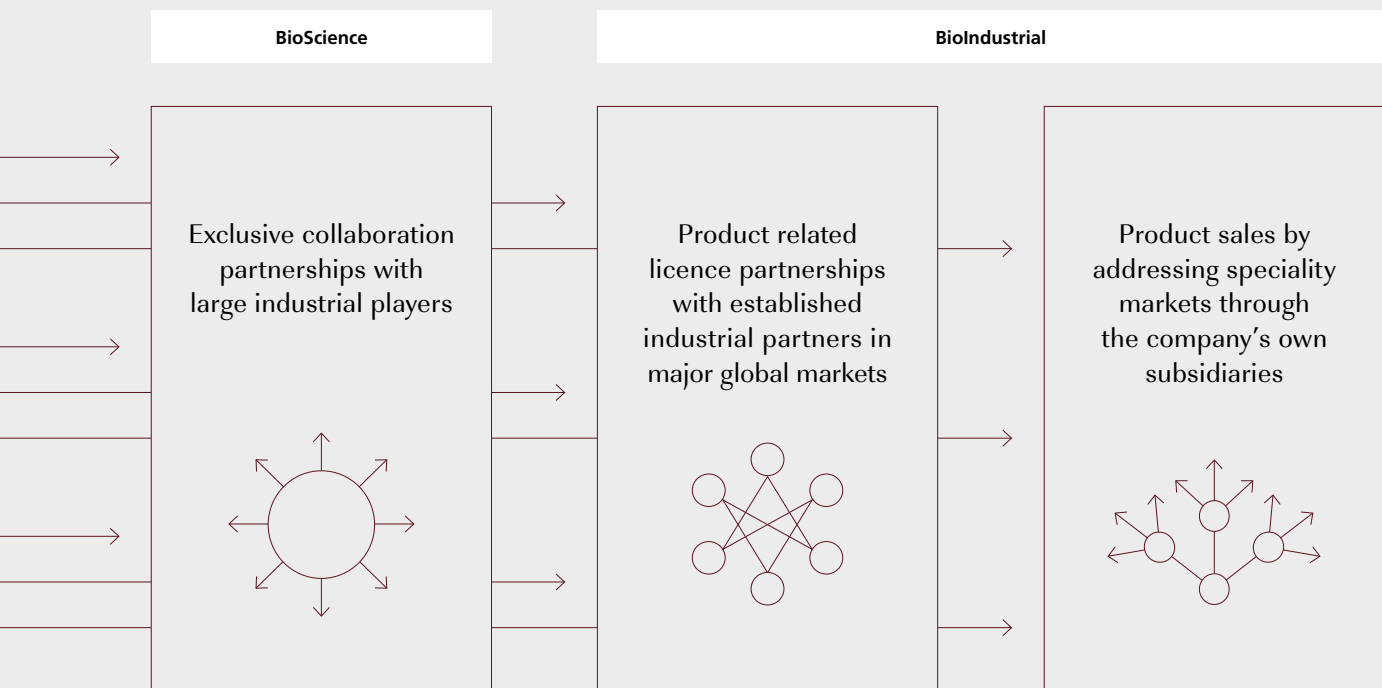
53,000

NUMBER OF BRAIN PATENTS  
AND PATENT APPLICATIONS

362

NUMBER OF NATURAL SUBSTANCES  
IN BRAIN'S BIOARCHIVE

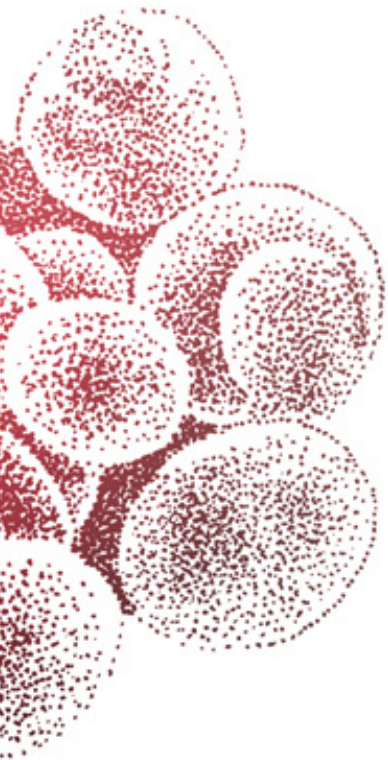
49,500



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“BRAIN is rethinking biology. The technological use of biological processes in an industrial environment drives us every day.”

**Dr Jürgen Eck** — member of the founding team and CEO of BRAIN AG





















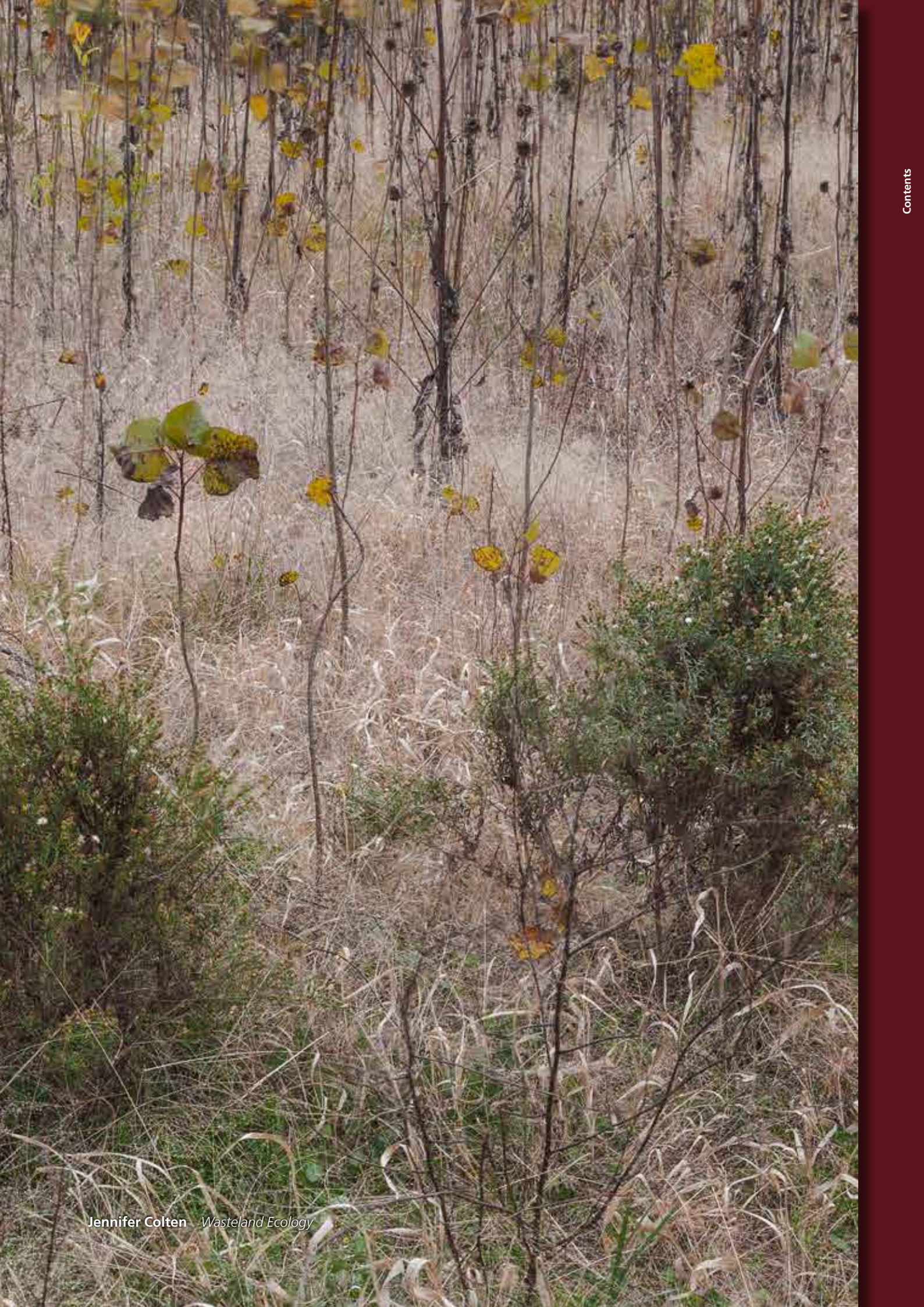


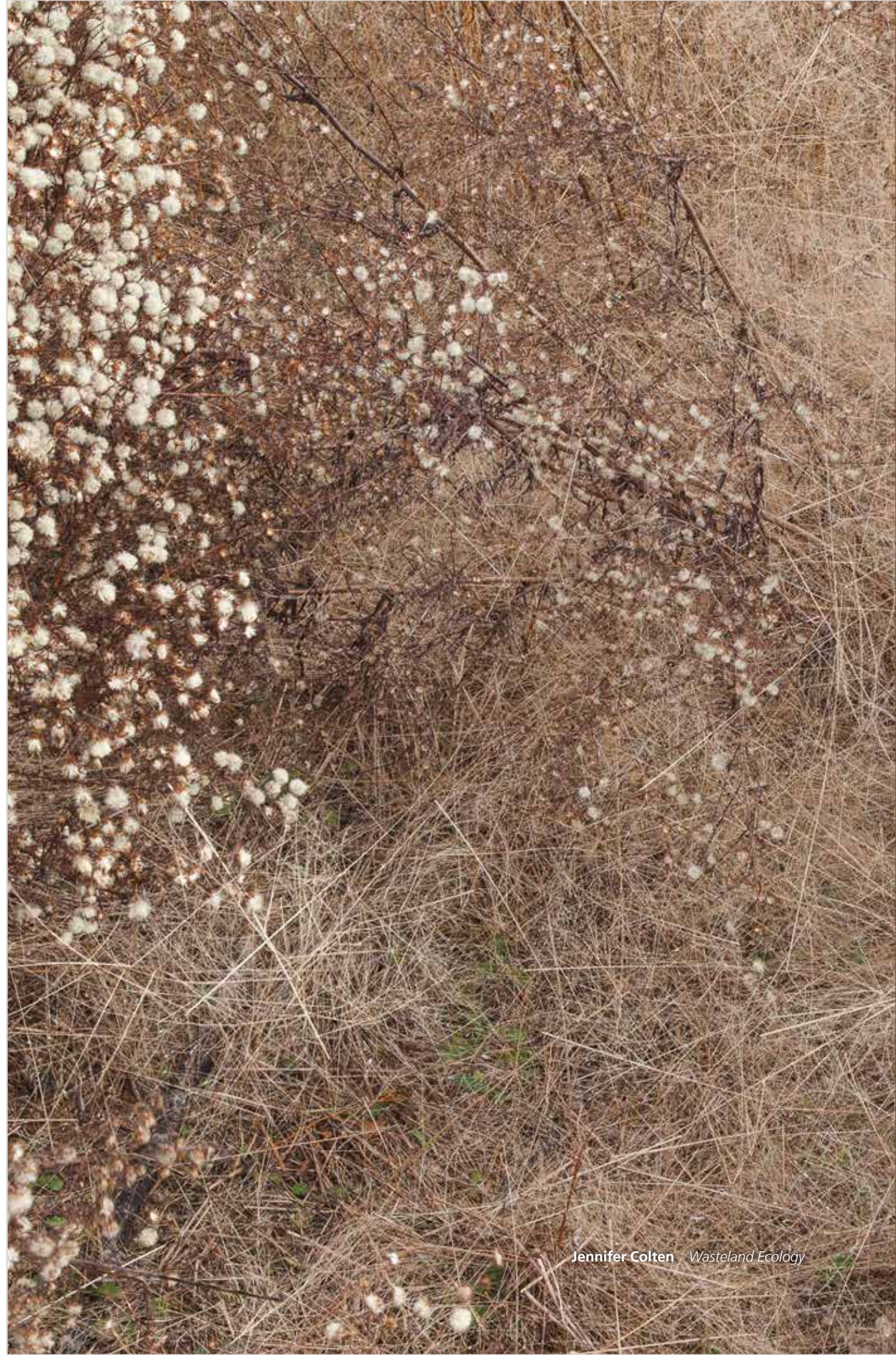












## HIDDEN SPECIES DIVERSITY

The works shown here are by photographer Jennifer Colten, who studied at Massachusetts College of Art and teaches photography at Washington University in St Louis. They are taken from her "Of Place and Non-Place" and "Wasteland Ecology" projects.

They show landscapes and brownfield sites shaped by human activity, at the same time devastated and indestructible. The plants Colten captures with her camera are delicate yet tough enough to have found a niche in these barren places. Although they portray neither lush meadows nor bushy forests, her photographs allow us to feel the potential of nature. "The unplanned renaturation of contaminated areas often gives rise to an incredible species diversity", says Colten on her Wasteland Ecology project. Some plants are indigenous, whereas others have recently established themselves or even emerged for the first time in this inhospitable environment.

Microbial diversity, more varied by far than the vegetal type, cannot be photographed using a conventional camera. Only the microscope reveals the numerous bacteria and other microorganisms that exist even in nutrient-poor sand and stone.

While the photographs printed here were not commissioned by BRAIN, they refer to the company nevertheless, because they show species diversity in initially unexpected places. A handful of soil is estimated to contain up to a million different microorganisms. Nature's creativity, as stored in the BioArchive, provides the foundation for BRAIN, which harnesses microbial biodiversity for industrial purposes.



[www.jennifercolten.com](http://www.jennifercolten.com)

# Biodiversity as inspiration

—→ **BRAIN's BioArchive**, one of the world's largest and most comprehensive of its kind, enables biological microbial diversity to be put to technical use.

—— Microorganisms are omnipresent. They were the first inhabitants of our planet and **their diversity is unsurpassable**. But only a fraction of them have been discovered so far.

—— To discover new bacteria or other microorganisms, microbiologists need neither explore the rainforest nor travel to other distant regions. **A large number of as yet unknown unicellular organisms live in our very own front gardens**. BRAIN technologies make it possible to detect even unusual microorganisms right here in Germany, including heat-resistant bacteria that feed on carbon dioxide as their sole source of nutrition, in the flue gas channel of a coal-fired power plant in North Rhine-Westphalia.

—— BRAIN's BioArchive contains over 50,000 characterised microorganisms and almost as many natural substances, derived from plants or edible parts of plants, as well as extensive metagenome libraries of non-culturable microorganisms. How can carbon dioxide be used as a resource? Which untapped natural substances might make our food healthier? Where can we find enzymes to optimise complex industrial processes? **BRAIN's BioArchive provides answers** to these and many other questions.

300 million

reusable ready-to-screen  
metagenome clones

53,000

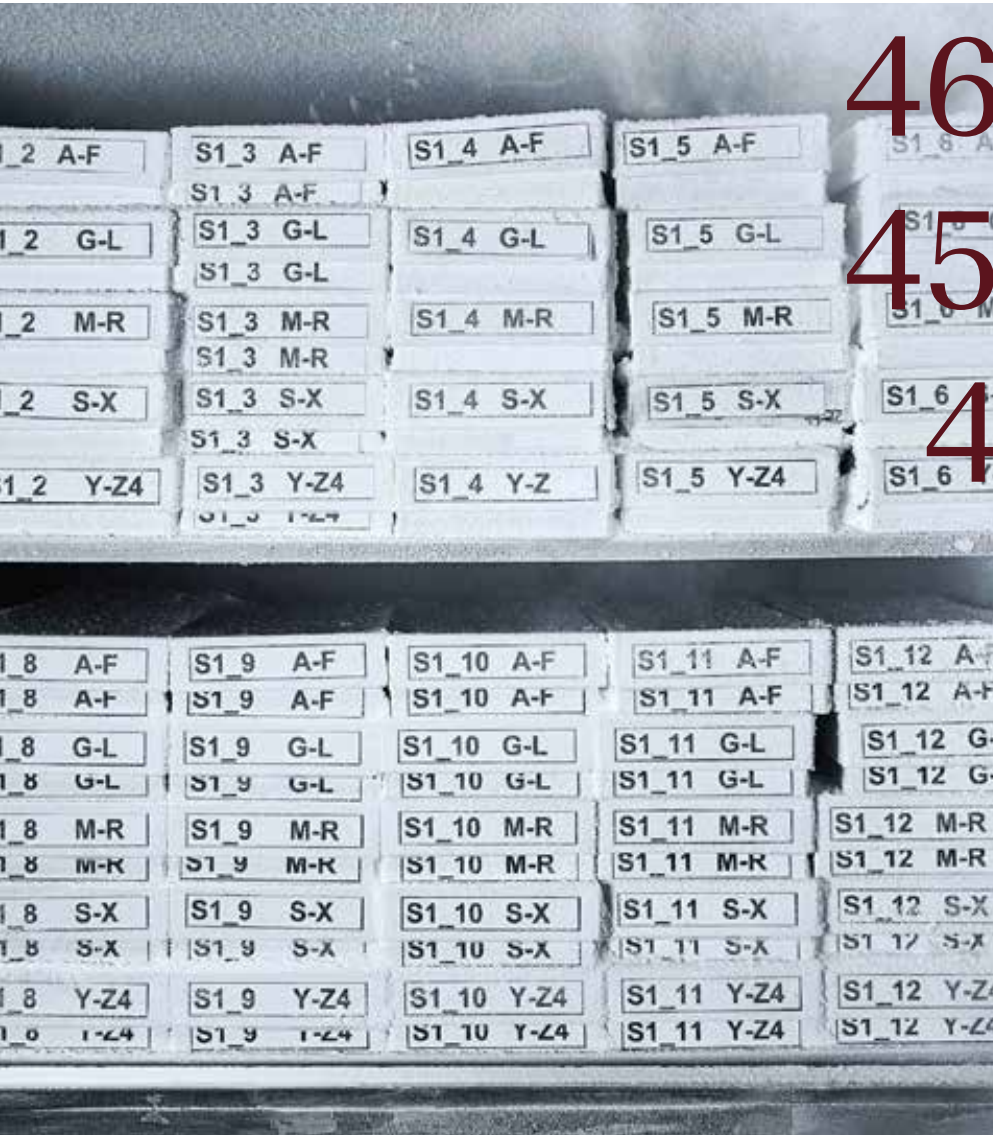
characterised microorganisms  
for strain development

49,500

natural and naturally inspired  
compounds

13,000

plant fractions available  
for isolation campaigns



464

enzyme libraries  
available for screening

450

habitat collections  
and environmental samples

43

metagenome libraries  
isolated from various habitats

Glimpse into BRAIN's BioArchive:  
several copies of the organisms,  
genes and natural substances are  
stored in different places.

## CONTENTS – CORPORATE STORIES

### Biodiversity as inspiration p.03

---

BRAIN's BioArchive, one of the world's largest and most comprehensive of its kind, enables biological microbial diversity to be put to technical use.

### Natural sweetness without sugar p.43

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Tastes like sugar but does no harm: the plant-based sweetener brazzein can be produced using yeast BR-6724.

### Milk for everyone – lactose-free p.89

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Most people are lactose-intolerant. An enzyme produced by yeast BR-0194 increases tolerance towards dairy products.

### From climate killer to raw material p.119

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BR-07116, a bacterium of the *Clostridium* genus, transforms the greenhouse gas carbon dioxide into valuable chemicals.

# CONTENTS — REPORT

## 01 Company management p. 21

---

Letter from the CEO	p. 23
Report from the Supervisory Board	p. 28
Bioeconomy and industrial transformation	p. 36
Senior Management	p. 38
BRAIN Management Board interview	p. 40

## 02 The company p. 55

---

The bioeconomy – introducing bio-based processes to industry	p. 57
Strategy	p. 62
Company structure and business model	p. 63
Product pipeline	p. 70
Highlights of the 2015/2016 business year	p. 72
Lively corporate culture	p. 76
Staff culture	p. 82
The BRAIN share and the capital market	p. 84

## 03 Corporate governance report p. 101

---

Corporate governance statement	p. 103
Corporate governance practices	p. 115

## 04 Group management report p. 131

---

Basis of the Group	p. 133
Economic and business report	p. 136
Compensation report	p. 146
Events after the reporting date	p. 155
Outlook	p. 156
Report on risks and opportunities	p. 157
Takeover-relevant information pursuant to Section 315 (4) of the German Commercial Code (HGB)	p. 168
Corporate governance statement of conformity pursuant to Section 289a of the German Commercial Code (HGB)	p. 171
Responsibility statement	p. 172

## 05 Financial statements p. 173

---

Consolidated balance sheet	p. 175
Consolidated statement of comprehensive income	p. 176
Consolidated statement of changes in equity	p. 178
Consolidated statement of cash flows	p. 179

<b>Notes</b>	<b>p. 180</b>
Auditor's report	p. 244

## 06 Further information p. 245

---

Glossary	p. 246
Contact and imprint	p. 252
Financial calendar	p. 253

## 01 Company management

---

p. 21

Letter from the CEO	p. 23
Report from the Supervisory Board	p. 28
Bioeconomy and industrial transformation	p. 36
Senior Management	p. 38
BRAIN Management Board interview	p. 40





**Dr Jürgen Eck** — Chief Executive Officer

**Dear shareholders,**

The past 2015/16 fiscal year was one of the most eventful in the history of BRAIN AG. Our successful IPO in February 2016 has enabled us to push forward our growth and industrialisation strategy consistently and effectively.

The stock market debut of BRAIN AG was not just the first IPO on the Frankfurt Stock Exchange in 2016, but also the first IPO of a bioeconomy company on any exchange in Germany, as well as the first IPO by a company from the biotechnology sector since November 2006. Counter to the current growing general trend to float young German growth companies on stock markets abroad, BRAIN has demonstrated that it is still possible to float successfully on the domestic market, too.

Accompanying conditions were anything other than rosy at the time. A day before our initial listing, the DAX index of leading German shares slipped below its psychologically important 9,000 point mark. At over 30 points, volatility as registered by the VDAX index had also jumped significantly compared with the period at the end of 2015, prompting most investment bankers to regard new issues as either difficult or impossible.

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“Inspired by the vision of a sustainable, bio-based economy, BRAIN is one of the creative players in this global industrial transformation process.”

Despite this, when BRAIN shares started trading on the Frankfurt Stock Exchange, the initial quotation of € 9.15 was above the € 9.00 issue price. The share also performed well subsequently: at a Xetra closing price of € 11.70 as of the fiscal year-end on September 30, we recorded a share

price appreciation of 30% above the issue price — a success confirming our decision to float on the stock market.

The star at BRAIN is its team — a genuine joint effort made by all BRAIN colleagues formed the foundation for this successful IPO. The team’s experience, expertise and creativity — along with a great corporate culture — represent the key to BRAIN’s success. The unusually high involvement of private investors, who subscribed for around 19% of the placement volume, also helped us take this step.

——— **The successful course of our IPO shows that the bioeconomy is accepted and understood as a future-oriented topic and is also indisputably recognised in capital market circles as a future sector, irrespective of any short-term equity market turbulence.**

This move towards a bio-based industry rings in the start of a new era characterised by two megatrends: firstly, the trend to natural ingredients, including cosmetics and food, for example, and, secondly, the shift in the raw materials base towards renewable raw materials, and the utilisation of byproduct and waste flows as a basis for greater sustainability and resource efficiency. This trend rests on solutions that nature has discovered over 3.5 billion years of evolution, which are being transferred to industrial processes and products. Moreover, such solutions, collected and stored in our BioArchive, make no compromises in terms of performance and quality, but even offer advantages in many respects.

Even if the oil price were to continue falling and oil does not become a scarce commodity, we cannot continue consuming resources as we have to date. We must reduce carbon dioxide emissions to counter climate change. We must close materials cycles to create the foundation for resource-efficient production. Equally, we have to pay attention to nutrition, and here particularly the healthy or even health-promoting nutrition for a growing world population. The bio-based industry offers options and solutions to meet these future challenges.

Products that have been manufactured to date from fossil raw materials by means of chemical processes are being replaced by products made from renewable raw materials or industrial byproduct flows and produced with resource-efficient, energy-saving methods that deploy enzymes or microorganisms, for example. The projects that BRAIN is advancing together with various partners in its ZeroCarbFP strategic alliance are examples of such an approach. The alliance partners — including Fuchs Schmierstoffe and Südzucker — are searching for microorganisms that utilise carbonaceous industrial byproduct flows or even carbon dioxide from flue gas as substrates, and convert them into valuable building blocks for industrial production. Access to the “Toolbox of Nature” in the form of enzymes, microorganisms and bioactive natural substances also provides the foundation for entirely new products, however. Related examples include the development of ingredients that make our food healthier through reducing sugar and salt.

The fact that around twelve percent of global chemical industry sales in 2015 were attributable to bio-based production processes shows that such developments do not just serve niches, for example. This proportion has doubled in the past five years. Experts predict an almost further doubling by 2020. Every one in five euros in the chemical industry will then already derive from bioeconomy processes. In other words: the establishment of a bio-based industry is progressing, project by project, and idea by idea. We are right at the centre of this trend, as well as at the start of an era of a bio-based economy.

——— **But this is mainly a quiet revolution. This evolution is occurring at the level of constituent substances and components, and is barely visible to the consumer as a consequence. But what is important is that it is happening, and is also being supported by policymakers, whether through introducing sugar taxes or CO<sub>2</sub> emission allowances.**

Such political support is to be welcomed, as experience in the nutrition area shows that enlightened consumers also expect tasty and sweet products. In other words, to meet sweetness expectations, it has to be possible to reduce sugar content without compromising on taste. The sweetness typical of sugar is desired, but without sugar’s disadvantages.

At the end of fiscal 2015/16, BRAIN entered into a strategic partnership bearing the name “DOLCE” to develop a new generation of natural sweeteners with the natural ingredients specialist and BRAIN subsidiary AnalytiCon, and with Roquette, a market leader for ingredients derived from plant-based raw materials. These three partners have set themselves the challenge of developing new concepts in the sugar and sweeteners area in various markets and applications.

An example to cite here is the natural peptide brazzein, which is 1,200 times sweeter than normal sugar, but has none of its disadvantages. This is one of around 60 natural sweeteners that we have collected within a “SweetBox”. Equally exciting is a second product line where we are developing substances that boost the sweetness of normal sugar. This is the industry’s holy grail, as these natural substances should reduce sugar content in foods but retain the typical sugar taste.

———— **Pleasingly, we are in very advanced negotiations with two large consumer goods companies about also including them in DOLCE directly in development. According to our planning today, the first products containing these ingredients can be launched on the market in around five to six years.**

We have some progress to report in these areas, in other words. In the enzymes business, however, we had to face a challenge in 2015/16 due to certain enzyme products used to manufacture bioethanol. A marked decrease occurred here at the start of the year as some bioethanol manufacturers temporarily shut down their plants due to the very low oil price. This special enzyme business has nevertheless recovered over the course of the fiscal year under review.

Due to such volatility in low-margin, high-volume markets, we also regard ourselves as being endorsed in the strategy we have adopted of increasingly expanding our higher-margin special enzymes business (e. g. enzymes for the food manufacturing industry), to thereby gradually counter the commoditisation of volume-driven “bulk” enzymes. We reported low double-digit growth in the special enzymes area in the 2015/16 fiscal year. This growth was not yet sufficient to fully offset the reduction in the bioethanol-dependent enzyme business at the start of the 2015/16 fiscal year, but trends over the course of the year give us confidence.

The result for the fiscal year under review reflects the additional expenses and one-off costs connected with realising the IPO, as well as almost unchanged and constant expenses and investments for research and development as the basis for the product development pipeline. While only part of the one-off expenses that are directly allocable to the IPO in accordance with IFRS accounting principles can be taken into account in adjusted EBIT, we largely retained our operative cost structure as planned.

This confirms us on our path of reaching breakeven in the 2017/18 fiscal year. The aim is to establish BRAIN long-term and sustainably as a substantial market participant of the bio-based economy. Our product development pipeline is an important growth pillar in this context. Moreover, we are not excluding further acquisitions.

“Engineering Biology”, the technological utilisation of biological processes within the industrial environment, is our guiding principle and the title of this annual report. Realising this objective gives us new impetus every day. Inspired by the vision of a sustainable, bio-based economy, BRAIN is one of the creative players in this global industrial transformation process.

Here, we have our highly committed employees’ contribution and input to thank for our successes. Also on behalf of my Management Board colleagues, I would like to thank you for your commitment and for your hard work day by day. And I would also like to thank you, our shareholders, for your continuing support and confidence in BRAIN.

Together with you, I would like to wish our company a successful and exciting 2016/17 fiscal year, and wish you stimulating reading of our first annual report.



**Dr Jürgen Eck** — Chief Executive Officer

## Dear shareholders,

In the 2015/16 financial year, BRAIN AG continued successfully on its adopted track, reaching further milestones on its path to becoming a leading company in the bioeconomy area.

With the IPO in February 2016 and consequently the departure from the previous pure private equity financing, more than € 30 million of cash inflow laid the foundation for the company's next growth phase. Since 9 February 2016, the shares of BRAIN AG have been traded in the Prime Standard segment of the Frankfurt Stock Exchange. The company is thereby subject to the most stringent transparency and publicity requirements applicable anywhere in Germany.

This also affected our Supervisory Board work. Firstly, it includes regulations and requirements that impact the Supervisory Board directly. Secondly, the Supervisory Board also has to accompany and supervise the Management Board in complying with the new regulations and assure itself that corresponding structures and processes have been set up within the company to ensure such compliance. Moreover, as the Supervisory Board we provided personnel support for the structural change. For instance, a resolution was passed on 18 December 2015 whereby Dr Georg Kellinghusen would step down from the Supervisory Board and instead assume the position of Chief Financial Officer (CFO) of BRAIN AG from 1 January 2016 to 31 December 2016. Dr Kellinghusen's Management Board mandate was also extended until the

end of the first Ordinary Annual General Meeting (AGM) in the 2016/17 financial year.

The following report provides information about the Supervisory Board's work in the 2015/16 financial year, in other words, from 1 October 2015 until 30 September 2016. During this period, we completely fulfilled the tasks and duties incumbent upon us pursuant to the law, the company's bylaws and the rules of business procedure for the Supervisory Board.

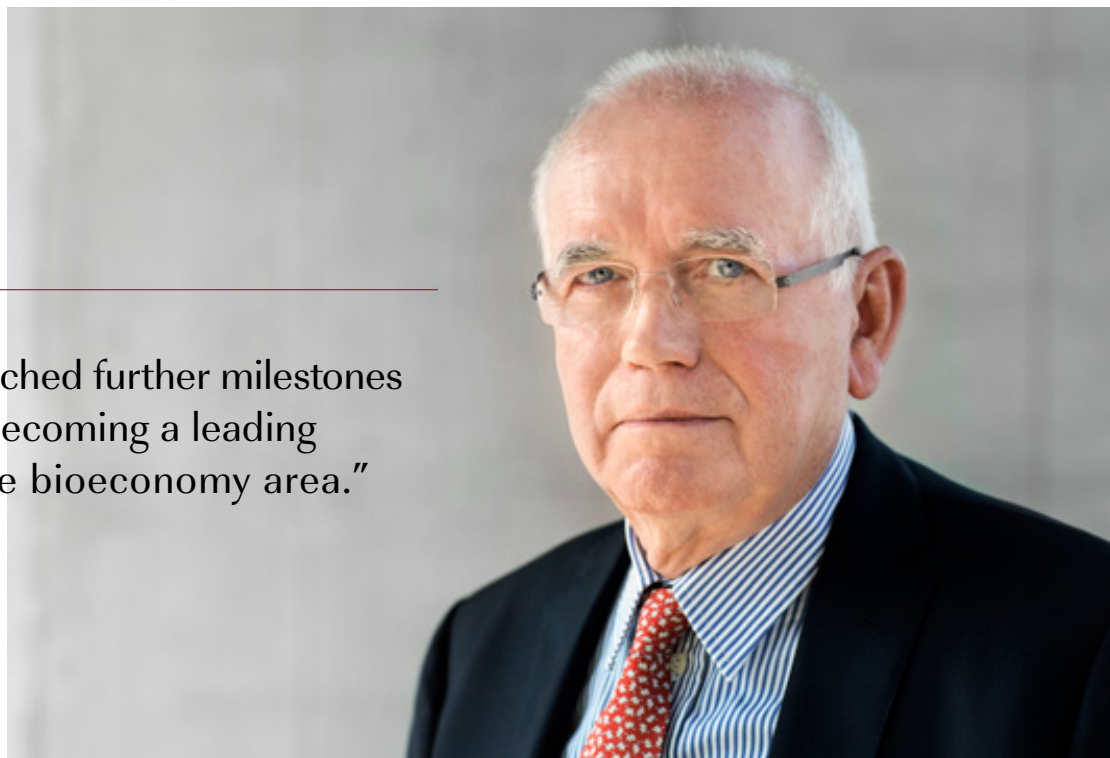
We continuously supervised the Management Board in its management of the business, and consulted on all matters of importance for the company. In this context, the Supervisory Board was always convinced of the legality, propriety, appropriate nature and economic efficiency of the management of the company.

### **Collaboration between the Supervisory and Management Boards**

The Management Board informed the Supervisory Board regularly, promptly and comprehensively in the form of detailed written and verbal reports on

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“BRAIN has reached further milestones on its path to becoming a leading company in the bioeconomy area.”



Dr Ludger Müller — Chairman of the Supervisory Board

all questions relating to strategy, planning, business development, the risk position, risk trends and compliance that are of importance for the company and the Group, and consequently complied fully with its reporting duties to the Supervisory Board in the relevant period. The Supervisory Board and its committees were involved in all important business transactions and decisions of fundamental significance for the company in this context. Collaboration with the Management Board was characterised in all aspects by responsible and purposeful action.

## Personnel matters

The following changes occurred to the composition of the Management and Supervisory Boards in the reporting period:

With effect as of 1 November 2015, Mr Eric Marks (54) was appointed Chief Operating Officer (COO) of BRAIN AG. Dr Jürgen Eck, who has been at BRAIN and been a member of its shareholder group since 1994 and previously managed the company as sole Management Board member (CEO), assumed the role of Chairman of the Management Board

(CEO). Eric Marks holds a degree in business management and has more than 25 years' experience in industry, particularly in establishing and expanding sales, and acquiring and serving major customers at Gist-Brocades (NL) and Genencor (USA). At BRAIN, Mr Marks is responsible as COO for BRAIN's BioIndustrial business, and consequently the expansion of the subsidiaries' sales functions, as well as marketing BRAIN's own product pipeline.

With effect as of 1 January 2016, Dr Georg Kellinghusen was appointed Chief Financial Officer (CFO) of BRAIN AG. Dr Kellinghusen was previously a member of the Supervisory Board of BRAIN AG. Dr Kellinghusen stepped down from the Supervisory Board as of 31 December 2015. Following its extension, this CFO appointment is valid for the period from 1 January until the end of the first Ordinary AGM in the 2016/17 financial year.

The AGM of BRAIN AG on 18 December 2015 unanimously appointed Mr Christian Körfgen to be a new Supervisory Board member with effect as of 1 January 2016, whereby he assumed the seat that Dr Georg Kellinghusen vacated.

## Supervisory Board meetings

In the 2015/16 financial year, a total of eight Supervisory Board meetings were held on an attended basis, four attended meetings of the committees, as well as nine telephone conferences of the Supervisory Board and the committees, and two resolutions were passed by way of written circular. The Supervisory Board members always had sufficient time in this context to critically engage with the information submitted by the Management Board and contribute its own views. As part of the meetings, the information was discussed in detail with the Management Board and examined as to its plausibility. The Supervisory Board issued its approval of specific business transactions as required by law, the company's bylaws or the rules of business procedure for the Supervisory or Management Boards.

TABLE 01.1 OVERVIEW OF SUPERVISORY BOARD MEETINGS IN THE 2015/16 FINANCIAL YEAR

Name	Meetings attended (including committee meetings)	Remarks
Dr Ludger Müller	11/11	
Dr Holger Zinke	8/8	
Siegfried L. Druucker	8/9	Mr Druucker was excused
Christian Körfggen (since 01.01.2016)	4/4	Replacement member for Dr Georg Kellinghusen
Prof Dr Klaus-Peter Koller	8/8	
Dr Matthias Kromayer	11/11	
Dr Georg Kellinghusen (until 31.12.2015)	4/4	

Outside the scope of meetings, too, the Supervisory Board members, especially myself as Supervisory Board Chairman, as well as the Audit Committee Chairman, were in regular communication both with each other and with the Management Board. This

especially entailed consultations on questions about the company's strategy, planning, business development, the risk position, risk management, corporate governance and compliance. The Supervisory Board members were informed about important information at the latest at the next plenary or committee meetings.

No conflicts of interest occurred in the Supervisory Board in the reporting period.

## Focus areas of consultation in the plenary Supervisory Board

During the 2015/16 financial year, we on the plenary Supervisory Board concerned ourselves especially with the following topics.

- Annual financial statements for the 2014/15 financial year
- Shareholders' general meetings in October 2015 and December 2015
- Expansion of the Management Board
- Business allocation plan for the Management Board
- Planning, preparation and implementation of the IPO of BRAIN AG
- Equity capital measures
- Current and future research projects
- Strategic alliances and planned cooperations, especially the DOLCE project announced by press release on 28 August 2016
- Acquisition strategy of BRAIN AG, especially discussion of a catalogue of criteria for potential takeover candidates as presented by the Management Board
- Reaching the corporate targets for the 2015/16 financial year, especially developing the BioIndustrial and BioSciences divisions
- Risk management and internal controlling systems
- Compliance, especially management of an insider register, information for affected individuals, and



the introduction of share trading windows for BRAIN employees and managers

- Composition of the Supervisory Board and the ratio of women on the Management and Supervisory Boards
- Corporate governance report and the corporate governance statement of conformity
- Budget for the 2016/17 financial year
- Employee share scheme in the 2016/17 financial year (from the first half of the year)
- Tender for the audit of the financial statements for the 2016/17 financial year
- Restructuring of the Intended Post IPO Framework Agreement (PSOPalt)

In each case following intensive review and discussion, the Supervisory Board passed the following specific resolutions:

Our plenary meetings during the first five months of the financial year focused on resolutions connected with the IPO of BRAIN AG. On 4 January 2016, given the difficult capital market situation, we conducted an intensive discussion concerning the timing of the planned IPO and finally approved the publication of the flotation plans. A corresponding press release was published on 5 January 2016. At the 19 January 2016 meeting, we approved the timing of the subscription period as well as the IPO price range of € 9.00 to € 12.00. These were published on 20 January 2016 with the listing prospectus. At the end of the subscription period, on 3 February 2016, by way of circular resolution, we approved the € 9.00 issue price as well as the IPO capital increase from Approved Capital (2015/I) of up to 3,500,000 new no par value shares.

In the telephone conference on 5 December 2015, the Supervisory Board approved the documents for the annual financial statements for the 2014/15 financial year, and assented to the Management Board's proposal for the application of unappropriated profit. We subsequently released the

2014/15 annual financial statements, together with the 2012/13 and 2013/14 financial statements, for publication in the listing prospectus.

In the meetings and resolutions of 14 October 2015 and 18 December 2015, the Supervisory Board approved the expansion of the Management Board to include a COO and a CFO in light of the company's growth strategy for the future. The corresponding Management Board contracts as prepared by the Personnel Committee were approved in meetings and resolutions of 30 October 2015 and 19 January 2016, and the allocation of business for the Management Board was realigned accordingly.

The meeting on 23 September 2016 included, among other items, decisions concerning the Intended Post IPO Framework Agreement (PSOP), the termination of the Management Board employment contract with Mr Marks as of 31 October 2016 and the reappointment of Mr Goebel (with effect as of 1 November 2016).

As part of the meeting on 23 September 2016, the Supervisory Board launched the review of its efficiency. The Supervisory Board Chairman distributed corresponding questionnaires for this purpose. The results of this efficiency review were presented and discussed in the Supervisory Board, including consultations about potential improvements.

## Committees

The Supervisory Board has currently formed a total of three committees to efficiently perform its work: an Audit Committee, a Nomination Committee and a Personnel Committee. These committees prepare resolutions for the Supervisory Board as well as topics that are to be covered by the plenary session. The Supervisory Board's decision-making powers are also transferred to committees where legally permissible. In all cases, the committee chairs report on the committees' work at the subsequent plenary meeting.

### **Audit Committee**

The Audit Committee concerns itself especially with supervising the financial accounting process, the effectiveness of the internal control system, the risk management system, the auditing of financial statements, and here especially the auditor's independence, services rendered additionally by the auditor, setting the focus areas for the audit and agreeing the audit fee, as well as compliance.

Pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG), the audit committee must include at least one independent Supervisory Board member with expertise in financial accounting or financial auditing. The Audit Committee Chairman, Siegfried L. Druker, meets these statutory conditions and also possesses special knowledge in the areas of mergers & acquisitions, corporate finance and investment banking. He also meets the criteria of Section 5.3.2 Clauses 2 and 3 of the Code. Along with its Chairman, the Audit Committee also includes the further Supervisory Board members Dr Ludger Müller and Dr Matthias Kromayer.

The Audit Committee held two attended meetings and four telephone conferences in the 2015/16 financial year.

### **Nomination Committee**

The Nomination Committee did not meet separately in the 2015/2016 financial year.

### **Personnel Committee**

The Personnel Committee prepares personnel decisions for the Supervisory Board, especially including the selection, appointment and dismissal of Management Board members, the conclusion and amendment of service contracts and pension arrangements, the compensation scheme including its implementation as part of the service contracts, target setting for variable compensation, setting and

reviewing appropriate total compensation for each Management Board member, and approving the annual compensation report. The Personnel Committee also passes resolutions concerning the representation of the company as against Management Board members pursuant to Section 112 AktG, the approval of Management Board members' other business activities pursuant to Section 88 AktG (prohibition of competition), and other ancillary activities, especially assuming Supervisory Board posts or positions on comparable controlling bodies outside the BRAIN Group. Dr Ludger Müller is the Chairman of the Personnel Committee. Besides the Chairman, the committee includes the Supervisory Board member Dr Matthias Kromayer.

The Personnel Committee held two meetings and one telephone conference in the 2015/16 financial year. With effect as of 1 November 2015, Mr Eric Marks (54) was appointed COO, and with effect as of 1 January 2016, Dr Georg Kellinghusen was appointed CFO of BRAIN AG.

The Personnel Committee also consulted in detail on Mr Frank Goebel's appointment to the Management Board and the termination of the Management Board contract with Mr Marks, and prepared the extension of Dr Kellinghusen's Management Board contract.

## **Corporate governance and statement of conformity**

As part of its meeting on 19 January 2016, the Supervisory Board consulted in detail concerning the company's corporate governance, including requirements deriving from the Corporate Governance Code, covering in depth some aspects of corporate governance at its meetings on 26 February and 30 May 2016.

Rules of business procedure for both the Audit Committee and the Personnel Committee were approved on 23 September 2016.

The company's first statement of conformity was approved by the Supervisory Board by way of written circular after the end of the 2015/16 fiscal year in December 2016. Apart from the exceptions it justifies, the recommendations of the Code were, and are, complied with. The full wording of the statement of conformity as well as the Corporate Governance Report prepared by the Management and Supervisory Boards of BRAIN AG, and the corporate governance statement, are published on the company's website at [www.brain-biotech.de/en/investor-relations/corporate-governance](http://www.brain-biotech.de/en/investor-relations/corporate-governance).

→ Corporate Governance Report p. 103

In connection with the provisions of Section 111 (5) of the German Stock Corporation Act (AktG), the Supervisory Board has set itself the target of taking women into appropriate account in its future composition. Accordingly, resolutions passed at the 23 September 2016 meeting of the Supervisory Board of BRAIN AG included a resolution that the Supervisory Board should include one woman, corresponding to a 17 % ratio. The implementation period for this target runs until 30 June 2017. Also on 23 September 2016, the Supervisory Board passed a resolution to leave the ratio of women for the Management Board of BRAIN AG unchanged until 30 June 2017 (corresponding to a 0 % ratio).

## **Audit of the separate and consolidated annual financial statements**

### **Auditor**

The Annual General Meeting on 18 December 2015 determined that PricewaterhouseCoopers Aktiengesellschaft Wirtschaftsprüfungsgesellschaft (PwC), Frankfurt am Main, should be the auditor for the financial year ending 30 September 2016. This appointment also includes appointing the auditor for the consolidated financial statements for the finan-

cial year ending 30 September 2016. PwC audited the separate annual financial statements for the financial year from 1 October 2015 to 30 September 2016 prepared according to the financial accounting regulations of the German Commercial Code (HGB), as well as the management report for BRAIN AG. The auditor, PwC, awarded an unqualified audit certificate. Pursuant to section 315a of the German Commercial Code (HGB), the consolidated financial statements of BRAIN AG for the financial year from 1 October 2015 to 30 September 2016 and the Group management report were prepared on the basis of International Financial Reporting Standards (IFRS), as applicable in the European Union. Both the consolidated financial statements and the Group management report were also awarded an unqualified audit certificate. The auditor also found that the Management Board has set up an appropriate information and supervision system that is suitable in its design and use to identify developments at an early juncture that jeopardise the company as a going concern.

### **Review by the Supervisory Board**

The documents for the financial statements and the audit reports were discussed extensively at the Audit Committee meeting on 12 December 2016, in the telephone conference on 19 December 2016 as well as at the Supervisory Board meeting on 10 January 2017. The auditor, PwC, reported on the main results of its audit. It also provided information about its findings on internal control and risk management in relation to the financial accounting process, and was available for additional queries and information. The review of the separate and consolidated financial statements by the Audit Committee was reported upon in detail by its Chairman at the plenary meeting. Following in-depth reviewing and discussion of the separate financial statements, the consolidated financial statements and the combined management report, the Supervisory Board raised no objections to the documents submitted. The Supervisory Board

consequently concurs with the Audit Committee's recommendation and approves the result of the audit by the auditor. By way of resolution on 15 January 2017, the Supervisory Board then approved the separate and consolidated annual financial statements of BRAIN AG for the 2015/16 financial year. The separate annual financial statements of BRAIN AG have been adopted as a consequence.

### **Report on the review of the dependent companies report pursuant to Section 314 of the German Stock Corporation Act (AktG)**

Moreover, the Supervisory Board reviewed the report prepared by the Management Board on relationships with affiliates pursuant to Section 312 (1) of the German Stock Corporation Act (AktG) for the period of dependency between 27 October 2015 and 4 February 2016 ("dependent companies report") and discussed it extensively with the Management Board and with the auditor that also audits the dependent companies report.

The auditor reported in detail on the main points of its audit. In this context, the Supervisory Board concerned itself in depth with the report on the audit of the dependent companies report by the auditor. The discussion resulted in no grounds for reservations.

The auditor issued the following audit opinion relating to the dependent companies report:

"In accordance with the audit and appraisal incumbent upon us, we confirm that

1. the actual disclosures presented in the report are correct, and
2. for the legal transactions listed in the report the consideration rendered by the company was not inappropriately high."

Following the conclusive results of the extensive review of the dependent companies report by the Supervisory Board, the Supervisory Board states that no reservations are to be expressed (Section 314 (3) AktG) against the Management Board statement at the conclusion of the report concerning relationships with affiliates (concluding statement pursuant to Section 312 (3) Clause 1 AktG).

### **Thank you from the Supervisory Board**

The Supervisory Board would like to thank the members of the Management Board as well as all employees of the BRAIN Group for their commitment and outstanding personal contribution during the 2015/16 financial year. We look forward to continuing the past years' growth story together with you.

Zwingenberg, 15 January 2017



BRAIN AG, the Supervisory Board

**Dr Ludger Müller** — Supervisory Board Chairman

# Members of the Supervisory Board and Supervisory Board committees

→ see also:  
Statement of  
conformity  
p. 111

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## Dr Ludger Müller, Chairman

Member since 17 March 2011.

Appointed until end of AGM 2018/19.

Further board mandates in 2015/16:

- Managing Director of subsidiaries of MP Beteiligungs-GmbH: PUTSCH Immobilien GmbH, KEIPER Brasilien Beteiligungs-GmbH, KEIPER Lateinamerika Beteiligungs-GmbH, BSN GmbH, Managing Director of BRL GmbH
- TU Kaiserslautern, University Council Chairman

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## Dr Holger Zinke, Deputy Chairman

Member since 8 July 2015.

Appointed until end of AGM 2016/17.

Further board mandates in 2015/16:

- Technische Universität Darmstadt, University Council member, Deputy Chairman
- Hochschule Mannheim – University of Applied Sciences, University Council member

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## Siegfried L. Druker

Member since 3 May 2012.

Appointed until end of AGM 2019/20.

Further board mandates in 2015/16:

- Georgsmarienhütte Holding GmbH, Supervisory Board Chairman
- Georgsmarienhütte Holding GmbH, Supervisory Board member
- Managing Director of STEGO Vermögensverwaltungs GmbH

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## Christian Körfggen<sup>1</sup>

Member since 1 January 2016.

Appointed until end of AGM 2018/19.

Further board mandates in 2015/16:

- Putsch GmbH & Co. KG, Advisory Board member, and member of the Advisory Boards of affiliates of Putsch GmbH & Co. KG (MP Beteiligungs-GmbH, Recaro Holding GmbH, Putsch Immobilien GmbH)
- until 31 March 2016: Managing Director of NH Central Europe GmbH & Co. KG and Managing Director of several affiliates of NH Central Europe GmbH & Co. KG (Airport Hotel Frankfurt Raunheim GmbH & Co. KG, Artos Beteiligungs-GmbH, Astron Immobilien GmbH, Heiner Gossen Hotelbetrieb GmbH, Hotel Aukamm Wiesbaden GmbH & Co. KG, Hotels Bingen & Viernheim GmbH & Co. KG, NH Central Europe Management GmbH, NH Hotelbetriebs- und Dienstleistungs-GmbH, NH Hotelbetriebs- und Entwicklungs-GmbH, NH Hotels Austria GmbH, NH Hotels Deutschland GmbH, NH Hotels Switzerland GmbH, NH Hotels Czequia s. r. o., NH Hotels Polska Sp. Zo. o., NH Hungary Hotel Management Ltd., NH Management Black Sea S. R. L., Objekt Leipzig Messe GmbH & Co.)

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## Prof Dr Klaus-Peter Koller

Member since 21 May 2001.

Appointed until end of AGM 2016/17.

Further board mandates in 2015/16:

- Member of the German Federal Ministry of Education and Research (BMBF) VIP+ Consultant Board
- Member of the Joint Board of Trustees of the Max Planck institutes for Biophysical Chemistry/Dynamics and Self-Organization, Göttingen
- Member of the Advisory Council and Honorary Member of the German Association for General and Applied Microbiology (VAAM)

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## Dr Matthias Kromayer

Member since 17 March 2011.

Appointed until end of AGM 2018/19.

Further board mandates in 2015/16:

- Amsilk GmbH, Advisory Board Deputy Chairman
- Biocrates AG, Supervisory Board Deputy Chairman
- Cerbomed GmbH, Advisory Board Chairman
- Immatic GmbH, Advisory Board member
- Immatic Inc., Advisory Board member
- Nexigen GmbH, Advisory Board Chairman
- Managing Director of tavia consulting GmbH

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## Audit Committee

**Siegfried L. Druker**, Chairman

**Dr Matthias Kromayer**, Member

**Dr Ludger Müller**, Member

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## Nomination Committee

**Dr Ludger Müller**, Chairman

**Dr Matthias Kromayer**, Member

**Dr Holger Zinke**, Member

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## Personnel Committee

**Dr Ludger Müller**, Chairman

**Dr Matthias Kromayer**, Member

<sup>1</sup> Successor to Dr Georg Kellinghusen, who was a Supervisory Board member until 31 December 2015, and who switched to the Management Board to become CFO as of 1 January 2016

# The bioeconomy, a cornerstone of the “great transformation” of the economic system

An article by Dr Holger Zinke, founder of BRAIN AG

About ten years ago, the German Federal Environmental Foundation (DBU), the German Chemical Industry Association (VCI) and BRAIN organised the “White Biotechnology – success strategy for a sustainable chemical industry” congress in Berlin, under the patronage of then Federal Minister of Economics, Wolfgang Clement. In late 2015, again in Berlin, the Global Bioeconomy Summit was held. Organised by the Bioeconomy Council and under the patronage of the German Chancellor, the event was attended by almost 1,000 participants from 80 countries.

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**“I think the biggest innovation of the twenty-first century will be the intersection of biology and technology. A new era is beginning, just like the digital one.”**

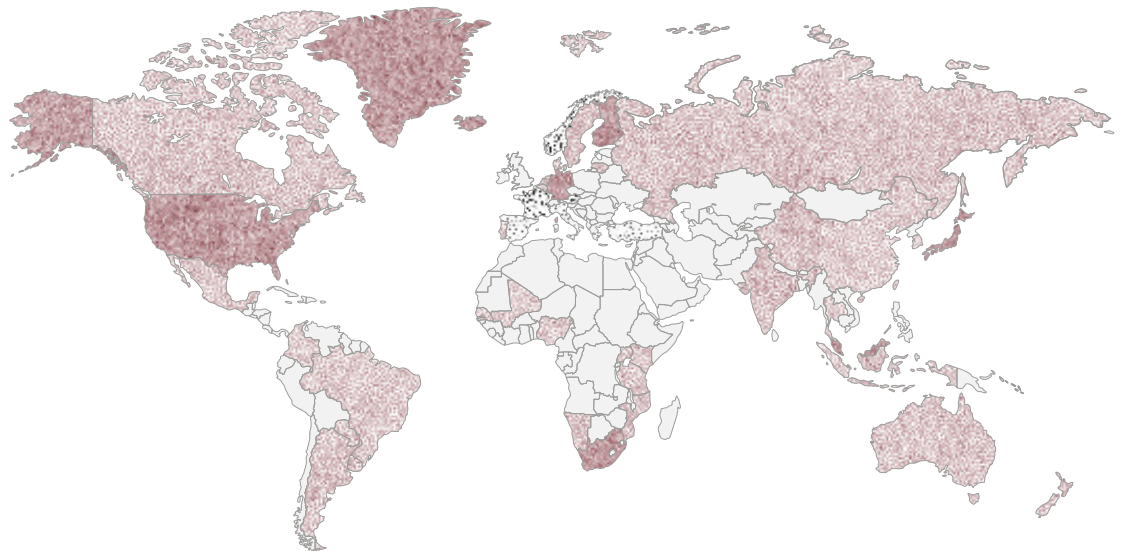
**Steve Jobs (1955–2011)** — founder, Apple Inc.

While these are certainly signs of a rise in political esteem, the “bioeconomy” remains a specialist theme in industry and the capital market. Unjustly so, since more than 40 nations around the globe are meanwhile developing and implementing bioeconomy strategies with goals such as fostering innovation, sustainable development and green growth.

Not only did the German Government launch the National Research Strategy on the Bioeconomy in 2010, two years later a National Policy Strategy on the Bioeconomy was endorsed by cabinet decisions. What is striking is that this was not the promotion initiative of a single ministry, but a cross-ministerial strategy by the German Government as a whole. As a consequence, BRAIN initiated two strategic industrial alliances.

Despite these initiatives, the bioeconomy has not yet assumed its appropriate place on the priority list of industrial companies’ strategies or the programmes of the political parties. Although such initiatives boost the competitive position of a technology enterprise as a pioneer and technology gate keeper, they are not enough in macroeconomic terms. Experts believe the bioeconomy represents a similarly important development as that of other system innovations such as digitisation, industry 4.0 or electromobility. Since the bioeconomy represents a prototype for broad-based, post-fossil industrial development, such comparisons are far from exaggerated. Quite the contrary.

But the transformation of traditional industries is still in its infancy. Representatives of established industries argue that switching over the resource base to renewable resources is impossible both in economic terms and in terms of volume. The Bioeconomy Council appointed by the Ger-







man Government anticipated this argument in its study on the chemical industry several years before. It established that investments in new fossil production plants would be more probable (being more lucrative in the short and medium term) than the broad implementation of new bio-based processes and products.

This viewpoint, while at first glance coherent, ignores social change, though, especially the change in consumer awareness. Citizens are becoming increasingly uneasy as regards the established fossil-based economy. Such citizens may be in the minority and there may be differences from country to country. This trend may be based on illogical arguments, such as those that apply to organic foods, but it is nonetheless a strong and presumably irreversible development and one that industry would do well to take seriously. Interestingly, the companies that are reacting to this trend are more likely to be medium-sized enterprises such as BRAIN than operators of world-scale facilities. In so doing, they achieve considerable economic success using biological knowledge, whether this concerns organic cosmetics, biological ingredients, microorganisms or enzymes.

The bioeconomy is therefore nothing less than a significant element of the “great transformation” of economic systems that climate scientists, for example, are continually calling for. The pathbreaking decisions taken at the United Nations Climate Change Conference (COP 21) came into force on 4 November 2016 in the form of the world climate agreement. Changes in the social awareness of issues related to resources, energy and the climate, as well as nutrition and health, are strong drivers. They will make the bioeconomy a social theme that will demand ever more substantial responses from industry, responses that industry will certainly be called to make.

**Bioeconomy policies around the world<sup>1</sup>**

-  Dedicated bioeconomy strategy
-  Bioeconomy-related strategy
-  Bioeconomy-related strategy; dedicated bioeconomy strategy under development
-  Dedicated bioeconomy strategy under development



**Dr Holger Zinke**

Dr Holger Zinke, micro- and molecular biologist, is the founder of BRAIN. He was the company’s Chief Executive Officer before switching over to the Supervisory Board in July 2015. Dr Zinke received the German Environmental Award, the highest-endowed European environmental prize, in 2008 together with Dr Ernst-Ulrich von Weizsäcker, for his entrepreneurial endeavours as a “pioneer of sustainable economic activity”. In 2009 he received the German Federal Cross of Merit and in 2011 the highest distinction of the German Life Sciences Association (VBIO), the Treviranus Medal. He is a member of the German Government’s Bioeconomy Council, where he is in charge of the working group on competition.

<sup>1</sup> German Bioeconomy Council

# Senior Management

BRAIN is managed by an experienced team, some of whose members have been with the company for over 15 years.

BioScience

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**Dr Martin Langer** Member of the Management Board, authorised signatory, Unit Head Corporate Development, with the company since: March 1995

Corporate

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**Dr.-Ing. Ute Dechert** Unit Head Organisation & Processes, with the company since: April 1996

BioIndustrial

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**Dr Bela Kelety** Unit Head New Business Development, with the company since: October 2010





**Dr Michael Krohn** Member of the Management Board, authorised signatory, Unit Head BioActives & Performance Biologicals, with the company since: September 1997



**Dr Guido Meurer** Member of the Management Board, authorised signatory, Unit Head Producer Strain Development, with the company since: April 2000



**Thomas Kessler** Member of the Management Board, Unit Head Cosmetics, with the company since: August 2015



**Dr Wolfgang Aehle** Corporate Development, New Business Development Enzymes, with the company since: September 2008

# BRAIN Management Board interview

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**Dr Georg Kellinghusen**  
Chief Financial Officer  
(CFO)

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**Dr Jürgen Eck**  
Chief Executive Officer  
(CEO)

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**Frank Goebel**  
Management Board  
since 1 November 2016

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**“We aim to establish BRAIN as a substantial player in the bio-based industry.”**

**Dr Jürgen Eck** — Chief Executive Officer

**At its meeting in September 2016, the Supervisory Board of BRAIN made a personnel decision to establish a six-month transition period between the current CFO Dr Kellinghusen and the future CFO Frank Goebel.**

**Dr Kellinghusen, you have 35 years' experience as a CFO. How were you able to contribute this experience as a member of BRAIN's management team?**

**GEORG KELLINGHUSEN**

Having been CFO at many listed companies I was able to prepare BRAIN as a newcomer to the stock market for the situation of “being public” and also launch and establish areas such as investor relations and financial communication. All of that has now proved outstandingly successful and it goes without saying that I'll continue to be available to the company in an advisory capacity, as required, after I've stepped down from the Management Board.

**Mr Goebel, you were Mr Kellinghusen's chosen candidate as his successor. How do you now feel about continuing to act for a while as “co-head”?**

**FRANK GOEBEL**

I feel honoured to be able to benefit during this type of handover period from the broad knowledge of my predecessor, who has already spent such a long successful period in the business.

**And why have you decided to work together for a further period of almost six months?**

**GEORG KELLINGHUSEN**

As I'm responsible for the figures in the 2015/16 annual report, the Supervisory Board made the decision to extend my mandate until the Annual General Meeting on 9 March 2016. This gesture also made it possible to ideally prepare my successor Frank Goebel in a targeted manner for his future tasks as CFO on BRAIN's Management Board.

**Mr Goebel, what experience have you gained from past situations before coming to BRAIN?**

**FRANK GOEBEL**

I worked for a long time for the Royal Bank of Scotland, in the financing area, where I gained expertise in quickly finding my bearings within new companies and rapidly gaining an overview of their respective business areas and potential. I can now directly apply this capability especially in M&A activities at BRAIN, as well as operatively in terms of bringing new business partners on board. I also benefit from my closely knit network in this context.

**Can you provide an outlook of your future tasks at BRAIN?**

**FRANK GOEBEL**

I'm going to be responsible for the areas of BioIndustrial, M&A, and – as CFO from the day after the AGM on 9 March 2017 – also for finance.



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“Our joint goal is to reach break-even point in 2017/18.”

**Frank Goebel** — Member of BRAIN's Management Board

**In which areas will you mainly operate, Dr Eck?**

**JÜRGEN ECK**

Along with my CEO tasks, my area of activity on the new Management Board comprises BRAIN's overall strategy, as well as driving business ahead in the BioScience area.

**Where is the BRAIN journey heading? Do you have specific targets you aim to meet?**

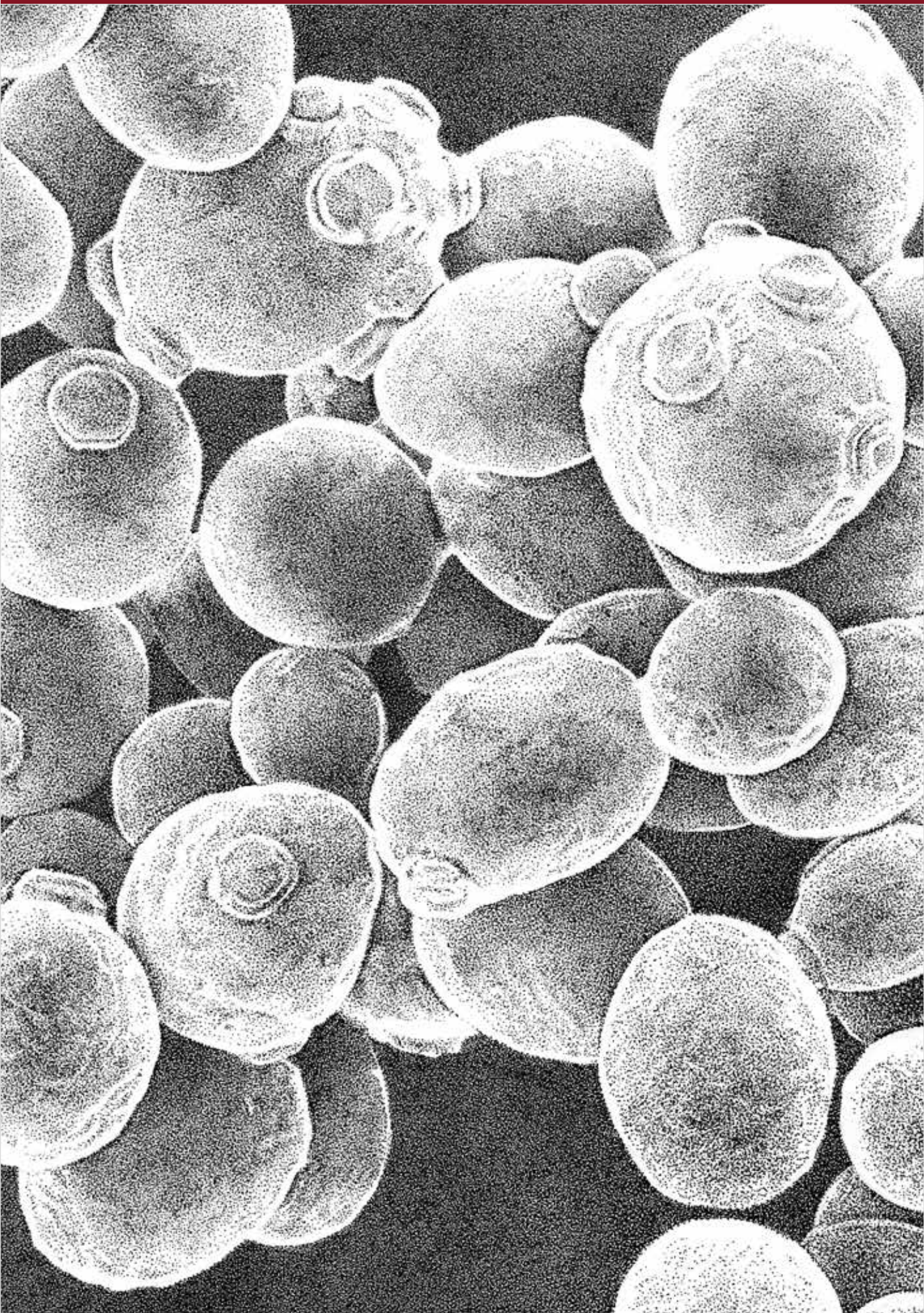
**JÜRGEN ECK**

We aim to establish BRAIN as a substantial player in the bio-based industry. In addition to

this, we intend – as already in the past – to grow at a double-digit rate. We also stand by our planning of reaching break-even in our 2017/18 fiscal year.

**FRANK GOEBEL**

We're not going to set out precise scenarios at present. The outlook BRAIN can provide is that we aim to market an average of two products per year from our pipeline. We're confident we can also achieve this successfully.

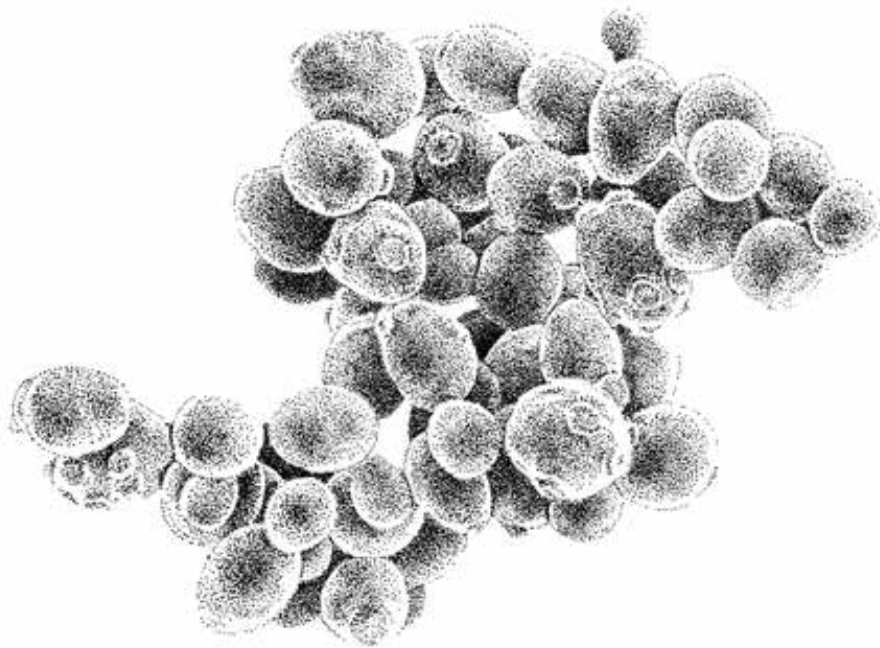






# Natural sweetness without sugar

—> Tastes like sugar but does no harm: the plant-based sweetener brazzein can be produced using yeast BR-6724.



## Properties

BR-6724 is a eukaryotic micro-organism, a yeast species used by BRAIN as one of 15 production strains for the synthesis of peptides.

It is a methylotrophic yeast, i. e. an organism that is capable of using methanol as its sole source of energy and carbon for its growth and metabolism.

## Status

BR-6724 has been accorded GRAS status ("generally regarded as safe") by the U.S. Food and Drug Administration (FDA) and also has QPS status ("Qualified Presumption of Safety") at the European Food Safety Authority (EFSA).

## Advantages

- easy to culture
- high genetic stability
- short generation time
- can be cultured over a wide pH range
- can be cultured at very high cell densities
- can very efficiently release peptides from the cell
- the high product yields make for a good space-time yield



16.8 bn  
6,500  
1,200

The **amount in euros** the German health care system alone would be able to save in annual costs if the population's consumption of sugar, salt and fats were in line with official recommendations. Of this amount, € 8.6 billion concerns the consumption of sugar.<sup>1</sup>

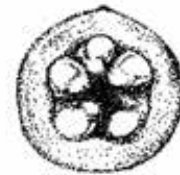
**daltons** – the molecular weight of brazzein

Brazzein is 1,200 **times sweeter** than sugar.

— From tooth decay and obesity to diabetes, **too many sweet things make us ill** and place a strain on health insurance schemes. So low-calorie alternatives to sugar that go easy on our teeth are very popular. The problem is, they often have an unpleasant overtone.

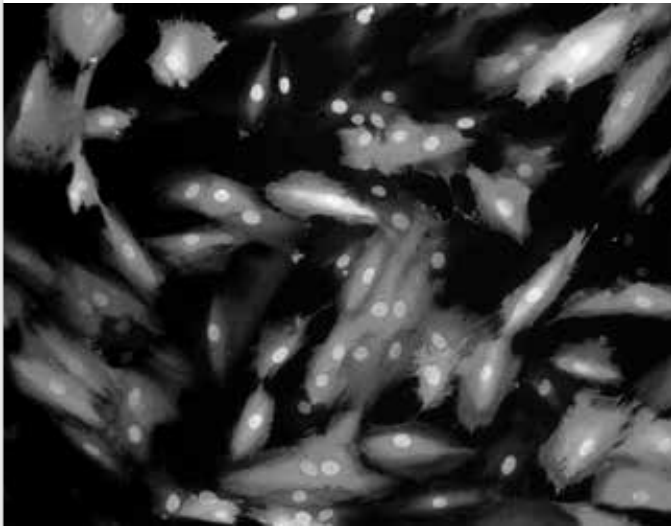
— The berries of the African plant *Pentadiplandra brazzeana*, however, taste so good that children forget to watch out for their mothers and lose all sense of time when chomping on the berries in the forest. Hence the name given to the plant by the local people – ‘Oubli’, from the French for ‘to forget’.

— The fruits of this plant contain a small natural peptide called brazzein that is **up to 1,200 times sweeter than sugar**, with a very similar taste. Brazzein is low in calories and considered to be very well-tolerated, given the long history of its consumption. Because it is soluble in water and has other favourable technical properties, it is also **an ideal substitute for sugar in industrial food production**.



Brazzein occurs naturally in the West African plant *Pentadiplandra brazzeana*. Since it is difficult and costly to extract the substance from the plant itself, manufacturing it by biotechnological methods is of great interest.

<sup>1</sup> Healthcare Costs Associated with an Adequate Intake of Sugars, Salt and Saturated Fat in Germany: A Health Econometric Analysis, Dr Toni Meier et al., Martin Luther University Halle-Wittenberg, PLOS one, 9 September 2015



Immortalised cell lines isolated from human taste cells: when searching for the next generation of natural sweeteners or sweetness enhancers, BRAIN makes use of its own patented Human Taste Cell Screening Technology.

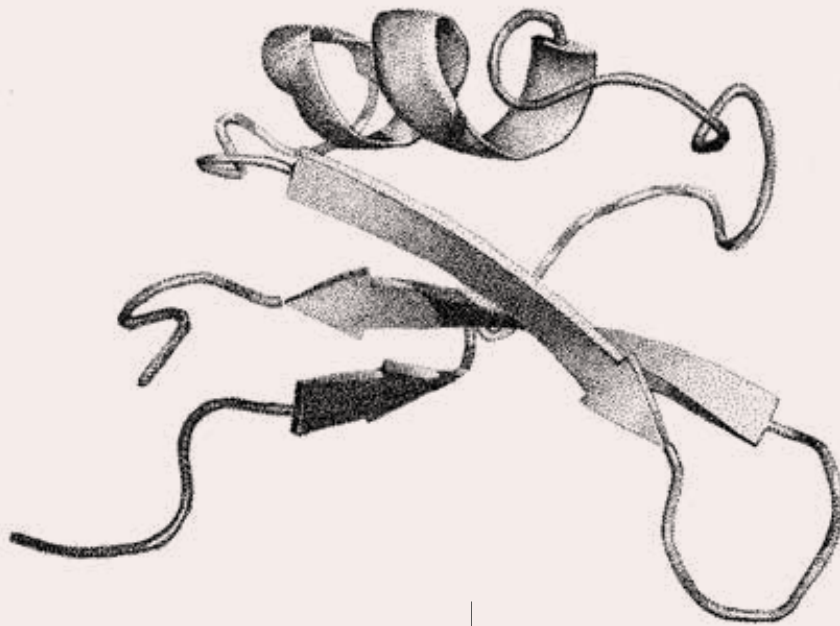
———— Isolating brazzein from the plant is time-consuming, unsustainable and costly. BRAIN has therefore developed a **biotechnical process using the yeast BR-6724** as a production organism. The peptide produced by the yeast cells is identical to the plant-derived substance and showed the same quality in a corresponding study.

———— Yeast cells have long been used by the food industry, for instance in breadmaking and beer brewing. The microorganisms developed by BRAIN as part of the NatLifE strategic alliance and the DOLCE partnership are **particularly robust and can be used in a wide variety of different applications.**

# BRAIN insight

BRAIN develops active product components that determine the products' key properties. These include new or optimised enzymes and biocatalysts that meet complex process and application requirements. The peptide brazzein can be used, for example, as a sugar substitute in confectionery or soft drinks.

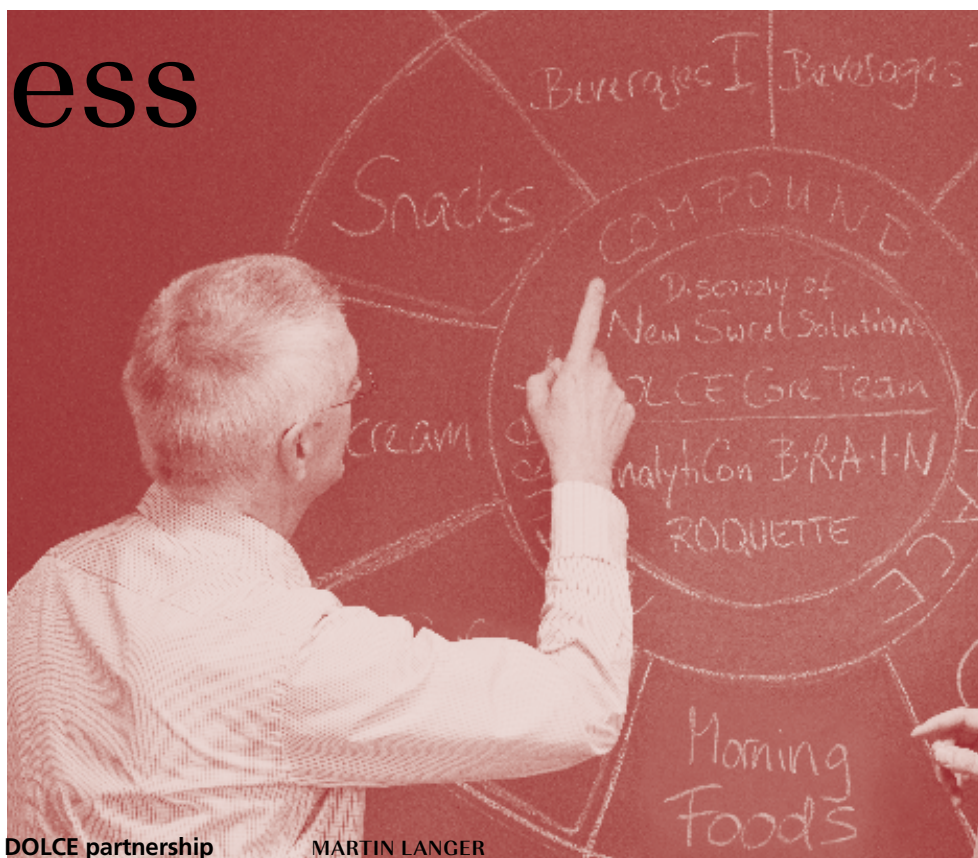
Enzymatic structure of brazzein



Possible products



# DOLCE – Strategic partner- ship for natural sweetness



**Three companies in the DOLCE partnership are assuming the challenge of developing new concepts for different markets and applications in the sugar and sweeteners sector. An interview with Dr Martin Langer, Dr Michael Krohn, Member of BRAIN's Management Board, and Dr Lutz Müller-Kuhrt, Managing Director of AnalytiCon Discovery GmbH.**

**Why is everyone talking about sugar substitutes at the moment? What makes them so interesting?**

**MARTIN LANGER**

Consumers in industrialised countries are changing their eating habits. They are increasingly veering towards "clean label" and "all natural" products, foods that are free from chemical ingredients. This consumer trend is supported by policy-makers, who aim to reduce the annual costs to the health care system due to malnutrition. The sugar tax introduced in some countries has already put pressure on the consumer goods industry, and the WHO is even propagating the introduction of a 20% sugar tax in all industrialised countries.



### **Aren't there already enough solutions on the market when it comes to sweeteners?**

#### **MICHAEL KROHN**

Almost all current calorie-reduced sweeteners are of chemical/synthetic origin and must be accordingly labelled. Stevia was the first example. But what prevents wider use of stevia are the secondary flavours that consumers describe as "tasting like liquorice" or "bitter". So potential clearly exists in the field of bio-based substitutes.

### **Where are these substances to be found?**

#### **LUTZ MÜLLER-KUHRT**

As part of the BRAIN Group, AnalytiCon is in possession of a collection comprising several tens of thousands of natural substances whose structure has already been analysed. To our knowledge, this is the largest collection worldwide. The special thing about this collection is that many of the substances were isolated from edible plants and are therefore probably eligible for GRAS (generally recognised as safe) status. That is what makes this collection so interesting as a starting point for chasing down new food ingredients. AnalytiCon has specialised in natural substances since the 1980s. We have continuously expanded our collection since then.

### **And how can the relevant candidates be found among the myriad of natural substances out there?**

#### **LUTZ MÜLLER-KUHRT**

We can take a rational approach and look at plants that have been historically or empirically considered sweet, or which we at AnalytiCon know to taste sweet. We process these, isolate the corresponding substance and if it is new, we patent it. We have already identified 60 substances and put them together in a "sweetbox" as part of the DOLCE programme. This gives us at DOLCE a jump start in terms of developing natural sweeteners.

#### **MICHAEL KROHN**

BRAIN has also identified one initial candidate. We have identified the relevant plant peptide and manufactured it using biotechnological processes. This is brazzein, which is 1,200 times sweeter than sugar and delighted both our internal tasters and the first external tasting team. However, to avoid being dependent on source materials from plants that are known to be sweet, BRAIN developed its own Human Taste Cell Technology (HTC) within the NatLife strategic alliance. It patented this technology in the USA in August this year. We are the first and only research group to have isolated and immortalised human taste cells, which can be used as a kind of "molecular tongue" to screen collections of substances. These cells also pre-taste each substance and provide a taste signal that determines the quality of the substance. Such natural substances will then be further developed with Roquette under the DOLCE partnership.

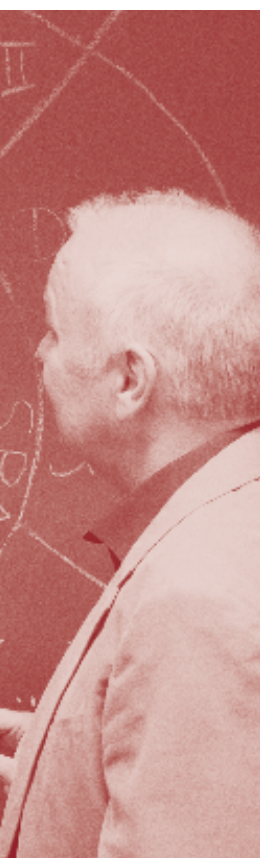
#### **MARTIN LANGER**

The exciting thing about HTC technology is that it can be used not only to search for the next generation of HISs (high-intensity sweeteners) but also for STEs (sweet taste enhancers), which have no taste in themselves but mediate between sugar and receptors and potentialise the sweet effect. That means only a fraction of sugar is needed for the same taste. This is relevant to many industrial applications, because in some cases, only the physical effects of sugar are needed for food production; as a filler for biscuits, as a "glue" for muesli bars or for the satisfying crunch of cornflakes.

### **How can added value be derived from this?**

#### **LUTZ MÜLLER-KUHRT**

We have decided to partner with Roquette, a major agricultural product manufacturer, to tackle the issue of sweetness at an early stage. In this partnership, we supply access to the largest library of natural substances, and BRAIN



“Since we reported on DOLCE in late August 2016, we have received calls and emails from many interested consumer goods manufacturers.”

Dr Michael Krohn

has the unique technology for screening them and providing them to the partners of the DOLCE programme. When developing natural substances up to market stage, it's important to have partners with global operations that can ensure the corresponding expertise in terms of formulation, approval and production. Roquette will handle these tasks within DOLCE.

#### MARTIN LANGER

One might add that the DOLCE programme has met with a huge response from globally operating consumer goods manufacturers. We give these companies the opportunity (in some cases exclusive, in others not) to become DOLCE partners in sub-segments such as beverages, milk production, chocolate, sauces, chewing gum and morning foods. The advantage for members is that they can be informed about developments at an early stage and acquire exclusive licenses for substances.

#### How many members do you have at present?

#### MICHAEL KROHN

We are currently holding negotiations. Those with two global consumer goods manufacturers are already very advanced. One thing is certain: since we reported on DOLCE in late August 2016, we have received calls and

emails from many interested consumer goods manufacturers.

#### Is that something you can really earn money with?

#### MARTIN LANGER

Let me quote some figures from the 2014 issue of Beverage Digest. This states that global sales of 800 billion litres of beverages earn a thousand billion US dollars. Carbonated drinks account for one third of that volume. According to a 2015 analysis in Markets & Markets, the sugar substitute market amounts to USD 13.26 billion, and experts anticipate growth up to USD 16.53 billion in 2016. This market is currently dominated by sales of chemical sweeteners. A Lux Research study carried out in 2015 indicates that the trend towards natural ingredients will mean up to 25 % of all saccharose can be replaced with biological sugar substitutes. Those figures are our inspiration.

# The NatLifE 2020 strategic alliance

In the Natural Life Excellence 2020 (NatLifE 2020) strategic alliance, 22 alliance partners coordinated by BRAIN work together to research, develop and produce natural ingredients as special products for a healthier life.

BRAIN coordinates the NatLifE 2020 strategic alliance, the first research alliance to be supported by the "Industrial Biotechnology Innovation Initiative" of the German Federal Ministry of Education and Research (BMBF) as of 1 February 2013.

**The common approach of NatLifE 2020 is to use biotechnology and an understanding of biological systems to develop a new generation of sustainably produced biologically active components. As active ingredients for improved formulations for the food and cosmetic industry, these are to make a recognisable contribution to improving people's nutrition, health and well-being.**

The alliance unites technology developers, SMEs and industrial enterprises. For the entire project term, a sum of roughly € 30 million is available to the partners. BMBF provides up to 50 % of this sum under the Industrial Biotechnology Innovation Initiative.

After some three years of successful research and development, an interim evaluation of the alliance was performed in late 2015. The evaluators recommended that support for the alliance should be continued. Phase 2, which is to last three years, therefore commenced according to schedule in March 2016. Another three-year phase of NatLifE 2020 (Phase 3) is also planned.

100 m

BMBF has set aside **funding** of € 100 million to support alliances that are intended to revolutionise industrial processes.

30 m

€ 30 million are to be **invested** in the NatLifE alliance. BMBF provides part of the project's funding.

22

**partners** work together within the alliance.

9

**patent applications** were drawn up between 2013 and 2015, and a large number of scientific papers were published.





→ OTHER PRIORITY AREAS OF THE BIOACTIVE COMPOUNDS UNIT

## Innovative skin care

Skin is the largest human organ. It covers our body, protects us from injury and regulates our body temperature. Creams and lotions are designed to keep skin young and healthy. But most cosmetics contain petrochemical ingredients, which often have constituents or residues that may be harmful to health.

**Modern products, on the other hand, rely on bioactive substances whose development and production are inspired by nature.**

BRAIN has channelled the latest findings on skin biology into active cosmetic ingredients that influence cellular mechanisms and specifically delay skin ageing. Initial products are available in stores under the MYE Kosmetik brand. In addition, BRAIN has amongst others developed the SYNC and PERLANCE BLANC PUR, ÉLIXIR MÉTAMORPHOSE, ProBeActive product lines as well as the perfume bel été together with the internationally famous cosmetics company Monteil. Both lines have been successfully launched on the market.

MYE  
KOSMETIK

Discover MYE cosmetics at:  
→ [www.myekosmetik.de](http://www.myekosmetik.de)

  
MONTEIL  
PARIS

Learn more about MONTEIL at:  
→ [www.monteil.com](http://www.monteil.com)

B·R·A·I·N

Go here to learn more about BRAIN's future-ready solutions based on biological diversity:  
→ [www.brain-biotech.de/en](http://www.brain-biotech.de/en)



02

# The company

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## 02 The company

p.55

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The bioeconomy – introducing bio-based processes to industry	p. 57
Strategy	p. 62
Company structure and business model	p. 63
Product pipeline	p. 70
Highlights of the 2015/2016 business year	p. 72
Lively corporate culture	p. 76
Staff culture	p. 82
The BRAIN share and the capital market	p. 84

# The bioeconomy – introducing bio-based processes to industry

Modern biology and biotechnology have made their way into society. While classical economic disciplines and the sectors based on them are increasingly coming up against their limits and have trouble handling the transition towards a sustainable approach to natural resources and ecosystems, the introduction of bio-based processes to economic systems and society acts as the driver of a new, sustainable industrial transformation process.

## Setting the scene

Global challenges such as growing populations, scarcer resources and climate change are causing society, policy-makers and business to rethink. This advent of a bio-based approach to processes and industries is termed the bioeconomy. The relevant product innovations focus on sustainability, resource efficiency and health. Industrial biotechnology is the driving force within the bioeconomy. Being broadly applicable in various markets, biotechnology has the potential to drive the global implementation of sustainable problem solutions.

Classical economic disciplines and the sectors based on them are increasingly coming up against their limits and have trouble handling the transition towards a sustainable approach to natural resources. This is where the bioeconomy comes in. It paves the way for a new, sustainable transformation of economic systems and society in general.

Precisely this understanding of contributing to transformation is reflected in various transnational bioeconomy programmes worldwide. Agenda 21, the programme of action developed at the Rio Earth Summit in 1992, already points to the special role played by biotechnology when it comes to breathing life into the vision of sustainable development.

The EU Commission published the European Bioeconomy Strategy in 2012. The United Nations adopted the 2030 Agenda for Sustainable Development in late September 2015, and the UN Climate Change Conference in Paris in December 2015 achieved further success in terms of climate change mitigation. As a driver of the bioeconomy, biotechnology is one of the mega trends of decades to come. It is a key technology in the new transformation cycle of industries and society as a whole. Now is the time to use this momentum and develop it further. The European bioeconomy currently employs some 22 million people, who achieve approximately € 2 thousand billion in added value.

As a cross-cutting technology, biotechnology integrates various life sciences and engineering disciplines such as micro- and molecular biology, biochemistry, genetics, cell biology and



[europa.eu/rapid/press-release\\_IP-12-124\\_de.htm](http://europa.eu/rapid/press-release_IP-12-124_de.htm)

FIGURE 02.1 SETTING THE SCENE

**Need for sustainability**

- Challenge: provision of healthy food, bio-based products and CO<sub>2</sub> and energy-saving processes
- Response: increased use of sustainable biological resources and solutions, rather than non-renewable alternatives like fossil oil or chemicals

**Rise of Bioeconomy**

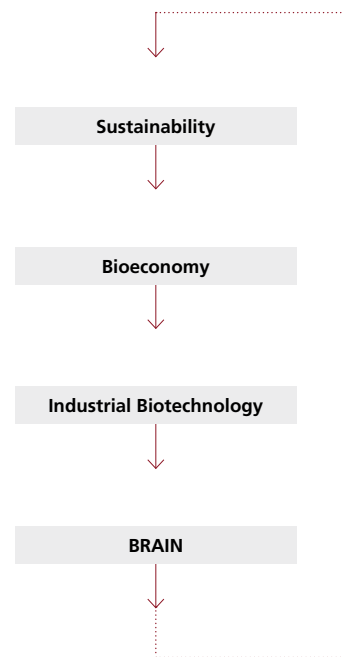
- Governments and businesses have realized the need for a bio-based economy.
- Bioeconomy is fueled by constant innovation and public interest.

**Game-changing technology**

- Industrial biotechnology is a key enabling technology in the transition to an eco-friendly, low carbon and resource-efficient economy.

**BRAIN provides solutions for sustainable, all-natural product ingredients and processes:**

- We make packaged food healthier.
- We make consumer care products more natural.
- We transform waste streams into new products.
- We substitute (hazardous) chemical products by biobased/natural solutions.



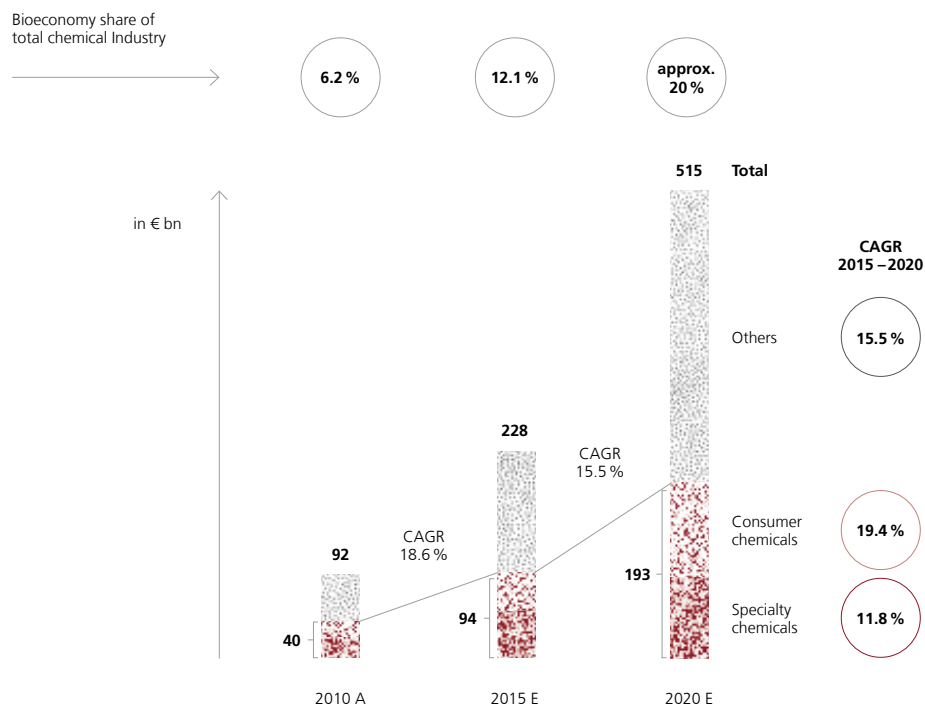
immunology, bio-process engineering, bioinformation science, medicine and material sciences, and serves a variety of markets such as the chemicals, pharmaceutical, consumer goods, animal feed, energy, environmental protection and food industries.

As a form of integrated environmental protection, biotechnology offers excellent opportunities for sustainable transformation and, due to its integrated application and implicit sustainability impacts, benefits society in general.

### Broad-based support

The bioeconomy is not just a scientific or political playing field. Today, it is an issue that many innovative companies are already pursuing with a great deal of energy and success. Its application makes it possible to develop new energy-efficient and resource-efficient processes and products and establish them on the markets. This supports the transition to resource-efficient economic activity and a society based on a sustainable footing. In this vein, the UN 2030 Agenda and the UN Climate Change Conference in Paris ratified decisions to reduce the greenhouse gas CO<sub>2</sub>, for example. The Global Bioeconomy Summit held in Berlin in late November 2015 under the patronage of German Chancellor Dr Angela Merkel further substantiates this trend. At this summit, the bioeconomy was discussed and enshrined as a key German and European technology.

FIGURE 02.2 GROWING BIOTECH SALES



**Chemicals and materials are increasingly produced using biotechnology.<sup>1</sup>**

BRAIN focuses on consumer and speciality chemicals, expected to grow at approx. 15.5% from € 94 bn to € 193 bn in the next five years

Industrial biotech sales are expected to outgrow the overall Chemical markets – which are expected to grow at 4.1% (CAGR 2015–2020e)

## Transforming industry

Many economists see biotechnology as a driving force in connection with efforts and programmes to introduce the bioeconomy and as the basic innovation for a new Kondratieff cycle geared to sustainability. They thus accord it the same significance that some analysts and scientists currently attribute to digitisation. In view of the existing bio-based orientation of entire sectors, one could almost go so far as to call this the age of digitisation and bio-based industry.

According to a study published by the EU with the title “Innovating for Sustainable Growth”, 9% of people employed in Europe can already be directly or indirectly assigned to the bioeconomy. In the USA, as the US National Academy of Science published in 2015, about 2.2% of productivity as a whole consisted of bio-based products, to the tune of USD 353 billion. In the global chemical industry alone, sales achieved with biotechnological processes or technologies are growing by about 20% per year (see Ernst & Young Biotech Report 2014).

Worldwide biotech sales within the chemical industry were estimated at around € 228 billion for 2015, i.e. approx. 12% of all sales in that sector. That means the percentage of biotech sales in the chemical industry has doubled since 2010. Experts assume that one in five euros in chemical industry sales will be earned with biotechnological processes and products in 2020. This trend is accompanied by lively biotech-friendly M&A activity on the part of established companies such as BASF, with the takeover of Verenum, DSM with the takeover of Mar-tek, and Novozymes, which recently took over Organobalance.

But the promotion initiatives of EU Horizon 2020 launched in 2012 with some € 80 billion in funding and the 2010 German initiative entitled “National Research Strategy 2030”, with a funding volume of € 2.4 billion dedicated to industrial biotechnology, also send out a clear message.

[ec.europa.eu/research/bioeconomy/pdf/official-strategy\\_en.pdf](http://ec.europa.eu/research/bioeconomy/pdf/official-strategy_en.pdf)

Figure 02.2

<sup>1</sup> Festel et al., Journal of Commercial Biotechnology, 2012, modified (2015 and 2020 estimated, excluding pharmaceutical and biofuels); CEFIC, BRAIN estimates; Roland Berger



Besides many different societal and economic drivers, there are also broad political supporters that make the bioeconomy one of the key technologies of the 21st century, according to statements by former EU Commission President Juan Manuel Barroso (Barroso 2010; Europe 2020). By inaugurating the German Bioeconomy Council and announcing a research strategy that focuses on industrial biotechnology, the German Government also sent a signal at an early stage and took a clear stance with its broad support for the bioeconomy (German Federal Ministry of Education and Research: National Research Strategy Bioeconomy 2030). A strategy paper published in the USA in 2015 by Thomas M. Connelly shows that the bioeconomy is one of the key growth issues for the 21st century in the USA too.

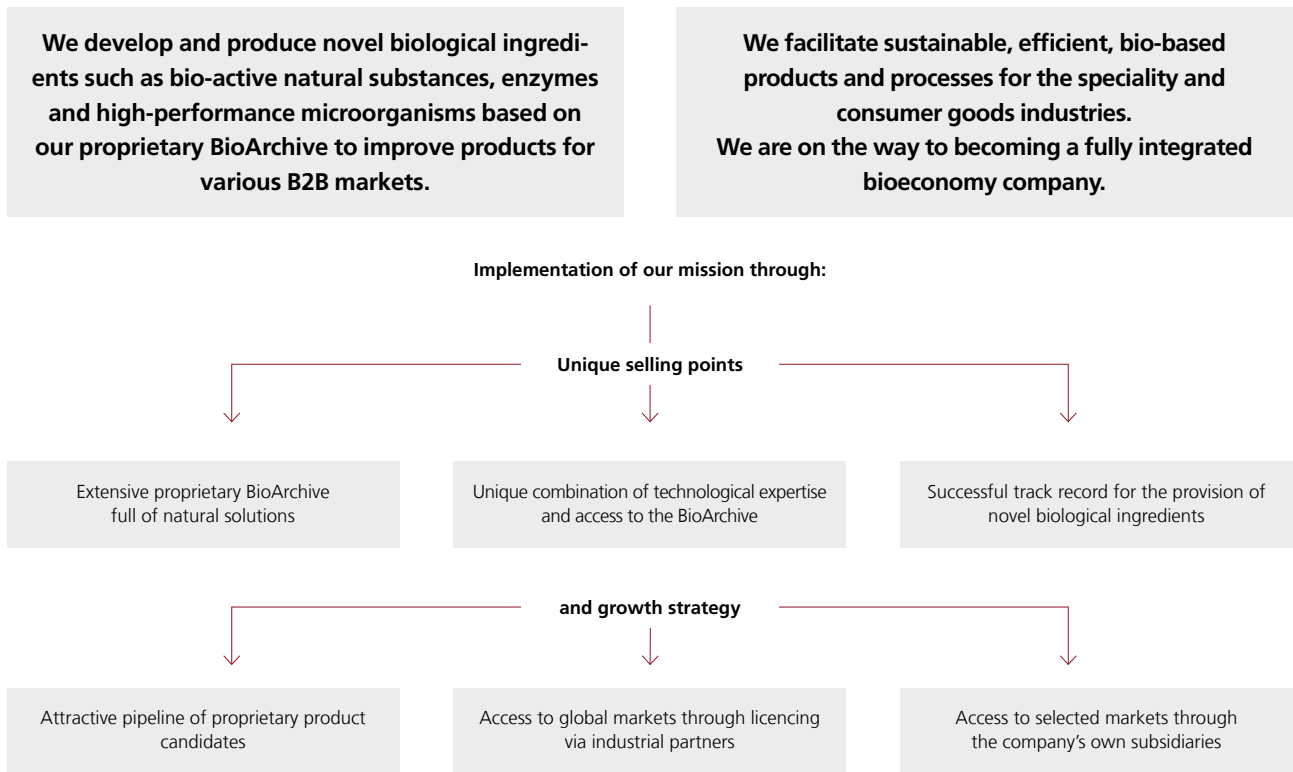
## Sustainability will become a significant investment factor

The bioeconomy approach will receive growing support from financial markets in response to growing environmental concerns. A study by US SIF showed that both asset managers and institutional investors with a focus on socially responsible investment (SRI) are increasingly including environmental protection factors in their investment policy and thus limiting or rejecting securities from companies that use substantial quantities of fossil fuels. Beyond this, investors who are worried about climate risk submitted 72 applications on this subject in 2014 (over twice as many as in 2012) and negotiated a series of pledges with specific companies to publish or reduce their greenhouse gas emissions. In all, sustainable and responsible capital investments and impact investing in the USA rose by 76 % from 2012 to 2014 (US SIF). A topical example in this context is the strong shift in investments towards greater sustainability owing to the decision taken by the Norwegian parliament. In future, the Norwegian sovereign wealth fund will no longer invest in business with coal. This represents the largest disinvestment in fossil fuels and concerned 122 companies around the globe. It should also be pointed out here that the sovereign wealth fund of Norway, totalling USD 900 billion, is the largest of its kind worldwide. This decision by the Norwegian Government might prompt other investors to limit their own investments in the fossil fuels sector.

In fact, another major investor, Allianz, announced in November 2015 prior to the UN Climate Change Conference (COP 21) in Paris that it would no longer finance coal-based business models. Allianz will no longer invest in companies that receive more than 30 % of their revenue from coal mining or generate more than 30 % of their energy from coal. It will disinvest in equity securities to the value of € 225 million up to March 2016, while bonds to the value of € 3.9 billion will be allowed to expire.

Finally, a growing number of investors are interested in sustainable investments. In 2012, one US dollar in nine was invested in US capital assets under professional management in the sphere of sustainable investments, mainly in the form of equity securities. Up to 2014, the figure was one US dollar in six, which means an increase to a total sum of USD 6.57 thousand billion in sustainable investments (source: Morgan Stanley Institute for Sustainable Investing).

FIGURE 02.3 OUR MISSION: TO ENABLE THE BIOECONOMY



## BRAIN and the bioeconomy

BRAIN is the first bioeconomy company to go public. The company issued its shares in the prime standard segment of the Frankfurt Stock Exchange on 9 February 2016. The company's goal is to successfully drive forward the use of bio-based processes in industry, a development that has already begun.

Besides BRAIN's comprehensive access to "nature's toolbox", its unique selling point also consists in its unique technology portfolio. This has been broadly safeguarded with approximately 350 patents both for substances and technologies. With its mix of availability and technological access to nature's toolbox, BRAIN is in a position to make processed foods healthier and consumer products more natural. Thanks to our technologies (microorganisms), industrial waste streams (e. g. CO<sub>2</sub>, household waste, electronic waste and many other types) can be used to derive valuable new products. Added to this, it is increasingly becoming possible to use biological solutions to replace chemicals that are harmful to health.

Figure 02.3

# Strategy

## Industrialisation strategy along the value chain: from research partner to fully integrated company with its own production, marketing and sales.

Over its first 15 years of operations, BRAIN has developed itself into a preferred research and development cooperation partner for established industrial companies in the chemicals, nutrition and animal feed industries, as well as the cosmetics sector. In the course of these cooperation programmes, BRAIN has realised growing sales and also succeeded in establishing and continuously expanding its first proprietary technologies and its unique BioArchive. BRAIN will continue to develop and expand its BioScience segment in the future in parallel to its second segment established six years ago, the so-called BioIndustrial segment.

These successes over many years have resulted in a situation where BRAIN has been progressing along the value chain since 2010 with a current total of 15 of its own developments. Industrialisation of the BRAIN business has consequently occurred through vertical integration. The BioIndustrial segment markets the company's own development lines.

The BioScience segment has been and remains profitable over all these years, reporting tidy double-digit annual growth rates. With its industrialisation strategy, BRAIN anticipates even greater sales potential in its BioIndustrial segment than in its BioScience segment and also expects to boost its EBIT margin insofar as BRAIN develops its own products further along the value chain before marketing them.

Figure 02.5

FIGURE 02.4 THE SEGMENTS

BioScience	BioIndustrial
<p><b>Description</b></p> <ul style="list-style-type: none"> <li>• Exclusive collaboration partnerships with large industrial players</li> <li>• BRAIN is a trusted partner due to its unique IP and know-how</li> <li>• IP transfer to the customer, BRAIN retains rights</li> </ul> <p><b>Focus</b></p> <ul style="list-style-type: none"> <li>• Technology driven, joint developments</li> </ul> <p><b>Remuneration &amp; benefits</b></p> <ul style="list-style-type: none"> <li>• Upfront, milestone, success payments</li> <li>• Exclusivity fees</li> <li>• Royalties</li> </ul> <p><b>Rationale</b></p> <ul style="list-style-type: none"> <li>• Continuation of a trusted business model</li> <li>• Stable and profitable growth</li> <li>• Technology development and retained rights</li> </ul>	<p><b>Description</b></p> <ul style="list-style-type: none"> <li>• Own product innovations either through industrial partners (royalty-based income stream) or through own subsidiaries (full P&amp;L effect)</li> <li>• Targeting partners or businesses with global market access</li> </ul> <p><b>Focus</b></p> <ul style="list-style-type: none"> <li>• Value accretive growth strategy</li> </ul> <p><b>Remuneration &amp; benefits</b></p> <ul style="list-style-type: none"> <li>• Licence fees from established industrial partners</li> <li>• Product-related cash flows</li> <li>• Realising product/technology synergies</li> </ul> <p><b>Rationale</b></p> <ul style="list-style-type: none"> <li>• Leverage BRAIN's proprietary IP and know-how</li> <li>• Optimise the way to market</li> <li>• Scalability</li> </ul>



# Company structure and business model

The thinking and action at BRAIN AG and its majority-owned subsidiaries focus on the identification, research, utilisation and marketing of natural biological substances and processes for industrial use.

A key objective of this so-called white biotechnology is to replace artificial, scarce and/or even health-damaging industrial substances and processes in manufacturing with biological, biochemical and biotechnology solutions, thereby making industrial process structures more effective, environmentally compatible and sustainable. White biotechnology also stands for access to product innovations and the establishment of new biological processes. BRAIN is advancing the biologisation of industry and supporting a more sustainable and resource-conserving economy.

In developing products in the focus areas of bioactive natural materials, microorganisms and enzymes, BRAIN can make recourse to the extensive information base of its BioArchive – one of the world's largest natural resource collections.



Figure 02.6

## Outstanding USPs

Over the 23 years of its operations, BRAIN has developed many USPs (unique selling propositions), which have already helped BRAIN's operating segments develop their business in the past.

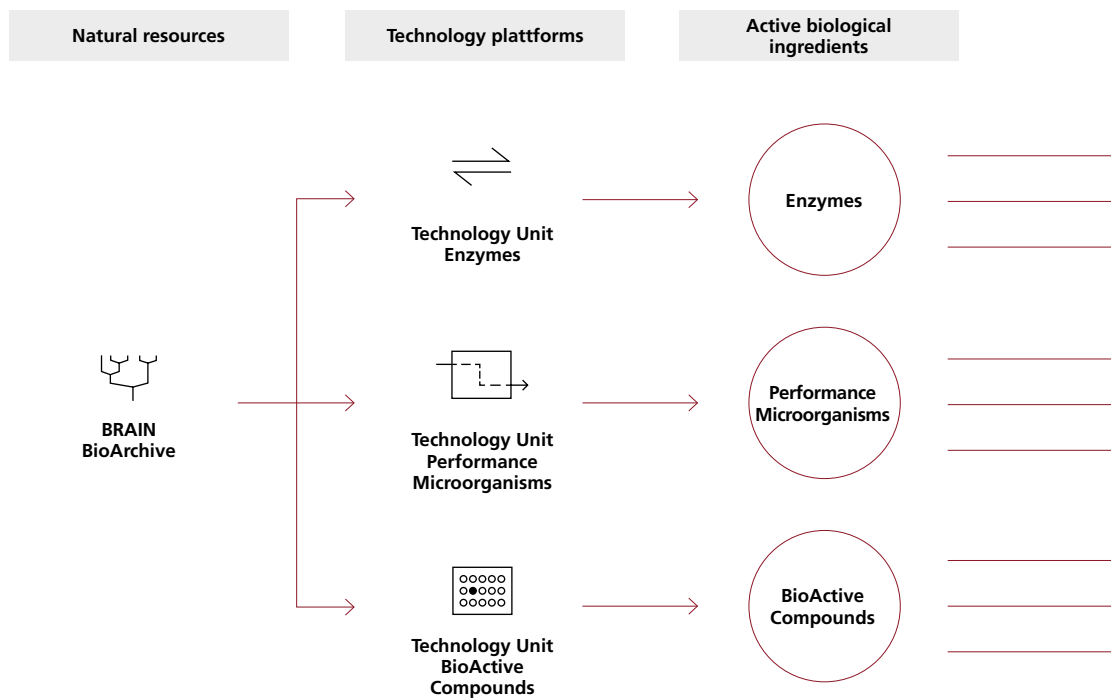
## The BRAIN BioArchive

This comprises, firstly BRAIN's own extensive BioArchive, which includes an immense variety of biological solutions for industrial processes and bioproducts. The BRAIN BioArchive encompasses around 53,000 comprehensively characterised, cultivable microorganisms, more than 50,000 characterised natural substances and fractions consisting of edible plant material, as well as a large number of new enzymes and metabolic pathways derived from organisms that have not been cultivable before. This unique collection is being expanded continuously, and already enables a new access to previously unutilised, natural and sustainable substances and processes.

## BRAIN technologies

Combining this "Toolbox of Nature" – as the BRAIN BioArchive is fondly called – with unique technological expertise consequently makes BRAIN interesting as a partner for industry, enabling the company to grow sustainably through cooperations. Examples of this BRAIN technological expertise are collected in more than 350 patents and patent applications in more than 48 patent families, and include technology innovations and product innovations in all three of BRAIN's product categories: enzymes, performance microorganisms and bioactive natural substances.

FIGURE 02.5 FROM THE BIOARCHIVE TO THE B2B MARKET



## BRAIN products

### Enzymes

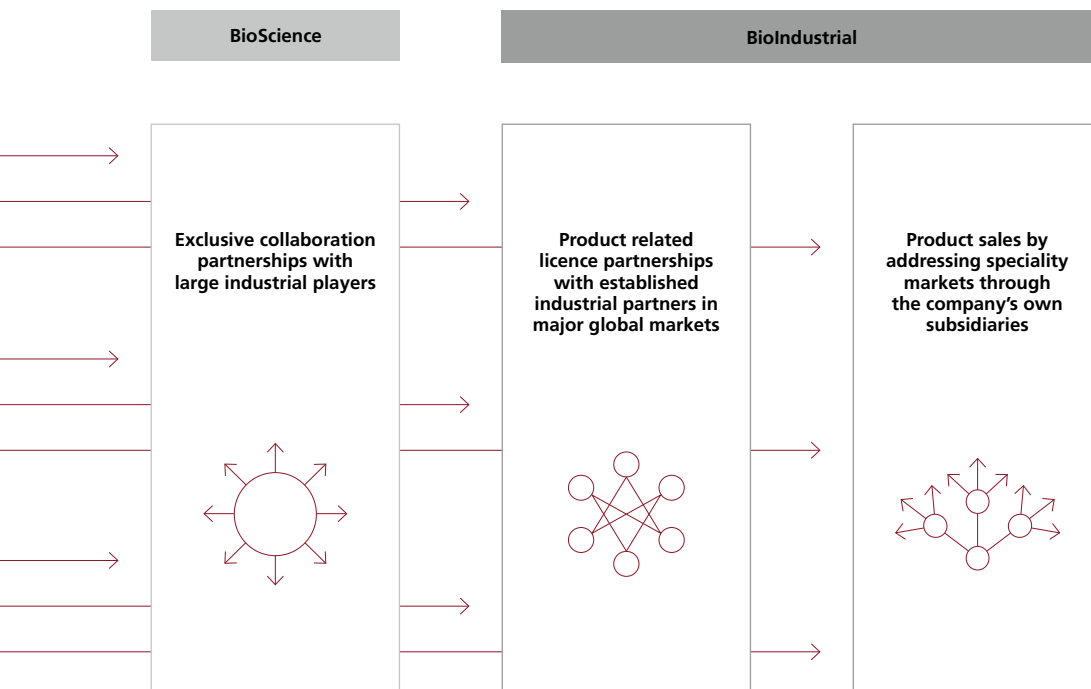
BRAIN develops new or optimised enzymes and biocatalysts that meet complex process and application requirements, and enable innovative and technical production processes to be established. Access to an almost inexhaustible source of enzymes through metagenomic technology enables the company to find and develop many of technological enzyme solutions.

### Performance microorganisms

BRAIN develops customised designer microorganisms as functional biomass for optimised industrial production processes or to establish bioprocesses in chemical procedures (BioSubstitutes), as well as to manufacture bioactive natural substances and enzymes for speciality markets.

### Bioactive natural substances

BRAIN identifies and develops bioactive natural substances for product developments in the nutrition, cosmetics and chemical industries. The focus here is on the biological effect of natural substances and on improving nutrition formulations, cosmetics and animal feed.



## Track record

BRAIN's unique track record also deserves mention. The BRAIN team has succeeded over the past years in initiating and successfully establishing more than 100 industrial cooperations of many years' standing. This BRAIN business – which it continues to operate as a business division – has been integrated as its BioScience area. This BioScience business has been continuously expanded over the past years and has been profitable since BRAIN commenced operating activities. The company has succeeded over the past years in delivering a large number of biological solutions and substances to industry that have then found their way into various product applications – ranging from chewing gum through to modern detergents, various chemical processes and cosmetics.

## Growth strategy

The cooperations with industrial partners are nevertheless only scalable on a linear basis – the more industrial corporations are launched, the greater the staff costs incurred. BRAIN continues to serve only a small part of its value chain with this business model, and has consequently also participated to only a minor extent in innovation successes on the market. For this reason, the company started a few years ago (intensively from 2010) to also initiate its own developments in interesting areas along the value chain, thereby creating an attractive pipeline totalling 15 proprietary product candidates over the years. These substance developments are in various development stages.

Figure 02.7

### **Licence partnerships with established industrial partners in major global markets**

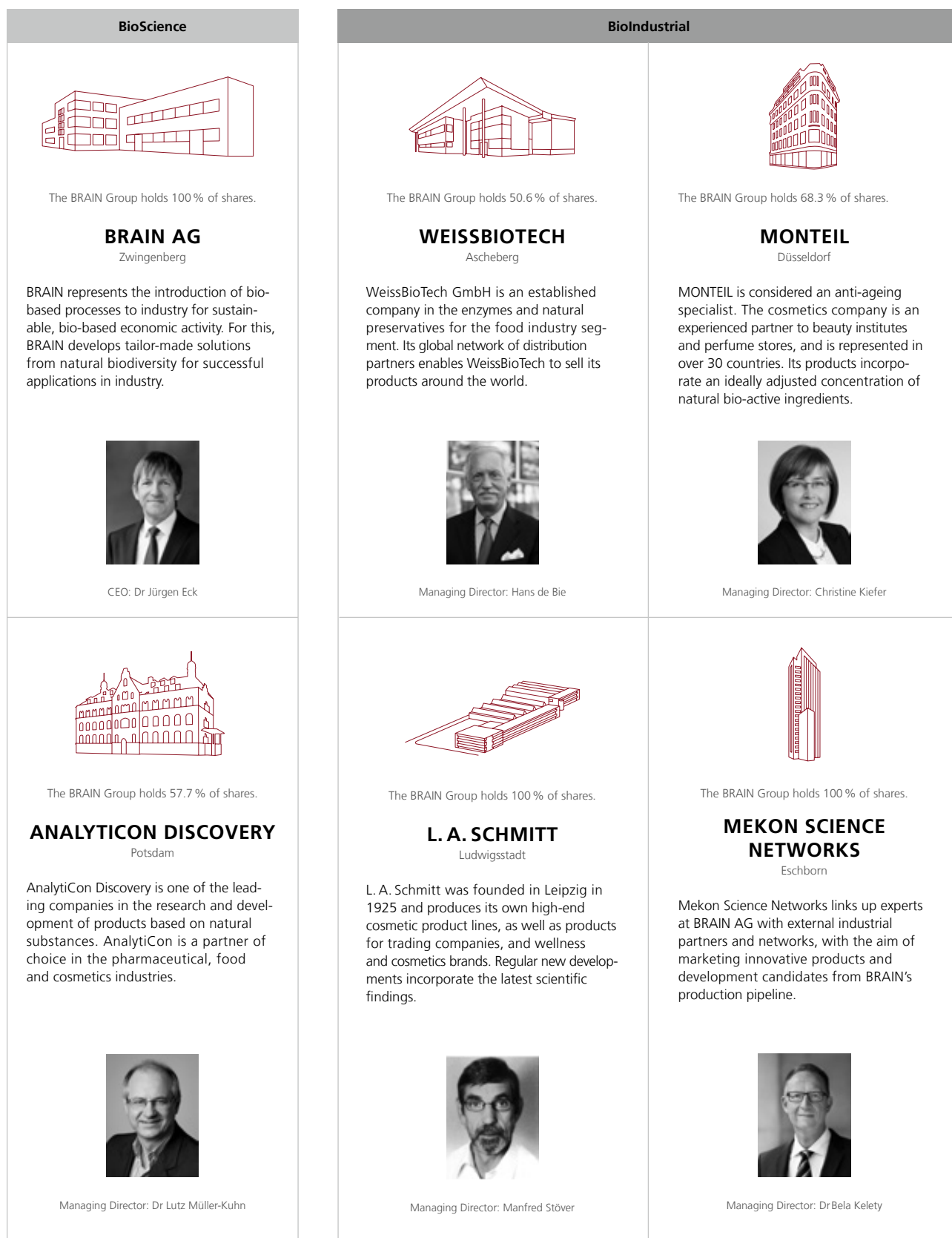
When addressing major global markets, BRAIN endeavours to license innovations or enter into partnerships with established market participants. The “DOLCE” programme announced in August 2016 can be seen as an example of a partnership in large markets. Together with the BRAIN subsidiary AnalytiCon and the French agriculture sector company Roquette, BRAIN will develop the next generation of natural sweeteners and sweetness enhancers. All three partners in the DOLCE team have different tasks in developing the natural substances found in this context. Instead of marketing the products through a separate subsidiary, the production and marketing task within DOLCE is performed by Roquette, a company operating worldwide. Roquette is known to consumer goods manufacturers across all continents as a reliable and preferred manufacturer. No doubts exist that a punctual global rollout will occur.

### **Addressing speciality markets through the company’s own subsidiaries**

BRAIN gains access to selected specialty markets through its own subsidiaries in this context. The development of enzymes 1 and 2 from the BRAIN pipeline offers an example of this. Over many years, WeissBioTech has established a broad and closely interlinked global sales network for existing products. BRAIN innovations in the enzymes area enable the joint strategy of BRAIN and WeissBioTech – to strengthen the special enzymes division of WeissBioTech – to be implemented on time. The company plans to deploy 20 % of the funds raised by the IPO to invest in further M&A activities, in order to gain more access to specialty markets.

→ Spotlight WeissBioTech p. 68

FIGURE 02.6 THE BRAIN GROUP



# Spotlight on WeissBioTech

WeissBioTech  
your partner in white biotechnology

WeissBioTech GmbH (WBT) was created in 2002, initially under the name Add Food Services GmbH, with the aim of developing, producing and marketing food additives such as preservatives, processing aids and enzymes, etc. for industries such as the dairy and meat industries and for the food industry in general. Since its creation, the company has succeeded in establishing itself in the segment of enzymes, natural preservatives for the food industry and in the white biotechnology market.

## Wide variety of products and global sales outlets

WBT has a solid product portfolio that is pragmatically and flexibly structured and enables WBT to gain recognition in its markets. This portfolio and the broad range of enzyme products it offers for a variety of industrial segments, such as the production of fruit juices and alcoholic beverages, for the starch processing industry and the production of renewable fuels, provides a good basis for introducing novel or improved enzyme products.

Its global network of more than 30 distribution partners enables WBT to sell its products around the world with a relatively small sales team of its own. Adding further (enzyme) functionalities to its portfolio and marketing the existing portfolio in other markets offers WBT further growth opportunities.

WBT's own infrastructure comprises an administrative unit in Ascheberg near Münster and a 3,000-square-metre storage, production and research facility in Chanteloup-en-Brie near Paris.

WBT was formed as an association of experienced people who worked for decades in the target industries now served by WBT. This experience includes a deep understanding of the application technologies and enzymes involved and a broad network in the target industries. This ideal combination has allowed WBT to develop win-win relationships with customers and its own producers that further strengthen WBT's network and provide key support for the company's future development.

## Creating and building synergies

In November 2014, BRAIN and WBT entered into a strategic partnership in the strongly growing industrial enzymes segment. This cooperation offers both companies the unique opportunity to create and build synergies in the fields of white biotechnology and the bioeconomy. It combines the complementary disciplines of highly developed research into enzymes and biocatalysts with the development, production and distribution of technical enzymes on the market.

Together, the two companies will continue their strategy as planned to expand the higher-margin speciality enzymes business (e.g. enzymes for the food industry to manufacture innovative functional foods) in order to successively counteract the commoditisation of volume-driven bulk enzymes.



[www.weissbiotech.com](http://www.weissbiotech.com)

“WeissBioTech has been working intensively on its production and sales units for the enzyme industry for many years. The strategic partnership with BRAIN makes it possible to close the gap between identifying new enzymes and their development, production and marketing for the target industry.”

Hans de Bie — CEO of WeissBioTech GmbH



Its global network of distribution partners enables WBT to sell its products around the world.

**Argentina:** Juan Roberto Poggi y Cia SRL **Australia & New Zealand:** Ozbiotec Pty Ltd. **Belarus:** A-PROFI limited **Bulgaria:** Sermia Ltd. **Central America:** Deltagen Bioproducts N.A. **Chile:** Comercial Santa Adriana Ltda. **China:** Wuxi Innoke Technology Co. Ltd. **Czech Republic & Slovakia:** Vulcascot s.r.o. **Finland:** Senson Oy **Georgia:** A Profi-Group Ltd. **Germany:** C. Schliessmann, G. Wein GmbH & Co. **Greece:** Elton International Trading Company S.A **Hungary:** T&M kft. **India:** Anthem Cellutions (India) Ltd. **Iran:** Arteen Chimi Dev. trade **Italy:** Agrienology S.R.L., Corimpex Service Srl **Netherlands:** In2Food B.V. **Poland:** BART Spolka z ograniczona, Vulcascot Polska Sp. z o.o **Romania:** Elton Corporation SA **Serbia:** Elton Corporation d.o.o. **South Africa:** Mountain River Group Latarie(Pty)Ltd **Spain:** Larbus s.a. **Turkey:** Maltepe Kimya **Ukraine & Uzbekistan:** A-Profi Ukraine **USA & Canada (Fuel Ethanol):** BASF Enzymes LLC **USA & Canada (Food Industry):** ATP Group

# Product pipeline

## **BioIndustrial – our own product pipeline as a driver of growth**

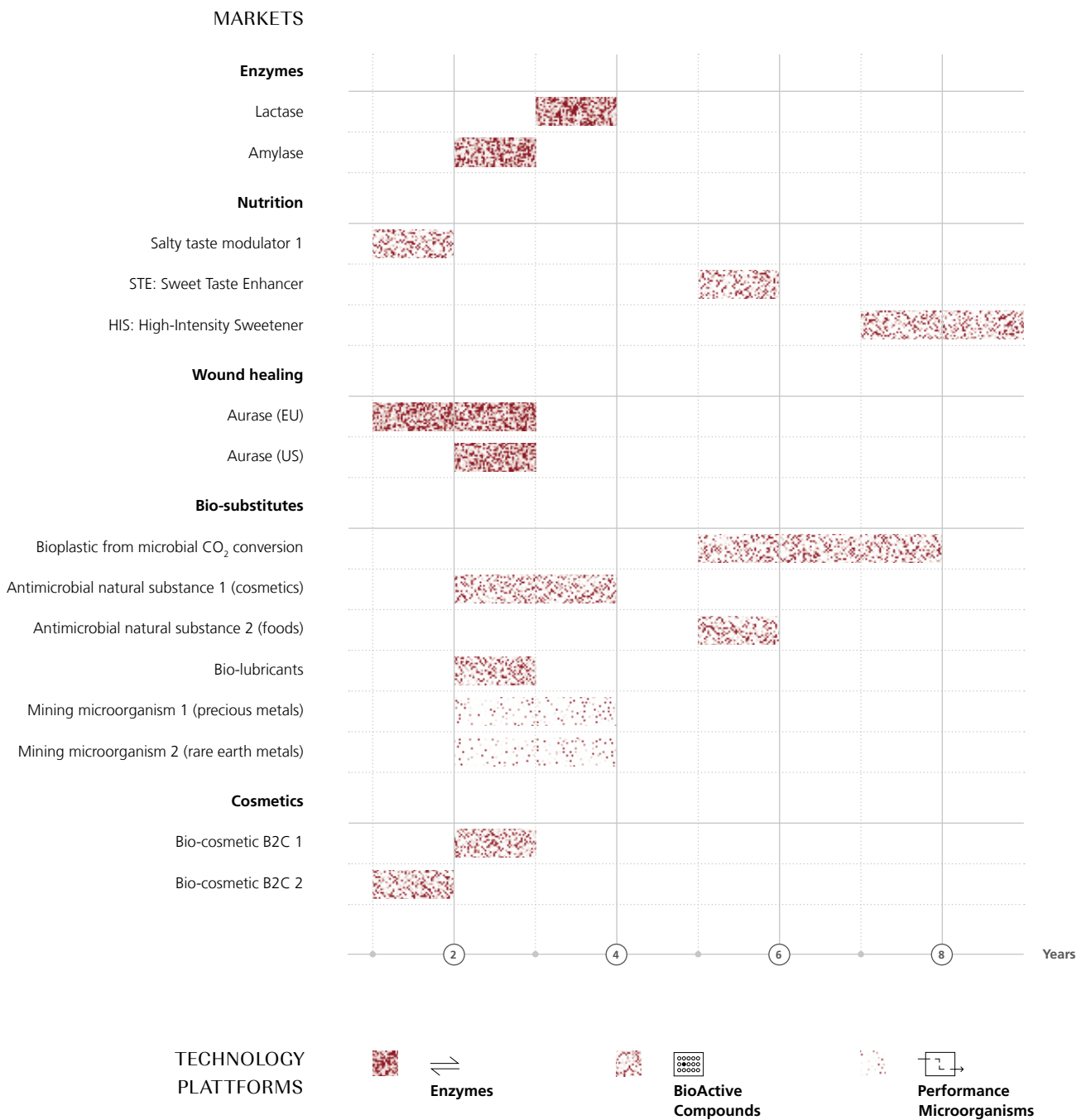
BRAIN's current product pipeline forms the essential basis for the future success of the company's industrialisation strategy. Overall, BRAIN is currently developing 15 different product candidates in parallel. All of them are to be launched on the market in the next few years. The company plans to market one to two products per year or enter into product-based partnerships.

Novel biological sugar substitutes and taste modulators provide answers to urgent social issues such as obesity and the related lifestyle diseases. Biosubstitutes such as bioplastics or bio-based lubricants drive the replacement of existing chemical processes with biological ones, reduce CO<sub>2</sub> emissions and thus make for greater sustainability. Added to this are a wide variety of enzymes for use in the food industry, detergents or wound treatment, as well as innovative active ingredients for the cosmetic industry.

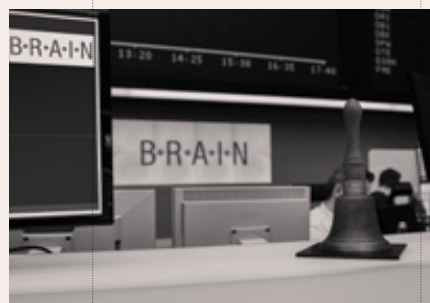
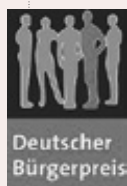
BRAIN's pipeline is continuously filled up as soon as one development line has been marketed. Before a new development project starts at BRAIN, it is subjected to technical and commercial reality tests and incorporated into corresponding business cases that follow the project along the value chain in a stage-gate process. The programme is only commenced if it is considered feasible from a technical/scientific and commercial perspective. This significantly increases the chances of a programme being successful, since ideas that hold no prospects of technical and/or commercial success are weeded out at a very early stage. Of the current 15 development lines, the company plans to pursue one to two products/processes to market stage. As soon as a product or process has hit the market, a new programme is added to the development pipeline. The aim is to maintain a steady state of 14–16 development lines. This means BRAIN's innovation process can also be seen as a value driver in the medium to long term.



FIGURE 02.7 NEW PRODUCT DEVELOPMENT



# Highlights of the 2015/2016 business year



2015

2016

October

November

December

January

**5 October 2015**

## High-tech process optimisation in biogas plants

BRAIN announces the achievement of an optimised biogas production process feeding on industrial waste streams. In the ESE-BIOGAS programme, BRAIN scientists successfully improved the microbial biogas production process, resulting in a 20 % higher energy yield compared to known standard processes.

**17 November 2015**

## BRAIN enlarges Management Board

On 1 November 2015, Mr Eric Marks (54) was named Chief Operating Officer (COO) of BRAIN AG. Chairmanship of the Board (CEO) will be taken on by Dr Jürgen Eck, who has been with BRAIN and in its group of partners since 1994.

It was also announced that Dr Georg Kellinghusen would assume the role of CFO of BRAIN AG as of 1 January 2016.

**3 December 2015**

## BRAIN honoured with German Citizen Award

The German Citizen Award, Germany's major prize for honorary services, was conferred for the 13th time in 2015. Under this year's motto "Cultural Life – Expanding Horizons", there were more than 2,300 entries. BRAIN and its founder Dr Holger Zinke were awarded second prize in the "Committed Business" category.

**5 January 2016**

## BRAIN announces intention to float

On 5 January, BRAIN became the first German company in the bioeconomy sector to announce plans for an Initial Public Offering on the Frankfurt Stock Exchange with admission to the Prime Standard.

**20 January 2016**

## BRAIN sets IPO price range

BRAIN in cooperation with its current shareholders as well as ODDO Seydler as lead manager of the transaction determined the terms for its initial public offering ("IPO"). Accordingly, the price range was set at € 9.00 to € 12.00 per share.



February

**3 February 2016**

**BRAIN sets IPO price at € 9 per share**

The final offer price for BRAIN shares was set at € 9 per share. Following the IPO capital increase, the share capital of BRAIN AG will amount to 16,414,348 shares.

**9 February 2016**

**BRAIN share successfully starts trading**

BRAIN successfully began trading in the Prime Standard segment of the stock exchange under the ticker symbol BNN and ISIN DE0005203947/WKN 520394. The first share price was at € 9.15, and therefore above the issue price of € 9. A total of € 32.5 million (including over-allotments) were placed in the context of the offering, from which the company receives gross proceeds of € 31.5 million.



March

**1 March 2016**

**NatLifE 2020 Strategic Alliance given go-ahead after successful interim review**

At the end of the year 2015, following nearly three years of successful research and development, the alliance had to undergo an interim review by a panel of scientific experts set up by the German Ministry of Education and Research (BMBF). The expert panel recommended to enter into Phase 2 of the alliance. As scheduled, Phase 2 will start on 1 March 2016. Another three-year phase of NatLifE 2020 (Phase 3) is also planned.



April

**13 April 2016**

**BRAIN and Südzucker cooperate in the field of CO<sub>2</sub> as a nutrient for microorganisms**

BRAIN and Südzucker are intensifying their cooperation in the field of microbial utilisation of carbon dioxide from waste streams as part of the strategic alliance ZeroCarbFP. The intermediate products generated from CO<sub>2</sub> may then be utilised as specialty products in the bioplastics industry, which so far has been dependent on fossil resources. Based on the promising results, the two partners have now applied for further funding in order to scale up the process to a pilot facility at the Zeitz CO<sub>2</sub>-emitting bioethanol plant.

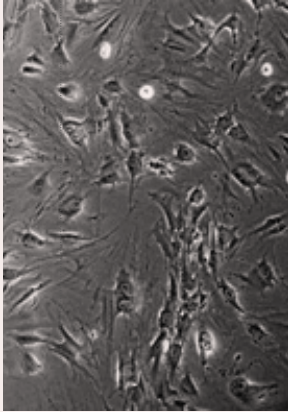


May

**31 May 2016**

**BRAIN continues to demonstrate solid business performance in the first half year 2015/16**

During the reporting period from 1 October 2015 to 31 March 2016, the business developed positively with only one exception. The BRAIN Group's total operating performance increased from € 12.8 m to € 13.0 m in a year-over-year comparison.



werk bund  
label 2016

**DOLCE**

June

July

August

September

**14 June 2016**

**BRAIN and PS Biotech announce cooperation on biotechnological process optimisation**

PS Biotech, a start-up company based in Aachen, is working together with BRAIN on optimisation of substrate release in miniaturised biofermentation processes as part of the NatLife 2020 Strategic Alliance coordinated by BRAIN.

**30 June 2016**

**Huge success in “cat taste” research**

BRAIN and DIANA Pet Food today announce the achievement of an important milestone within their strategic partnership in the field of cat taste science.

**27 July 2016**

**Wound dressings made from bacterial alginate**

In a joint project called AlBioTex, researchers at the Hohenstein Institute, BRAIN and Kelheim Fibres GmbH have successfully developed wound dressings made from bacterial alginate.

**3 August 2016**

**BRAIN granted key patent in the United States**

BRAIN announces today the granting of US patent 9,404,080 with the title “Human taste cells capable of continuous proliferation”. This confers intellectual property rights to BRAIN on using these cells for investigating the mechanisms of taste modulation and screening for novel all-natural taste molecules in the USA.

**29 August 2016**

**DOLCE – the next generation of natural sweeteners**

BRAIN, AnalytiCon Discovery and Roquette have signed a strategic partnership for the development of next-generation natural sweetening solutions. The three partners are addressing the challenge of finding sugar and sweetening solutions in different markets and applications. Many of the major Fortune 500 global consumer goods companies are known to have significant interest in this field.

**16 September 2016**

**BRAIN presented with the Werkbund Label 2016 award**

BRAIN has received the WERKBUND Label 2016 Award from the Deutscher Werkbund Baden-Württemberg for acting as a role model in terms of transdisciplinary cooperation.

**26 September 2016**

**BRAIN appoints experienced corporate finance specialist to the Board of Management**

Changes in the Board of Management and the management team were pushed forward on 23 September 2016. Frank Goebel will be appointed to the Board of Management of BRAIN as per 1 November 2016. This step will anchor the Group’s M&A activities, which are crucial for the company’s forward integration, directly in the Group’s Board of Management.

# Press review

## **“Toolbox of life” stored at BRAIN**

DIE ZEIT, 19 November 2015

## **At the service of health: BRAIN finds and develops agents that block bitter taste**

MITTELDEUTSCHE ZEITUNG, 30/31 October 2015

## **BRAIN discovers geo- bacillus that “digests” carbon dioxide**

FAZ, 30 November 2015

## **Bioeconomy pioneer breaks glass ceiling on stock exchange**

transkript, 1–2/2016

## **BRAIN injects some innovation into the capital market**

FOCUS MONEY ONLINE, 19 January 2016

## **Biotech company BRAIN sets sights high for stock exchange price**

FAZ, 06.01.2016

## **IPO possible even in tough market**

Börsen-Zeitung, 10 February 2016

## **BRAIN acts as beacon in sector that is key to the German economy**

Darmstädter Echo, 31 May 2016

## **Bioeconomy is key sector for transforming economic systems**

BIOspektrum, March 2016

## **Mining for gold and silver with bacteria**

Wirtschafts Woche, 19 August 2016

## **BRAIN on quest for “holy grail” of sweeteners**

transkript, 10/2016

## **We are at the start of a new era**

EURO am Sonntag, 8 to 14 October 2016

# Lively corporate culture



## Technology campus

In 1996, BRAIN bought a technology campus consisting of 2,500 square metres of laboratories, production and office facilities in different buildings. The core of the campus is the Bauhaus building, classed as a monument, which was revitalised in meticulous detail and won the prestigious Josef Maria Olbrich prize awarded by the Association of German Architects (BDA) in 1998.



An important precondition for BRAIN's style of work is the open, light-filled building in which all employees can interact with each other at any time, quite in keeping with the Bauhaus model that can still be admired in Dessau today.



Creativity arises in an environment that promotes work and thought processes while being aesthetically pleasing. The BRAIN technology campus provides such creative space.





## Built on the Bauhaus philosophy

The BRAIN building is one of the few remaining examples of industrial Bauhaus architecture and is therefore a listed building. Functionality and new, innovative approaches were the hallmark of the Bauhaus era and the basis for its success. BRAIN follows the Bauhaus philosophy. Similarly to Bauhaus teachings, interdisciplinary work in the think tank made up of scientists, engineers and technicians at BRAIN is characterised by open talks, mutual support and a shared approach.

The new glass building inaugurated in 2010 builds an optical bridge between the former Fissan factory complex of listed buildings and a hall that doubled the available office and lab space at BRAIN and houses the production area as well as the lobby, access passages and exhibition rooms.

The architecture of the technology campus creates a positive working climate and encourages staff members to identify with the company. BRAIN has long placed an emphasis on creating and cultivating an eye for beauty.

## Cultural involvement as part of the company profile

Like art itself, a technology company is firmly embedded in society and its creative processes. A lively and creative corporate culture that thrives on the power of its actors to shape the world in which they live is therefore a key factor for a company's success. BRAIN's cultural activities should thus be seen as a specific commitment to a dialogue that broadens horizons rather than as a form of benevolent patronage.

## Creative dialogue

Young artists meet creative scientists. Both groups need a sensitive eye and a feel for detail to capture a moment or an observation. Photographers and scientists face similar challenges in their everyday work. It is interesting to observe how much these two groups can benefit from and inspire each other.

One example of BRAIN's cultural involvement is its many years of successful participation in the Kunst *privat!* art initiative launched by the Hessian Ministry of Economics, Energy, Transport and Regional Development. The works of selected young artists are exhibited on BRAIN's premises and made available to the public on guided tours. Some artists are available for in-depth discussions during the exhibitions.

Selected pictures are on view and accessible to BRAIN staff every day. Some even belong to staff members who put them on display. BRAIN thus offers a constant platform for a productive exchange between science and art.

**Kunst  
*privat!***

One example of BRAIN's cultural involvement is its annual participation in the Kunst *privat!* art initiative launched by the Hessian Ministry of Economics, Energy, Transport and Regional Development.

## Transdisciplinary role model function

BRAIN received the WERKBUND Label 2016 for its function as a transdisciplinary role model. This label is awarded every two years by the Deutscher Werkbund Baden-Württemberg (regional branch of this German association of artists and craftspeople) to projects, ideas, companies, concepts and products that stand out for their exceptional commitment and set examples in society, politics and culture.

“The technological use of biological processes in a transdisciplinary, pro-integration networking company is an absolute role model also on a global scale and would be reason enough in itself to consider giving the Werkbund label to such a company that is environmentally focused in the broadest sense of the word”, said architect and jury member Alexander Grünwald.

But what particularly convinced the jury to award its prize to BRAIN were the unique company philosophy that addresses the transfer of creative academic thought through to industrial applications, and the unique corporate communications and culture that had already won a number of prizes. Behind all this is an enthusiastic, committed team of staff members who strongly identify with the company and their individual sphere of activity.



BRAIN received the WERKBUND Label 2016 for its function as a transdisciplinary role model from Deutscher Werkbund Baden-Württemberg.

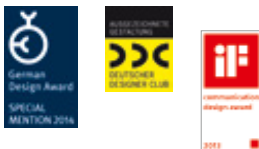
## Award-winning corporate communications

BRAIN has been publishing its BLICKWINKEL periodical once per quarter for a number of years. This informs a select group of shareholders, cooperation partners and friends of the company about specific subjects and developments related to the company. Current developments at the company are placed in relation to economic, scientific and social affairs.

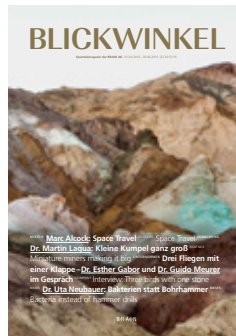
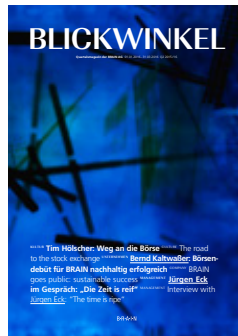
The design of this key medium for corporate communications consciously distinguishes itself from other publications in this sector. The photography and graphic design in particular are unconventional. Each issue is individually illustrated. Exclusively created photographs underline the aesthetic side to the company's apparently technical line of work.

BRAIN's IPO engendered new challenges also with regard to corporate communications and entailed an obligation to inform and communicate with investors. BRAIN's internal marketing team took this opportunity to redesign the quarterly publication and apply the new design within the current business year.

The high-quality format that was consistently applied for four business years and received a number of design awards, e.g. the iF communication design award 2013, was replaced by a concept that was more accessible and flexible in terms of content and design. This stands out not for its outsize format and exclusive finish, but its compact size and contemporary look. Quarterly bulletins and six-monthly reports in appropriate colours are published in parallel to the quarterly magazines.



BLICKWINKEL has received the following awards:  
Rat für Formgebung (German Design Council) – German Design Award Special Mention 2014,  
DDC (Deutscher Designer Club) – Gute Gestaltung 13 (Bronze), iF (International Forum Design) – communication design award 2013 (Award).



The new BLICKWINKEL format offers accessible, flexible and compact information on company trends. You can find all issues at: [www.brain-biotech.de/en/blickwinkel](http://www.brain-biotech.de/en/blickwinkel)



Quarterly statements and mid-year financial statements in corresponding colours are published in parallel to the quarterly magazines.

# Staff culture

**“At BRAIN, personalities with an entrepreneurial bent address new challenges each day with passion and creativity. A remarkable corporate culture, to my way of thinking.”**

**Dr.-Ing. Ute Dechert** — Unit Head Organisation & Processes

A total of 237 colleagues<sup>2</sup> think and work together creatively and independently in the BRAIN Group, always with a focus on the product and its application. In all, 125 colleagues were working for BRAIN AG in September 2016. Sixty-one people are employed by the subsidiary AnalytiCon Discovery GmbH, 20 people work at L. A. Schmitt, 14 at WeissBioTech, 12 at MONTEIL, 4 at Mekon and 1 at BRAIN Capital.

The constellation of the BRAIN Group makes it possible to realise a completely closed value chain. Various types of access to the market are created so as to directly harness the value of developments. The aim is not to assimilate the Group's companies. After their acquisition, they continue to act as independent entities in their given markets, like satellites with different concepts, locations and corporate cultures.

## **BRAIN as the core that drives innovation**

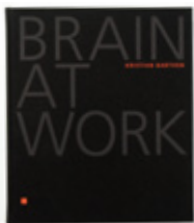
BRAIN is the think tank of the BRAIN Group and drives its innovation. It maintains an open, creative and future-ready dialogue in all directions. People who stick to well-trodden paths miss out on discoveries. BRAIN's approach to solving problems is therefore a creative one that is designed to open up thought patterns and perceptions, encourage people to aim higher and go further, and enable surprising new perspectives.

## **The BRAIN organism**

BRAIN as an organism consists of an interdisciplinary team of highly qualified scientists, engineers and technicians. This diversity of people, expertise and talents promotes fresh new ideas that are pursued in all directions and are fine-tuned in an interdisciplinary exchange. In this way, the company recognises opportunities before they become mainstream.

## **Commitment to education and training**

Fresh thinking calls for fresh minds. BRAIN offers students a platform for independent scientific studies with a strong practical focus. It maintains longstanding cooperation arrangements with several universities and training partnerships with various industrial partners. This is BRAIN's contribution to training young people, an unbroken tradition since 1996.



The photographic picture book "BRAIN AT WORK" was published in 2009. It attempts to explore the innermost nature of a biotechnology company.

<sup>2</sup> All statements made here reflect the status in September 2016, including executive officers and trainees.



**237** colleagues work for the **BRAIN Group**.

**125** colleagues work for **BRAIN AG**.

**1007** years of research experience are accumulated at BRAIN.

**164** grants, trainee and “free environmental year” placements have been provided by BRAIN to date.

# The BRAIN share and the capital market

- Despite difficult market conditions, in January 2016 BRAIN AG decided to place the Group's growth strategy on a broader financial base through an IPO.
- The Xetra closing price of € 11.70 as of the September 30 financial year-end represents a significant share price appreciation of 30 % compared to the issue price.

## Capital market environment

The capital market environment in the 2015/16 financial year reflected considerable nervousness and continued high volatility, evident in the performance of the DAX index of leading German shares. More than 2,600 points, or 23 %, stood between the high in December (11,382 points) and the low in February (8,753 points). On a year view, the DAX closed on 30 September 2016 at 10,511 points with a gain of 8.8 %.

## IPO of BRAIN AG

Despite difficult market conditions, the Management and Supervisory Boards of BRAIN AG decided in January 2016 to further advance the Group's growth strategy and establish it on a broader financial basis through an IPO. Consequently, a total of up to 4.025 million shares were offered for subscription in the period between 21 January 2016 and 3 February 2016. The IPO price range lay between € 9.00 and € 12.00 per share. The offer comprised 3,500,000 new shares from a capital increase and up to 525,000 shares as part of a potential overallocation. These were made available by the main shareholder of many years' standing, MP Beteiligungs-GmbH. The shares were offered both as part of public offerings in Germany and Austria as well as private placements in selected other countries. In this context, a minimum proportion of 10 percent of the shares offered were reserved especially for private investors, with the company also providing separate subscription access for such investors.

After the end of the subscription phase, the issue price was set at € 9.00 per share. A total of 3,608,054 shares were placed among private and institutional investors in this context,

whereby along with the total of 3,500,000 new shares from the capital increase 108,054 shares as part of the overallocation from existing shareholders' positions were also placed. Around 19 % of the placement volume was allocated to private investors. Such investors included BRAIN Group staff as well as MIG Fund investors who formed part of the group of existing BRAIN AG shareholders through various funds. The remaining placement volume was allocated to institutional investors from various European countries. The total IPO volume consequently amounted to around € 32.5 million, with € 31.5 million of gross issue proceeds accruing to the company. The proceeds are to be used mainly to research and develop new products, for the continuous improvement of existing products and technologies, as well as to bolster sales of the company's own products.

The IPO of BRAIN AG was not only the first IPO in Frankfurt in 2016, but also the first IPO of a company from the biotechnology sector since November 2006 and the first IPO of any bioeconomy company in Germany. Counter to a growing general trend to float young German growth companies on stock markets abroad, BRAIN has demonstrated that such IPOs can still be implemented successfully in Germany too.

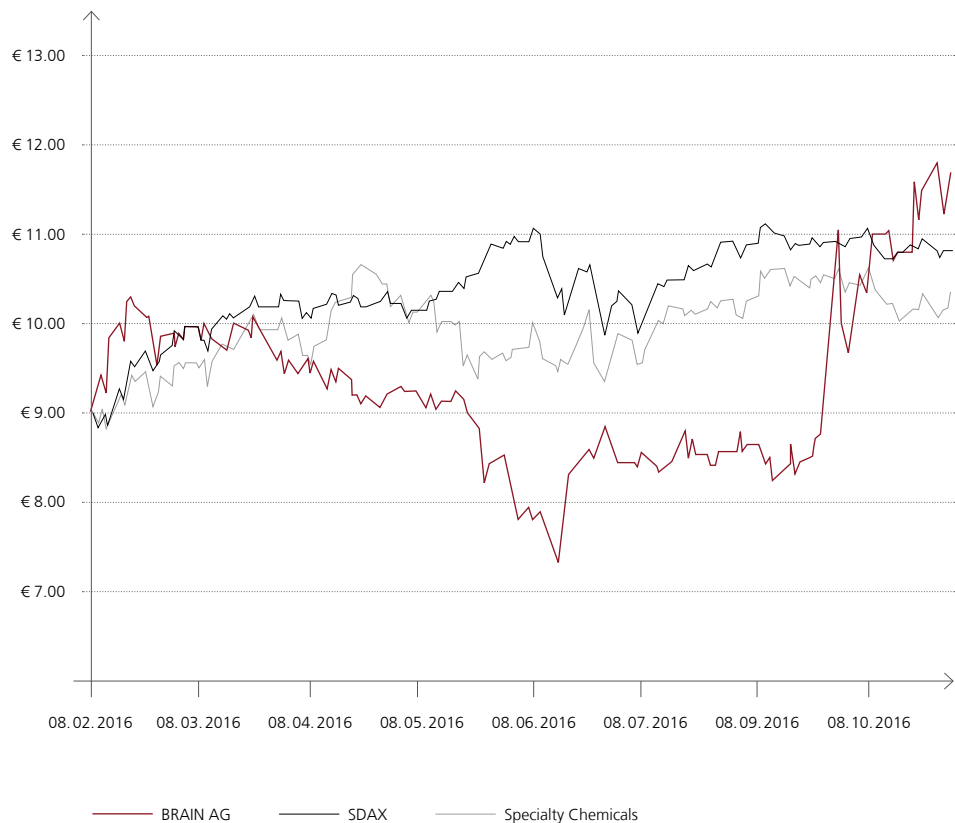
TABLE 02.1 KEY IPO DATA

<b>Placement volume</b>	3,500,000 shares from capital increase
<b>Greenshoe</b>	525,000 shares from existing shareholders, of which placed and exercised: 108,054 shares
<b>ISIN/WKN</b>	DE0005203947 / 520394
<b>Share capital after IPO</b>	€ 16,414,348
<b>Subscription period</b>	21.01.2016 – 03.02.2016
<b>Bookbuilding range</b>	€ 9.00 – 12.00
<b>Issue price</b>	€ 9.00
<b>Market capitalisation at issue price</b>	€ 147.73 million
<b>First trading day</b>	09.02.2016
<b>Initial price</b>	€ 9.15
<b>Sole Global Coordinator und Sole Bookrunner</b>	ODDO SEYDLER Bank AG

## Price performance of the BRAIN share

The shares of BRAIN AG have been listed in the Prime Standard segment of the Frankfurt Stock Exchange since 9 February 2016. The initial price of € 9.15 already slightly exceeded the € 9.00 issue price. The share also performed well subsequently, remaining stably above the issue price. As of the midyear, the BRAIN share proved unable to withstand the general market trend, including in relation to the Brexit vote, and reduced significantly in price. The share consequently also reached its low for the year of € 7.33 on 14 June. The BRAIN share stabilised as part of the subsequent market recovery and also traded well above its issue price under the effect of positive news on the company's development. The share reached its high for the year<sup>3</sup> of € 11.80 on 26 September. The Xetra closing price of € 11.70 as of the financial year-end on September 30 represents a considerable share price appreciation of 30 % compared with the issue price. The BRAIN share consequently also outperformed its relevant benchmark indices, the SDAX and the DAXsubsector Chemicals, Specialty Performance Index, which registered gains of 20 % and 15 % respectively over the same period.

FIGURE 02.8 DEVELOPMENT OF BRAIN SHARE PRICE ON THE XETRA



<sup>3</sup> in each case based on the closing price



TABLE 02.2 KEY SHARE DATA

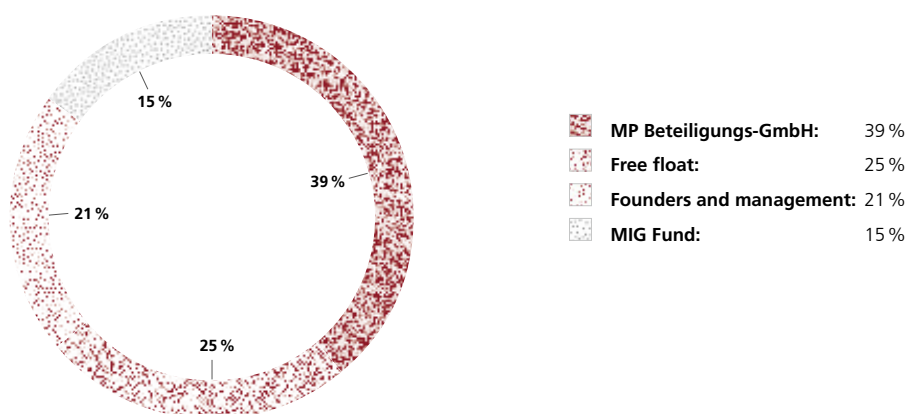
<b>Share class</b>	No-par-value registered shares
<b>Stock exchange</b>	Frankfurt Stock Exchange
<b>Other exchanges</b>	XETRA, Stuttgart, Berlin, Düsseldorf, Munich, Tradegate, London
<b>Transparency level</b>	Prime Standard
<b>Number of shares</b>	16,414,348
<b>Share capital</b>	€ 16,414,348
<b>ISIN</b>	DE0005203947
<b>WKN</b>	520394
<b>Ticker symbol</b>	BNN
<b>Specialist</b>	ODDO SEYDLER Bank AG
<b>Designated Sponsor</b>	ODDO SEYDLER Bank AG
<b>Paying agent</b>	Bankhaus Gebr. Martin
<b>Share price 30. 09. 2016</b>	€ 11.70
<b>52-week high<sup>4</sup></b>	€ 11.80
<b>52-week low<sup>4</sup></b>	€ 7.33
<b>Market capitalisation 30. 09. 2016</b>	192.05 million
<b>Average daily trading volume (52 weeks as of 30. 09. 2016)<sup>4</sup></b>	13,040 shares/day

<sup>4</sup> In each case based on the closing price since start of trading on 9 February 2016 until 30 September 2016

## Shareholder structure

As a result of the capital increase as part of the IPO, the number of shares in issue of BRAIN AG increased from 12,914,348 to 16,414,348. The IPO also created a free float of 25.0%. The shareholder structure of BRAIN AG as of 30 September 2016 is as follows:

FIGURE 02.9 SHAREHOLDER STRUCTURE



## Financial communication

The IPO in February 2016 formed an important focus of investor relations work at BRAIN AG during the 2015/16 financial year. Along with regulatory requirements such as preparing the listing particulars and establishing the requisite investor relations structures, such work centred on investor roadshows, with the Management Board and rest of the management team conducting more than 90 personal discussions over ten days with national and international investors to highlight the growth potential of the bioeconomy and of BRAIN AG. The Management Board and management team also participated in several information events for private investors. As part of an ongoing service for investors after the IPO, BRAIN AG informed interested investors, analysts and the general public about current developments and the company's business progress in two quarterly announcements, a half-year financial report as well as numerous IR and press releases. BRAIN AG also presented itself at the ODDO Pharma Biotech Investor Conference in Paris on 31 March 2016, at the DVFA Spring Conference in Frankfurt between 9 and 11 May 2016, and at the Baader Investment Conference in Munich between 20 and 22 September 2016, as well as at numerous roadshow events across the whole of Europe.

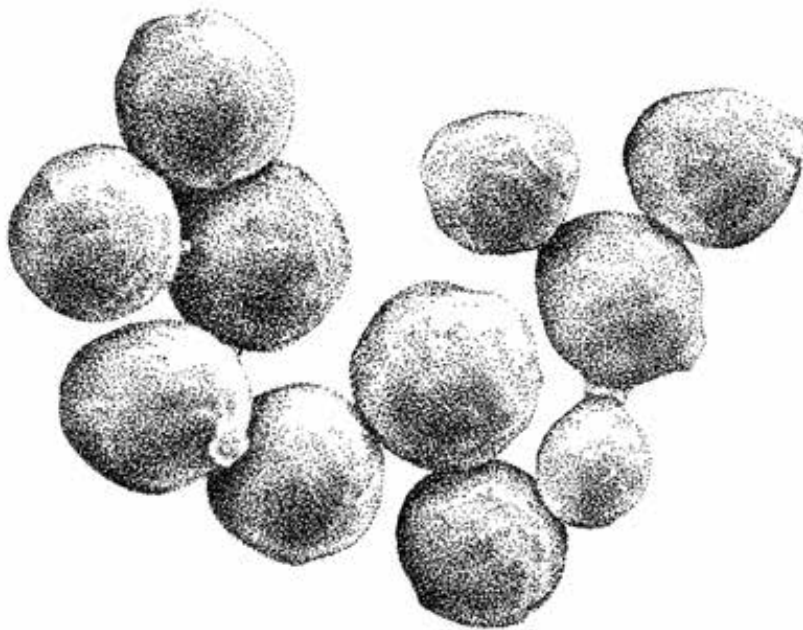






# Milk for everyone – lactose-free

—> Most people are **lactose-intolerant**.  
An enzyme produced by yeast **BR-0194**  
increases tolerance towards dairy products.



## Properties

BR-0194 is a yeast species used by BRAIN as one of 15 production strains.

BR-0194 is capable of producing the enzyme lactase in a fermentation process. At the end of this process, the enzyme is extracted from the medium and processed into the enzyme-containing end product after purification.

## Fields of application

BR-0194 grows on carbohydrates and proteins, which it uses as a source of nutrients.

This yeast species has been used for decades as a reliable producer of fermented products, e.g. in cheesemaking.

## Advantages

The organism is capable of producing various enzymes in commercially attractive quantities.

This yeast belongs to a family of organisms that has been used for centuries for producing food-stuffs and has never caused any harm.

75 %

75 % of the **world's** population are affected by **lactose intolerance**.<sup>1</sup>

90 %

of adults in some **Southeast Asian countries** suffer from lactose intolerance.<sup>1</sup>

15 %

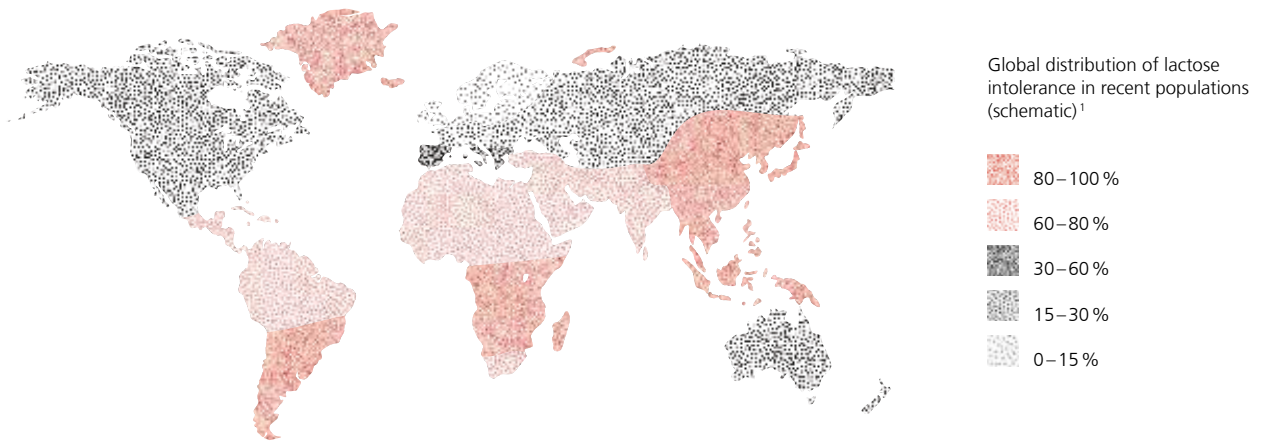
In **Germany**, about 15 % of adults are lactose-intolerant.<sup>2</sup>

———— Milk is regarded as one of the staples of the Western diet. Yet the lactose (milk sugar) it contains provokes **stomachaches and other digestive problems** in three-quarters of the world's population. In some regions of Africa and Asia, 90 per cent of adults do not tolerate milk. In Germany, the figure is around 15 per cent. The people who are affected lack an enzyme called lactase that breaks down the disaccharide lactose in the small intestine and makes it digestible.

———— **Lactase** produced by yeast BR-0194 in a biotechnological process **solves the problem**. It is added to milk, yogurt, ice-cream and other dairy products, allowing everyone to digest them.

———— **The market for the food enzyme lactase is growing fast**. Last year, 100,000 metric tons of lactose-free dairy products were sold in Germany alone, more than three times as many as in 2008. More and more Asian people are also consuming dairy products.

<sup>1</sup> Euromonitor, April 2016  
<sup>2</sup> en.wikipedia.org/wiki/Lactose\_intolerance



— Together with enzyme specialist WeissBioTech, BRAIN is developing a **new lactase formulation for the dairy industry**. This expands the existing portfolio of WeissBioTech and serves as a basis for developing new enzymes with which the dairy sector can further improve its products. Some of the lactose-free foods currently available have a slight secondary flavour that many consumers find unpleasant. Another aim is to further reduce the residual milk sugar content.

— This is an attractive segment: in 2015, the global market for lactose-free foods amounted to USD 6.7 billion. Experts predict it **will grow to USD 8.8 billion in 2020**.

— Enzymes have a **long tradition** in milk processing, especially in cheesemaking. Besides the new lactases, WeissBioTech and BRAIN intend to develop other innovative products for the dairy industry.

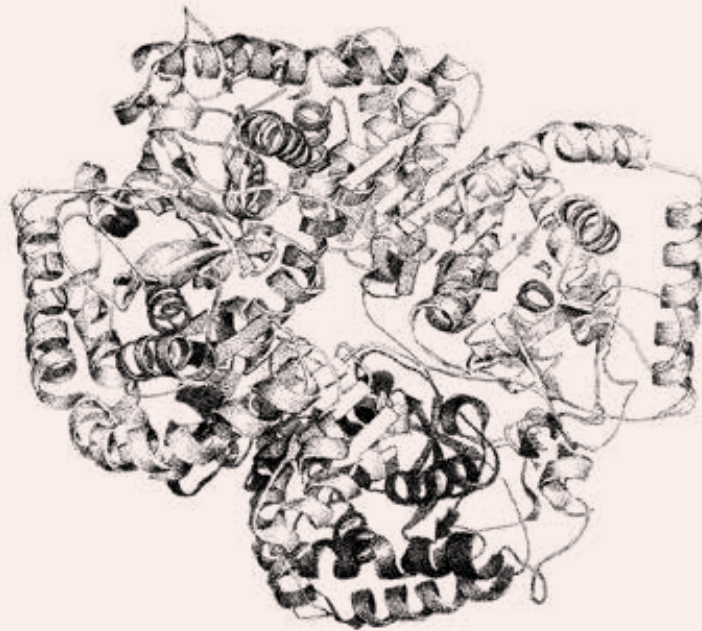
<sup>1</sup> [www.nahrungsmittel-intoleranz.com](http://www.nahrungsmittel-intoleranz.com)



# BRAIN insight

**BRAIN develops active product components that determine the products' key properties. These include new or optimised enzymes and biocatalysts that meet complex process and application requirements. The lactase enzyme can be used for example in lactose-free dairy products.**

Enzymatic structure of lactase



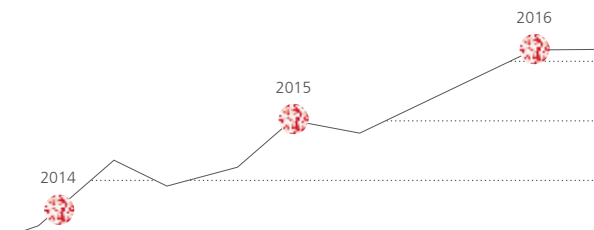
Possible products



# The enzymes market is far from saturated



→ Interview: Dr Wolfgang Aehle, New Business Development Enzymes at BRAIN and Hans de Bie, CEO of WeissBioTech GmbH



**Enzymes are important industrial “helpers”, not just for producing lactose-free dairy products. What other fields are enzymes used in, for example?**

**WOLFGANG AEHLE**

Generally speaking, we distinguish between bulk enzymes that are used in large volumes for industrial applications and special enzymes that are specifically developed together with the customer to solve production problems on the customer side.

**HANS DE BIE**

Enzymes are mainly used in the detergents, animal feed and textile industries. Demand for enzymes has been growing strongly since the 1980s especially in the animal feed market, which has gone from practically zero to one billion euros. Since animal feed that has been enzymatically pretreated is easier for the animals to digest, they require less feed overall. The use of enzymes has therefore led to a rapid increase in economic efficiency.

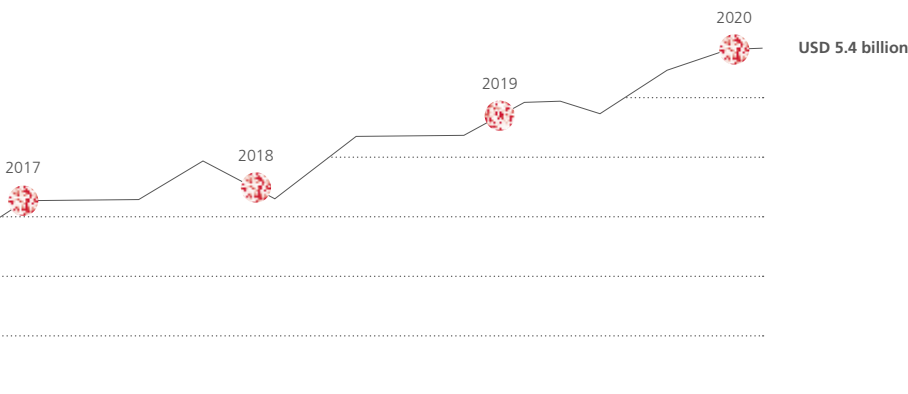
**WOLFGANG AEHLE**

One advantage of enzymes is that they are environmentally sound. Of course, enzymes are chemicals too, but chemicals of biological origin that are completely biodegradable. This makes them very environment-friendly.

**Which enzymes do WeissBioTech and BRAIN specialise in?**

**WOLFGANG AEHLE**

Two large corporations, Novozymes and Dupont, have a firm hold on the market for bulk enzymes. We certainly have no intention of copying them or competing with them. Our aim is to develop special enzyme solutions that can also be used on a large scale as part of the bulk market. This makes it clear that the two markets can’t be separated. One evolves from the other.



**Forecast for the World Enzymes Market<sup>1</sup>**

The World Enzymes Market grew at a CAGR of 7.8 % during 2015–2020. It is expected to reach USD 5.4 billion worldwide by 2020.

<sup>1</sup> Allied Market Research, Enzymes Market by Type, Reaction Type and Source – Global Opportunity Analysis and Industry Forecast, 2014–2020, September 2015

“You could say we have a two-pronged strategy – to use the latest technologies and improve classical enzymes.”

Dr Wolfgang Aehle

**Are there specific examples of applications for such special enzymes?**

HANS DE BIE

Amylase, which hydrolyses starch, is one example of a bulk enzyme, but various special solutions exist within the market. We cooperate with an adhesives manufacturer for which we have developed tailor-made special applications for amylases.

**Sales of bioethanol enzymes have dropped due to the sustained decline in petroleum prices, which is making life hard for the enzymes sector. How are BRAIN and WBT reacting to this development?**

HANS DE BIE

Developing enzyme solutions for the bioethanol market is not one of our primary activities. However, if we do develop solutions for starches that happen to be suitable for bioethanol production too, we take advantage of that fact. So solutions for the bioethanol sector are more or less a pleasant side-effect, but not a priority. As we saw at the start of the year, amylase sales in the bioethanol business are subject to strong fluctuations. We therefore prefer to focus on special applications that offer a higher profit margin.

**How are markets developing, apart from bioethanol, and where do you see potential?**

HANS DE BIE

As we said before, our line of work is in the starch market. Recent political developments and the introduction of “clean labels” have increased the demand for biological solutions in food production. For the starch sector, “clean label” means no chemically modified starch may be used. Other interesting fields of application for us are wine and fruit juice production.

WOLFGANG AEHLE

You could say we have a two-pronged strategy. On the one hand we want to use the latest technology like CRISPR and metagenomics to discover and develop new enzyme solutions, and on the other we intend to further improve existing classical enzymes.

**Looking at dairy products and lactase, for instance, one might think the enzymes market is already saturated. Where is there any remaining potential for BRAIN and WBT?**

HANS DE BIE

We are setting our sights on a widely diversified product portfolio that includes lactase solutions among many others. With this portfolio, we can approach customers and then gradually develop specifically tailored solutions together.

WOLFGANG AEHLE

Achieving success on the market involves more than providing a product, it also means being able to deliver good customer service. This includes recognising problems and having the ability to solve them. That is precisely what we offer our customers.

**What role does the strategic partnership between BRAIN and WeissBioTech play here?**

**WOLFGANG AEHLE**

To realise synergies, you have to combine core competencies. BRAIN is good at discovering enzymes and providing the documentation required for their approval. Those are precisely the technical prerequisites you need to launch a product on the market.

**HANS DE BIE**

... and WBT knows all about enzyme applications and knows exactly what to do with a product as soon as it is available. WBT has the necessary experience to get the approval documents to the authorities so that the product can be sold. So summing up, we can say: WBT brings BRAIN closer to the market since its more than 30 sales partners around the globe have the necessary access to the customer.

**Has cooperation between the two companies paid off?**

**HANS DE BIE**

We are thoroughly delighted with our cooperation with BRAIN and believe these synergies also hold further potential for the future. We have now been partners for almost two years, and I am very confident that we will have further successes to show in a couple more years.

**Two years isn't very long. When do you expect success, and in which areas?**

**HANS DE BIE**

The pathway from product development to market launch generally takes four to five years. So the first visible successes can be expected in 2017.

**WOLFGANG AEHLE**

Our aim is to introduce two products in 2017. Apart from this, we want to fill the product pipeline in order to have a constant supply of new products.

→ For more information on WeissBioTech GmbH, see also: "Spotlight WeissBioTech", p. 68

→ OTHER PRIORITY AREAS OF THE ENZYMES UNIT

# Faster wound healing

The treatment of chronic wounds costs the German health system € 2 to 4 million each year. An enzyme named aurose could help alleviate the problem, since it dissolves dead tissue and thus offers better healing prospects.

**BRAIN isolated the genetic blueprint for the enzyme from maggots of the common green bottle fly (*Lucilia sericata*) and produces it using biotechnologically optimised yeast cells.**

The patented aurose is applied in the form of a gel, which is more pleasant for the patient than the maggot therapy offered by specialised doctors, involving maggots being placed on the open wounds.

Under the name "TIME care", BRAIN is pursuing other broad-based wound treatment strategies. Together with partners, the company has developed wound dressings made of alginate, a gelatinous substance that promotes healing and has so far been obtained from brown algae. Thanks to BRAIN, alginate can now be obtained using bacteria as the production organisms.

TIME  
care 

For more information, please contact us at:  
→ [public@brain-biotech.de](mailto:public@brain-biotech.de)

B•R•A•I•N

Go here to learn more about BRAIN's future-ready solutions based on biological diversity:  
→ [www.brain-biotech.de/en](http://www.brain-biotech.de/en)

03

# Corporate governance report

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## 03 Corporate governance report p. 101

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Corporate governance statement

p. 103

Corporate governance practices

p. 115



# Corporate governance statement

The Management and Supervisory Boards of B.R.A.I.N. Biotechnology Research and Information Network AG (“BRAIN AG”) are aware of the importance of the principles of responsible and good corporate governance and are committed to them. The statement relating to corporate governance pursuant to Section 289a of the German Commercial Code (HGB) comprises the statement of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG), relevant information about corporate governance practices, the description of Management and Supervisory Boards’ working methodology, as well as the composition of their committees.

## Statement of conformity by the Management and Supervisory Boards of BRAIN AG with the recommendations of the German Corporate Governance Code pursuant to Section 161 of the German Stock Corporation Act (AktG)

The shares of B.R.A.I.N. Biotechnology Research and Information Network AG (“BRAIN AG”) have been listed in the Prime Standard segment of the Frankfurt Stock Exchange since 9 February 2016. As a consequence, BRAIN AG hereby issues its first statement of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG). To the extent that some recommendations (e.g. concerning the AGM topic) have not yet been applicable since the aforementioned date, the company will comply with these recommendations in the future, unless otherwise stated.

The Management and Supervisory Boards of BRAIN AG declare that, since the company’s IPO on 9 February 2016, BRAIN AG has complied with the recommendations of the “Government Commission German Corporate Governance Code” (hereinafter referred to as the “Code”) in the version dated 5 May 2015 as published by the German Federal Ministry of Justice on 12 June 2015 in the official section of the German Federal Gazette (Bundesanzeiger) and will continue to comply with them in the future, with the following exceptions:

- **Number 3.8 (3):** The Code recommends that in a D&O insurance policy (directors’ & officers’ liability insurance) for Supervisory Board members, a deductible of at least 10 % of the loss up to a minimum of one and a half times the fixed annual compensation be agreed. BRAIN AG has taken out D&O insurance cover, although it currently includes no deductible for the Supervisory Board members. The company regards a deductible as not generally suited to enhancing the quality of Supervisory Board activity, while at the same time it diminishes the attractiveness of the Supervisory Board mandate, making it more difficult to compete for correspondingly qualified candidates.
- **Number 4.2.3 (4) Clause 1:** The Code recommends that when concluding Management Board employment contracts, care should be exercised to ensure that payments to a Management Board member on early termination of his/her contract, including fringe benefits, do not exceed the value of two years’ compensation (severance pay cap) and compensate no more than the remaining term of the employment contract. Management Board contracts concluded before the admission to stock market listing do not include a severance pay cap. The company took this into consideration for the first time in the case of a Management Board contract that was entered into after admission to stock market listing, and will take it into account when extending or concluding new contracts in future.

- **Number 4.2.3 (4) Clause 3:** The Code recommends that the calculation of the aforementioned severance pay cap should be based on the total compensation for the respective financial year elapsed and, where relevant, also on the basis of the prospective total compensation for the current financial year. Management Board contracts concluded before the admission to stock market listing do not include a severance pay cap. The company took this into consideration for the first time in the case of a Management Board contract that was entered into after admission to stock market listing, and will take it into account when extending or concluding new contracts in future.
- **Number 4.2.3 (5):** The Code recommends that payments promised in the event of early termination of a Management Board member's contract in the case of a change of control do not exceed 150 % of the severance pay cap. The current employment contracts of the Management Board members do not include any severance payments in the case of a change of control. It should also be considered that BRAIN AG continues to endeavour to grow independently and not become a takeover candidate. The company will comply with the recommendations from Number 4.2.3 (5) in the case of future contract extensions and new contracts.
- **Number 5.1.2 (2) Clause 3:** The Code recommends setting an age limit for Management Board members. BRAIN AG has not fixed any age limit for Management Board members to date. The existing Management Board contracts were entered into before the IPO and correspond to the structure selected before that date. The Supervisory Board of BRAIN AG is reviewing whether such an age limit should be set in the future.
- **Number 5.4.1 (2) Clause 1:** The Code recommends that a Supervisory Board specifies concrete targets for its composition, which – while considering the specifics of the enterprise – take into account the company's international activities, potential conflicts of interest, the number of independent Supervisory Board members in the meaning of Number 5.4.2, setting an age limit for Supervisory Board members and determining a standard limit to Supervisory Board membership, as well as diversity. The Supervisory Board's current composition was implemented before the admission to stock market listing and consequently reflects the structures selected previously. The Supervisory Board intends to set specific targets for its future composition to enable the recommendation to be complied with in future.
- **Number 5.4.4:** The Code recommends that Management Board members should not become members of the company's Supervisory Board until two years after the end of their appointment, unless they are appointed upon a motion presented by shareholders holding more than 25 % of the company's voting rights. In the latter instance, an appointment to become Supervisory Board Chair should be an exception to be justified to the shareholders' general meeting. The Supervisory Board of BRAIN AG is carefully examining whether a switch by a Management Board member to the Supervisory Board entails conflicts of interest between executive and supervisory responsibilities. The Supervisory Board does not make its decision on the basis of fixed criteria, however, but rather considers risks of potential conflicts of interests on a case-by-case basis.
- **Number 5.6:** The Code recommends that the Supervisory Board conduct a regular examination of the efficiency of its activities. The Supervisory Board introduced a review of its effi-

ciency in the 2015/2016 financial year, although it had not yet been concluded as of the date when this statement of conformity was issued. After discussing the result, the Supervisory Board will take potential improvements into account for the future.

- **Number 7.1.2 Clause 4, Semi-clause 1:** The Code recommends publishing annual reports within 90 days after the end of the financial year. As a result of the additional accounting requirements in the first year as a listed company, the final audit takes longer than expected. Thus the audited figures will not be published as originally intended within 90 days of the end of the financial year but instead after the expiration of the 90 days (announced for 16 January 2017). The preliminary figures for the 2015/16 financial year were published as press releases on 19 December 2016. The company will comply with the recommendations from Number 7.1.2 Clause 4, Semi-clause 1 in future.
- **Number 7.1.2 Clause 4, Semi-clause 2:** The Code recommends publishing interim reports within 45 days after the end of the reporting period. In relation to the publication of interim reports, BRAIN AG complies with statutory regulations as well as the Prime Standard stock exchange regulations of the Frankfurt Stock Exchange. The Management and Supervisory Boards regard these as appropriate, especially given the fact that BRAIN AG reports on the whole Group every quarter. Also in light of various unlisted subsidiaries and participating interests held abroad, publication within shorter periods would necessitate the deployment of considerable financial and personnel resources that would not be appropriately related to the information that shareholders need for a company of the size of BRAIN AG. As a consequence, the 45 days required in the Corporate Governance Code are not complied with. Publication nevertheless occurs within the 60-day period valid according to the Prime Standard regulations.
- **Number 7.2.1** of the Corporate Governance Code recommends that, prior to submitting a proposal for election, the Supervisory Board or, respectively, audit committee, obtain a statement from the proposed auditor stating whether, and where applicable, which business, financial, personal and other relationships exist between the auditor and its executive bodies and head auditors on the one hand, and the enterprise and the members of its executive bodies on the other hand, that could call into question its independence. The selection of the current auditor occurred before the admission to stock market listing on the basis of previously chosen structures, without obtaining such a statement. A statement concerning the auditor's independence nevertheless exists, which the auditor conveyed independently to the Supervisory Board. The company will comply with this recommendation in the future.

Zwingenberg, 23 December 2016

For the Supervisory Board of BRAIN AG



**Dr Ludger Müller**  
Supervisory Board Chairman

For the Management Board of BRAIN AG



**Dr Jürgen Eck**  
Management Board Chairman (CEO)

## Relevant information about corporate governance practices

The purpose of BRAIN AG is to identify, research, develop, produce and market biological, biochemical and biotechnology processes and products, especially biocatalysts and other bioactive natural materials for industrial applications at chemical companies, for the production of foodstuffs, cosmetics and medical products, for the disposal of waste and hazardous materials, as well as to produce energy and raw materials, including the development, production and marketing of such processes and products that contain bioactive components, are based on biotechnical mechanisms, exhibit bioactive effects, or enable biotechnical applications.

The company complies with all statutory corporate governance regulations as well as the recommendations of the German Corporate Governance Code – apart from the exceptions specified and justified in the statement of conformity.

The company informed its staff on insider dealing legislation, especially as part of the IPO, and prepared an information sheet for this purpose.

## Description of the Management and Supervisory Boards' working methodology and the composition and working methodology of the Supervisory Board's committees

BRAIN AG is a public stock corporation under German law. As a consequence, it is especially subject to the regulations of the German Stock Corporation Act (AktG) and also operates the normal dual executive and supervisory structure consisting of a management board and a Supervisory Board. The company's Management and Supervisory Boards work together closely in the company's interest.

The Supervisory Board consults regularly with the Management Board concerning the management of BRAIN AG and supervises the Management Board's activities. The Management Board involves the Supervisory Board in good time in all decisions of fundamental significance for the company. It coordinates the company's strategic orientation with the Supervisory Board, and discusses with it at regular intervals the status of strategy implementation. The Management and Supervisory Boards' joint goal is to successfully implement the growth strategy that has been approved.

### Management Board working methodology

The Management Board manages the company's business according to statutory regulations, the company's bylaws and the rules of business procedure for the Management and Supervisory Boards. It is subject in this context to the restrictions that the company's bylaws or the Management and Supervisory Boards' rules of business procedure have established in relation to the power to manage the business, or which the Supervisory Board or the AGM determine within the scope of their powers. It informs the Supervisory Board regularly, promptly and comprehensively in the form of detailed written and verbal reports on all questions of relevance to the company relating to strategy, planning, business development, the risk position, risk management and compliance. The Management Board prepares the separate and consolidated annual financial statements.

Pursuant to Section 7 (1) of the company's bylaws, the Management Board consists of one or several individuals. The Supervisory Board determines the number of Management Board members. The Supervisory Board appoints the Management Board members, recalls them from office and determines the allocation of their responsibilities. It can also appoint a Management Board Chair (CEO) and a Deputy Management Board Chair, as well as deputy Management Board members.

### Composition of the Management Board

The Management Board of BRAIN AG consisted of three members as of 30 September 2016.

TABLE 03.1 COMPOSITION OF THE MANAGEMENT BOARD

Name	Function	Management Board member since	Contract end
Dr Jürgen Eck	Chief Executive Officer	21 June 2000	30 June 2020
Dr Georg Kellinghusen	Chief Financial Officer	1 January 2016	End of AGM in FY 2016/17
Henricus Marks	Chief Operating Officer	1 November 2015	31 October 2016

All Management Board members are individually responsible for managing the business division with which they are entrusted; the company's overall interest has to be taken into consideration at all times in this context. The allocation of business areas to the individual Management Board members is derived from the business allocation plan that is prepared with the Supervisory Board's approval and can be modified at any time with its approval.

The business allocation plan includes the following allocations until 30 September 2016:

#### Dr Jürgen Eck: Chief Executive Officer – CEO:

- Corporate strategy
- Business development of the BioScience segment
- Grants and academic cooperations
- Technology management, research and development, process optimisation
- Patent management
- Public and press relations
- Personnel
- Coordinating the individual Management Board areas and contacts with the company's boards

**Dr Georg Kellinghusen: Chief Financial Officer – CFO:**

- Accounting
- Controlling
- Financial communications (IR)
- Compliance and quality assurance
- Risk management
- Management of equity interests, M&A (Corporate Finance)
- Legal, administration and organisation

**Henricus Marks: Chief Operating Officer – COO:**

- Business development of the BioIndustrial segment
- Product development
- Formulation and application technology
- Production
- Registration and approvals, commercialisation strategy
- Innovation management

The Management Board has a set of rules of business procedure. The rules of business procedure for the Management Board were approved by the Supervisory Board and last updated on 26 February 2016. These particularly include regulations on the working methodology of the Management Board and the allocation of responsibilities between the Management Board members, as well as relating to collaboration with the Supervisory Board. They include a catalogue of actions and legal transactions requiring Supervisory Board assent.

**Management Board meetings**

Management Board meetings are held as required, generally weekly. They must be convened if the company's interests so require. Management Board resolutions are passed with a simple majority of the votes cast, unless statutory provisions prescribe another majority. If the Management Board consists of at least three members, the vote of the Management Board chair is decisive given an equal number of votes.

**Supervisory Board working methodology**

The Supervisory Board has all responsibilities and rights transferred or allocated to it by the law, the company's bylaws or in another manner. This especially includes supervising the executive management of the company, the appointment and dismissal of Management Board members, as well as the amendment, cancellation and termination of employment contracts with the Management Board members. The Supervisory Board consults regularly with the Management Board concerning the management of the company. The Supervisory Board is involved in good time in all decisions of fundamental significance for the company. The Supervisory Board has established a set of rules for its own business procedures. These include, among other matters, the working methodology and type of passing of resolutions on the Supervisory Board, as well as the tasks of the Supervisory Board committees that are formed (Audit Committee, Personnel Committee and Nomination Committee). A separate set of rules of procedure were approved for the Audit Committee to regulate its working methodology. All rules of business procedure are adapted regularly to any modifications to the German Corporate Governance Code (DCGK).

The Supervisory Board met for a total of eight attended meetings in the 2015/16 financial year. Otherwise the committees held four attended meetings and the Supervisory Board and its committees held nine telephone conferences. Two resolutions were passed by way of written circular. The Audit Committee held two attended meetings in the 2015/16 financial year, as did the Personnel Committee. The Nomination Committee did not meet in the 2015/16 financial year.

At the request of the Supervisory Board Chair, the Management Board participates in all ordinary Supervisory Board meetings, reports in writing and verbally on all agenda items and proposed resolutions, and answers individual Supervisory Board members' questions. The Supervisory Board Chair receives the Management Board report on current business every six weeks, forwarding such information in an appropriate form to the entire Supervisory Board.

Supervisory Board resolutions are generally passed at meetings that are actually attended by the Supervisory Board members. Absent Supervisory Board members can submit a written vote via another Supervisory Board member. This also applies for the submission of the second vote of the Supervisory Board Chair. Outside the scope of attended meetings, the passing of resolutions is permissible through votes conveyed by written, telegram, telephone, telex or modern telecommunications means (by telephone conference or videoconference or by email, for example), if so arranged for special reasons by the Supervisory Board Chair, or, if the Supervisory Board Chair is prevented from doing so, the Deputy Supervisory Board Chair. The Supervisory Board is quorate if all members are invited in time via their last provided address and at least half of the members of which it is to consist in total participate in the passing of the resolution. Supervisory Board members also participate in the passing of a resolution if they abstain from voting. Supervisory Board resolutions are passed with a simple majority of votes submitted, unless other majorities are required by law. This is also applicable in the case of elections. Abstentions are not counted when determining the results of voting. Given an equal number of votes, the Supervisory Board Chair – or if the Supervisory Board Chair is prevented from doing so, the Deputy Supervisory Board Chair – decides whether a further vote is to be held at the same meeting. Given a further vote on the same matter, the Supervisory Board Chair has two votes; the Deputy Supervisory Board Chair does not have this right to a second vote.

All Supervisory Board members must disclose to the Supervisory Board conflicts of interest, especially those that can arise due to a consultancy or board membership function at customers, suppliers, lenders or other third parties. In the case of conflicts of interest that are significant or of not just of temporary nature, the respective Supervisory Board members must step down from office. The Supervisory Board provides information in its report to the AGM on conflicts of interest that arise and how they are managed. No conflicts of interest occurred in the reporting period.

The Supervisory Board introduced the examination of the efficiency of its activities in the 2015/16 financial year and after discussing its results will take into account potential improvements for the future.

### **Composition of the Supervisory Board**

Pursuant to Section 9 (1) of the company's bylaws, the Supervisory Board of BRAIN AG consists of six members elected by the AGM. Unless the AGM approves a shorter period for the election of individual members that it is to elect – or for the entire Supervisory Board – the Supervisory Board members are appointed until the end of the Ordinary AGM that approves the discharge for the third financial year after the start of the period of office. The year in which the period of office starts is not included in the calculation. Re-election is permissible. When a Supervisory Board member is elected, a replacement member can be elected at the same time who succeeds the Supervisory Board, insofar as the Supervisory Board member steps down before the end of the respective period of office without a successor having been appointed. The appointment of the replacement member succeeding in this manner to the Supervisory Board lapses as soon as a successor for the departing member has been appointed, although this is to occur at the latest as of the end of the period of office of the departing Supervisory Board member.



The Supervisory Board currently consists of the following six individuals:

TABLE 03.2 SUPERVISORY BOARD MEMBERS

Function	Profession	Member since	Appointed until end of	Further board mandates in 2015/16
<b>Dr Ludger Müller</b> Chairman	Managing Director of MP Beteiligungs-GmbH	17 March 2011	AGM 2018/19	<ul style="list-style-type: none"> <li>Managing Director of subsidiaries of MP Beteiligungs-GmbH: PUTSCH Immobilien GmbH, KEIPER Brasilien Beteiligungs-GmbH, KEIPER Lateinamerika Beteiligungs-GmbH, BSN GmbH, Managing Director of BRL GmbH</li> <li>TU Kaiserslautern, University Council Chairman</li> </ul>
<b>Dr Holger Zinke</b> Deputy Chairman	Managing Director of GI Management GmbH	8 July 2015	AGM 2016/17	<ul style="list-style-type: none"> <li>Technische Universität Darmstadt, University Council member, Deputy Chairman</li> <li>Hochschule Mannheim – University of Applied Sciences, University Council member</li> </ul>
<b>Siegfried L. Druker</b> Supervisory Board member	Managing Director of Druker & Co. GmbH & Co. KG)	3 May 2012	AGM 2019/20	<ul style="list-style-type: none"> <li>Georgsmarienhütte Holding GmbH, Supervisory Board Chairman</li> <li>Georgsmarienhütte Holding GmbH, Supervisory Board member</li> <li>Managing Director of STEGO Vermögensverwaltungs GmbH</li> </ul>
<b>Christian Körfgn</b> Supervisory Board member  (Successor to Dr Georg Kellinghusen, who was Supervisory Board member until 31 December 2015, and who switched to the Management Board to become CFO as of 1 January 2016)	Personnel consultant, Diplom-Kaufmann	1 January 2016	AGM 2018/19	<ul style="list-style-type: none"> <li>Putsch GmbH &amp; Co. KG, Advisory Board member, and member of the Advisory Boards of affiliates of Putsch GmbH &amp; Co. KG (MP Beteiligungs-GmbH, Recaro Holding GmbH, Putsch Immobilien GmbH)</li> <li>until 31 March 2016: Managing Director of NH Central Europe GmbH &amp; Co. KG and Managing Director of several affiliates of NH Central Europe GmbH &amp; Co. KG (Airport Hotel Frankfurt Raunheim GmbH &amp; Co. KG, Artos Beteiligungs-GmbH, Astron Immobilien GmbH, Heiner Gossen Hotelbetrieb GmbH, Hotel Aukamm Wiesbaden GmbH &amp; Co. KG, Hotels Bingen &amp; Viernheim GmbH &amp; Co. KG, NH Central Europe Management GmbH, NH Hotelbetriebs- und Dienstleistungs-GmbH, NH Hotelbetriebs- und Entwicklungs-GmbH, NH Hotels Austria GmbH, NH Hotels Deutschland GmbH, NH Hotels Switzerland GmbH, NH Hotels Czequia s. r. o., NH Hotels Polska Sp. Zo. o., NH Hungary Hotel Management Ltd., NH Management Black Sea S.R.L., Objekt Leipzig Messe GmbH &amp; Co.)</li> </ul>
<b>Prof Dr Klaus-Peter Koller</b> Supervisory Board member	Consultant	21 May 2001	AGM 2016/17	<ul style="list-style-type: none"> <li>Member of the German Federal Ministry of Education and Research (BMBF) VIP+ Consultant Board</li> <li>Member of the Joint Board of Trustees of the Max Planck institutes for Biophysical Chemistry/ Dynamics and Self-Organization, Göttingen</li> <li>Member of the Advisory Council and Honorary Member of the German Association for General and Applied Microbiology (VAAM)</li> </ul>
<b>Dr Matthias Kromayer</b> Supervisory Board member	Management Board member of MIG Verwaltungs AG	17 March 2011	AGM 2018/19	<ul style="list-style-type: none"> <li>Amsilk GmbH, Advisory Board Deputy Chairman</li> <li>Biocrates AG, Supervisory Board Deputy Chairman</li> <li>Cerbomed GmbH, Advisory Board Chairman</li> <li>Immatics GmbH, Advisory Board member</li> <li>Immatics Inc., Advisory Board member</li> <li>Nexigen GmbH, Advisory Board Chairman</li> <li>Managing Director of tavia consulting GmbH</li> </ul>

In accordance with the recommendation in Number 5.4.2 of the German Corporate Governance Code, the Supervisory Board of BRAIN AG includes an appropriate number of independent members according to its appraisal.

### **Committees**

The Management Board of BRAIN AG has not formed any committees.

The Supervisory Board has currently formed a total of three committees to efficiently perform its work: an Audit Committee, a Personnel Committee and a Nomination Committee. These committees prepare resolutions for the Supervisory Board as well as topics that are to be covered by the plenary session. In all cases, the committee chairs report on the committees' work at the subsequent meeting.

#### **Audit Committee**

The Audit Committee consists of the following individuals until the end of their respective periods of office (the Chair and up to two further members):

Siegfried L. Druker: Chairman  
Dr Matthias Kromayer: Member  
Dr Ludger Müller: Member

The Audit Committee concerns itself especially with supervising the financial accounting process, the effectiveness of the internal control system, the risk management system, the auditing of financial statements, and here especially the selection of an independent auditor, services rendered additionally by the auditor, setting the focus areas for the audit and agreeing the audit fee, as well as compliance. The Audit Committee also prepares the resolution to be passed by the Supervisory Board to approve the separate and consolidated annual financial statements. For this purpose, it conducts a preparatory review of the separate and consolidated annual financial statements, the related management report as well as the proposal for the application of unappropriated profit.

Pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG), the Audit Committee must include at least one independent Supervisory Board member with expertise in the financial accounting or financial auditing areas. The Audit Committee Chairman, Dr Siegfried L. Druker, meets these statutory conditions and additionally possesses special knowledge as an expert of many years' standing in the areas of corporate finance, M&A and transactions. Dr Druker also meets the criteria of Section 5.3.2 Clauses 2 and 3 of the German Corporate Governance Code.

#### **Personnel Committee**

The Personnel Committee consists of the following individuals until the end of their respective periods of office (the Chair and up to two further members):

Dr Ludger Müller: Chairman  
Dr Matthias Kromayer: Member

The Personnel Committee concerns itself mainly with personnel matters relating to the Management Board. In particular, it plays a preparatory role for the Supervisory Board in the selection, appointment and recall from office of Management Board members, the agreeing and supplementation of Management Board contracts and pension arrangements, setting the compensation scheme for Management Board members and its implementation in the Management Board contracts, target setting for the variable compensation, setting and reviewing the appropriateness of overall compensation of each individual Management Board member, and approving the annual compensation report. It also submits recommendations for resolutions. Moreover, the Personnel Committee can pass resolutions on the Supervisory Board's behalf in relation to the following matters: certain legal transactions with Management Board members (e. g. in the meaning of Section 112 of the German Stock Corporation Act [AktG]), and approving Management Board members' outside activities pursuant to Section 88 AktG, especially where Supervisory Board mandates outside the BRAIN Group are accepted.

#### **Nomination Committee**

The Nomination Committee consists of the following individuals until the end of their respective periods of office (the Chair and up to two further members):

Dr Ludger Müller: Chairman  
Dr Matthias Kromayer: Member  
Dr Holger Zinke: Member

The Nomination Committee submits appropriate candidates to the Supervisory Board for it to propose to the AGM for election.

Remarks concerning the working methodology of the Management Board, Supervisory Board and committees in the financial year can also be found in the Report by the Supervisory Board, which is included in the Annual Report of BRAIN AG.

#### **Interests held by the Management and Supervisory Boards**

As of the end of the 2015/16 financial year on 30 September 2016, the members of the Management and Supervisory Boards held the following direct and indirect equity interests in BRAIN AG.

Dr Jürgen Eck directly holds 754,166 shares in the company.  
Dr Holger Zinke indirectly holds 1,350,000 shares in the company.

### **Commitment to promote participation by women in management positions pursuant to Section 76 (4), Section 111 (5) of the German Stock Corporation Act (AktG)**

The 23 September 2016 meeting of the Supervisory Board of BRAIN AG passed a resolution that the Supervisory Board should include one woman, corresponding to a 17 % ratio. The implementation deadline for this was set to 30 June 2017. Also on 23 September 2016, the Supervisory Board passed a resolution to leave the ratio of women for the Management Board of BRAIN AG unchanged until 30 June 2017 (corresponding to a 0 % ratio).

For the first management level below the Management Board, the Management Board of BRAIN AG passed a resolution to set a 14 % target for participation by women and determined that this goal should be implemented by 30 June 2017. The target for the first management level maintains the status quo, but naturally does not exclude an increase in the proportion of women at this management level. Taking into account the management matrix structure established within the company, especially including command and reporting lines between Management Board and subordinated levels, as well as taking the company's size into account, only one management level exists below the Management Board in the meaning of Section 76 (4) AktG. The management level consists of the unit heads of the seven management areas. The implementation deadline is the latest possible date permitted when the implementation deadline is first set.

# Corporate governance practices

## Corporate governance at BRAIN AG

Good corporate governance refers to responsible corporate management with the aim of sustainable value creation and is aimed especially at strengthening the trust and confidence that investors, business partners and employees, as well as the general public, invest in the company. Efficient work by the Management and Supervisory Boards is an important precondition for this, as well as good collaboration not only between these two Boards but also between these boards and the company's employees. Great significance is ascribed to open and transparent corporate communications in this context.

The corporate structure is oriented to the responsible, transparent and efficient management and controlling of the company. For this reason, the company also supports the targets and principles of the German Corporate Governance Code. The Management and Supervisory Boards as well as the other management levels and employees are obliged to adhere to these principles of responsible corporate governance. The Management Board is responsible for compliance with corporate governance principles within the company.

BRAIN AG has established compliance structures in the light of the company's current size, and will further develop them in relation to growing requirements from the regulatory environment and with a view to the company's development and growth.

## Notes to the statement of conformity

In December 2016, the Management and Supervisory Boards for the first time issued a statement of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG) in relation to the German Corporate Governance Code. With the exception of the differences listed there, the company has complied with the Code's recommendations during the 2015/16 financial year since the IPO on 9 February 2016 and will continue to comply with them in future.

Insofar as the Code's suggestions are concerned, the company also plans to comply with these in future, especially at the forthcoming first public AGM.

## Targets for the Supervisory Board's composition

The Supervisory Board plans to set specific targets for its future composition.

## Outline of the compensation scheme

### Management Board compensation

The Supervisory Board sets Management Board compensation at an appropriate level on the basis of performance appraisal and taking any Group payments into account. It also regularly reviews such compensation. When setting and reviewing Management Board compensation, the Supervisory Board takes into account that – pursuant to the requirements set out in Section 87 (1) AktG – the total compensation of an individual Management Board member must be suitably related to the Management Board member's responsibilities and performance as well as the company's position and not exceed normal compensation without special reasons. Consequently, particular criteria for setting appropriate Management Board compensation include the tasks and responsibilities of the individual Management Board members, their personal performance, the performance of the overall Management Board, the company's business and financial position, the company's success and future prospects, and the level and structure of Management Board compensation at comparable companies. The compensation scheme of BRAIN AG is oriented to the sustainable development and growth of the company. Compensation is set so that it is competitive in a national and international comparison, thereby offering an incentive for committed and successful work.

In accordance with Section 4.2.3 of the German Corporate Governance Code, the Management Board's compensation scheme is oriented especially to the sustainable development and growth of the company. The monetary compensation components include fixed and variable elements. The Supervisory Board in each case sets the targets for variable compensation for one financial year. Variable compensation can take both positive and negative developments into account. Along with these elements, the Management Board members receive ancillary benefits such as contributions to insurance policies and pensions, as well as the reimbursement of accommodation and travel costs. The company intends when extending or concluding new Management Board contacts in the future to also take multi-year variable compensation components into account.

### Management Board compensation as per 4.2.5 DCGK

→ Group management report/  
Compensation report, p. 146

The Compensation Report, which forms part of the company's Management Report, provides precise information on the compensation structure and compensation of individual Management Board members pursuant to Section 4.2.5 of the German Corporate Governance Code (DCGK) and about the compensation of the Supervisory Board members.

### Supervisory Board compensation

Pursuant to Section 14 (1) of the company's bylaws, all Supervisory Board members receive not only reimbursement of their outlays but also a fixed annual payment of EUR 15,000. The Supervisory Board Chair receives twice this amount and the Deputy Supervisory Board Chair receives one and a half times this amount. Supervisory Board members who have not belonged to the Supervisory Board for a full year receive the aforementioned compensation pro rata temporis to the level of one twelfth for each month of activity they commence. All Supervisory Board members also receive a meeting fee of EUR 1,000 for each meeting of the Supervisory

Board and its committees they attend. The Chairs of the Supervisory Board committees also receive an annual payment of EUR 15,000.

## D & O insurance

For the members of the Management and Supervisory Boards, the company has taken out D & O (directors & officers) insurance cover with an appropriate deductible pursuant to Section 93 (2) Clause 3 of the German Stock Corporation Act (AktG) (Management Board). No deductible was arranged for Supervisory Board members.

## IPO insurance

The company took out IPO insurance cover for liability cases arising from the IPO in early 2016. Among other items, the IPO insurance covers the liability of the members of the Management Board, Supervisory Board and employees who worked on the IPO.

## Shareholders and AGM

The shareholders exercise their co-management and controlling rights at the Shareholders' General Meeting (the Annual General Meeting/AGM), which is chaired by the Supervisory Board Chair pursuant to the company's bylaws. Each share in BRAIN AG grants one vote. Shareholders can exercise their voting rights at the AGM itself, or have it exercised by a proxy of their choosing or by a company proxy. The Management Board is authorised to ensure that shareholders who do not attend the AGM can also participate in the AGM and exercise their rights wholly or partly by way of electronic communications (online participation), or issue their votes without participating in the meeting by way of written or electronic communications (postal option). The Management Board is also authorised to set the specific arrangements relating to the scope and procedure for online participation and postal voting. These are to be notified in the convening document for the AGM. All shareholders are entitled to participate in the AGM, to speak on the respective agenda items and to demand information on the company's affairs where required to arrive at an objective assessment of an agenda item.

As the IPO did not occur until February 2016, no public AGM of BRAIN AG has yet been held. The first public Ordinary AGM of BRAIN AG will be held prospectively on 9 March 2017 in Zwingenberg.

## Notifiable securities transactions

The Management and Supervisory Board members, other individuals with management responsibilities with regular access to the company's inside information and who are authorised to make important business decisions, as well as certain individuals closely related to the aforementioned, are obligated by law to disclose to BRAIN AG the purchase and sale of BRAIN shares and related financial instruments, especially derivatives, from an amount of more than EUR 5,000 in the calendar year. Notifications of corresponding transactions can also be found published on our website at [www.brain-biotech.de/en/investor-relations](http://www.brain-biotech.de/en/investor-relations). For the 2015/16 financial year, the company received a notification on such a transaction from its CEO Dr Jürgen Eck.



[www.brain-biotech.de/en/investor-relations](http://www.brain-biotech.de/en/investor-relations)

## Transparency

The shares of BRAIN AG are listed in the Prime Standard segment of the Frankfurt Stock Exchange. The company is thereby subject to the highest level of statutory and stock exchange law transparency regulations. In particular, BRAIN AG reports on the situation and development of the company and Group in both German and English in the form of:

- Annual and interim financial reports
- Quarterly statements for the first and third quarters
- Quarterly telephone conferences
- Company presentations
- Publications of insider information, corporate announcements and IR announcements
- Marketing announcements

## Financial accounting and auditing

The unaudited quarterly financial statements as of 31 December 2015 and 30 June 2016, as well as the unaudited half-year financial report as of 31 March 2016 and the consolidated financial statements as of 30 September 2016, were prepared in accordance with International Financial Reporting Standards (IFRS). The separate financial statements of BRAIN AG for the 2015/16 financial year were prepared according to the regulations of the German Commercial Code (HGB) and the regulations of the German Stock Corporation Act (AktG).

Zwingenberg, December 2016

Management Board and Supervisory Board

Note: The corporate governance statement of conformity and the corporate governance report were published on the Internet on 29 December 2016 and will not be updated during the course of the year.



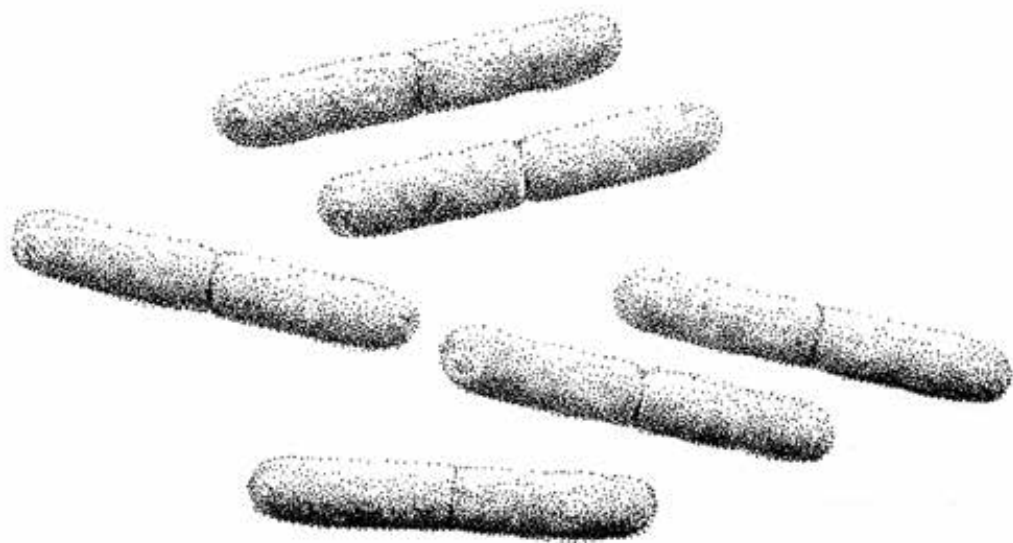






# From climate killer to raw material

—→ **BR-07116**, a bacterium of the *Clostridium* genus, transforms the greenhouse gas carbon dioxide into valuable chemicals.



## Properties

BR-07116 is an anaerobic soil bacterium that belongs to the genus *Clostridium*.

It is probably one of the oldest organisms on earth.

Its metabolism is chemoautotrophic. It uses carbonate respiration, which means it “feeds” on CO<sub>2</sub>.

## Fields of application

BR-07116 was identified and developed by BRAIN, and can also be used in conjunction with other Performance Microorganisms.

The bacterium converts CO<sub>2</sub> into just one product.

Possible applications exist in the field of biological energy storage.

## Advantages

CO<sub>2</sub> fixation is very efficient and needs no further optimisation.

Over 90 % of CO<sub>2</sub> is converted into a single product.

A multitude of alternative metabolic pathways enable the use of various growth substrates.

Basic molecular genetic technologies have been established.

43 %

The 2014 **level of CO<sub>2</sub> in the atmosphere** was 43 % above the level when the Industrial Revolution started in 1750.<sup>1</sup>

60 %

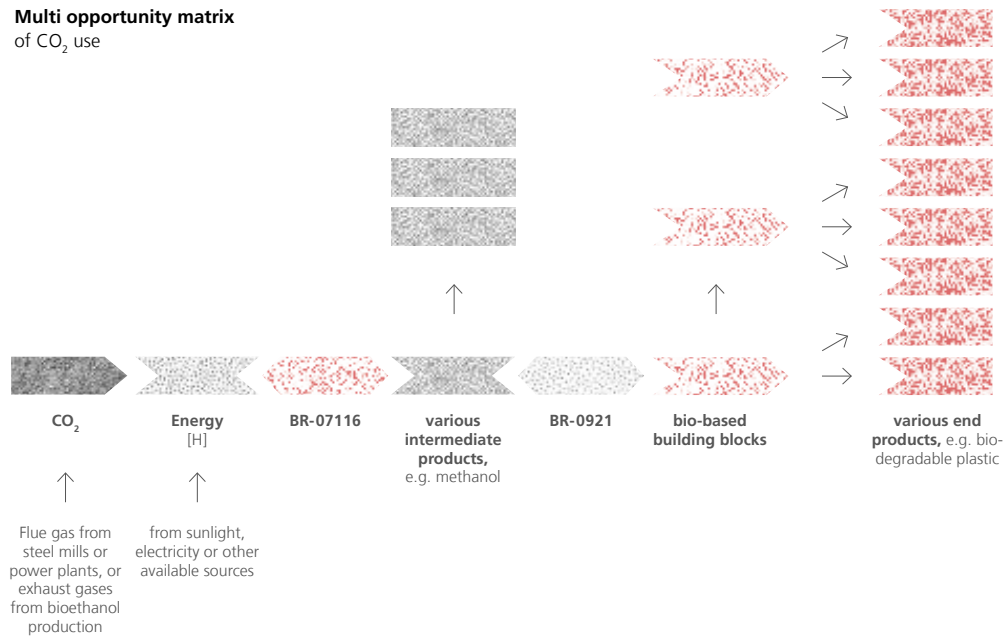
Fossil fuel emissions in 2014 were 60 % **above emissions in 1990** (the reference year in the Kyoto Protocol).<sup>1</sup>

———— Microorganisms are **miniature chemical factories** that are extremely sustainable and make no special demands in terms of their feedstocks. Some cells are even capable of transforming the greenhouse gas carbon dioxide into valuable substances. Industry could use these organisms to reduce its dependence on petroleum and its derivatives.

———— Carbon dioxide occurs not just in flue gas and exhaust gas, but as an undesired by-product of many industrial processes. **Using such waste streams** not only cuts feedstock and disposal costs but also reduces the burden on the environment.

———— The microbial metabolic pathways for reducing carbon dioxide stem from prehistoric times, when Earth's atmosphere was rich in this greenhouse gas and no other carbon sources were available.

Multi opportunity matrix  
of CO<sub>2</sub> use



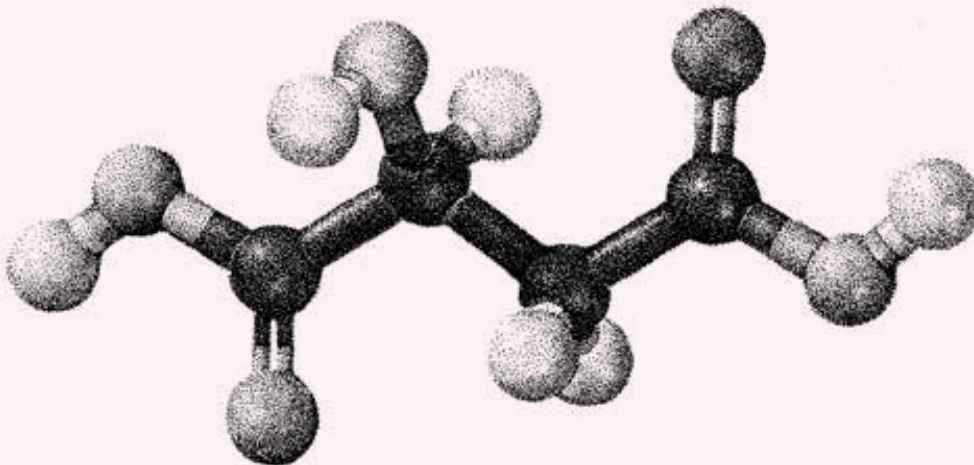
— Both in factory chimneys and a hot spring in Wiesbaden, BRAIN has discovered bacteria (*Geobacillus* and *Clostridium*) that can feed exclusively on carbon dioxide. Clostridia, known by the code BR-07116, convert the greenhouse gas into dicarbonic acids and other substances that are used as bio-based building blocks in industry.

— BRAIN has developed concepts for the use of carbon dioxide as part of the **Zero Carbon Footprint (ZeroCarb FP) strategic alliance**. A pilot plant is currently being planned together with a cooperation partner. The technology developed here can be transferred to other processes, since the bacteria used are undemanding and adapt to different carbon dioxide sources.

# BRAIN insight

**BRAIN develops tailor-made production microorganisms that can be used as functional biomass to optimise industrial production processes. This makes it possible to use industrial waste streams as resources for producing dicarbonic acids, for instance. These acids can be used to manufacture biodegradable plastics, or serve other purposes in the food industry.**

Calotte model of a dicarbonic acid

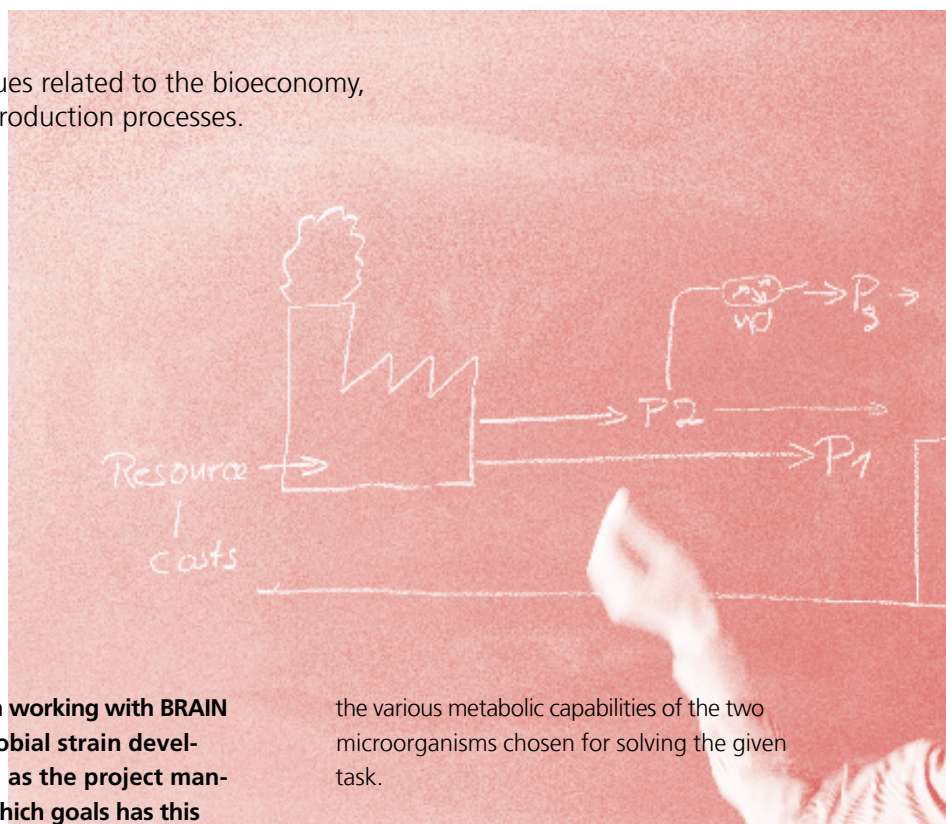


Possible products



# Waste streams are the better feedstocks

BRAIN has long been working on issues related to the bioeconomy, recycling and sustainable industrial production processes.



**Dr Mampel, you have been working with BRAIN for over 10 years on microbial strain development and are involved as the project manager in the CO<sub>2</sub> project. Which goals has this project already achieved?**

**JÖRG MAMPEL**

In the ZeroCarbFP strategic alliance, we are working on this theme with Südzucker. Based on our good results, our application for further support up to 1 October 2016 was approved so that we can scale up an industrial unit in Zeitz to pilot-plant scale, among other measures. In an unusually short time, we have been able to provide a proof of concept for the synthesis of our product using only CO<sub>2</sub> and hydrogen. The key to success lay in combining

the various metabolic capabilities of the two microorganisms chosen for solving the given task.

**What are the forecasts for further achievements?**

**JÖRG MAMPEL**

We are already producing our product in the gram-per-litre range. The yield we achieved from scratch is around 40% of what is potentially possible. Our further tests will show whether we can maintain this success, but we are pretty confident on that score.

**Dr Meurer, as a member of BRAIN's Management Board, you are also in charge of the Producer Strain Development technology unit.**





**What is the general attraction of using industrial waste streams as feedstocks?**

**GUIDO MEURER**

On a global scale, I'm sure we all realise we need to step up our efforts to recover resources. A resource-poor country like Germany does well to reduce its dependency and not waste the raw materials available to us here. So if industrial waste streams are seen as a source of valuable materials rather than a waste problem, that opens up new entry points for extending or diversifying the existing value chains. A material that previously had to be disposed of at high cost can now be transformed into a profitable (secondary) product and thus help to increase the profit margin of the main product, or make it more competitive.

**What are the other advantages of producing valuable materials from waste streams as opposed to conventional production?**

**GUIDO MEURER**

Waste streams place no strain on resources. Renewable raw materials, on the other hand, often raise 'food or fuel' issues. If waste streams replace available resources, users can shake off their dependence on established, rigid supply chains, possibly receive higher prices and above all, increase their security of supply. In the best of cases, using waste streams makes it possible to avoid high-risk resource extraction processes.

**What other waste streams can be used apart from CO<sub>2</sub>?**

**JÖRG MAMPEL**

Microorganisms are world champions at breaking down organic substances. As long as the waste streams contain no compounds that are toxic for the organisms involved, almost anything that contains a carbon atom can be used. Recently, for instance, scientists demonstrated the degradation of PET by microorganisms. Glycerin is highly important for biotechnological applications. We use limonene as the starting material in a process for producing perillate. Limonene is obtained from the peel of citrus fruits and is available in large quantities.

**GUIDO MEURER**

In future, there will be a much greater emphasis on establishing or expanding production sites in such a way that all waste streams can be used for secondary production. Biological processes are increasingly being integrated in this context.

**Which valuable materials can be generated, for instance? Which products can conceivably arise from them?**

**JÖRG MAMPEL**

The organisms usually break down compounds in waste streams into an activated form of acetic acid that consists of two carbon atoms. By linking these C2 units and then modifying them, we can build chains of 20 and more connected carbon atoms, so-called biopolymers. At present, we are focusing on producing

# “Microorganisms are world champions at breaking down organic substances.”

Dr Jörg Mampel

monocarbonic and dicarbonic acids such as malic acid that can be used to produce biocompatible plastics.

## GUIDO MEURER

Microorganisms can degrade virtually all carbon structures sooner or later. So there is no causal link between the carbon compounds in the waste stream and the produced material. One synergy that can almost be termed traditional is the manufacture of enzymes, e. g. for detergents, based on wastewater from the paper industry. Further products include amino acids, vitamins, organic surfactants, antibiotics, etc.

## How does this field of activity fit in at BRAIN?

### GUIDO MEURER

BRAIN has long been working on issues related to the bioeconomy, recycling and sustainable industrial production processes. As of July 2013, these efforts are being supported for nine years by the German Federal Ministry of Education and Research and are grouped together within the industry-led ZeroCarbFP strategic alliance, but are also being carried out on a cross-sectoral basis. The CO<sub>2</sub> project mentioned earlier on also comes under this alliance.

## What other projects are being tackled as part of the alliance?

### JÖRG MAMPEL

Specifically, we are working on processes to use crude glycerin from various sources to produce propanediol and malic acid. Whereas propanediol is a “drop-in” bulk chemical, malic acid is currently used mainly in the food industry and the pharmaceutical sector. As part of our green mining activities, we are using microbial biomass to selectively enrich rare metals containing precious materials from a complex mixture of substances. We are also examining whether some of the above-mentioned monocarbonic and dicarbonic acids might support the green mining process. This opens up exciting synergy options as part of the ZeroCarbFP alliance.

## Which goals have already been achieved in this respect?

### GUIDO MEURER

Apart from our success with the CO<sub>2</sub> project, we have also been successful in developing several strains and processes to the stage where they can be transferred to pilot-plant scale in the second phase of the ZeroCarbFP alliance that was launched in October 2016. There are also plans for their further use beyond this in at least one other case.

# The ZeroCarbFP strategic alliance

Partners in the ZeroCarbonFootprint strategic alliance work on using carbon-rich wastes as substrates and converting them into valuable building blocks for industrial production.

Huge quantities of carbon-rich waste streams occur every day in industry and in human settlements. Power plants emit flue gas. Added to this are sewage sludge and industrial wastewater. But hardly any use has been made so far of their potential as sources of carbon. The ZeroCarbFootprint (ZeroCarbFP) strategic alliance wants to change that. The 12 partners on board include industrial enterprises, medium-sized companies and representatives of academic research across Germany.

**They are hunting down microorganisms that use carbon-rich wastes as substrates and convert these into valuable building blocks for industrial production.**

BRAIN's know-how enters the equation when it comes to the quest for special microorganisms. To manufacture high-quality products using biotechnology, the industrial

partners intend to focus on building blocks for bioplastics, de-icing and cooling agents, ore leaching technologies (green mining) and additives for manufacturing high-tech oils and fats.

**The special feature is that the partners cooperate closely along the entire value chain, driven by their own entrepreneurial interests, but also with shared objectives.**

They have their sights set on high-quality end products for the market. The strategic alliance is being promoted for nine years, starting in 2012. It underwent an interim scientific evaluation in early 2016. The evaluators recommended that support for the alliance should be continued in the second phase that started in October 2016. In this second promotion phase, BRAIN plays the role of coordinator.

48 m

€ 48 million are to be **invested** in the ZeroCarbFP alliance. The German Federal Ministry of Education and Research (BMBF) is providing part of the project's funding.

12

**partners** from industrial enterprises, medium-sized companies and academic research work together in the alliance.

9

**years** is the overall term (three phases of three years each) for the research, development and piloting alliance.



→ OTHER PRIORITY AREAS OF THE PERFORMANCE MICROORGANISMS UNIT

## Bacteria as gold diggers

Microorganisms have more experience of mining for minerals than we do. For billions of years, they have been extracting iron and other essential metals from rock. Now they are intended to help make mining more environmentally friendly and secure supplies of raw materials.

**The crucial prerequisite for efficient “organic mining” is to identify suitable microorganisms. Under the ZeroCarbFP alliance, BRAIN has carried out extensive screening and discovered bacteria that enrich high-tech elements such as gold and silver, and even make it easier to extract rare earth metals.**

These microbial techniques are also suitable for ores with a low metal content and for recycling electronic and other types of waste. This increases the availability of domestic resources and reduces dependence on geopolitical risk countries that currently provide many strategic metals.



Learn more about this topic in our BLICKWINKEL quarterly magazine:

→ [www.brain-biotech.de/en/blickwinkel/precious](http://www.brain-biotech.de/en/blickwinkel/precious)

B•R•A•I•N

Go here to learn more about BRAIN's future-ready solutions based on biological diversity:

→ [www.brain-biotech.de/en](http://www.brain-biotech.de/en)

04

# Group management report

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## 04 Group management report p. 131

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Basis of the Group	p. 133
Economic and business report	p. 136
Compensation report	p. 146
Events after the reporting date	p. 155
Outlook	p. 156
Report on risks and opportunities	p. 157
Takeover-relevant information pursuant to Section 315 (4) of the German Commercial Code (HGB)	p. 168
Corporate governance statement of conformity pursuant to Section 289a of the German Commercial Code (HGB)	p. 171
Responsibility statement	p. 172

# Basis of the Group\*

- BRAIN identifies hitherto untapped bio-active compounds, enzymes and performance microorganisms derived from complex biological systems to transform them into industrially usable applications.
- BRAIN's business model stands on two pillars: BioScience and BioIndustrial.

## Group business model

The BRAIN Group (referred to below as: BRAIN) operates with its key technologies in the area of industrial, so-called "white" biotechnology. White biotechnology deploys biotechnology methods through transferring biological and biochemical knowledge to industrial products and production processes. BRAIN identifies hitherto untapped bioactive natural materials, enzymes, and high-performing microorganisms derived from complex biological systems to transform them into industrially usable applications. Innovative solutions and products developed from this "Tool-box of Nature" are deployed successfully in the chemical industry, as well as in the cosmetics and food industries.

BRAIN's business model stands on two pillars: BioScience and BioIndustrial. The BioScience pillar includes the company's collaboration business with industrial partners, usually concluded on an exclusive basis. The second pillar, BioIndustrial, comprises the development and marketing of BRAIN's proprietary products and product components.

BRAIN's business activities focus on replacing conventional chemical-industrial processes with innovative, often resource-conserving bio-based methods.

On 20 January 2016, the German Federal Financial Supervisory Authority (BaFin) approved the listing prospectus of BRAIN AG for admission to the Regulated Market. The issue price for the 3.5 million registered no-par value ordinary shares implemented through a capital increase amounted to € 9.00. All of the shares were placed. On 9 February 2016, the shares of BRAIN AG were admitted to listing on the Regulated Market of the Frankfurt Stock Exchange (Prime Standard transparency level). The IPO generated € 32.5 million of total proceeds (including the over-allocation), from which the company received € 31.5 million of gross proceeds and € 30.4 million of net proceeds.

→ Company structure and business model p. 63

\* This Group management report includes certain forward-looking statements about the development of the BRAIN Group (BRAIN) that are based on assumptions and estimates. Such assumptions and estimates are subject to uncertainties and can consequently lead to differences in relation to planned results. BRAIN assumes that such statements are realistic, but cannot exclude the possibility of differences arising.

## Targets and strategies

→ Strategy p.62

As an industrial biotechnology company, BRAIN has set itself the target of outperforming the growth potential the bioeconomy sector offers. The company aims for sustainable, earnings-oriented growth based on the two pillars of its business model, BioScience and BioIndustrial. Targeted acquisitions in selected industries of BRAIN's areas of expertise are also to contribute to the greatest possible exploitation of the bioeconomy's growth potential.

## Management system

Total operating performance<sup>1</sup> and the adjusted operating result (adjusted EBIT) are the financial management metrics of BRAIN. In BRAIN's view, total operating performance appropriately describes the Group's overall financial performance in the respective reporting period. The adjusted operating result (adjusted EBIT)<sup>2</sup> appears better suited to show the Group's sustainable earnings than the (unadjusted) operating result (EBIT), as one-off items are excluded. The adjusted operating result (EBIT) is calculated by eliminating the costs of share-based compensation for a one-off share-based compensation scheme of BRAIN AG from the 2015/16 financial year, costs from share-based compensation at the subsidiary AnalytiCon Discovery GmbH, as well as costs from the IPO of BRAIN in February 2016. As non-financial management metrics, the company refers to milestones reached in the context of cooperation agreements and option exercises. The number of milestones reached and exclusive options exercised is an important expression of the technological targets achieved in the strategic industrial partnerships, and consequently of BRAIN's technology expertise. The management metrics underlying planning and steering are calculated on the basis of International Financial Reporting Standards (IFRS).

## Research and development

The biotechnological research and development of innovative biotechnology processes and products form BRAIN's core expertise and provide the foundation of Group business activities. From as early as 1999, BRAIN was one of the first biotech companies to apply proprietary metagenome technologies to develop production organisms, enzyme products and genetic libraries. BRAIN's portfolio today comprises various patented special technologies. These include the "Human Taste Cell Technology (HTC)" that BRAIN developed and patented. Such technology is based on isolated human taste buds, and used to develop natural substances for taste modulation or as taste molecules. Deployed as new sweetness enhancers or salt substitutes, they can reduce sugar or salt content in foods, for example.

<sup>1</sup> Sum of revenue, changes in inventories of finished goods and work in progress, and other income

<sup>2</sup> Earnings before income and tax (EBIT) adjusted for the IPO costs and costs from share-based compensation relating to a share-based compensation scheme of BRAIN AG from 2015/16 and expenses from share-based compensation relating to AnalytiCon Discovery GmbH



The BioArchive that BRAIN owns includes around 53,000 comprehensively characterised microorganisms, innumerable isolated natural substances, various chassis microorganism strains to develop production organisms, as well as extensive genetic libraries with a large number of new enzymes and metabolic pathways. The subsidiary AnalytiCon Discovery GmbH possesses a unique collection of pure natural materials and semisynthetic substances based on natural material building blocks, among other assets. These collections that are aggregated within the BioArchive are being expanded constantly, enabling the identification of hitherto uncharacterised enzymes and natural substances, and new access to biodiversity that has not been cultivatable to date.

As part of strategic research and development partnerships and its own research and development activities, BRAIN is working within a far-reaching network of companies and academic cooperation partners across the whole of Europe.

Expenses for research and development amounted to € 5.8 million in the 2015/16 financial year, compared with € 6.2 million in the 2014/15 financial year. This corresponds to 22 % of total operating performance in the 2015/16 financial year, after 24 % in the previous financial year. Research and development investments in the 2015/16 financial year include mainly a pilot fermentation plant at the Zwingenberg site.

→ Biodiversity as inspiration p. 18

# Economic and business report

→ BRAIN reported € 26.1 million of total operating performance in the 2015/16 financial year, compared with € 25.7 million in the 2014/15 financial year.

## Macroeconomic and sector-related conditions

By contrast with just moderate world economic growth<sup>3</sup> overall, conditions for industrial biotechnology continued to be positive in the 2015/16 financial year.

Markets for biotechnology products and processes frequently differ in their trends from those for conventional products in the same application areas. Such markets frequently record significantly greater growth dynamism.<sup>4</sup>

Along with replacing petrochemical-based products, sector research and development activities focus on biological solutions for sugar and salt substitutes, among other areas.

The consolidated business figures for the 2014/15 and 2015/16 financial years can be compared to only a limited extent, due to the first-time inclusion of BRAIN Capital GmbH from its founding on 5 February 2015, and of WeissBioTech GmbH and WeissBioTech France S.A.R.L. from 1 November 2014.

## Business progress

TABLE 04.1 EXTRACT FROM THE STATEMENT OF COMPREHENSIVE INCOME

in thousand €	2015/16	2014/15
<b>Total operating performance</b>	<b>26,139</b>	<b>25,694</b>
of which: Revenue	22,790	21,132
of which: Research and development grant revenue	2,249	2,786
<b>Operating result (EBIT)</b>	<b>-13,812</b>	<b>-4,573</b>
<b>Adjusted operating result (adjusted EBIT)</b>	<b>-7,557</b>	<b>-4,401</b>
Net financial result	-616	-929
Pretax loss for the reporting period	-14,427	-5,502
Net loss for the reporting period	-14,938	-5,954
Earnings per share (in €)	-0.97	-0.45

BRAIN reported € 26.1 million of total operating performance in the 2015/16 financial year, compared with € 25.7 million in the 2014/15 financial year. While revenue was up by 8% to € 22.8 million, income from research and development grants and other income reduced. Changes in inventories of finished goods and work in progress that the company recognises as income amounted to € 0.4 million, compared with € 0.3 million in the previous year. The pro-

<sup>3</sup> See International Monetary Fund 'World Economic Outlook October 2016'

<sup>4</sup> According to a survey conducted by publishing and specialist information provider BIOCOM, industrial biotechnology companies participating in the survey reported 14.3% growth in 2015.

portion of revenue generated abroad rose again, including as the result of a further intensification of international sales activities. Most foreign revenue was generated in France and the USA.

The revenue growth includes both an expansion of the industrial cooperation business of the BioScience segment and an increase in the product business of the BioIndustrial segment.

Income from research and development grants reduced from € 2.8 million to € 2.2 million due to the expiry of some subsidy programs and revaluation periods of continued programs.

Other income fell from € 1.5 million to € 0.7 million, including due to lower income from translating foreign currency items and a decrease in income from derecognising liabilities and releasing provisions.

In turn, revenue was generated predominantly in Germany (approx. 32 %, previous year approx. 41 % of total revenue), France (approx. 23 %, previous year approx. 17 %) and the USA (approx. 13 %, previous year approx. 19 %). The higher export ratio reflects a greater level of international sales activities, among other factors.

## Results of operations

The Group's results of operations in the 2015/16 financial year were characterised by effects from non-cash share-based compensation paid by shareholders of BRAIN AG, from share-based compensation relating to AnalytiCon Discovery GmbH, and expenses as part of the IPO in February 2016. The following overview presents a reconciliation of the reported operating result (EBIT) with the adjusted operating result (adjusted EBIT), excluding such effects and expenses.

TABLE 04.2 RECONCILIATION OF THE REPORTED OPERATING RESULT (EBIT) WITH THE ADJUSTED OPERATING RESULT (ADJUSTED EBIT)

in thousand €	2015/16	2014/15
Operating result (EBIT), including:	<b>-13,812</b>	<b>-4,573</b>
Expense for share-based employee compensation at BRAIN AG	-3,857	0
Expense for share-based employee compensation at AnalytiCon Discovery GmbH	-1,423	-171
IPO costs	-974	0
<b>Adjusted operating result (adjusted EBIT)</b>	<b>-7,557</b>	<b>-4,401</b>

The adjustments relate mainly to personnel expenses (share-based employee compensation) and "Other expenses" (IPO costs).

The cost of materials increased by 4 % from € 11.3 million to € 11.8 million due to the higher level of total operating performance. While the costs of raw materials and supplies rose by 2 % from € 8.9 million to € 9.0 million, expenses for purchased services were up by 11 % from € 2.4 million to € 2.7 million. Purchased services were procured mainly from universities, higher education institutions and from other technology companies.

Of the increase in personnel expenses from € 11.1 million to € 18.2 million, € 5.3 million arises from the aforementioned effects from share-based employee compensation. Adjusted personnel expenses would have risen from € 10.9 million to € 13.0 million excluding these effects. The higher level of personnel expenses after adjustments derives from a greater number of employees, expansion of the number of Management Board members, wage and salary increases and the launch of an employee incentive program at BRAIN AG.

Depreciation and amortisation of € 1.4 million was slightly below the previous year's level of € 1.5 million.

Other expenses rose by 31 % from € 6.4 million to € 8.5 million. After adjusting for costs connected with the IPO, other expenses increased from € 6.4 million to € 7.5 million. This rise derives mainly from higher legal and consulting costs, as well as an increase in expenses for financial accounting and auditing.

The adjusted operating result (adjusted EBIT) reduced predominantly as a consequence of the increase in personnel expenses and higher other expenses.

The net financial result includes a rise in the share of profit or loss from equity-accounted investments as part of a € 0.2 million reversal of an impairment loss, as well as € 0.3 million of finance income, mainly from the subsequent measurement of financial liabilities. Finance costs of € 1.0 million were almost unchanged compared with the previous year.

The pretax result fell from € -5.5 million to € -14.4 million due to the lower operating result, despite an improvement in the net financial result.

The tax expense amounted to € 0.5 million in the 2015/16 financial year, compared with also € 0.5 million in the previous year. The tax expense for the 2015/16 financial year includes a current income tax expense of € 0.3 million and a deferred tax expense of € 0.2 million.

Of the € 14.9 million loss incurred for the reporting period, € -0.2 million was attributable to non-controlling interests, as in the previous year.

The reduction in the result per share (EPS) from € -0.45 to € -0.97 reflects not only the higher loss incurred in the 2015/16 financial year but also the increase in the underlying share base from 12.7 million to 15.1 million shares.

Other comprehensive income includes the result from revaluing defined benefit pension commitments to one active and one former Management Board member of € -0.4 million (previous year: € -1.0 million), and related de-ferred tax assets of € 0.1 million (previous year: € 0.3 million).

The consolidated total comprehensive result after tax amounted to € -15.2 million, compared with € -6.7 million in the previous year, of which € -14.9 million was attributable to shareholders of BRAIN AG.

The operating segments report the following results:

TABLE 04.3 SEGMENT SHARE OF TOTAL OPERATING PERFORMANCE

	2015/16	2014/15
BioScience	47 %	48 %
BioIndustrial	53 %	52 %

## BioScience segment

The BioScience segment includes mainly the research and development business with industrial partners and the company's own research and development.

TABLE 04.4 BIOSCIENCE SEGMENT

in thousand €	2015/16	2014/15
<b>Total operating performance, of which</b>	<b>12,394</b>	<b>12,311</b>
Revenue (external)	9,778	8,719
Research and development grant revenue	2,212	2,742
Cost of materials	-3,710	-3,596
Personnel expenses	-15,676	-8,713
Depreciation, amortisation and impairment	-940	-937
Other expenses	-5,593	-3,263
<b>Operating result (EBIT)</b>	<b>-13,526</b>	<b>-4,198</b>
<b>Adjusted operating result (EBIT)<sup>5</sup></b>	<b>-7,271</b>	<b>-4,027</b>

The BioScience Segment grew its total operating performance by 1 % year-on-year, from € 12.3 million to € 12.4 million. Given a further expansion of the strategic cooperation business, segment revenue, in particular, increased from € 8.7 million to € 9.8 million.

The segment operating result reduced from € -4.2 million to € -13.5 million, inter alia due to the aforementioned IPO costs and expenses from the share-based employee compensation programs. The operating result adjusted for these expenses fell from € -4.0 million to € -7.3 million. This reduction is mainly attributable to higher personnel expenses, higher legal and advisory costs, as well as an increase in costs for financial statements and auditing.

<sup>5</sup> Adjusted for IPO costs (€ 974 thousand) and costs for share-based employee compensation for BRAIN AG (€ 3,857 thousand) and the subsidiary AnalytiCon Discovery GmbH (€ 1,423 thousand). Adjustments are generally allocated to the segments based on a percentage key, unless the Management Board regards an asymmetric allocation to the segments as more appropriate in the given circumstances. The expenses defined as adjustments in the current and previous financial year were incurred by BRAIN and its owners (expenses from the IPO and from a Post-IPO Framework Agreement), as well as AnalytiCon (expenses from an employee share program). These expenses were allocated exclusively to the BioScience segment as a consequence.

## BioIndustrial segment

The BioIndustrial segment mainly comprises the Group's industrially scaled product business.

TABLE 04.5 BIOINDUSTRIAL SEGMENT

in thousand €	2015/16	2014/15
<b>Total operating performance, of which</b>	<b>13,869</b>	<b>13,533</b>
Revenue (external)	13,012	12,414
Research and development grant revenue	36	44
Cost of materials	-8,212	-7,849
Personnel expenses	-2,569	-2,350
Depreciation, amortisation and impairment	-508	-532
Other expenses	-2,980	-3,177
<b>Adjusted operating result (EBIT)<sup>6</sup></b>	<b>-398</b>	<b>-375</b>

Revenue in the BioIndustrial segment increased from € 12.4 million to € 13.0 million. Within the segment, revenue with enzymes and other bio-based products rose from € 7.4 million to € 8.5 million.

Revenue of € 4.5 million generated with cosmetic products was below the previous year's level of € 4.9 million. The segment's total operating performance increased from € 13.5 million to € 13.9 million as a result of business expansion, especially in the enzyme business.

The segment operating result (EBIT) reduced by 6% from € -375 thousand to € -398 thousand due to the disproportionate decrease in the result from business with cosmetic products. No circumstances warranted an adjustment to the operating result.

## Financial position

Financial management at BRAIN entails mainly securing corresponding liquidity to finance the attainment of the company's objectives and to meet payment obligations at all times. Such financial management includes deploying various financing instruments such as loans, leasing and factoring.

<sup>6</sup> No adjustment effects arose in the BioIndustrial segment in the 2015/16 financial year or in the previous year.

**Net assets and capital structure**

TABLE 04.6 EXTRACT FROM THE BALANCE SHEET

in thousand €	30.09.2016	30.09.2015
<b>Non-current assets</b>		
Intangible assets	7,747	8,035
Property, plant and equipment	7,095	6,878
Other non-current assets	669	424
	<b>15,511</b>	<b>15,336</b>
<b>Current assets</b>		
Other current assets	13,341	11,590
Other financial assets	10,400	300
Cash and cash equivalents	8,261	3,180
	<b>32,001</b>	<b>15,071</b>
<b>ASSETS</b>	<b>47,512</b>	<b>30,407</b>
<b>Equity</b>	<b>26,926</b>	<b>5,755</b>
<b>Non-current liabilities</b>		
Non-current financial liabilities	6,241	14,251
Other non-current liabilities	3,932	2,673
	<b>10,173</b>	<b>16,924</b>
<b>Current liabilities</b>		
Current financial liabilities	3,449	2,106
Other current liabilities	6,964	5,621
	<b>10,413</b>	<b>7,727</b>
<b>EQUITY AND LIABILITIES</b>	<b>47,512</b>	<b>30,407</b>

The changes to the net assets and capital structure in the 2015/16 financial year are predominantly attributable to the pre-IPO capital increase in the first quarter and the IPO in the second quarter of the 2015/16 financial year. The pre-IPO capital increase included a € 0.2 million cash capital increase and the conversion of a shareholder loan into equity in an amount of € 1.8 million. Gross proceeds of € 31.5 million were achieved from the IPO; the net issue proceeds amounted to € 30.4 million. The funds generated were applied mainly to finance operating activities and to repayment the shareholder loan in full.

While non-current assets were almost unchanged, current assets increased from € 15.1 million to € 32.0 million chiefly due to the higher level of cash and cash equivalents, and term deposits. Cash and cash equivalents rose from € 3.2 million to € 8.3 million. Term deposits stood at € 10.0 million as of 30 September 2016.

Equity grew from € 5.8 million to € 26.9 million, despite the loss incurred for the accounting period, due to the capital increases implemented during the financial year under review. The equity ratio stood at 57 % as of the end of the financial year (previous year: 19 %).

As of the 30 September 2016 reporting date, authorised capital of € 2,862,909 and conditional capital of € 5,090,328 existed (Conditional Capital to satisfy warrant and conversion rights when issuing bonds with warrants and/or convertible bonds), as well as in an amount of € 1,272,581 (Conditional Capital to satisfy option rights from issuing stock options).

Non-current liabilities reduced by € 6.7 million, from € 16.9 million as of 30 September 2015 to € 10.2 million as of 30 September 2016. This decrease is mainly due to the fact that of the € 5.5 million of shareholder loan recognised as of 30 September 2015, € 1.8 million was converted to capital reserves and the rest of the shareholder loan was repaid in full in the 2015/16 financial year.

Current financial liabilities increased from € 2.1 million as of 30 September 2015 to € 3.5 million as of 30 September 2016. The rise derives from reclassifying the € 1.5 million silent partnership from non-current financial liabilities due to the possibility of an extraordinary termination right as of the reporting date. These are offset by scheduled repayments of bank borrowings. Moreover, the silent partnership of Mittelständische Beteiligungsgesellschaft Hessen (MBG H) was repaid in full in the 2015/16 financial year, as scheduled.

The financial liabilities are predominantly denominated in euros. Besides the aforementioned silent partnership, interest-bearing financial liabilities relate mainly to bank loans with fixed nominal interest rates between 1.95 % and 6.01 %. Of the interest-bearing loans, € 0.8 million have a remaining term up to one year and € 2.3 million a remaining term of between more than one year and up to five years.

The debt ratio (gearing) reduced year-on-year from 81 % of 43 %.

Total assets rose from € 30.4 million as of 30 September 2015 to € 47.5 million as of 30 September 2016.

### **Investments**

Investments during the reporting year focused on expanding and further bolstering technology expertise.

Capitalised investments in intangible assets amounted to € 0.4 million in the financial year under review, compared with € 0.1 million in the 2014/15 financial year. Of these investments, € 27 thousand were attributable to the BioScience segment and € 354 thousand to the Industrial segment.

Capital expenditure of € 0.9 million on property, plant and equipment in the 2015/16 financial year was € 0.4 million above such investments in the 2014/15 financial year. Capitalised investments in property, plant and equipment focused on equipping the research and development laboratory in Zwingenberg, as in the previous year. Of these capitalised investments, € 0.8 million were attributable to the BioScience segment and € 0.1 million to the BioIndustrial segment. No investment obligations exist as of the reporting date.



## Liquidity

TABLE 04.7 EXTRACT FROM THE CASH FLOW STATEMENT

in thousand €	2015/16	2014/15
Gross cash flow	-9,414	-3,821
Cash flow from operating activities	-8,683	-4,113
Cash flow from investing activities	-11,227	-539
Cash flow from financing activities	24,992	3,441
Net change in cash and cash equivalents	5,081	-1,212

The gross cash flow of BRAIN amounted to €-9.4 million in the 2015/16 financial year, €5.6 million below the previous year's level of €-3.8 million. This reduction is chiefly attributable to the lower operating result that was achieved in the reporting period. Cash flow from operating activities generated a cash outflow of €-8.7 million in the 2015/16 financial year, compared with €-4.1 million in the 2014/15 financial year. The change in Cash flow from operating activities is also due to a considerable extent to the lower operating result. Cash flow from investing activities includes a €-10 million cash outflow from investing liquid assets in term deposits.

Cash flow from investing activities also includes €0.3 million of outgoing payments for intangible assets, compared with €0.1 million in the previous year, and €0.9 million of outgoing payments (previous year: €0.5 million) for investments in property, plant equipment, especially fermentation plants at the Zwingenberg site.

The increase in cash flow from financing activities from €3.4 million in the previous financial year to €25.0 million in the 2015/16 financial year is chiefly attributable to the cash inflow from the IPO in February 2016. This was offset by €6.5 million of repayments of financial liabilities.

Including cash flow from financing activities, cash and cash equivalents increased by €5.1 million. The sum of liquid assets and term deposits rose by €15.1 million.

Liquid assets and term deposits of €18.3 million as of the 30 September 2016 reporting date were offset by €3.5 million of current financial liabilities and €6.2 million of non-current financial liabilities. Undrawn credit lines of €0.2 million also existed.

The liquid assets are not subject to any restricted availability.

In the Group's assessment, no restrictions exist that can limit the availability of capital.

### Non-financial performance indicators

In the 2015/16 financial year, a total of eleven milestones were achieved or exclusivity options exercised (previous year: seven). The milestones reached and exclusivity options exercised relate to different cooperation partners and also comprise successes from the human taste cell (HTC) technology.

### Employees

→ Staff culture, p. 82

As a technology company with a significant growth orientation, BRAIN ascribes special significance to recruiting and developing highly qualified staff. From an early stage, BRAIN has consequently supported students from selected universities and higher education institutions in the areas of biotechnology/life sciences with grants and other assistive measures. The possibility also exists to complete a Voluntary Ecological Year at the company before starting higher education or vocational training.

Staff are offered – including in cooperation across the Group – extensive opportunities for national and international further education, including through studying for bachelor’s and master’s degrees in parallel with a working career, and to participate in other in-house and external training courses that are both specialist and cross-disciplinary.

The number of employees reports the following changes:

TABLE 04.8 NUMBER OF EMPLOYEES

	2015/16	2014/15
<b>Total employees, of whom</b>	<b>204</b>	<b>191</b>
Salaried employees	191	181
Industrial employees	13	10

The BRAIN Group also employs grant recipients (7, previous year: 11) and temporary help staff (10, previous year: 13). In the research and development functions (127 staff; previous year: 124), besides natural sciences, the company also aims especially for a high proportion of staff from engineering sciences and with operational laboratory training.

## Management's overall statement on business progress

Given the high level of research and development expenditures for the company's own product pipeline, the Management Board of BRAIN AG appraises the Group's business progress and financial position and performance as positive overall. Both of the operating segments contributed to the growth achieved in 2015/16. The industrial cooperation business, in particular, performed well. The results of operations proved less favourable compared with the previous year due to the higher level of personnel expenses and an increase in other expenses, especially also the aforementioned expenses from share-based employee compensation and the IPO costs. The Management Board nevertheless assumes that the research and development costs included in the expenses will be reflected positively in new products and processes in subsequent periods. As of 30 September 2016, the Group holds € 18.3 million of liquid assets and term deposits. The equity ratio stands at 57 %. The Management Board thereby believes that important preconditions have been established to outperform and participate long-term in the potentials offered by the bioeconomy's growth markets.

# Compensation report

→ Management Board compensation is aimed at providing incentives for results-oriented and sustainable corporate management.

The compensation report has been prepared according to the statutory regulations of the German Commercial Code (HGB) and taking into account the recommendations listed in the German Corporate Governance Code (DCGK). The following sections present the basic elements of the compensation scheme for the Management and Supervisory Board members, explain the structure of the compensation and salaries of individual Management and Supervisory Board members, and report the level of compensation paid to Management and Supervisory Board members.

## Management Board compensation

### Compensation scheme

Management Board compensation is aimed at providing incentives for results-oriented and sustainable corporate management. The Management Board members' overall compensation consequently includes various elements and consists currently of fixed basic compensation, a performance-based bonus, as well as individually agreed pension commitments, expenses of a provident nature, insurance contributions, and other ancillary benefits.

When setting overall compensation and the individual compensation elements, the Supervisory Board took the company's financial position and business prospects into account, as well as its compensation structure. The Supervisory Board applied a differentiation according to function, areas of responsibility, qualification and personal performance for the individual Management Board members. Information about compensation at other companies in the same sector or competing with the company, where such data and information was available, was taken into consideration as a further criterion.

The agreements relating to compensation are included in the Management Board members' service contracts. The contractual duration corresponds in each case to the period of office for which the respective Management Board members have been appointed. The service contracts are fixed for this period and cannot be terminated on an ordinary basis.

The basic structure of Management Board compensation and the subsequent related remarks are also valid for former Management Board members.

## **Basic compensation**

Each Management Board member receives a basic fixed salary that is agreed as fixed cash compensation drawn in relation to the financial year and paid out in twelve equal monthly instalments.

Basic compensation for the Management Board Chair amounts to 75 % of target compensation taking into account a capped performance-related bonus given 100 % target attainment, and for the remaining Management Board members 77.78 % of target compensation taking into account a capped performance-related bonus given 100 % target attainment.

## **Performance-based bonus**

The performance-based bonus is variable cash compensation relating to a specific financial year that is granted if the Management Board member reaches predetermined targets in the respective financial year (performance targets include parameters both qualitative and quantitative targets such as IFRS consolidated results before tax). The annual bonus level is contractually arranged for each Management Board member for the duration of its service contract. If targets are missed by a significant margin, the Supervisory Board can reduce or completely refuse the bonus, as well as increase it to double its amount given significant outperformance of targets. Setting targets and assessing whether and to what extent targets were reached, and whether the bonus is to be reduced or increased, lies at the Supervisory Board's discretion. The Supervisory Board also assesses the Management Board member's personal performance in this context, with its decision including extraordinary positive or negative developments that are not attributable to the Management Board's performance, to thereby grant performance-based variable compensation to the Management Board members.

If the defined bonus is awarded, variable cash compensation for the Management Board Chair (CEO) reaches an amount equivalent to 33.33 % of basic fixed compensation, and for the remaining Management Board members an amount equivalent to 28.57 % of basic fixed compensation. If the Supervisory Board increases the defined bonus at its discretion, variable cash compensation for the Management Board Chair (CEO) reaches a maximum of 66.66 % of basic fixed compensation, and for the remaining Management Board members a maximum of 57.14 % of basic fixed compensation.

## **Share-based employee compensation**

In the 2015/16 financial year, the following share-based employee compensation existed:

### **Post IPO Framework Agreement for key individuals at BRAIN AG**

With the aim of localising key individuals (referred to below as "beneficiaries") to the company in order to future corporate growth and development, the previous shareholders granted subscription rights to a member of the Management Board of BRAIN AG. Some of the subscription rights substantiate an entitlement to the delivery of shares in the company, and another portion substantiates entitlement to a payment (referred to below as "cash payments") based on the share price on the maturity date. The granting of the subscription rights is connected to the intention to realise this program as presented in the listing prospectus.<sup>7</sup>

<sup>7</sup> The intention to realise the program is referred to in Section 15.7 "Intended Post IPO Framework Agreement" of the listing prospectus.

The call options can be exercised until 30 September 2022 and obligate the previous shareholder to make shares available to the beneficiary, or to make a cash settlement depending on the share price prevailing at the exercise. The exercise price of the call options amounts to 2 cents per share. The level of the cash payment is also calculated on the basis of the share price then prevailing, less 2 cents. The exercise of the call options is not tied to any conditions. To grant the cash payments, the beneficiary's continued and permanent employment at the company until at least 8 August 2017 is required.

The following overview presents the commitments granted, expired, forfeited and exercised in the financial year under review per type:

TABLE 04.9 **CALL OPTIONS AND SUBSCRIPTION RIGHTS TO CASH PAYMENTS  
DR JÜRGEN ECK**

Dr Jürgen Eck	Call option	Subscription rights to cash payments	Total
Granted in the financial year	62,960	27,623	90,583
Expired in the financial year	0	0	0
Forfeited in the financial year	0	0	0
Exercised in the financial year	0	N/A	0
Outstanding as of 30 September 2016	62,960	27,623	90,583
Exercisable as of 30 September 2016	0	N/A	0

Stock options were granted for the first time in the financial year under review. Both the cash payments and the call options are to be recognised in accordance with the regulations of IFRS 2 (Share-based Payment). Both types of grant are to be classified as equity-settled share-based payment transactions.

For BRAIN, no effect on the cash position arises as part of exercising the subscription rights, as no type of obligation exists for the company to pay cash in connection with this program. There is also no obligation to deliver shares. As the company receives the consideration in the form of work and similar performance, pursuant to IFRS 2, personnel expenses are recognised at BRAIN. This amounted to € 810 thousand in the 2015/16 financial year for Management Board member Dr Jürgen Eck.

Moreover, the Post IPO Framework Agreement also relates to a former Management Board member (stepped down from the Management Board in the previous year and subsequently elected to the Supervisory Board). The following overview presents the commitments granted, expired, forfeited and exercised in the financial year under review per type, in relation to the former Management Board member:

TABLE 04.10 **CALL OPTIONS AND SUBSCRIPTION RIGHTS TO CASH PAYMENTS  
DR HOLGER ZINKE**

Dr Holger Zinke	Call option	Subscription rights to cash payments	Total
Granted in the financial year	70,218	36,831	107,049
Expired in the financial year	0	0	0
Forfeited in the financial year	0	0	0
Exercised in the financial year	0	N/A	0
Outstanding as of 30 September 2016	70,281	36,831	107,049
Exercisable as of 30 September 2016	0	N/A	0

**AOP: Stock option program for BRAIN AG Management Board members**

Share-based compensation was granted to the Management Board members in the 2015/16 financial year (Dr Georg Kellinghusen: 25,000 options; Drs Eric Marks: 10,000 options). The granting of stock options was tied to the successful implementation of the IPO. One option entitles to the purchase of one share of BRAIN AG at the so-called exercise price. The exercise price refers in this context to the respective share price as of the grant date. Along with the share price target (performance condition), the exercising of options is also conditional upon the respective beneficiary remaining at the company (service condition). Taking both the service and performance conditions into account, the options can be exercised at the earliest at the end of four years after the grant date (waiting period). The exercise period amounts to four years after the end of the four-year waiting period. The following overview presents the stock options granted, expired, forfeited and exercised in the financial year under review per type:

TABLE 04.11 **GRANTED, EXPIRED, FORFEITED AND EXERCISED STOCK OPTIONS**

	Drs Eric Marks	Dr Georg Kellinghusen	Total
Granted in the financial year	10,000	25,000	35,000
Expired in the financial year	0	0	0
Forfeited in the financial year	10,000	0	10,000
Exercised in the financial year	0	0	0
Outstanding as of 30 September 2016	0	25,000	25,000
Exercisable as of 30 September 2016	0	0	0

The expense recognised in the 2015/16 financial year from the stock option program for one Management Board member (Dr Georg Kellinghusen) amounts to € 100 thousand (for the 2014/15 financial year: € 0).

### **MSP: Matching Stock Program for BRAIN AG Management Board members**

In the 2015/16 financial year, Management Board members were granted the opportunity to participate in the so-called “Matching Stock Program”. As part of the program, the respective beneficiaries were entitled on a one-off basis as of the company’s IPO date to purchase shares from their own resources or later from bonus claims and transfer them to the Matching Stock Program. These shares are then blocked for two years. Once per year, the respective beneficiary receives three times as many options for all shares in the Matching Stock Program, albeit to a maximum of 15,000 units. The Matching Stock Program had not yet been finally defined as of the 30 September 2016 reporting date. As no shares had yet been transferred to the Matching Stock Program as of the 30 September 2016 reporting date, no stock options were granted as part of the Matching Stock Program. No expenses were recognised for the Matching Stock Program in the 2015/16 financial year.

### **Pension commitments, expenses of a provident nature, and insurance contributions**

The Management Board members’ service contracts include different regulations in relation to pensions and surviving dependants’ benefits. Defined benefit pension schemes in the form of pension commitments from BRAIN exist for the Chief Executive Officer. The benefit entitlements comprise an old-age pension from the age of 65 as well as surviving dependants’ and invalidity benefits. To reinsure the pension commitments, BRAIN pays contributions to an external occupational pension plan. In turn, the occupational pension plan has taken out pension liability insurance cover. The claims under the pension liability insurance have been assigned to the occupational pension plan beneficiaries. A pension scheme was arranged for the other Management Board members that includes an option to pay a contractually fixed amount into a pension fund, or alternatively disburse this amount to the employee. In the case of death, the relatives of a deceased Management Board member receive a one-off payment equivalent to 50 % of total compensation granted to the deceased Management Board member in the current financial year at the time of decease, pursuant to related standard contractual regulations.

The company has concluded invalidity insurance policies in favour of the Management Board members for the duration of their service contracts, whose premiums are paid by the company. The company also grants the Management Board members allowances for private health insurance and social security.

### **Other ancillary benefits**

The company grants two Management Board members various other ancillary benefits by reimbursing travel costs for journeys home, assuming accommodation costs, and providing an allowance for removal costs. In terms of type, preconditions and level, these ancillary benefits are subject to the regulations agreed individually with the respective Management Board members.

### **Discontinued employment commitments**

The Management Board members have not been given any commitments for severance benefits in the case of regular or early discontinuation of their employment or in the case of a change of control. For this reason, a severance pay cap or change of control cap has not been



contractually arranged. A post-contractual competitive restraint for a 24-month period has been agreed with Dr Jürgen Eck, for whose compliance the company has committed a monthly compensation payment equivalent in each case to 50 % of the monthly fixed basic compensation paid. A post-contractual competitive restraint (for both regular termination and early termination of employment relationship) for a 12-month period has been agreed with Drs Eric Marks, for whose compliance the company has committed a monthly compensation payment equivalent in each case to 50 % of the monthly fixed basic compensation paid.

In relation to the pension for the Management Board Chairman (CEO), the company has entered into commitment to assume the full financing of his pension in the instance of early discontinuation of his employment.

### **Future structure of the compensation scheme**

The compensation scheme as presented corresponds to many years' practice from the period before the IPO on 9 February 2016. The Supervisory Board intends to structure the Management Board members' variable compensation differently in future, so as to include not only annual performance-based compensation, which it continues to regard as useful, but also introduce performance-based compensation oriented to an even greater extent to a multi-year measurement basis. The further structuring of variable compensation should ensure that longer-term incentives significantly outweigh annual performance-based compensation both relatively and in absolute amounts.

### **Management Board compensation level**

For the 2015/16 financial year, the Management Board received total compensation of € 813 thousand, as calculated on the basis of the German Commercial Code (HGB). The corresponding for the previous year stood at € 454 thousand.

The compensation granted for the 2015/16 financial year on the basis of HGB is summarised in the following overview.

TABLE 04.12 **COMPENSATION GRANTED FOR THE 2015/16 FINANCIAL YEAR ON THE BASIS OF HGB**

in thousand €	Dr Jürgen Eck	Drs Eric Marks	Dr Georg Kellinghusen	Total
<b>Performance-based components</b>				
Fixed salary	240	193	158	590
Other payments	2	23	19	43
<b>Total</b>	<b>242</b>	<b>216</b>	<b>177</b>	<b>633</b>
<b>Performance-based components without long-term incentive effect</b>				
Bonus	80	55	45	180
<b>Total compensation</b>	<b>322</b>	<b>270</b>	<b>221</b>	<b>813</b>

Drs Marks was granted an amount of up to € 150 thousand for a post-contractual competitive restraint and for his early departure from the company as of 31 October 2016.

The present value of the total obligation calculated according to International Financial Reporting Standards (IFRS) amounted to € 2,734 thousand as of the reporting date (of which € 802 thousand for Dr Jürgen Eck) reflecting a year-on-year change of € 593 thousand. The pension value (present value of the total obligation) calculated according to the financial accounting standards of the German Commercial Code (HGB) amounted to € 2,053 thousand (of which € 651 thousand for Dr Jürgen Eck) reflecting a year-on-year change of € 244 thousand.

As of 30 September 2016, the present value of the total obligation for pension entitlements for this group of individuals amounted to € 1,932 thousand as calculated according to International Financial Reporting Standards (IFRS), representing a year-on-year change of € 306 thousand. The pension value (present value of the total obligation) calculated according to the financial accounting standards of the German Commercial Code (HGB) amounted to € 1,403 thousand, reflecting a year-on-year change of € 84 thousand.

#### **Reporting compensation in accordance with the recommendations of the German Corporate Governance Code (granted and received)**

According to the German Corporate Governance Code in the version dated 5 May 2015, the total compensation of Management Board members comprises monetary compensation elements, pension awards, other awards, especially in the event of termination of activity, fringe benefits of all kinds and benefits by third parties which were promised granted in the financial year with regard to Management Board work. By way of divergence from the regulations of the German Commercial Code (HGB), the annual service cost for pension commitments also forms part of overall compensation.

Section 4.2.5 (3) of the Code specifies which compensation components are to be disclosed for each Management Board member. The following overview shows which benefit contributions were granted to the members of the Management Board of BRAIN AG for 2015/16 and for the previous year. Some of these contributions did not yet entail any payments, however. For this reason, the amount of funds accruing to Management Board members is presented separately.

TABLE 04.13 MANAGEMENT BOARD COMPENSATION

in thousand €	Dr Jürgen Eck, CEO since 09.05.2000					
	Received		Granted			
	2015/16	2014/15	2015/16	2014/15	2015/16 (max.)	2015/16 (min.)
Fixed compensation	240	180	240	180	240	240
Ancillary benefits	0	0	0	0	0	0
<b>Total</b>	<b>240</b>	<b>180</b>	<b>240</b>	<b>180</b>	<b>240</b>	<b>240</b>
Variable compensation (one-year)	56	48	80	56	160	0
<b>Total</b>	<b>296</b>	<b>228</b>	<b>320</b>	<b>236</b>	<b>400</b>	<b>240</b>
Pension expense	110	272	110	272	110	110
<b>Total compensation</b>	<b>406</b>	<b>500</b>	<b>430</b>	<b>508</b>	<b>510</b>	<b>350</b>

**Dr Georg Kellinghusen, CFO** since 01.01.2016

in thousand €	Received		Granted			
	2015/16	2014/15	2015/16	2014/15	2015/16 (max.)	2015/16 (min.)
Fixed compensation	158	-	158	-	158	158
Ancillary benefits	19	-	19	-	19	19
<b>Total</b>	<b>177</b>	<b>-</b>	<b>177</b>	<b>-</b>	<b>177</b>	<b>177</b>
Variable compensation (one-year)	0	-	45	-	90	0
<b>Total</b>	<b>177</b>	<b>-</b>	<b>222</b>	<b>-</b>	<b>267</b>	<b>177</b>
Pension expense	0	-	0	-	0	0
<b>Total compensation</b>	<b>177</b>	<b>-</b>	<b>222</b>	<b>-</b>	<b>267</b>	<b>177</b>

**Drs Henricus Cornelis Maria (Eric) Marks, COO<sup>8</sup>** since 01.11.2015

in thousand €	Received		Granted			
	2015/16	2014/15	2015/16	2014/15	2015/16 (max.)	2015/16 (min.)
Fixed compensation	193	-	193	-	193	193
Ancillary benefits	23	-	23	-	23	23
<b>Total</b>	<b>216</b>	<b>-</b>	<b>216</b>	<b>-</b>	<b>216</b>	<b>216</b>
Variable compensation (one-year)	0	-	55	-	110	0
<b>Total</b>	<b>216</b>	<b>-</b>	<b>271</b>	<b>-</b>	<b>326</b>	<b>216</b>
Pension expense	0	-	0	-	0	0
<b>Total compensation</b>	<b>216</b>	<b>-</b>	<b>271</b>	<b>-</b>	<b>326</b>	<b>216</b>

## Supervisory Board compensation

Pursuant to the company's bylaws, the Supervisory Board members receive annual compensation of € 15,000. The Supervisory Board Chair receives twice this amount, and the Deputy Supervisory Board Chair receives one and a half times this amount. Committee chairs also receive further annual compensation of € 15,000. All Supervisory Board members receive a meeting fee of € 1,000 for each meeting of the Supervisory Board and its committees they attend.

The Supervisory Board members are included in the D&O (directors & officers) insurance cover (asset loss liability insurance) which the company has taken out for its directors, and whose premiums the company pays. Above and beyond this, the company has concluded asset loss liability insurance for securities issues ("IPO insurance") without deductibles for the Supervisory Board members as part of the IPO, whose costs the company bears.

<sup>8</sup> Drs Eric Marks stepped down from the Management Board with effect as of 31 October 2016. In November 2016, he received a € 45 thousand severance payment for the early termination of his Management Board contract. In addition, Drs Eric Marks receives payments of € 105 thousand from the competition restraint for a maximum of 12 months.

The following table shows the cash compensation of the Supervisory Board for the 2015/16 financial year:

TABLE 04.14 SUPERVISORY BOARD COMPENSATION

in thousand €

Supervisory Board members	Fixed compensation	Allowance for special functions	Meeting fees	Total compensation
Dr Ludger Müller	30	4	11	45
Dr Holger Zinke	23	0	8	31
Siegfried L. Drucker	15	15	8	38
Dr Georg Kellinghusen <sup>9</sup>	4	0	4	8
Christian Koerfgen <sup>10</sup>	11	0	4	15
Prof Dr Klaus-Peter Koller	15	0	8	23
Dr Matthias Kromayer	15	0	11	26
<b>Total</b>	<b>113</b>	<b>19</b>	<b>54</b>	<b>186</b>

For the share-based compensation of a Supervisory Board member (Dr Holger Zinke), please refer to the remarks above concerning the Post IPO Framework Agreement.

## Shares held by the Management and Supervisory Boards

As of 30 September 2016, the Management Board members held 754,166 ordinary shares of BRAIN AG and the Supervisory Board members held 1,350,000 ordinary shares of BRAIN AG.

The information about authorisations of the Management Board to issue shares, please refer to the remarks about "Authorised Capital" and "Conditional Capital" in the chapter "Takeover-relevant information pursuant to Section 315 (4) HGB".

## Directors' dealings

In the 2015/16 financial year, the company was notified of the following transactions by individuals with management responsibilities pursuant to Section 15a of the German Securities Trading Act (WpHG).

TABLE 04.15 DIRECTORS' DEALINGS

Date	Name	Function	Units	Type	Price	Volume
12.02.2016	Dr Jürgen Eck	CEO	4,166	Purchase	€ 9.00	€ 37,494

<sup>9</sup> until 31. 12. 2015

<sup>10</sup> from 01.01.2016

# Events after the reporting date

The following change occurred to the Management Board after the end of the financial year:

Until 31.10.2016

Drs Henricus Cornelis Maria (Eric) Marks, Oud-Zuilen  
C.M., COO

Since 01.11.2016

Frank Goebel, Kelkheim  
Diplom-Kaufmann

Since the 30 September 2016 reporting date, no further significant events and developments of particular importance for the company's financial position and performance have occurred.

# Outlook

→ For the 2016/17 financial year, BRAIN anticipates a positive business trend.

Given the high growth dynamism of markets for biotechnological products and processes, BRAIN assumes positive conditions to prevail overall. As a technology company in the industrial biotechnology sector, BRAIN regards itself as well positioned to contribute significant added value for industrial partners and in the context of its own research and development.

For the 2016/17 financial year, BRAIN anticipates a positive business trend with a marked increase in total operating performance<sup>11</sup> and an equally significantly improving, although continued negative, adjusted operating result (adjusted EBIT).

The budgeted marked increase in total operating performance comprises both the BioScience segment and the BioIndustrial segment. The improvement in the adjusted operating result (adjusted EBIT) is largely attributable to the BioScience segment. Corresponding earnings contributions are also especially anticipated from expanding the DOLCE alliance through involving further partners.

For the 2016/17 financial year, the company plans a slight increase in research and development expenses, and an equal total number of milestones achieved and option exercises.

This forecast is based on the assumption that macroeconomic and sector-related conditions for industrial biotechnology in 2016/17 develop positively as presented in the section entitled "Macroeconomic and sector-related conditions", potential projects are not discontinued to a significant extent, and new co-operation partners can be acquired for new projects.

<sup>11</sup> Defined as the sum of revenue, other income and changes in inventories of finished goods and work in progress

# Report on risks and opportunities

- The aim is to sustainably grow the company's value through tapping opportunities.
- Balanced management of risks and opportunities forms part of all planning processes within the BRAIN Group.

## Risk management at BRAIN AG

### Introduction

BRAIN AG forms part of an industry characterised by change and progress. BRAIN makes great efforts to identify new opportunities and exploit them successfully for its business. The aim is to sustainably grow the company's value through tapping opportunities. At the same time, business success is impossible without consciously assuming risks. The systematic handling of risks and opportunities forms part of corporate activity and is a management steering element. For BRAIN it is critical that opportunities are identified and managed to quick success, to thereby sustainably improve competitiveness and secure it long-term, as well as to ascertain and minimise risks. BRAIN AG has established instruments and processes so that risks are identified early and measures are implemented to realise opportunities in entrepreneurial activities without delay.

## Report on risks and opportunities

### Risk Management System (RMS)

#### **Characteristics of the RMS**

BRAIN's RMS includes the systematic identification, evaluation, management and reporting as well as constant monitoring of all relevant risks. The management thereby ensures that the company continuously reaches the targets it sets for itself long-term, and establishes suitable risk awareness within the entire Group.

Risks are also presented applying the net presentation method. In other words, risks are presented so that they continue to be monitored following implementation of countermeasures. The focus in this context is on significant risks and on risks that might jeopardise the company as a going concern.

The aim of BRAIN's RMS is not only to comply with statutory regulations but also to support internal management and business security. Suitable risk awareness should be created Groupwide overall to ensure responsible handling of risks and counterstrategies.

The RMS in its existing form was re-implemented in the 2015/16 financial year, replacing the management system that was utilised in previous years. The new RMS includes experience gained in risk identification over past years and risk surveying as part of preparing the IPO listing circular in 2016.

### Risk identification

Risks are surveyed Groupwide as part of risk identification involving all relevant decision-makers and experts. This iterative process first surveys all risks before aggregating them within a Groupwide risk inventory and evaluating them.

### Risk evaluation

Risks identified as part of a risk analysis are evaluated in terms of their likelihood of occurrence (event risk) and impact. They are categorised into risk classes (“high”, “medium” and “low”) by multiplying their individual impact by their respective likelihood of occurrence. The range of both likelihood and impact starts at 1 (“very low”) and ends at 10 (“very high”).

TABLE 04.16 LIKELIHOOD OF OCCURRING WITHIN THE NEXT TWO YEARS

Likelihood score	Note
0–2	Relatively unlikely (< 15 %)
3–5	Possible (15–45 %)
6–7	Probable (45–75 %)
8–10	Very probable (> 75 %)

TABLE 04.17 DEGREE OF IMPACT

Impact score	Impact on next two years' forecast results of operations	Impact on operating result (EBIT)
0–2	Minor negative impact	< € 100 thousand
3–5	Moderate negative impact	> € 100 thousand; < € 500 thousand
6–7	Significant negative impact	> € 0.5 million; < € 2 million
8–10	Critical negative impact	> € 2 million

Impact is defined as the influencing parameter on the forecast result (adjusted EBIT) of BRAIN.



The so-called “risk score” – an individual risk evaluation for each risk for the classification – is calculated by multiplying the likelihood of occurrence by the impact. The range for the risk score consequently starts at 1 and ends at 100.

TABLE 04.18 RISK SCORE

Risk score	Risk class
0–10 points	Low risks
11–40 points	medium risks
41–100 points	High risks

#### “High” risk class (risk measure above 40 points)

Risks within this class exhibit, for example, a high likelihood of occurrence combined with a major impact on the Group.

#### “medium” risk class (risk measure between 11 and 40 points)

Risks within this class exhibit, for example, a low likelihood of occurrence combined with a major impact, or a high likelihood of occurrence in combination with a low impact, on the Group.

#### “Low” risk class (risk measure below 11 points)

Risks within this class exhibit, for example, a low likelihood of occurrence combined with a minor impact on the Group.

#### Risk management and monitoring

BRAIN deploys various measures to manage risks. Active risk measures include strategies such as risk avoidance (e. g. through refraining from engaging in excessively risky activities), risk reduction (e. g. through effective project controlling) and risk diversification (e. g. research in different areas). Where appropriate, BRAIN also makes recourse to passive measures including either a transfer of risk (e. g. through insurance) or the conscious assumption of risks.

#### Accounting-related internal control system

The accounting-related internal control system (“ICS”) aims to appraise appropriately in financial accounting terms and fully report business transactions within the Group in accordance with respective applicable accounting regulations. The system comprises a clear functional separation through the two sets of eyes principle. Especially when preparing separate financial statements, reconciliation to IFRS, as well as consolidation and related standard measurement and reporting, controls exist in the form of the two sets of eyes principle.

The accounting-related appraisal and recording of business transactions is implemented by the respective Group companies where such transactions occur, as a matter of principle. An exception from this principle is where BRAIN AG appraises and records business transactions for its subsidiaries Mekon Science Networks GmbH and BRAIN Capital GmbH. The annual financial statements of the subsidiaries are prepared by the management of the respective subsidiary. External service providers assist in the preparation of monthly and annual financial statements prepared on the basis of commercial law.

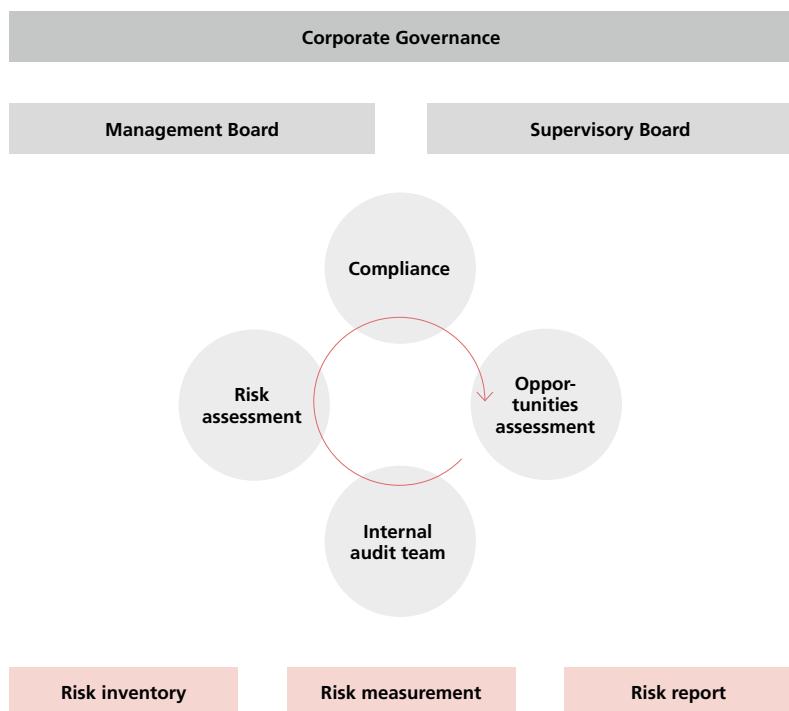
The conversion of financial statements prepared according to commercial law to IFRS financial reporting standards (quarterly) as well as the preparation of the separate annual financial statements of BRAIN AG and the consolidated financial statements is realised by the Management Board of BRAIN AG with the support of external service providers.

The independent auditor appointed by the AGM audits the separate annual and consolidated financial statements. Significant risks for the financial accounting process are monitored and evaluated on the basis of the risk classes specified below and applying their individual risk classification.

The separate annual financial statements and the consolidated financial statements of BRAIN AG are submitted to the Supervisory Board of BRAIN AG for approval. At least one Supervisory Board member is an independent financial expert in the meaning of Section 100 (5) of the German Stock Corporation Act (AktG). The Supervisory Board's Audit Committee monitors the financial accounting process and auditing of financial statements.

With the accounting-related internal control system, the management pursues the objective of ensuring that the financial accounting process is in harmony with German commercial law (HGB) regulations and International Financial Reporting Standards (IFRS).

FIGURE 04.01 RISK MANAGEMENT SYSTEM



## Assessment of opportunities and risks in overall presentation

### Business-related risks

#### **Growth risk**

Young, fast-growing companies are in phases of building and establishing their businesses, and consequently initially in the stage of investing to create infrastructure and initiate R&D projects. Given BRAIN's planned growth and need to hold resources ready for expansive growth, risks exist that lower growth or insufficient exploitation of the pipeline's potential can negatively affect operating results.

The risk exists of not finding sufficient customers or cooperation partners, macroeconomic trends or relationships with existing customers could deteriorate, and the markets that are to be served might not prove large enough.

Planned revenues in the DOLCE project were included in the liquidity planning of BRAIN. The contract with the partner companies envisages several milestone payments after an 18-month period, which are subject to a certain risk. The same also applies if a contract partner terminates a contract.

All of this could lead to BRAIN achieving lower results long-term.

This concerns both of BRAIN's operating segments, BioScience and BioIndustrial. This characteristic is gauged as a medium risk.

Especially in the BioIndustrial New Business area that is to be newly established, infrastructure needs to be created before the planned revenues are generated. A medium risk exists here, too.

#### **Risks from research and development**

BRAIN is an innovative company and innovation forms an important part of the BRAIN strategy. Risks entail the nonattainment or delayed attainment of research and development projects, all the way through to the risk that no biotechnology solutions can be found. As far as BRAIN's own development projects are concerned, BRAIN aims to keep research pipeline risks low long-term with a continuous stage-gate and portfolio management process. The same applies when concluding contracts with collaboration partners. Here, too, feasibility and timeframes are evaluated in detail in diversified and crossdisciplinary teams before contracts are concluded. The resultant risk in cooperation businesses would at maximum entail default on an outstanding milestone payment, budget overrun, or abandoning an individual project. Such risk is to be largely avoided or minimised through the aforementioned evaluation.

A medium risk exists here that especially relates to the BioScience segment.

#### **Material damage relating to the BioArchive, or buildings, production facilities or warehouses**

Great value lies in the various collections of the bioarchives of BRAIN and AnalytiCon. A physical loss of the archives is minimised through numerous measures. A redundant setup exists at various locations, as well as a security concept, and staff are trained in archive handling and management.

An insurance concept also exists to cover most of the potential costs to remedy potential losses, however. The physical measures and the insurance concept are constantly reviewed and continuously updated to reduce BRAIN's risk even further.

These unique archives naturally also give BRAIN the opportunity to be even more successful than its competitors, as the probability of successfully finding products for a large number of markets rises significantly with the number of substances in the archive.

Moreover, buildings, production facilities and warehouses can be damaged by externally influencing circumstances.

Overall, a medium risk exists here that relates especially to the BioScience segment.

#### **Product liability**

In its BioIndustrial area, BRAIN supplies products directly to customers. Accordingly, the risk exists here of also being liable for such products. As the product range differs widely, the related risk is also to be appraised differently. BRAIN could be liable for defective products in the cosmetics area, as well as when delivering enzymes. Such risk is gauged as medium risk.

#### **Financial risks**

Financial risks are examined regularly. Guidelines and instructions are in place to identify, investigate and evaluate financial risks at an early stage. Quarterly reporting entails continuous comparison of planning targets with actual outcomes. Depending on the level of differences entailed, BRAIN managerial functions have sufficient time to engage countermeasures.

In light of planned growth at some subsidiaries and the holding of resources for expansive growth, the risk exists of realising losses if the subsidiaries report lower growth. Under certain circumstances, this could lead to financing problems or financial accounting situations that might necessitate the application of impairment losses to the respective companies' intangible assets, or the application of impairment losses to tangible assets.

This concerns both operating segments, BioScience and BioIndustrial.

To gauge the financial impact of the growth risk on liquidity, BRAIN has conducted a stress test, taking it into account in a pro forma liquidity calculation.

In the stress test, planned sales revenues from potential BRAIN pipeline projects were reduced considerably and the corresponding costs for these revenues were withdrawn from the planning. At the same time, investments and working capital were adapted to the stress test conditions. According to the stress test, a positive financial resources position is to be assumed for more than two years. The stress test calculation does not include potential expenditures for the put/call options for WBT and AnalytiCon, as the payments are expected on the financially most favourable date for the holders from February 2019. Should the AnalytiCon put options be exercised early, external financing sources might have to be considered under certain circumstances. The payment of the put option for WBT is expected in February 2019. The financial resources on which the stress test is based are not sufficient at the then present time to enable BRAIN AG to fund itself. As WBT is a valuable enterprise, however, the management assumes that recourse can also be made to external financing sources.

#### **Legal risks**

BRAIN generally endeavours to avoid legal risks, or BRAIN has taken precautions to appraise and measure legal risks. Legal risks entailing one risk relate to litigation in the case of patents and licenses, matters in the regulatory law/capital market area, and relating to general litigation with international firms.

It is also always possible that legislation is amended in the next years, whether fiscal, capital market or other statutory regulations. The probability that legislation changes in an area is high. The effects on business results cannot be estimated, although they would affect the entire industry. This would also then concern compliance rules that would need to be newly prepared.

### **Intellectual property risks**

BRAIN is a research company whose strategy is based on a solid intellectual property foundation. Internally, BRAIN implements measures to protect its know-how and IP. These include IT measures, allocating authorisations and staff training through engaging with external individuals. Late registration of IP would nevertheless generate the risk that information would become publicly known early.

A medium risk exists of becoming involved in patent litigation, which would have a moderately negative impact on the results of BRAIN. Quantification is not possible currently, as no specific patent lawsuits are pending at present. A particular risk in this context would be a company demanding freedom to operate. As issued patents become ever more closely intermeshed as intellectual property assets, it is becoming increasingly difficult to find all relevant patents in corresponding patents researches. Here the risk exists of patents not being found under certain circumstances, with the potential risk that patents might be infringed.

The aforementioned risks concern both operating segments, although mainly the BioScience segment.

### **General legal risks**

Due to the increasing industrialisation and internationalisation of BRAIN's business, the risk is also increasing of litigation occurring with an international corporate group. BRAIN sees a current possibility of contractual risks relating to litigation. A lawsuit would exert a moderately negative effect on results.

All legal risks were appraised as medium risks and relate to both of the operating segments, BioScience and BioIndustrial.

### **Risks from acquiring and integrating companies and parts of companies**

As of the present time, the company is not aware of any risks arising from the acquisition of parts of companies. Potential planned acquisitions can nevertheless generate risks relating to the execution and integration of acquisitions.

This medium risk concerns the BioScience segment.

## **Other risks**

### **Personnel**

Compared with its competitors, BRAIN employs very well qualified staff who have been augmenting their expertise over many years.

The loss of knowledge bearers in key positions represents a medium risk for BRAIN. The staff turnover rate BRAIN is currently low, and an incentivisation program has also been established so that BRAIN can compete successfully for personnel in the Rhine Main Neckar conurbation region and avoid the loss of staff.

This risk concerns both operating segments, although mainly the BioScience segment.

### **Environment**

At any company operating in the biotechnology or chemical sectors, the residual risk always exists that damage to the environment occurs. Such risk is manageable at BRAIN, as staff are trained continuously, the volumes deployed and processed are very manageable, and BRAIN has instituted organisational measures to avoid accidents and product spillages. In the biotechnology area, BRAIN works together very closely with all relevant authorities and proactively addresses all environmental topics.

Such risk is gauged as medium risk overall. This risk affects both operating segments.

TABLE 04.19 PRESENTATION OF THE GREATEST SHORT- AND MEDIUM-TERM RISKS AT BRAIN

Risks	Two-year estimate of impact	Segment mainly affected
<b>Business-related risks</b>		
Growth risk	medium	BioScience and BioIndustrial
Risk from research and development	medium	BioScience
Material damage concerning the BioArchive, or buildings, production facilities and warehouses	medium	BioScience
Product liability	medium	BioIndustrial
<b>Financial risks</b>		
Impairment of intangible & tangible assets	medium	BioScience and BioIndustrial
Liquidity risk	medium	BioScience and BioIndustrial
<b>Legal risks</b>		
IP risks	medium	BioScience
General legal risks	medium	BioScience and BioIndustrial
<b>Risks from acquiring and integrating companies and parts of companies</b>		
Acquisition risk	medium	BioScience and BioIndustrial
<b>Other risks</b>		
Personnel	medium	BioScience and BioIndustrial
Environment	medium	BioScience and BioIndustrial

BRAIN evaluated a total of 45 risks. Of these risks, 21 risks are to be categorised as medium risks, which are aggregated in the above-listed 11 risk classes (BioScience and Bio-Industrial). A total of 24 risks were appraised as low risks. No risk was evaluated as a high risk or as a going concern risk for BRAIN.

## Report on opportunities

### Opportunities from research and development

#### **BioScience segment**

The opportunities arising from strong research and a well filled research pipeline are manifold. With new innovative products, BRAIN can tap markets or penetrate markets occupied by competitors.

Some significant examples include:

- BRAIN, AnalytiCon and Roquette signed an agreement to found a strategic partnership to accelerate the development of a new generation of natural sweeteners. The DOLCE partnership aims to develop innovative natural sweetness enhancers and sweeteners, in order to thereby improve nutrition through optimised food preparations. A brand strategy with the new concept is being established to address global customers. Many of the largest “Fortune 500” consumer goods companies have a long-term interest in this topical area and it is anticipated that the market for consumer goods and beverages will benefit from developing these new sweetening agents. This DOLCE alliance will bridge the gap between the identification & development (BRAIN and AnalytiCon), formulation & production (Roquette) and marketing & sales (consumer goods companies) of innovative sweetening agents in different segments in the food and beverages area, opening up new opportunities in various areas of the consumer goods industry.
- BRAIN and the EU’s largest sugar producer, Südzucker AG, are intensifying their cooperation in the area of microbial carbon dioxide utilisation. The partnership – which the German Federal Ministry of Education and Research (BMBF) partly co-finances as part of the ZeroCarb FP strategic alliance – aims to feed CO<sub>2</sub> industrial byproduct flows into a large number of interesting intermediate products by means of optimised platform organisms. In Phase 1 of the alliance, a two-stage process was developed successfully to laboratory scale. Based on the good results, BRAIN and Südzucker have now submitted an application for further support from the BMBF to realise a scale-up to a pilot plant in Phase 2 of the ZeroCarb FP alliance at the CO<sub>2</sub>-emitting bioethanol plant in Zeitz. Overall, this generates for BRAIN the opportunity to enter into further-reaching partnerships and/or to market IP from this area.

### Opportunities generated by IP

#### **BioScience segment:**

A broad IP base generates many opportunities. In the assessment of the Management Board members, BRAIN has secured a lead position in some areas that will deliver revenue and earnings growth within the foreseeable future, based on management expectations.

The BRAIN portfolio includes more than 350 patents and patents applications with claims to proprietary technologies as well as natural substances in various application areas.



- BRAIN scientists have invented and established a procedure to generate long-living primary human tastebuds and have submitted a patent application with the resultant cell lines (publication: WO 2013/160415 A1). Progress made with this technology has already led to the development of various human taste cell lines that provide new insights into taste perception mechanisms, and which should enable the identification of new taste modulators, such as for bitterness, sweetness, umami taste, sourness, saltiness and even fatty taste. The US patent (US 9,404,080 B2) that has been awarded includes claims comprising the utilisation of these proprietary cell lines for screening purposes. It is anticipated that the parallel European patent (EP 2.841.565 A1) will be issued in 2017, enabling further markets to be commercialised for BRAIN.

### **Business-related opportunities**

#### **BioIndustrial segment**

Through its planned forward integration in the BioIndustrial area, BRAIN has strengthened its opportunity to participate in the value chain in the direction of the customer. This is the consistent step from being a research company to becoming an industrial company. The integration offers the company the possibility to act not only as an innovator but also as a manufacturing firm.

### **Risk reporting on the deployment of financial instruments**

At BRAIN, financial instruments<sup>12</sup> are either not deployed, or deployed only to an extent that is insignificant to assess the Group's position or prospective development.

The financial assets reported under other financial assets in the consolidated financial statements comprise exclusively term deposits denominated in euros with a term of up to twelve months held at German financial institutions that are connected to a German deposit insurance fund.

<sup>12</sup> Defined as either firm or option transactions structured as purchases, exchanges or otherwise that are to be satisfied after a time delay, and whose value is derived from the price or measurement of a reference value, especially the following: currencies, interest rates, securities, commodity prices and indices relating to such reference values, as well as other financial indices; financial assets are not deployed as risk management instruments. The Group's loans serve to finance Group activities and avoid liquidity risks.

# Takeover-relevant information pursuant to Section 315 (4) of the German Commercial Code (HGB)

The following information reflects circumstances on the 30 September 2016 reporting date.

## **Composition of subscribed share capital (No. 1)**

The share capital of BRAIN AG amounts to € 16,414,348 on the reporting date. The share capital is divided into 16,414,348 ordinary shares to each of which a proportional amount of the share capital of € 1.00 is attributable. The shares are fully paid-in registered shares. The company holds no treasury shares on the reporting date.

## **Restrictions affecting voting rights or transfer of shares (No. 2)**

The company's Management Board is not aware of any restrictions affecting voting rights or the transfer of shares, including potentially deriving from agreements between shareholders.

## **Shareholdings with more than 10 % of the voting rights (No. 3)**

MP Beteiligungs-GmbH, Kaiserslautern, has notified the company that it holds more than 25 %, but fewer than 50 %, of the shares. Pursuant to capital increase resolution dated 27 October 2015 and with effect as of the registration of the capital increase on 6 November 2015, MP Beteiligungs-GmbH held a majority interest in the company. This interest reduced to below 50 % on 4 February 2016 when the implementation of a further share capital increase as part of the company's IPO was registered.

## **Dependent companies report**

Pursuant to Section 312 (3) of the German Stock Corporation and Act (AktG), the Management Board of BRAIN AG states that, in the case of legal transactions listed in the report on relationships with affiliates for the period from 27 October 2015 until 4 February 2016, the company received appropriate consideration for each legal transaction according to the circumstances known to it at the time when the legal transaction was implemented. During the reporting period, no other measures existed at the instigation or in the interests of the controlling entity or an entity affiliated with it.

## **Holders of shares with special rights (No. 4)**

No shares exist at BRAIN AG with special rights endowing control powers.

## **Voting rights control of employees who are shareholders (No. 5)**

No voting rights controls for employees who are shareholders exist for the instance of control rights that are not to be exercised directly.

### **Rules concerning the appointment and recall from office of Management Board members (No. 6)**

Pursuant to Section 84 of the German Stock Corporation Act (AktG) and the bylaws of BRAIN AG, the Supervisory Board appoints the members of the Management Board. Pursuant to Section 7 of the bylaws of BRAIN AG, the Management Board consists of one or several individuals. The Supervisory Board determines the number of Management Board members. It can appoint a Management Board Chair (CEO) and a Deputy Management Board Chair, as well as deputy Management Board members. If the Management Board consists of several members, Management Board resolutions are passed with a simple majority of votes. If the Supervisory Board has appointed a Management Board Chair, and if the Management Board consists of three members or more, the vote of the Management Board Chair decides given an equal number of votes.

### **Rules concerning amendments to the bylaws (No. 6)**

Bylaw amendments require an AGM resolution. AGM resolutions require a simple majority of votes, unless the law stipulates a greater majority.

### **Management Board authorisations concerning issuing and repurchasing shares (No. 7)**

BRAIN AG has the following authorised and conditional capital:

#### **Authorised capital**

Pursuant to Section 5 (2) of the company's bylaws, the Management Board is authorised, with Supervisory Board approval, to increase the company's share capital once or on several occasions in the period until 7 July 2020, albeit by a maximum of up to nominal € 2,862,909, through issuing up to € 2,862,909 new ordinary registered shares against cash and/or non-cash capital contributions and for this purpose to wholly or partly exclude, with Supervisory Board approval, shareholders' subscription rights in the instances specified in Section 5 (2) of the bylaws (Authorised Capital 2015/I). The authorised capital was entered in the commercial register on 1 October 2015 in a level of originally € 6,362,909, and partly utilised pursuant to the Management Board resolution of 3 February 2016 with Supervisory Board approval of the same date in an amount of € 3,500,000 under exclusion of shareholders' statutory subscription rights, in order to implement the IPO of BRAIN AG. The capital increase from authorised capital was entered in the commercial register on 4 February 2016. Authorised capital of € 2,862,909 consequently existed on the 30 September 2016 reporting date.

#### **Conditional capital**

Pursuant to Section 5 (3) and (4) of the company's bylaws, the share capital is conditionally increased by € 5,090,328 through issuing up to 5,090,328 new ordinary registered shares (Conditional Capital 2015/I) and by a further € 1,272,581 through issuing up to 1,272,581 new ordinary registered shares (Conditional Capital 2015/II).

Conditional Capital 2015/I serves exclusively to grant shares to the holders of bonds with warrants and convertible bonds that the company issues on the basis of the authorisation of the Management Board by the AGM resolution dated 8 July 2015. The conditional capital increase is to be implemented through issuing up to 5,090,328 new ordinary registered shares only to the extent that the holders of convertible bonds and/or bonds with warrants utilise their conversion rights or warrant rights, or the holders of convertible bonds that are obligated to convert satisfy their obligation to convert, and to the extent that other forms of satisfaction are not deployed to service the bonds. An increase in the share capital from Conditional Capital 2015/I had not been implemented as of the 30 September 2016 reporting date.

Conditional Capital 2015/II serves exclusively to service subscription rights arising from stock options that are granted – pursuant to the AGM resolution dated 8 July 2015 as part of a stock option plan comprising up to 1,272,581 stock options that carry subscription rights to shares of BRAIN AG with a term of up to eight years – to the members of the company's Management Board, members of affiliated companies' management boards, as well as managers and other company employees in senior positions. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilise them and the company does not grant its own shares or cash settlement to satisfy these subscription rights. An increase in the share capital from Conditional Capital 2015/II had not been implemented as of the 30 September 2016 reporting date.

#### **Stock options**

An AGM resolution dated 8 July 2015 authorised the Management Board, with Supervisory Board approval, to issue – as part of a stock option plan until 30 September 2020 – up to 1,272,581 stock options that carry subscription rights to shares of BRAIN AG with a term of up to eight years, with the condition that each stock option grants the right to subscribe for one share, and according to further provisions. As far as issuing shares to members of the Management Board of BRAIN AG is concerned, this authorisation is valid for the Supervisory Board alone. No stock options had yet been issued as of the 30 September 2016 reporting date. The AGM conditionally increased the share capital by € 1,272,581 to hedge and service the stock options (Conditional Capital 2015/II).

#### **Treasury shares**

With a resolution dated 8 July 2015, the AGM authorised the Management Board pursuant to Section 71 (1) No. 8 of the German Stock Corporation Act (AktG), to purchase treasury shares for any permissible purpose in the context of statutory restrictions and according to more detailed provisions. This authorisation is valid from the date on which the authorisation resolution becomes effective until 7 July 2020, and is restricted to a total proportion of 10 % of the share capital existing on the date when the resolution is passed, or, if this amount is less, as of the date when the authorisation is exercised. The resolution was entered in the commercial register on 1 October 2015. As in the previous year, in the 2015/16 financial year BRAIN made no utilisation of this authorisation to purchase treasury shares.

**Significant agreements for the instance of a change of control due to a takeover offer (Number 8) and compensation agreements in the case of a takeover offer (Number 9)**

The company has not entered into any arrangements in the meaning of Section 315 (4) Nos. 8 and 9 of the German Commercial Code (HGB).

# Corporate governance statement of conformity pursuant to Section 289a of the German Commercial Code (HGB)

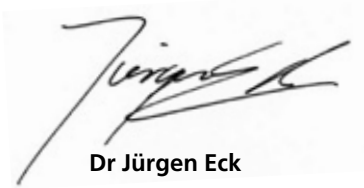
The corporate governance statement of conformity of BRAIN AG pursuant to Section 289a of the German Commercial Code (HGB) is published on the website at [www.brain-biotech.de/en/investor-relations/corporate-governance](http://www.brain-biotech.de/en/investor-relations/corporate-governance).

→ Corporate governance statement p. 103

# Responsibility statement

We hereby declare that, to the best of our knowledge, the consolidated financial statements convey a true and fair view of the Group's financial position and performance in accordance with applicable accounting principles, the progress of business including the business results and the Group's position are presented in the Group management report so as to convey a true and fair view, and that the significant opportunities and risks pertaining to the Group's prospective development are described.

Zwingenberg, 13 January 2017



**Dr Jürgen Eck**  
Management  
Board Chairman (CEO)



**Frank Goebel**  
Management  
Board member



**Dr Georg Kellinghusen**  
Management  
Board member

05

# Consolidated financial statements

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TABLE 05.1 CONSOLIDATED BALANCE SHEET AS OF 30 SEPTEMBER 2016

in €	Note	30. 09. 2016	30. 09. 2015
<b>Non-current assets</b>			
Intangible assets	[12]	7,747,255	8,034,883
Property, plant, and equipment	[13]	7,094,680	6,877,750
Equity-accounted investments	[14]	168,435	1
Available-for-sale financial assets		1	1
Other non-current assets	[18]	158,252	148,760
Deferred tax liabilities	[10]	341,915	274,740
		<b>15,510,538</b>	<b>15,336,134</b>
<b>Current assets</b>			
Inventories	[15]	7,130,464	6,517,145
Trade payables	[16]	5,682,520	3,934,268
Other current assets	[18]	491,186	1,116,470
Current tax assets	[10]	36,554	22,938
Other financial assets	[17]	10,399,997	299,848
Cash and cash equivalent	[19]	8,260,717	3,179,951
		<b>32,001,438</b>	<b>15,070,620</b>
<b>ASSETS</b>		<b>47,511,976</b>	<b>30,406,755</b>
<b>Equity</b>			
	[20]		
Subscribed capital		16,414,348	12,725,818
Capital reserves		49,368,918	16,882,871
Retained earnings		-38,129,257	-23,439,294
Other reserves		-974,417	-718,673
		<b>26,679,592</b>	<b>5,450,723</b>
Non-controlling interests		246,114	304,471
<b>Total equity</b>		<b>26,925,706</b>	<b>5,755,194</b>
<b>Non-current liabilities</b>			
Deferred tax liabilities	[10]	1,259,353	1,442,520
Provisions for post-employment benefits for employees	[5]	1,444,614	1,014,000
Financial liabilities	[21]	6,241,193	14,251,256
Other liabilities	[22]	1,127,584	196,460
Deferred income	[23]	100,420	20,000
		<b>10,173,163</b>	<b>16,924,236</b>
<b>Current liabilities</b>			
Other provisions	[24]	868,160	289,221
Current tax liabilities		251,838	86,736
Financial liabilities	[21]	3,448,564	2,106,081
Prepayments received	[25]	210,607	281,822
Trade payables	[26]	2,861,862	3,081,895
Other liabilities	[22]	2,364,174	1,493,242
Deferred income	[23]	407,902	388,328
		<b>10,413,107</b>	<b>7,727,325</b>
<b>EQUITY AND LIABILITIES</b>		<b>47,511,976</b>	<b>30,406,755</b>

TABLE 05.2 CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME  
 FOR THE PERIOD 1 OCTOBER 2015 – 30 SEPTEMBER 2016

in €	Note	FY 2015/16 01.10.2015 – 30.09.2016	FY 2014/15 01.10.2014 – 30.09.2015
Revenue	[1]	22,789,950	21,132,363
Research and development grant revenue	[2]	2,248,575	2,786,042
Change in inventories of unfinished and finished goods and work in progress		376,661	310,828
Other income	[3]	723,609	1,465,182
		<b>26,138,794</b>	<b>25,694,415</b>
<b>Cost of materials</b>	<b>[4]</b>		
Cost of raw materials, consumables and supplies, and purchased merchandise		–9,049,789	–8,896,993
Cost of purchased services		–2,747,544	–2,398,422
		<b>–11,797,334</b>	<b>–11,295,415</b>
<b>Personnel expenses</b>	<b>[5]</b>		
Wages and salaries		–16,117,323	–9,178,069
Social security and post-employment benefit costs		–2,127,993	–1,885,113
		<b>–18,245,316</b>	<b>–11,063,182</b>
of which from employee share scheme for AnalytiCon Discovery GmbH		–1,423,332	–171,182
of which from one-off affected due to a Post IPO Framework Agreement for key persons at BRAIN AG		–3,856,820	
Depreciation and amortisation	[6]	–1,447,544	–1,468,875
Other expenses	[7]	–8,460,165	–6,439,595
of which IPO expenses		–974,120	0
<b>Operating result (EBIT)</b>		<b>–13,811,564</b>	<b>–4,572,652</b>
<b>Adjusted operating result (EBIT)</b>		<b>–7,557,292</b>	<b>–4,401,470</b>
Share of profit or loss from equity-accounted investments	[14]	168,434	0
Finance income	[8]	264,859	31,924
Finance costs	[9]	–1,048,954	–961,295
		<b>–615,661</b>	<b>–929,372</b>
<b>Pretax loss for the reporting period</b>		<b>–14,427,225</b>	<b>–5,502,023</b>
<b>Income tax expense/income</b>	<b>[10]</b>		
a) Current tax expense		–286,062	–135,276
b) Deferred tax expense		–224,911	–316,597
		–510,973	–451,873
<b>Net loss for the reporting period</b>		<b>–14,938,198</b>	<b>–5,953,896</b>
of which attributable to:			
Non-controlling interests		–248,378	–239,341
Shareholders of BRAIN AG		–14,689,820	–5,714,554
<b>Earnings per share</b>	<b>[11]</b>		
Earnings per share, basic (undiluted)		–0,97	–0,45
Number of shares taken as basis		15,129,097	12,725,818
Earnings per share, diluted		–0,97	–0,45
Number of shares taken as basis		15,129,097	12,725,818

in €	Note	FY 2015/16 01.10.2015 – 30.09.2016	FY 2014/15 01.10.2014 – 30.09.2015
<b>Net loss for the reporting period</b>		<b>-14,938,198</b>	<b>-5,953,896</b>
of which attributable to:			
Non-controlling interests		-248,378	-239,341
Shareholders of BRAIN AG		-14,689,820	-5,714,554
<b>Other comprehensive income:</b>			
<b>Items that will not be reclassified subsequently to profit or loss</b>			
Net gain or loss from remeasuring post-employment benefit obligations	[5]	-360,838	-1,014,000
Deferred tax liabilities		105,094	295,328
<b>Other comprehensive, net</b>		<b>-255,744</b>	<b>-718,673</b>
<b>Consolidated total comprehensive income (loss)</b>		<b>-15,193,942</b>	<b>-6,672,568</b>
of which attributable to:			
Non-controlling interests		-248,378	-239,341
<b>Shareholders of BRAIN AG</b>		<b>-14,945,564</b>	<b>-6,433,227</b>

TABLE 05.3 CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE 2015/16 FINANCIAL YEAR

in €	Interests of shareholders of BRAIN AG					Non-controlling interests	Total
	Subscribed capital	Capital reserves	Retained earnings	Other reserves	Total		
<b>Balance at 30 September 2014 / 1 October 2014</b>	<b>12,725,818</b>	<b>16,882,871</b>	<b>-17,609,890</b>	<b>0</b>	<b>11,998,799</b>	<b>127,663</b>	<b>12,126,462</b>
Net gain or loss from remeasuring post-employment benefit obligations, after tax	0	0	0	-718,673	-718,673	0	-718,673
Net loss for the reporting period			-5,714,554		-5,714,554	-239,341	-5,953,896
Total comprehensive income (loss)	0		-5,714,554	-718,673	-6,433,227	-239,341	-6,672,568
Disposal of non-controlling interests as part of increasing interest held in fully consolidated companies	0	0	37,143	0	37,143	-37,143	0
Addition of non-controlling interests as part of rendering contributions contributions to the capital reserves of fully consolidated Group companies	0	0	-151,992	0	-151,992	453,292	301,300
<b>Balance at 30 September 2015 / 01 October 2015</b>	<b>12,725,818</b>	<b>16,882,871</b>	<b>-23,439,294</b>	<b>-718,673</b>	<b>5,450,723</b>	<b>304,471</b>	<b>5,755,194</b>
Net gain or loss from remeasuring post-employment benefit obligations, after tax	0	0	0	-255,744	-255,744	0	-255,744
Loss for the reporting period (1.10.2015 – 30.09.2016)			-14,689,820		-14,689,820	-248,378	-14,938,198
Total comprehensive income (loss) (1.10.2015 – 30.09.2016)	0		-14,689,820	-255,744	-14,945,564	-248,378	-15,193,942
Cash capital increase through issuing new shares	188,530	0	0	0	188,530	0	188,530
Contributions to free capital reserve as part of converting shareholder loans	0	1,811,470	0	0	1,811,470	0	1,811,470
Capital increase through issuing new shares, of which							
– Increase in subscribed share capital	3,500,000	0	0	0	3,500,000	0	3,500,000
– Share premium less equity capital raising costs, after tax	0	26,717,680	0	0	26,717,680	0	26,717,680
Transfers due to employee share scheme		3,956,897			3,956,897	0	3,956,897
Addition of non-controlling interest as part of rendering contributions contributions to the capital reserves of fully consolidated Group companies	0	0	-143	0	-143	190,021	189,878
<b>Balance at 30 September 2016</b>	<b>16,414,348</b>	<b>49,368,918</b>	<b>-38,129,257</b>	<b>-974,417</b>	<b>26,679,592</b>	<b>246,114</b>	<b>26,925,707</b>

TABLE 05.4 CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE PERIOD 1 OCTOBER 2015 – 30 SEPTEMBER 2016

in €	Note	FY 2015/16 01. 10. 2015 – 30. 09. 2016	FY 2014/15 01. 10. 2014 – 30. 09. 2015
Net profit (loss) for the period, after tax		–14.938.198	–5.953.896
Depreciation and amortisation	[6]	1.447.544	1.468.875
Deferred tax expense	[10]	214.717	316.597
Conversion of deferred income into revenue		–2.201.850	–113.695
Income from release of provisions and liabilities		–72.552	–87.905
Share of profit or loss from equity-accounted investments	[14]	–168.434	0
Change in net pension provisions recognised in profit or loss		69.776	0
Other non-cash expenses/income	[19]	6.232.737	544.517
Losses on disposals of intangible assets and property, plant and equipment		2.006	4.257
<b>Gross cash flow</b>		<b>–9.414.254</b>	<b>–3.821.249</b>
Change in trade receivables		–1.773.781	–306.267
Change in inventories		–845.278	–603.186
Change in tax assets and liabilities		151.487	49.258
Change in other assets and financial assets		150.799	–805.200
Change in trade payables		–242.507	721.989
Change in prepayments		–71.214	–41.337
Change in provisions and other liabilities		1.068.663	306.646
Additions from deferred income		2.292.596	386.104
<b>Cash flows from operating activities</b>		<b>–8.683.489</b>	<b>–4.113.241</b>
Payments to acquire companies (less cash and cash equivalents acquired)		0	40.232
Payments to acquire intangible assets	[12]	–341.452	–117.395
Payments to acquire property, plant and equipment	[13]	–889.319	–474.458
Net proceeds from other non-current assets		–8.850	0
Payments to acquire financial assets	[17]	–10.000.000	0
Proceeds from disposal of property, plant and equipment		12.198	12.500
<b>Cash flows from investing activities</b>		<b>–11.227.423</b>	<b>–539.121</b>
Proceeds from borrowings	[21]	2.014.114	5.500.000
Repayments of borrowings	[21]	–7.487.539	–2.059.212
Proceeds from shareholders' cash capital increases	[20]	188.530	0
Non-controlling interests' contributions to fully consolidated Group companies' capital reserves	[20]	47.505	0
Contributions to equity less related capital raising costs	[20]	30.229.068	0
<b>Cash flows from financing activities</b>		<b>24.991.678</b>	<b>3.440.788</b>
<b>Net change in cash and cash equivalents</b>		<b>5.080.766</b>	<b>–1.211.575</b>
Cash and cash equivalents at start of financial year		3.179.951	4.391.526
<b>Cash and cash equivalents at end of financial year</b>	[19]	<b>8.260.717</b>	<b>3.179.951</b>
<b>Cash flows from operating activities include:</b>			
Interest paid		–410.073	–588.676
Interest received		9.680	9.575
Income taxes paid		–172.968	–126.957
Income taxes received		26.202	23.137

# Notes

## I. General information

### General information about the company

B·R·A·I·N Biotechnology Research and Information Network Aktiengesellschaft (also referred to below as “BRAIN AG”, “BRAIN” or the “Company”) is registered in the commercial register of the Darmstadt District Court under commercial sheet register number 24758. The registered offices of the company are located at Darmstädter Strasse 34 – 36 in 64673 Zwingenberg, Germany.

BRAIN AG is a technology company active in the field of industrial (“white”) biotechnology. As a partner for manufacturers in a range of sectors, including the chemical and consumer goods industries, it develops “biologicals”, in particular enzymes, biocatalysts and bioactive natural substances. The company has a comprehensive research and development infrastructure at the location of BRAIN AG in Zwingenberg and at the location of the subsidiary AnalytiCon Discovery GmbH in Potsdam, the latter with a focus on natural products chemistry.

Together with strategic partners from the target industry, the BRAIN Group (also referred to below as “BRAIN”) in its BioScience operating segment identifies – including on the basis of exclusive licence agreements in R&D cooperation programs, for example – hitherto untapped, high-performing enzymes, microbial producer organisms or natural materials derived from complex biological systems, to transform them into industrially usable applications. The targets are to replace conventional chemical-industrial processes with innovative, resource-conserving processes, as well as to establish new processes and products. BRAIN’s BioIndustrial segment mainly comprises its industrially scaled product business focusing on cosmetic and enzyme products.

### General basis of financial accounting

BRAIN AG has been listed on the stock market since 9 February 2016 and has consequently had a capital market orientation at the latest from this date. When preparing the consolidated financial statements, the regulations of Section 315a (1) of the German Commercial Code (HGB) are applicable as a consequence. The consolidated financial statements prepared by the parent company BRAIN AG for the year ended 30 September 2016 (the “consolidated financial statements” or “financial statements”) were prepared in accordance with International Financial Reporting Standards (IFRSs) as applicable in the European Union. The financial statements of BRAIN AG are included in the consolidated financial statements of MP Beteiligungs-GmbH, Kaiserslautern, by way of equity accounting. The consolidated financial statements of MP Beteiligungs-GmbH published in the German Federal Gazette (Bundesanzeiger).

The reporting period comprises the period from 1 October 2015 to 30 September 2016. This period corresponds to the financial year of BRAIN AG. For historical reasons, the separate financial statements of WeissBioTech GmbH, WeissBioTech S.A.R.L. and of AnalytiCon Discovery LLC are prepared on the basis of a calendar year-end reporting date. The consolidated business figures for the 2014/15 and 2015/16 financial years can be compared to only a limited extent, due to the first-time inclusion of BRAIN Capital GmbH from its founding on 5 February 2015, and of WeissBioTech GmbH and WeissBioTech France S.A.R.L. from 1 November 2014.

The consolidated financial statements are prepared in euros (€). The amounts in the disclosures in the notes to the consolidated financial statements are presented in euros (€), unless stated otherwise. Rounding differences can arise due to commercial rounding.

As the result of a resolution dated 13 January 2017, this set of consolidated financial statements of BRAIN AG was approved by the Management Board for forwarding to the Supervisory Board. The review and approval by the Supervisory Board is to occur as of 15 January 2017.

### **New accounting regulations applied**

The following amendments to existing International Financial Reporting Standards, as well as new IFRS and interpretations were applied for the first time in the 2015/16 financial year:

**Amendments to IAS 19: Employee Benefits: Employee Contributions:** The regulation serves to clarify the allocation of employee contributions or contributions from third parties that are connected with the period of service, and creates a relief if the amount of contributions does not depend on the number of years worked.

**Various Annual Improvements to IFRS:** Annual improvements to IFRS 2010 – 2012 Cycle and 2011 – 2013 Cycle

These amended accounting methods have no significant effects on the presentation of financial position and performance, earnings per share or disclosures in the notes to the consolidated financial statements.

Reliefs arising from transition regulations were not utilised.

### **Accounting regulations published but not yet applied**

The following accounting regulations that have been published and are potentially relevant, but which do not yet require mandatory application, have not been applied early on a voluntary basis:

**Updated version of IFRS 9, "Financial Instruments"** *(To be applied to financial years commencing on or after 1 January 2018. First-time application is to occur retrospectively, as a matter of principle. Various simplification options are granted nevertheless. Early, voluntary application of the regulations is permitted.)*

IFRS 9 concerns the clarification, recognition and measurement of financial assets and financial liabilities. The complete version of IFRS 9 was published in July 2014, and replaces the regulations of IAS 39 "Financial Instruments: Recognition and Measurement", which concerns the classification and measurement of financial instruments. IFRS 9 retains the mixed measurement model with simplifications, and creates three measurement categories for financial assets: amortised cost, at fair value directly to equity, and at fair value through profit or loss. The categorisation is based on the company's business model and the characteristics of the contractual cash flows of the financial asset. Investments in equity instruments must always be measured at fair value through profit or loss, as a matter of principle. Here, the irrevocable option to report fair value changes in other comprehensive income exists solely at the start. A new impair-

ment model based on expected losses that replaces the IAS 39 model based on occurred losses also exists now. The categorisation and measurement of financial liabilities has not changed in general. The only exception relates to liabilities designated as at fair value through profit or loss, for which changes to the reporting entity's own credit risk are to be recognised in other comprehensive income. IFRS 9 simplifies the regulations to measure hedge effectiveness, generally dispensing with the quantitative effectiveness test. An economic connection between the hedged underlying transaction and the hedging instrument is required. The hedge relationship must also correspond to the hedge relationship that management actually utilises for risk management purposes. Contemporaneous documentation remains necessary, although it differs from the documentation prepared currently according to IAS 39. The Management Board of BRAIN has not yet specified further when the detailed analysis will start. Due to the highly complex nature of some contracts, no statement can be made concerning the potential effects on the financial position and performance.

**IFRS 15 – “Revenue from Contracts with Customers”** *(To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.)*

The new regulations and definitions relating to revenue recognition replace the contents of both IAS 18, Revenue, and IAS 11, Construction Contracts, as well as related interpretations. Pursuant to IFRS 15, revenue is to be recognised if the customer attains control over the agreed goods and services, and can draw benefits from them. Revenue is to be measured at the amount of consideration that the company expects to receive. The new standard includes a five-step scheme to calculate revenue to be recognised:

- Step 1: Identify the contract(s) with the customer
- Step 2: Identify the separate performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the individual performance obligations
- Step 5: Recognise revenue at the level of the allocated proportional transaction price as soon as the agreed performance is rendered, or the customer has achieved control of the goods or services.

The new IFRS 15 also includes numerous disclosure requirements relating to the type, level, occurrence and uncertainty of revenue, as well as cash flows arising from contracts with customers.

BRAIN AG does not plan to apply IFRS 15 early. No analysis of effects has yet been performed as BRAIN's financial year differs from the calendar year. An analysis of the effect is planned for the first quarter of the 2017 calendar year. No indications of potential effects are as yet available as of 30 September 2016 due to the high complexity of cooperation agreements in the BioScience segment. After initial appraisals, the analysis will focus mainly on steps 2 and 4, as here the degree of complexity will be the greatest. Nor has any analysis yet been conducted in the BioIndustrial segment. No significant modifications are anticipated, however, due to a focus on business connected with the supply principle.

#### **IFRS 16 – “Leases”**

On 13 January 2016, the International Accounting Standards Board (IASB) published its new accounting standard on lease accounting (IFRS 16 “Leases”). According to this standard,



all leases and accompanying contractual rights and obligations are to be recognised on the lessee's balance sheet. For leases with a term of up to one year and leases with low value and/or subordinate significance for business operations (low-value leases), an option exists to apply the recognition and reporting regulations of IFRS.

For all leases, the lessee recognises a lease liability on its balance sheet for the obligation to render lease payments in the future. At the same time, the lessee capitalises a right-of-use to the underlying asset corresponding, as a matter of principle, to the present value of the future lease payments, less directly attributable costs. During the term of the lease agreement, the lease liability is carried forward applying a financial mathematical method similar to IAS 17 regulations (Leases) for financing leases, while the right-of-use is amortised, which generally leads to higher expenses at the start of a lease term.

The new regulations are mainly to be applied to the contract portfolio, whereby with some reliefs the reconciliation is to be transferred either fully retrospectively, or as a cumulative effect within equity at the start of the financial year of first-time application, without restating the previous year's figures.

IFRS 16 also includes a number of further regulations on reporting and in relation to disclosures to be made in the notes to the financial statements, as well as on sale-and-leaseback transactions.

The new regulations must be applied for financial years commencing on or after 1 January 2019. Earlier application is permitted if IFRS 15 (Revenue from Contracts with Customers) is also applied.

The BRAIN Group does not plan to apply IFRS 16 early. Analogously to IFRS 15, an analysis of specific effects is also planned for the first quarter of the 2017 calendar year. Irrespective of any still outstanding detailed analysis, however, initial estimates can already be made. Applying the standard will tend to mainly affect the accounting treatment of rented buildings and machinery, as other lease contracts are of minor importance.

Applying IFRS 16 will consequently change the accounting treatment of existing and future operating leases compared with currently valid standards. The capitalisation of rights-of-use to assets and recognition of operating lease liabilities as liabilities will lead to an increase in total assets and total liabilities overall, presumably to a level in a low single-digit amount in millions of euros. Including taking depreciation into account, application will also exert a positive effect on the operating result (EBIT), as lease payments are no longer recognised as other expenses. In the net financial result, the contracts' financing components are recognised as finance expenses, with this item worsening correspondingly.

**IFRS 11 "Accounting for Acquisitions of Interests in Joint Operations" –**

*(To be applied to financial years commencing on or after 1 January 2016.)*

**IAS 16/IAS 38 "Clarification of Methods of Depreciation and Amortisation" –**

*(Applicable to financial years commencing on or after 1 January 2016.)*

**IFRS 10/IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture" –** *(The application date has been postponed to an indefinite date.)*

**Annual improvements to IFRS 2012 – 2014 –** *(To be applied to financial years commencing on 1 January 2016 or subsequently.)*

The Disclosure Initiative, which consists of a number of implementation and research projects, is particularly expected to result in a reduction in the scope of the notes to the consolidated financial statements.

The effects of the further aforementioned new accounting regulations that are not yet applied are currently being investigated. We do not presently expect these to generate significant effects, however. All accounting regulations that are not mentioned and not yet applied are not relevant to the consolidated financial statements of BRAIN AG.

**Presentation of the financial statements**

The income statement is expanded to include other comprehensive income items recognised in equity, to the extent that they do not derive from transactions with owners. The income statement is structured according to the nature of expense method. Since the 2015/16 financial year, the Management Board has defined so-called “adjustments” to EBIT in relation to certain matters, and presents such adjustments as additional information in the statement of comprehensive income. For the previous year, the adjustment effects were supplemented accordingly. For definitions, please refer to the information provided on segment reporting.

In the statement of comprehensive income and in the presentation of the statement of financial position (balance sheet), individual items are aggregated to provide better overview, and listed and explained in detail in the notes to the financial statements.

**II. Basis of the consolidated financial statements**

**Consolidation methods**

Business combinations are accounted for applying the acquisition method, under which the carrying amount of the investments is eliminated against the parent’s share of the equity of the subsidiaries at the acquisition date. The acquisition date is the date on which the acquirer obtains control of the acquiree.

The consideration transferred for an acquisition is calculated at the acquisition-date fair value of the assets acquired, equity instruments issued, and liabilities incurred or assumed. It also includes the fair values of those recognised assets or liabilities resulting from a contingent consideration arrangement.

Any contingent considerations are measured at fair value at the acquisition date. Subsequent changes in the fair value of contingent consideration classified as an asset or a liability are measured in accordance with IAS 39, with any resulting gain or loss recognised either in profit or loss or in other comprehensive income. Contingent consideration classified as equity is not remeasured and its subsequent settlement is recognised in equity.

Identifiable assets and liabilities as well as deferred taxes are recognised at fair value. For each corporate acquisition, the Group decides on an individual basis whether non-controlling interests in the acquired company are to be recognised at fair value, or on the basis of the proportional interest in the acquiree’s net assets.

Acquisition-related costs are expensed when they are incurred. Goodwill is recognised as the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the acquisition-date fair value of any previously held equity interest in the acquiree, over the fair value of the net assets. If the consideration transferred is less than the fair value of the net assets of the acquired subsidiary, the resultant difference is recognised directly in profit or loss.

On the basis of written put options, shareholders have the right to tender non-controlling interests to BRAIN AG, in other words, BRAIN AG has a contractual obligation upon exercise of own equity instruments to purchase with delivery of cash. In this case, a financial liability according to IAS 32.23 is to be recognised. BRAIN applies the anticipated acquisition method for such cases. Subsequently, accounting occurs always and independently of the specific structure of the options assuming that a (constructive) acquisition of the non-controlling interest by the controlling shareholder has already occurred. No non-controlling interests are reported for shares included in the option. The liability is recognised at fair value and its changes are recognised through profit or loss.

Transactions with non-controlling interests without loss of control are recognised as transactions with the Group's owners acting in their capacity as owners. The difference between the fair value of the performance paid and the acquired interest in the carrying amount of the subsidiary's net assets arising from the acquisition of a non-controlling interest is recognised in equity. Gains and losses arising from the disposal of non-controlling interests are also recognised in equity.

Intragroup profits and losses, revenues, income and expenses, as well as receivables and payables between companies included in the scope of consolidation are eliminated. The income tax effects of consolidation entries are reflected through recognising deferred taxes.

### **Consolidation scope**

All subsidiaries are included in the consolidated financial statements of BRAIN AG. Subsidiaries are companies that BRAIN controls. The Group controls an investee when it has the power of disposal over the company, a risk exposure exists through, or rights to variable returns exist from, its arrangement in the investee, and the Group has the ability to use its power of disposal over the investee in a manner such that the amount of the variable returns of the investee is affected. The consolidation of an investee commences on the date on which the Group obtains control of the company. It ends when the Group loses control of the investee.

In addition to BRAIN AG, the following subsidiaries were included in the consolidated financial statements for the period ended 30 September 2016, unchanged compared with the previous year:

Name and domicile of the company	Share of voting rights
AnalytiCon Discovery GmbH, Potsdam, Germany	58.7 % <sup>1</sup>
AnalytiCon Discovery LLC, Rockville MD, USA	58.7 % <sup>1</sup>
BRAIN Capital GmbH, Zwingenberg, Germany	100.0 %
Monteil Cosmetics International GmbH, Düsseldorf, Germany	68.3 %
L.A. Schmitt Chem. Kosm. Fabrik GmbH, Ludwigsstadt, Germany	100.0 %
MEKON Science Networks GmbH, Eschborn, Germany	100.0 %
WeissBioTech GmbH, Ascheberg, Germany	50.6 % <sup>2</sup>
WeissBioTech France S.A.R.L., Chanteloup-en-Brie, France	50.6 % <sup>2</sup>

### Equity-accounted investments

Equity-accounted investments are associates over whose financial and business policy decisions BRAIN AG can exercise significant influence. Significant influence is presumed to exist if BRAIN AG directly or indirectly holds a minimum of 20 % and a maximum of 50 % of the voting rights.

Enzymicals AG, Greifswald, was included as an equity-accounted investment in the consolidated financial statements for the period ended 30 September 2016. This company's calendar year-end reporting date differs from the reporting date of BRAIN AG. A 24.095 % share of the voting rights (previous year: 24.095 %) is attributable to BRAIN AG.

Under the equity method, the investment is initially recognised at cost as adjusted subsequently to reflect post-acquisition changes in the proportionate interest of BRAIN AG in the investee's net assets. Any share of the investee's losses that exceeds the carrying amount of the investment, where appropriate including any other long-term interests that form part of the net investment in the investee, is not recognised unless a legal or constructive payment obligation exists. Any goodwill recognised is reported in the carrying amount of the associate. Unrealised intercompany profits or losses resulting from transactions between BRAIN AG and the associate are eliminated proportionately in the same way as consolidation adjustments, if they are material.

If objective evidence of impairment exists, the carrying amount of the equity-accounted investment is compared with its recoverable amount in the course of the impairment test. If the carrying amount exceeds the recoverable amount, an impairment loss is recognised in the amount of the difference. If the reasons for an impairment loss recognised in previous periods no longer apply, the impairment loss is reversed through profit or loss.

<sup>1</sup> The remaining shares are to be classified as debt capital due to the non-controlling interests' existing termination rights.

<sup>2</sup> Included by way of full consolidation applying the anticipated purchase method.

### III. Accounting policies

#### Basis for the preparation of the financial statements

The consolidated financial statements have been prepared on the assumption that the company constitutes a going concern on the basis of historical purchase and manufacturing costs, limited by the valuation at fair value through profit or loss of financial assets and financial liabilities.

Where indications exist of potential value impairment (so-called triggering events), a corresponding review is performed on the basis of the recoverable amount. As part of such impairment tests, fair values are also taken into consideration to calculate the lower value limit for individual assets. Valuation surveys for land and buildings can also be applied in this context, among other information. If the carrying amount exceeds the recoverable amount, impairment losses are applied to the assets to write them down to their recoverable amount.

The consolidated financial statements have been prepared on the assumption that the company constitutes a going concern. The Group management report provides more detailed remarks about this assumption.

#### Use of assumptions and estimates

In the financial statements, estimates and assumptions have to be made to a certain extent that affect the level and reporting of assets and liabilities, expenses and income, and contingent liabilities. All estimates and assumptions are continuously reassessed and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the given circumstances.

Assumptions and estimates relate in particular to:

- evaluating the capitalisation of development expenditures;
- recognising deferred tax assets in respect of temporary differences and tax loss carryforwards; their recognition is based on the assumption that sufficient future taxable profit will exist against which the deferred tax assets can be offset;
- measuring the useful life of intangible assets and items of property, plant, and equipment;
- measuring the success of contingent premium payments connected with milestones and project success points. Measuring such performance includes not only coordination discussions with respective cooperation/project partners but also regular updates and evaluations of the degree of completion;
- the recoverability of recognised goodwill;
- measuring and subsequent measuring of the amount of contingent purchase price obligations in a business combination;
- measuring liabilities arising from put options that have been written, applying the anticipated acquisition method;
- assessing the recoverability of the carrying amount of associates;
- assessing the future actuarial assumptions of the pension commitments (discount rate and employee turnover rate);
- measuring partly utilised inventories;
- measuring share-based payment schemes and the necessity to simulate future price trends.

The key assumptions and inputs for the estimates made by management are explained in the disclosures on the respective line items. The resulting amounts may differ from the actual amounts.

### Segment reporting

<sup>3</sup> Research and development grant revenue

<sup>4</sup> Changes in inventories of finished goods and work in progress

<sup>5</sup> The Management Board has defined adjustments since the 2015/16 financial year. For more information on this topic, please refer to the description in the section entitled "Presentation of the financial statements".

The Management Board, as the chief operating decision maker, assesses opportunities and risks, and allocates the operating segments' resources. The segmentation as well as the selection of the indicators presented is realised in accordance with the internal control and reporting systems (the "management approach"). The segment information is prepared applying the same accounting standards as described in the notes to the consolidated financial statements.

€ thousand	BioScience		BioIndustrial	
	15/16	14/15	15/16	14/15
Revenue with other segments	18	35	12	21
Revenue with external customers	9,778	8,719	13,012	12,414
Total revenue	9,795	8,754	13,024	12,435
R&D grant revenue <sup>3</sup> (external business partners)	2,212	2,742	36	44
Changes in inventories <sup>4</sup>	114	-29	263	339
Other income	272	844	546	714
<b>Total operating performance</b>	<b>12,394</b>	<b>12,311</b>	<b>13,869</b>	<b>13,533</b>
Cost of materials	-3,710	-3,596	-8,212	-7,849
Personnel expenses	-15,676	-8,713	-2,569	-2,350
of which from employee share scheme for AnalytiCon Discovery GmbH	-1,423	-171	0	0
of which from a Post IPO Frame- work Agreement for key person- nel of BRAIN AG	-3,857	0	0	0
Depreciation and amortisation	-940	-937	-508	-532
Other expenses	-5,593	-3,263	-2,980	-3,177
of which IPO expenses	-974	0	0	0
<b>Operating result (EBIT)</b>	<b>-13,526</b>	<b>-4,198</b>	<b>-398</b>	<b>-375</b>
<b>Adjusted EBIT<sup>5</sup></b>	<b>-7,271</b>	<b>-4,027</b>	<b>-398</b>	<b>-375</b>
Finance income				
Result from equity-accounted investments				
Finance costs				
of which Impairment AfS securities				
of which Other finance costs				
<b>Result before taxes</b>				

BRAIN's business activities are demarcated according to the operating segments BioScience and BioIndustrial. Segmentation is according to the criterion of the existence of an industrial scale of products. At Management Board level, the operating segments' business performance is measured on the basis of total operating performance (defined as the sum of revenue, other income and changes in inventories of finished goods and work in progress), and segment profitability is measured based on the adjusted operating result (adjusted EBIT<sup>6</sup>). Revenue and cost structures are regularly reviewed on a consolidated basis at the level of the research and development companies (BioScience) on the one hand, and the industrial business (BioIndustrial) on the other. The Management Board performs and approves planning at this level. Both areas have a different strategic orientation and require different marketing and business development strategies.

<sup>6</sup> The Management Board has defined adjustments since the 2015/16 financial year. For more information on this topic, please refer to the description in the section entitled "Presentation of the financial statements".

Sum segments		Consolidation		Group	
15/16	14/15	15/16	14/15	15/16	14/15
30	56	-30	-56	0	0
22,790	21,133	0	0	22,790	21,132
22,820	21,189	-30	-56	22,790	21,133
2,249	2,786	0	0	2,249	2,786
377	310	0	0	377	311
818	1,558	-95	-94	724	1,465
<b>26,263</b>	<b>25,844</b>	<b>-124</b>	<b>-150</b>	<b>26,139</b>	<b>25,694</b>
-11,922	-11,445	124	150	-11,797	-11,295
-18,245	-11,063	0	0	-18,245	-11,063
-1,423	-171	0	0	-1,423	-171
-3,857	0	0	0	-3,857	0
-1,448	-1,469	0	0	-1,448	-1,469
-8,573	-6,440	112	0	-8,460	-6,440
-974	0	0	0	-974	0
<b>-13,924</b>	<b>-4,573</b>	<b>112</b>	<b>0</b>	<b>-13,812</b>	<b>-4,573</b>
<b>-7,670</b>	<b>-4,402</b>	<b>112</b>	<b>0</b>	<b>-7,557</b>	<b>-4,402</b>
				265	32
				168	0
				-1,049	-961
				0	-159
				-1,049	-802
				<b>-14,427</b>	<b>-5,502</b>

The BioScience segment includes mainly the research and development business with industrial partners, and the company's own research and development. The marketing of the company's own products and developments with external partners also forms part of this operating segment.

The BioIndustrial segment mainly comprises its industrially scaled product business focusing on cosmetic and enzyme products.

Adjustments are generally allocated to the segments based on a percentage key, unless the Management Board regards an asymmetric allocation to the segments as more appropriate in the given circumstances. The expenses defined as adjustments in the current and previous financial year were incurred by BRAIN and its owners (expenses from the IPO and from a Post-IPO Framework Agreement), as well as AnalytiCon (expenses from an employee share program). These expenses were allocated exclusively to the BioScience segment as a consequence.

Sales revenues generated between the segments are realised on standard market terms. Total operating performance generated with external customers is reported to the Management Board on the basis of figures as applied in the income statement.

Based on monitoring and control by the Management Board, only two segments have been identified, for which further aggregation is not possible due to their differing product and service orientation.

The overview on the previous pages 188/189 presents the segment results.

Revenue derived from the following revenue sources:

€ thousand	2015/16	2014/15
Collaborative Business <sup>7</sup>	9,778	8,719
<b>BioScience</b>	<b>9,778</b>	<b>8,719</b>
Enzymes & Bio-based Products	8,530	7,476
Cosmetics	4,482	4,937
<b>BioIndustrial</b>	<b>13,012</b>	<b>12,414</b>
Group total	22,790	21,132

The following table presents revenue by geographic region:

€ thousand	2015/16	2014/15
Germany	7,245	8,682
Abroad	15,545	12,451
of which USA	2,948	4,021
of which France	5,154	3,526

Revenues are allocated to countries according to the destination of the products or services. Revenues in other countries were not material in comparison to total revenues and therefore these revenues are not shown separately.

<sup>7</sup> Also includes rendering of services and product deliveries in the meaning of IAS 18.



The following table shows intangible assets and property, plant equipment by geographic region, according to the respective Group companies' locations. If assets in an individual foreign country are material, they are disclosed separately.<sup>8</sup>

€ thousand	30.09.2016	30.09.2015
Intangible assets	7,747	8,035
Property, plant, and equipment	7,095	6,878
Total	14,842	14,913
of which France	200	252
of which USA	14	16
of which Germany	14,628	14,645

No relationships exist with individual customers whose revenue is to be categorised as significant in comparison with consolidated revenue.

### Currency translation

Cash and cash equivalents, and receivables and liabilities, which are denominated in foreign currencies are translated at the closing rate. Currency translation differences are recognised in profit or loss. No material amounts denominated in foreign currencies exist. Transactions denominated in foreign currencies are reported applying the currency rate on the date of the respective transaction. The risk assessment of currency exchange rate differences that are recognised through profit or loss occurs on a net basis. The net results from translation differences are insignificant in total.

The euro is the functional currency of all foreign activities in the Group. Currency effects from translating items in the financial statements of foreign subsidiaries included within the Group into the euro reporting currency do not arise in this context.

### Revenue recognition

BRAIN recognises revenue if the amount of revenue can be measured reliably, if it is sufficiently likely that the Group will derive economic benefits, and if specific criteria for each type of activity of the Group are fulfilled.

#### Sale of goods / products

Revenues from product sales are recognised when the significant risks and opportunities have transferred to the customer. The place of performance can be defined, inter alia, both at the factory and at the customer.

#### Rendering of services

The revenues arise mainly from research and development partnerships and are generated predominantly in the BioScience segment. Related one-off payments (mostly to be rendered by customers when agreements are concluded) are deferred on the date they are received, with revenue being realised subsequently over the period of the agreed research and development programs. R & D revenues are also recognised in the period in which the underlying services are

<sup>8</sup> The presentation was adapted to provide better overview and clarity.

rendered. This generally occurs according to the degree of completion of the transaction. For the purposes of simplification, however, the Group applies straight-line recognition of revenue according to IAS 18.25, as the actual rendering of work occurs approximately evenly over the contractual duration. Performance-based payments for reaching contractually agreed results, so-called milestones or project success points, are regarded as contingent premium payments. Such premium payments are recognised when, and only when, the success of the respective milestone is sufficiently probable, taking into account the respective degree of progress and experience gained from comparable projects. To gauge performance, the Group makes recourse to reliable information from comparable transactions, among other data. The risk that the customer fails to attain the targeted milestone within its own performance chain is also taken into adequate account in the observation. Cooperation agreements also include payments for customers drawing options on product and development candidates. The payment components for such option rights are not recognised as revenue until customers actually exercise the option.

#### **Royalties**

Revenues from royalties (licence agreements) are recognised in the period in which they accrue according to the commercial content of the underlying contract.

#### **Research and development grant revenue**

Research and development (R&D) grant revenue is recognised in the period in which the underlying expenditures are incurred.

#### **Intangible assets**

Purchased intangible assets are recognised at cost and amortised straight-line over their economic useful life. Cost comprises directly attributable costs. The useful lives and depreciation methods are reviewed each year and modified if necessary. The useful lives applied by the Group are as follows:

	Useful life in years
Genetic resources	2 – 8
Software and industrial property rights	2 – 15
Acquired customer relationships	1 – 8
Acquired technology	10

As part of the annual review of useful lives, a two-year longer economic useful life arose for technology acquired as part acquiring the WeissBioTech Group. The useful life thereby increased to 10 years (previous year: 8 years). This results in € 37 thousand lower amortisation per year from the 2015/16 financial year.

## Research and development

Research costs are recognised as expenses in the period in which they are incurred. In accordance with IAS 38.53 and IAS 38.57, development expenditures are capitalised if the following criteria are met:

- It is technically feasible for the entity to complete the intangible asset so that it will be available for use or sale.
- The entity intends to complete the intangible asset and use or sell it.
- The entity is able to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits. Inter alia, the entity can demonstrate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the intangible asset's utility.
- The availability of adequate technical, financial and other resources to complete development and use or sell the intangible asset.
- The entity is able to measure reliably the expenditure attributable to the intangible asset during its development.

Not all of these criteria were met in the financial year, so that all expenditure connected with research and development activities was recognised as expenses as incurred. This is especially applicable as – for all of the Group's product and process development – research and development runs alternately, and a demarcation in the research and development phase is consequently not possible.

## Property, plant, and equipment

Items of property, plant, and equipment are measured at cost and reduced by depreciation to reflect any wear and tear. The straight-line method of depreciation is used.

The depreciation period is based on the expected useful economic life of the asset. Impairment losses are recognised if no further economic benefits are expected from the continued use or sale of the asset. Gains or losses on the disposal of items of property, plant, and equipment are calculated by comparing the net disposal proceeds with the asset's carrying amount, and recognised in profit or loss in the period in which the asset is derecognised.

Depreciation charges are based largely on the following useful lives:

	Useful life in years
Buildings and outdoor facilities	10 – 50
Vehicle fleet	3 – 6
Laboratory equipment, operating and office equipment	3 – 15

In the case of assets that are manufactured or otherwise made ready for their intended use or sale over a protracted period of time (“qualifying assets”), borrowing costs are capitalised if they can be attributed directly. No qualifying assets existed in either the reporting period or the prior-year period.

### **Impairment tests**

Goodwill and other intangible assets with an indefinite or indeterminable useful life are tested at least once a year for impairment. Intangible assets and items of property, plant, and equipment with finite or indeterminable useful lives are only tested for impairment if indications exist that the asset has become impaired. An impairment loss is recognised in profit or loss in the consolidated statement of comprehensive income if the asset’s recoverable amount, in other words, the higher of its fair value less costs of disposal and its value in use, is less than its carrying amount. Recoverable amount is generally determined individually for each asset. If this is not possible, it is determined on the basis of a group of assets that represents a cash-generating unit (CGU). An assessment is made at least once a year whether any indication exists that the reason for an impairment loss recognised in prior periods no longer applies or the amount of the impairment has decreased. If this is the case, the asset’s recoverable amount is remeasured and the impairment loss is reversed accordingly (except in the case of goodwill).

Significant goodwill existed at the following cash-generating units (CGUs) on the reporting date:

Cash-generating unit	30.09.2016		30.09.2015	
	Goodwill in € thousand	Pretax cost of capital (WACC) <sup>9</sup>	Goodwill in € thousand	Pretax cost of capital (WACC) <sup>9</sup>
Monteil cosmetic products	2,108	8.85 %	2,108	8.46 %
Natural products chemistry	699	12.20 %	699	8.77 %

The cash-generating unit “Monteil Cosmetic Products” comprises the goodwill from the acquisition of Monteil Cosmetics International GmbH, and is attributable to the BioIndustrial segment. The cash-generating unit “Natural Products Chemistry” comprises the goodwill from the acquisition of AnalytiCon Discovery GmbH and its subsidiary AnalytiCon Discovery LLC, and is attributable to the BioScience segment.

The starting point for estimating the recoverable amount of the relevant cash-generating unit for the impairment test as of 30 September 2016 is its value in use, calculated as the present value of the future net cash flows expected to be generated from the CGU. The estimate is based on the current planning of the company concerned for a detailed planning period of five years. Where an extension of the planning horizon is required, it is included in the measurement. The last planning year is generally also applied for cash flows beyond the planning period and modified taking into account further assumptions for the perpetual return. This planning was based on the past experience of the acquiree and on management’s best estimate of future developments.

<sup>9</sup> Weighted average total cost of capital rate before tax

Past data and expected market performance are utilised to calculate values-in-use for the cash-generating units. The values allocated to the significant assumptions generally accord with external information sources in this context.

In the case of "Monteil Cosmetics Products", the management forecasts a revenue trend clearly in excess of expectations for the sector. This is based on the assessment that the natural cosmetics market segment and a market share that is still low will enable above-average growth. Above and beyond this, the management forecasts significant margin improvements from economies of scale, and anticipated lower discounts on prices as the brand becomes increasingly known.

Including due to the positive market feedback, the "Natural Products Chemistry" unit in its planning assumes sales revenue growth trends lying above the sector rate, and an above-average increase in the operating margins (EBIT) on average over the coming years due to economies of scale. The change in borrowing costs at this CGU arises mainly from an adjustment to the underlying peer group and financing structure. If these basic assumptions had already been applied in the previous year, there would have also been no need for an impairment loss to be applied in the previous year.

Net cash flows beyond the detailed planning phase are modelled on a terminal growth rate that reflects growth rates derived from current market information (financial year under review and previous year: 1.00 %).

The cash generating unit's capital costs are calculated as the weighted average of its equity and debt costs. The capital structure, and equity and debt costs, are based on peer companies from the same sector, and derive from available capital market information.

As part of the sensitivity analysis that was conducted, a 0.25 percentage point increase in the capital cost rate and a 1 percentage point deterioration in the EBITDA margin in the perpetual return were assumed, as a change of this scope is reasonable to assume, especially from a longer term perspective. Based on these assumptions, no indications existed of potential impairment of the aforementioned goodwill.

Goodwill also still includes minor goodwill from the acquisition of the WeissBioTech Group (WeissBioTech GmbH and WeissBioTech France S.A.R.L.) in an amount of € 11 thousand.

## **Inventories**

Raw materials, consumables, and supplies, as well as unfinished goods and services, are measured at cost. In this context, essentially the weighted average cost method is applied at the lower of cost or market value. In addition to direct costs, production costs include appropriate portions of materials and production overheads. Borrowing costs are not capitalised. Write-downs to the lower net realisable value are applied if required.

Estimates are required when calculating volumes of inventories that have been opened or started to be processed, such as opened chemical containers. As specifically calculating fill levels in such cases would not be economically feasible, it is generally assumed when taking stock of open containers that such containers are half full.

## **Financial instruments**

Financial instruments are allocated to four categories on initial recognition:

- Assets measured at fair value through profit or loss
- Loans and receivables
- Held-to-maturity investments
- Available-for-sale financial assets.

Financial liabilities are classified as financial liabilities measured at fair value through profit or loss or as other financial liabilities.

BRAIN AG holds financial instruments only in the categories “assets measured at fair value through profit or loss” (AVTPL), “loans and receivables” (LaR), “available-for-sale financial assets” (AFS), “financial liabilities at fair value” (FVTPL) and “other financial liabilities” (OL).

Financial assets and liabilities are generally recognised at the time when BRAIN becomes a party to the contract. Initial recognition is at fair value. With the exception of financial assets and liabilities measured at fair value through profit or loss, directly attributable transaction costs are included in the carrying amount on initial recognition. Purchases and sales of financial assets are recognised on the settlement date.

Financial assets are derecognised if the rights to payments from the financial asset have expired or transferred, and the Group has substantially transferred all of the risks and opportunities connected with ownership of the assets. A financial liability is derecognised if the underlying obligation is settled or extinguished.

Loans and receivables (LaR) originated by BRAIN as well as other financial liabilities (OL) are measured at amortised cost applying the effective interest method. These relate in particular to trade receivables and trade payables, other receivables and assets, cash and cash equivalents, liabilities from silent partnerships, loan liabilities and other liabilities.

In the case of financial liabilities recognised at fair value through profit or loss (LVTPL) that derive from the acquisition of the WBT Group, BRAIN AG examines on each reporting date whether, on the basis of current expectations, it is reasonable to continue to anticipate the event probabilities and borrowing rates that were expected on their initial recognition. As far as value adjustments should be made, these are recognised in the income statement as financial income or financial expenses.

Financial assets and liabilities are only offset if a right exists to offset the recognised amounts and the entity intends to settle on a net basis.

At the end of each reporting period, the company assesses the carrying amounts of financial assets that are not measured at fair value through profit or loss to establish whether indications of substantial impairment exist. Objective evidence that an asset is impaired includes: evidence of significant financial difficulty on the part of a major customer or a group of customers, default or delinquency in interest or principal payments, the probability of insolvency or some other financial reorganisation, and observable data indicating that a measurable decrease has occurred in the estimated future cash flows, such as adverse changes in the payment status of the borrower or economic conditions that correlate with defaults.

### **Receivables / other assets**

Trade receivables and other assets are generally measured at their principal amounts. Specific valuation allowances are recognised and recorded in a separate allowance account to reflect risks and impairments.

Receivables from attaining milestones and project success points are recognised if the success of the milestone is sufficiently probable given the respective degree of progress and experience with comparable projects.

Factored receivables are treated according to the general regulations on derecognition of financial assets and, depending upon the assessment of the transfer of the risks and opportunities, are recorded as a disposal, or remain on the Group balance sheet.

### **Government grants**

Monetary grants and other support payments for research and development projects are reported separately in the statement of comprehensive income as “research and development grant revenue”.

According to IAS 20 these government grants are only recognised at fair value if satisfactory confidence exists that the grant conditions are met and that the grants will be paid. Grants are recognised in profit and loss in the reporting period during which the costs related to the respective grants were incurred. Receivables from grants that have not yet been settled are reported as trade receivables, as the underlying research and development activities form a significant element of the range of work and service of the BRAIN Group.

Investment subsidies and grants for assets are not deducted from the costs of acquiring the respective assets, but are instead recognised as deferred income. Such deferred income is recognised as income in line with the depreciation or amortisation of the corresponding assets and is reported in the statement of comprehensive income under other income.

### **Equity**

To classify financial instruments that are not to be satisfied in BRAIN equity instruments as either equity or debt capital, it is crucial to assess whether a payment obligation exists for BRAIN. A financial liability always exists if BRAIN is not entitled to avoid rendering liquid assets or realising an exchange in the form of other financial assets in order to settle the obligation.

Interests in subsidiaries are classified as debt if non-controlling interests hold contractual termination rights. In this case, the results allocation for the non-controlling interests is taken into consideration for the subsequent measurement of the financial liabilities, and consequently reported under the net financial result.

Costs directly attributable to the issuance of new shares are shown in equity as a deduction from the income received from the issue, net of tax. If a reporting date occurs between the date the costs are incurred and the actual performance of the equity transaction, in other words, an inflow of issue proceeds, the deductible transaction costs accruing in the reporting period are initially recognised under assets as prepaid items, and are not offset against equity (capital reserves) until the capital increase is recognised on the balance sheet.

## **Provisions**

Provisions are recognised for all identifiable present obligations to third parties arising from past events, the settlement of which is expected to result in an outflow of resources and whose amount can be estimated reliably. They are recognised at the expected settlement amount. If the outflow of resources is expected to occur at a time after the year following the reporting period, the obligations are recognised at their present value. Any unwinding of discounted provisions is recorded in finance costs.

## **Occupational pension scheme / employee benefits**

The occupational pension scheme at BRAIN includes both defined contribution plans as well as defined benefit plans.

In addition to the statutory pension insurance systems, occupational pensions at BRAIN AG, AnalytiCon Discovery GmbH and WeissBioTech GmbH use direct insurance policies and payments into pension funds and private pension schemes (direct contribution commitment). Pension schemes also exist for Management Board members. These schemes are managed and funded through an occupational pension plan (Unterstützungskasse) (direct benefit commitment) and through direct insurance policies. A pension scheme was arranged for the Managing Director of BRAIN Capital GmbH that includes an option to pay a contractually fixed amount into a pension fund, or alternatively disburse this amount to the employee.

Payments for pension schemes as defined contribution plans are expensed under personnel costs if the employees have rendered the work that entitles them to said contributions. Contributions to government pension plans are treated like payments for defined contribution plans. BRAIN has no further payment obligations over and above payment of the contributions.

A defined contribution plan exists in Germany for all employees in the Group companies within the framework of the German statutory pension insurance into which the employer must pay. The amount to be paid is determined according to the currently applicable contribution rate of 9.35 % (employer contribution) with regard to the employee compensation subject to compulsory pension insurance. In France, the employer contribution amounts to 8.55 % in relation to compensation with mandatory pension up to € 3,218, and 1.85 % in relation to the total salary. In the USA, the employer contribution to social security is 6.2 % in relation to annual employee compensation of € 118,500. In addition, BRAIN offers a company pension scheme in the form of deferred compensation without increasing the contributions by the employer.

A defined benefit plan exists for one active Management Board member and one former Management Board member in the form of benefit commitments by the company. The benefit entitlements comprise an old-age pension from the age of 65 as well as surviving dependants' and invalidity benefits. To reinsure the pension commitments, the company pays contributions to an external occupational pension plan. In turn, the occupational pension plan has taken out pension liability insurance cover. The claims under the pension liability insurance have been assigned to the occupational pension plan beneficiaries.

A supplementary agreement with the beneficiary foresees a vested claim to post-employment benefits in the case of early withdrawal of the employee. A fixed and vested claim is also agreed for disability and survivors' benefits. In the case of an early withdrawal of the actively employed beneficiary from the employment relationship, ex-post financing requirements for



the pension benefits for the retirement provisions of the occupational pension plan exist. The probability of an early withdrawal from employment and, therewith, the occurrence of a post-departure claim is assessed at each reporting date.

The present value of the pension commitment is determined according to the projected unit credit method pursuant to IAS 19. In this context, future benefit obligations are calculated on the basis of actuarial methods. The calculations are based essentially on statistical data related to mortality and disability rates, assumptions about the discount rates as well as expected return on plan assets. The determination of the interest rate and the expected plan assets are based on yields on AA-rating corporate bonds corresponding to the respective term or alternatively yields on respective government bonds. In the accounting, the fair value of plan assets is deducted from the present value of the benefit obligation for pensions. The valuation of the benefit obligation for pensions and the plan assets is undertaken annually by means of actuarial reports as of the reporting date.

Revaluations which resulted in particular from the adjustment of actuarial assumptions are recognised directly in equity without affecting the operating result (other reserves).

### **Share-based payment and other long-term employee benefits**

In the 2015/16 financial year, the following share-based employee compensation existed:

#### **Post IPO Framework Agreement for key individuals at BRAIN AG**

With the aim of loyalising key individuals (referred to below as “beneficiaries”) to the company to secure future growth in the company’s stock market valuation, the existing shareholders<sup>10</sup> granted subscription rights to those individuals who have made a significant contribution to the company’s value growth and/or will continue to do so. Some of the subscription rights substantiate an entitlement to the delivery of shares in the company (also referred to below as “call options”), and another portion substantiates entitlement to a payment (referred to below as “cash payments”) based on the share price on the maturity date. The granting of the subscription rights is connected to the intention to realise this program as presented in the listing prospectus.<sup>11</sup>

The call options can be exercised until 30 September 2022 and obligate the previous shareholder to make shares available to the beneficiary, or to make a cash settlement depending on the share price prevailing at the exercise. The exercise price of the call options amounts to 2 euro cents per share. The level of the cash payment is also calculated on the basis of the share price then prevailing, less 2 euro cents. To calculate the value, the management has made the appraisal that some of the call options will be exercised in the 2016/17 financial year, and the rest at the end of the option term.

Exercise of the call options is not tied to any conditions. To grant the cash payments, the beneficiary must be continuously and permanently employed at the company until at least 8 August 2017,<sup>12</sup> although at maximum until the disposal of the shares by the granting parties.

<sup>10</sup> The previous shareholders are defined as the shareholders who together held 100 % of the shares before the IPO.

<sup>11</sup> The intention to realise the program is referred to in Section 15.7 “Intended Post IPO Framework Agreement” of the listing prospectus.

<sup>12</sup> This corresponds to an 18-month period following the IPO.

The following overview presents the commitments granted, expired, forfeited and exercised in the financial year under review per type:

	Call options	Subscription rights to cash payments <sup>13</sup>	Total
Granted in the financial year	303,630	116,599	420,229
Expired in the financial year	0	0	0
Forfeited in the financial year	0	0	0
Exercised in the financial year	0	N/A	0
Outstanding as of 30 September 2016	303,630	116,599	420,229
Exercisable as of 30 September 2016	0	N/A	0

Stock options were granted for the first time in the financial year under review.

Both the cash payments and the call options are to be recognised in accordance with the regulations of IFRS 2 "Share-based Payment". Both types of grant are to be classified as equity-settled share-based payment transactions.

The fair value of the call options and of the cash payments is generally measured once as of the grant date applying a Monte Carlo simulation and taking into account the conditions on which the subscription rights were granted. The agreements between the current shareholders and the beneficiaries had not yet been signed as of 30 September 2016. No legally binding contract exists as a consequence. The scheme has already been recognised on the balance sheet as of 30 September 2016 as the main contractual conditions have already been defined as of the reporting date, and a joint understanding and target exists between the current shareholders and the beneficiaries to implement the contract. The subscription rights are to be remeasured on each reporting date until the grant date occurs.

<sup>13</sup> In the case of subscription rights to cash payments, the beneficiaries have no possibility to exercise. Actions on the part of the previous shareholders determine the due date of the payment.

Measurement was based on the following parameters as of 30 September 2016:

Parameter	30.09.2016
Remaining term (in years)	0.75–6.00
Share price on the measurement date (€)	11.70
Exercise price (€)	0.02
Expected dividend yield (%)	0.00
Expected volatility (%)	47.45 % to 50.29 %
Risk-free interest rate (%)	–0.67 % to –0.53 %
Model applied	Monte Carlo
Fair value per option (€)	11.70 to 11.76

The volatility applied over the remaining option term reflects historical volatility derived from peer group data and appropriate to the remaining term. The expected volatility applied is based on the assumption that conclusions can be drawn about future trends from historical volatility. The volatility that actually occurs can differ from the assumptions made. The expected dividend yield is based on management estimates as well as market expectations for 2017. The risk-free interest rate is based on German government bond yields with equivalent maturities. Due to the contractual structure, the management has made assumptions about expected exercise dates and payments. The actual exercise dates can differ from the assumptions that have been made.

For BRAIN AG, exercise of the subscription rights entails no effect on its cash position or treasury stock position, as no obligation of any kind exists for the company to deliver shares or cash payments in connection with this program. As the company receives the consideration in the form of work and similar service, pursuant to IFRS 2, personnel expenses are recognised at BRAIN AG.

Due to the contractual structure, only a partial expense of € 3,857 thousand (previous year: € 0 thousand) is recognised as of 30 September 2016, rather than the entire corresponding cost. The capital reserves increase by the same amount. The currently calculated remaining expense of € 1,067 thousand is distributed over the so-called vesting period.

### **Incentive program for BRAIN AG employees**

In the 2015/16 financial year, a performance-based compensation scheme was set up for BRAIN AG employees. This scheme commits an annual bonus to BRAIN AG staff depending on their respective basic salary received in the financial year and certain development factors. The bonus level is significantly affected in this context by three development factors, each of which affect one third of the bonus payable.

The first factor is the year-on-year percentage change in the total operating performance of the BioScience segment in the respective financial year. The second factor is the change in the adjusted EBIT<sup>14</sup> of the BioScience segment. A change in these factors of one million is defined as 10 %. The third factor is the change in the weighted average share price over the entire year (share price of 1 January to 31 December). For the first year, the IPO share price was used as the reference value, as no data were available for the previous year. The bonus payments

<sup>14</sup> Adjusted for IPO expenses and costs from share-based payment relating to BRAIN AG and from the employee share scheme of the subsidiary AnalytiCon Discovery GmbH.

(cash-settled share-based compensation) for the financial year elapsed are always scheduled to occur in the January of the subsequent year, as the final share prices and audited segment information is available on that date. The payout range is also fixed at between 0 and 30 % of the basic salary paid to an employee. Were hypothetically negative bonuses to arise, for example, such negative bonuses would not be deducted from salary, but would have to be initially offset in the following year before a payment could occur. If the theoretical payout were more than 30 % of basic salary, excess percentage points would be carried forward to the following year and paid out in the following year if 30 % were not achieved.

No legal entitlement exists to transfer percentage points to the subsequent year, as this always relates to a one-off commitment that can be modified or suspended at any time, and does not comprise a company practice.

A provision was formed as of 30 September 2016 for the bonuses to be paid. Segment information from this set of financial statements was utilised to calculate the level of the obligation. The provision's effect on EBIT was taken into account through applying an iterative calculation. The share price for the calculation of the provision was modelled for the 1 October 2016 to 31 December 2016 period.

A provision of € 424 thousand was formed as of 30 September 2016. The periodic expense for the 2015/16 financial year under review also amounts to € 424 thousand.

### **Stock option program (AOP)**

In the 2015/16 financial year, stock options were granted for the first time in the context of Management Board contracts. As of the contractual grant date, the granting of the stock options was tied to the successful implementation of the IPO. As part of exercise, one option entitles to the purchase of one share in the company at the so-called exercise price. The exercise price refers in this context to the respective share price as of the contractual grant date. Along with the share price performance target (performance condition), the exercising of options is also conditional upon the respective beneficiary remaining at the company (service condition). Taking fulfilment of both the service and performance conditions into account, the options can be exercised at the earliest at the end of four years after the grant date (waiting period). The exercise period amounts to four years after the end of the four-year waiting period.

Pursuant to IFRS 2, the stock options were classified as equity-settled share-based payment transactions. The stock option program had not yet been finally defined as of the reporting date. As the grant date pursuant to IFRS 2 has not yet occurred as of the reporting date, the options must be remeasured at fair value until the grant date occurs.

The following overview presents the stock options granted, expired, forfeited and exercised in the financial year under review per type:

	Stock options
Granted in the financial year	35,000
Expired in the financial year	0
Forfeited in the financial year	10,000
Exercised in the financial year	0
Outstanding as of 30 September 2016	25,000
Exercisable as of 30 September 2016	0

### Matching Stock Program

Some Management Board members were granted the opportunity to participate in the so-called "Matching Stock Program". As part of the program, the respective beneficiaries were entitled once as of the company's IPO date to purchase shares from their own resources or later from bonus claims, and transfer them to the Matching Stock Program. These shares are then blocked for two years. Once annually, the respective beneficiary receives three times as many options for all shares in the Matching Stock Program, albeit to a maximum of 15,000 units. The Matching Stock Program had not yet been finally defined as of the reporting date.

Pursuant to IFRS 2, the Matching Stock Program was classified as equity-settled share-based payment.

As no shares had yet been transferred to the Matching Stock Program as of the reporting date, no stock options were granted as part of the Matching Stock Program. It continued to be the case in the financial year under review that no expense was recognised for the Matching Stock Program.

### AnalytiCon Discovery GmbH

As of 30 September 2016, the remaining total of 2,700 employee option rights to shares in the company AnalytiCon Discovery GmbH were fully vested. This resulted in € 91 thousand of personnel expenses (2014/15: € 27 thousand). The resultant share rights were allocated to the non-controlling interests – held by employees and managing directors of AnalytiCon Discovery GmbH – although subsequently allocated directly to financial liabilities on the basis of the existing termination right.

Put/call options with BRAIN AG were agreed for all non-controlling interests in the 2014/15 financial year. Employees and managers can exercise the put options until February 2020. The company can exercise its call option until 30 September 2021. The exercise prices are based on – among other factors – the company's key operating and financial figures of the AnalytiCon subgroup, as well as how long employees have spent at the company AnalytiCon Discovery GmbH or the duration of managing directorships. If the potential payments to employees and managing directors (arising from such options according to the Management Board's evaluation of the company's future development and growth) exceed the value of the severance entitlements (recognised as financial liabilities) that derive from the shares' termination rights (non-controlling interests), they are recognised as personnel expenses distributed over the vesting period pursuant to IAS 19 and are added to other liabilities (something employee share scheme). Such obligations incurred € 1,331 thousand of personnel expenses in the 2015/16 financial year (2014/15: € 141 thousand).

### **Current and deferred taxes**

The tax expense for the period comprises current and deferred taxes. Taxes are recognised in the income statement unless they relate to items that were recognised directly in equity or in other comprehensive income. In such cases, the taxes are also recognised directly in equity or in other comprehensive income.

The current tax expense is calculated using the tax rates that have been enacted as of the reporting date (or are soon to be enacted) in the countries in which the company and its subsidiaries are active and generate taxable income. Management regularly reviews tax returns, in particular with regard to matters for which differing interpretations are possible, and recognises income tax liabilities (if appropriate) based on the amounts expected to be paid to the tax authorities.

Deferred taxes are calculated using the balance sheet liability method. Deferred taxes are recognised in respect of temporary differences between the carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base, as well for differences resulting from consolidation adjustments.

In addition, deferred tax assets are recognised for the future tax benefit that arises from offsetting tax loss carryforwards against future taxable profit, to the extent that it is probable that such assets are expected to be recoverable, based on the company's tax projections.

Deferred tax assets and liabilities are offset if a legally enforceable right of offset exists and they relate to income taxes levied by same tax authority on the same taxable entity or the taxable entities intend to settle net. Deferred tax assets or liabilities are reported as non-current assets or liabilities irrespective of the balance sheet classification by maturity.

### **Leases**

The assessment whether an arrangement involves a lease depends on the economic substance of the arrangement at the time it is entered into. The entity must assess whether performance of the arrangement depends on the use of one or more assets, and whether the arrangement conveys a right to use the asset or assets.

Lease payments under operating leases are recognised as expenses in the comprehensive income statement for the period in which they are incurred.

Assets from finance leases are capitalised at the beginning of the term of the lease at the lower of the fair value of the leased property or the present value of the minimum lease payments. A lease liability is recognised as a liability in the same amount under liabilities. Each lease payment is divided into an interest and repayment portions. The net lease obligation is recognised under non-current liabilities. The interest portion of the lease payment is expensed in the income statement, so that a constant interest rate results over the term of the lease. The tangible assets acquired under a finance lease are depreciated over the shorter of the following two periods: the useful life of the asset or the term of the lease.

## **Cash and cash equivalents**

Cash and cash equivalents comprise cash-in-hand, credit balances payable on demand, and term deposits with an original maturity of up to three months. All significant investments are denominated in euros and are invested almost exclusively with domestic credit institutions that are members of a deposit protection fund.

## **Statement of cash flows**

The statement of cash flows is classified into cash flows from operating activities, investing activities and financing activities. Where appropriate, any mixed transactions may be allocated to more than one activity. Overall, income taxes are included in cash flows from operating activities.

Cash flows from operating activities are presented applying the indirect method, under which profit for the period after taxes is adjusted for non-cash results components as well as deferrals of past or future inflows and outflows (including provisions), as well as items of income and expense that are attributable to investing activities.

# **IV. Notes to the consolidated statement of comprehensive income**

## **1 Revenue**

The Group's revenue consists primarily of revenue from the sale of goods and products amounting to € 14,428 thousand (previous year: € 15,108 thousand) and fees from research and development partnerships, including a minor level of royalties, amounting to € 8,362 thousand (previous year: € 6,025 thousand). The disclosure of revenues from research and development partnerships was diversified further in the financial year under review, with sufficient deferrable product revenues being released and being allocated to the sale of goods and products.

Fees from research and development partnerships comprise one-off payments, ongoing research and development fees, and performance-related fees from milestones and project success points. Revenues include revenues recognised in the reporting period deriving from € 308 thousand of premium payments not yet invoiced (previous year: € 232 thousand).

## **2 Research and development grant revenue**

R&D grant revenue amounting to € 2,249 thousand (previous year: € 2,786 thousand) contains nonrepayable grants received for specific research and development projects, mainly for projects sponsors acting on behalf of the Federal Ministry of Education and Research (BMBF). The BMBF has the right to examine whether the funds granted are being used for the designated purpose.

### 3 Other income

Other income is composed as follows:

€ thousand	2015/16	2014/15
Income from translating foreign currency items	253	558
Benefits in kind and rental income	153	111
Income from measuring trade receivables	77	61
Income from release of liabilities and provisions	73	377
Other out-of-period income	26	76
Miscellaneous other operating income	142	282
of which expense subsidies	26	0
<b>Total</b>	<b>724</b>	<b>1,465</b>

### 4 Cost of materials

The cost of materials contains the cost of raw materials, consumables, and supplies, the cost of purchased merchandise, and the cost of services, in particular for third-party research and development expenses relating to R&D partnerships with universities and with other technology companies.

### 5 Personnel expenses

Personnel expenses include, among other items, expenses of € 3,956,897 from the allocation to the capital reserves of share-based employee compensation, and € 1,423,332 from the pro rata allocation to liabilities from the employee share scheme of AnalytiCon (previous year: € 171 thousand).

These include € 248 thousand (previous year: € 373 thousand) of expenses for pensions (occupational pension scheme, life insurance and pension insurance association contributions).

The employer contributions to the statutory pension insurance scheme amounted to € 762 thousand in the fiscal year (previous year: € 588 thousand).

Post-employment benefit costs of approximately € 257 thousand and employer contributions to the statutory pension insurance scheme (defined contribution benefit pension plan) of approximately € 838 thousand are expected in fiscal year 2016/17.



The effects and subsequent effects from measuring defined benefit pension commitments for active and former Management Board members, which are included in the statement of comprehensive income, are composed as follows:

€ thousand	2015/16	2014/15
Service cost	199	155
Interest cost	62	37
Accounting return on plan assets	-36	-37
Expenses recognised in the operating result	225	155
Remeasurement effects	361	1,014
Deferred tax	-105	-295
Net effect: other comprehensive income	256	719
	<b>481</b>	<b>874</b>

Expenses of € 43 thousand (previous year: € 2 thousand) are also recognised in the statement of comprehensive income from defined contribution commitments to Management Board members as well as Management Board members who have left the company.

The Management Board members' benefit entitlements comprise an old-age pension from the age of 65 as well as surviving dependants' and invalidity benefits, which are paid out through an occupational pension plan (defined benefit plans).

The defined benefit obligation (DBO) reports the following changes:

€ thousand	2015/16	2014/15
Value on 1 October	2,141	968
Interest cost	62	37
Service cost	199	155
Pension payments	0	0
Remeasurement due to changes to demographic assumptions	0	1,014
Actuarial gains and losses from changes in financial assumptions	285	-33
Remeasurement due to experience-based adjustments	47	0
<b>Value on 30 September</b>	<b>2,734</b>	<b>2,141</b>

The obligation was covered by reinsurance. Plan assets report the following changes:

€ thousand	2015/16	2014/15
Value on 1 October	1,127	968
Accounting return on plan assets	36	37
Contributions paid	155	155
Pension payments	0	0
Remeasurement effects	-29	-33
<b>Value on 30 September</b>	<b>1,289</b>	<b>1,127</b>

The plan assets arise exclusively from claims from reinsurance in the form of life insurance policies. To this extent, the price cannot be derived from a price on an active market.

After offsetting the obligation with the assigned plan assets, the amounts recognised on the balance sheet are as follows:

€ thousand	30. 09. 2016	30. 09. 2015
Defined benefit obligation	2,734	2,141
Plan assets	-1,289	-1,127
<b>Provision for pension schemes</b>	<b>1,445</b>	<b>1,014</b>

€ thousand	2015/16	2014/15
Value on 1 October	1,014	0
Net interest costs	26	0
Service cost	199	155
Pension payments	0	0
Contributions paid	-155	-155
Remeasurement effects	361	1,014
<b>Value on 30 September</b>	<b>1,445</b>	<b>1,014</b>

The remeasurement arising from changes in demographic assumptions in the 2014/15 financial year resulted from the early withdrawal of a Management Board member from the Management Board as of 1 July 2015 as well as a reassessment of staff turnover probability for the second beneficiary. In the past, however, a very low probability of the occurrence of departure or, respectively, very low staff turnover probability was imputed, as a consequence of which no transfer of obligation was recognised.

In relation to pension obligations hedged through corresponding reinsurance, the "Richttafeln 2005G, Heubeck-Richttafeln GmbH, Köln 2005" mortality tables were used to measure the pension obligation as of 30 September 2016, as in the previous year.

With the measurement of the obligations from the supplementary agreements, an actuarial interest rate of 1.34 % (previous year: 2.35 %) and a pension trend of 1.00 % was applied. When valuing the supplementary agreement for active Management Board member Dr Jürgen Eck, a 10 % staff turnover rate was taken into account. The cashflow-weighted duration of the payment obligation scope amounts to 25.2 years.

The significant assumptions applied in the valuation show the following sensitivities:

- A change of  $\pm 0.25$  percentage points would change the obligation scope as of 30 September 2016 by around € -87 thousand or € +93 thousand.
- A life expectancy increased or reduced by one year would change the obligation scope as of 30 September 2016 by around € +38 thousand or € -38 thousand respectively.
- Were active beneficiary Dr Eck to leave the company early (increasing the staff fluctuation rate to 100 %), the obligation would be € 631 thousand higher.

The expected contributions to plan assets in financial year 2016/17 amount to € 155 thousand. No pension payments are expected for the 2016/17 financial year.

## 6 Depreciation and amortisation

Depreciation and amortisation charges are presented in the statements of changes in intangible assets and property, plant, and equipment in the notes to the balance sheet. They do not include impairment losses.

## 7 Other expenses

Other expenses are composed as follows:

€ thousand	2015/16	2014/15
Legal and consulting expenses	2,388	922
Occupancy costs	1,057	782
Advertising and travel expenses	955	913
Distribution and logistics expenses	574	498
Costs of financial statements and auditing	572	88
Repair and maintenance expenses	331	257
Selling and administrative expenses	275	690
Currency translation expenses	270	517
Miscellaneous other expenses	2,039	1,773
<b>Other expenses, total</b>	<b>8,460</b>	<b>6,440</b>

## 8 Finance income

Finance income is composed as follows:

€ thousand	2015/16	2014/15
Income from subsequent measurement of financial liabilities	245	23
Interest income from loans to equity-accounted investments	7	7
Miscellaneous finance income	13	2
<b>Finance income, total</b>	<b>265</b>	<b>32</b>

## 9 Finance costs

Finance costs are composed as follows:

€ thousand	2015/16	2014/15
Expenses from the subsequent measurement of financial liabilities for the acquisition of non-controlling interests	573	206
Payments for silent partnerships	181	228
Payments for loans	156	334
Impairment losses from subsequent measurement of available-for-sale financial instruments	0	159
Factoring fees	29	14
Interest costs for finance leases	7	5
Miscellaneous finance costs	103	15
<b>Finance costs, total</b>	<b>1,049</b>	<b>961</b>

## 10 Current and deferred taxes

Deferred taxes are measured using the tax rates expected to apply in the period when the asset is realised or the liability is settled. For all German entities included in the Group, this is 15.825 % for corporate income tax, including the solidarity surcharge (previous year: 15.825 %). The trade tax rate for domestic Group companies and the composite tax rate are shown below:

Trade tax rate	2015/16	2014/15
BRAIN AG	13.30 %	13.30 %
BRAIN Capital GmbH	13.30 %	13.30 %
AnalytiCon Discovery GmbH	15.75 %	15.75 %
Mekon Science Networks GmbH	9.80 %	9.80 %
Monteil Cosmetics International GmbH	15.40 %	15.40 %
L.A. Schmitt GmbH	11.20 %	11.20 %
WeissBioTech GmbH	15.02 %	15.02 %
Composite tax rate	2015/16	2014/15
BRAIN AG	29.13 %	29.13 %
BRAIN Capital GmbH	29.13 %	29.13 %
AnalytiCon Discovery GmbH	31.58 %	31.58 %
AnalytiCon Discovery LLC <sup>15</sup>	23.90 %	23.90 %
Mekon Science Networks GmbH	25.63 %	25.63 %
Monteil Cosmetics International GmbH	31.23 %	31.23 %
L.A. Schmitt GmbH	27.03 %	27.03 %
WeissBioTech GmbH	30.84 %	30.84 %
WeissBioTech France S.A.R.L.	33.33 %	33.33 %

<sup>15</sup> Federal corporation tax rate (15% for taxable earnings of up to \$ 50,000) + individual state corporation tax (Maryland: 8.25 %)

Of the tax assets of € 37 thousand (previous year: € 23 thousand), € 23 thousand (previous year: € 14 thousand) relate to corporation tax and the solidarity surcharge, and € 14 thousand (previous year: € 9 thousand) relate to trade tax. Of the tax liabilities of € 252 thousand (previous year: € 87 thousand), € 118 thousand (previous year: € 33 thousand) relate to corporation tax and the solidarity surcharge, and € 134 thousand (previous year: € 54 thousand) relate to trade tax.

Deferred tax assets and liabilities and their changes in the financial year are as follows:

€ thousand	30.09.2016		30.09.2015	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	0	1,170	0	1,323
Tax loss carry-forwards/carrybacks	13	0	93	0
Property, plant, and equipment	43	177	41	188
Inventories	0	2	0	10
Pension commitments	421	0	296	0
Provisions and liabilities	26	1	18	0
Financial liabilities	8	0	12	0
Deferred income	5	0	19	0
Trade receivables	0	83	11	136
<b>Total</b>	<b>516</b>	<b>1,433</b>	<b>489</b>	<b>1,657</b>
<b>Offset</b>	<b>-174</b>	<b>-174</b>	<b>-214</b>	<b>-214</b>
<b>Total</b>	<b>342</b>	<b>1,259</b>	<b>275</b>	<b>1,443</b>

€ thousand	2015/16
Net deferred tax liabilities at start of financial year (1 October 2015)	1,168
Addition of deferred taxes from profit/loss from revaluing obligations from post-employment employee benefits	-105
Change in temporary differences between carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base (recognised in profit or loss)	225
Deferred tax expense from the use, and due to amortisation, of tax loss carryforwards	-93
Deferred tax income from capitalising tax loss carryforwards and tax loss carrybacks	13
Deferred tax expense from transaction costs for raising equity capital	-370
Deferred tax expense reported in the statement of comprehensive income	-225
<b>Net deferred tax liabilities at end of financial year (30 September 2016)</b>	<b>917</b>

The differences between the expected income tax income based on the IFRS loss before taxes for the period and composite tax rate of BRAIN AG of 29.125 % (previous year: 29.125 %) and the income tax expense reported in the consolidated statement of comprehensive income are shown in the following table:

€ thousand	2015/16	2014/15
Consolidated net profit/loss for the period before taxes	-14,427	-5,502
Expected tax income	-4,202	-1,602
Different tax rates applicable to consolidated subsidiaries	-7	2
Effects of changes in tax rates	12	-5
Permanent differences from consolidation adjustments	471	102
Permanent differences from subsequent measurement of financial assets and liabilities	0	110
Permanent differences from equity-settled share-based compensation	1,123	0
Non-deductible expenses/add-backs	43	12
Utilisation of previous years' tax loss carryforwards	-40	0
Amortisation of previous years' capitalised tax loss carryforwards	37	188
Non-capitalised tax loss carryforwards	3,068	1,623
Out-of-period taxes and other differences	6	22
Reported current or deferred income tax income (-)/expense (+)	511	452

The following table shows the maturity of the deferred taxes recognised at the end of the reporting period. Deferred taxes are classified as current if the entity expects to realise the asset or settle the liability within twelve months after the reporting period.

€ thousand	2015/16	2014/15
Current deferred tax assets	40	100
Non-current deferred tax assets	475	378
Current deferred tax liabilities	274	321
Non-current deferred tax liabilities	1,159	1,325
Net current deferred tax assets	-234	-221
Net non-current deferred tax assets	-683	-947

Based on the detailed planning horizon of three financial years modelled in the consolidated entities' tax projections, no deferred tax assets were recognised for tax loss carryforwards with an (in principle) unlimited carryforward period resulting from financial year 2015/16 and prior financial years amounting to € 34,376 thousand (corporation tax; previous year: € 23,667 thousand) and € 34,440 thousand (trade tax; previous year: € 23,897 thousand). The potential tax benefits that have consequently not been recognised amount to € 10,063 thousand (previous year: € 6,886 thousand). Capitalisation occurs insofar as temporary difference assets exceed existing tax-effective temporary difference liabilities for the detailed planning horizon, and for the potential loss carryback of a subsidiary of € 13 thousand.

No deferred taxes arose from a difference between tax valuations of participating interests and the net assets of subsidiaries included in the consolidated financial statements.

## **11 Earnings per share**

Earnings per share were calculated on the basis of the loss for the period of € -14,689,820 as reported in the consolidated income statement (previous year: € -5,714,554).

Earnings per share are calculated by dividing the loss accruing to the shareholders of BRAIN AG for the period by the average number of shares of BRAIN AG issued in the financial year. The average number of shares in financial year 2015/16 amounted to 15,129,097 no-par value shares (previous year: 12,725,818 no-par value shares).

No dilutive effects arise at present. Potential dilutive effects might arise in the future as the result of recognising a stock option program for one member of the Management Board of BRAIN AG (see remarks in Section III "Accounting policies", in the section on "Share-based payment and other long-term employment benefits").

## V. Notes to the balance sheet

### 12 Intangible assets

The following table shows the composition and changes:

€ thousand	Goodwill	Other intangible assets	Total intangible assets
<b>FY 2014 / 15</b>			
Net carrying amount at start of financial year	2,807	3,077	5,884
Additions from acquisitions	11	2,709	2,720
Additions	0	117	117
Disposals	0	0	0
Amortisation – additions	0	687	687
Amortisation – disposals	0	0	0
<b>Net carrying amount at end of financial year 30.09.2015</b>	<b>2,818</b>	<b>5,217</b>	<b>8,035</b>
Cost	2,825	6,367	9,192
Cumulative amortisation	7	1,150	1,157
<b>Net carrying amount</b>	<b>2,818</b>	<b>5,217</b>	<b>8,035</b>
<b>FY 2015 / 16</b>			
Net carrying amount at start of financial year	2,818	5,217	8,035
Additions	0	354	354
Disposals	0	0	0
Amortisation – additions	0	642	679
<b>Net carrying amount at end of financial year 30.09.2016</b>	<b>2,818</b>	<b>4,929</b>	<b>7,747</b>
Cost	2,825	6,721	9,546
Cumulative amortisation	8	1,791	1,799
<b>Net carrying amount</b>	<b>2,818</b>	<b>4,930</b>	<b>7,747</b>

The goodwill reported as of 30 September 2016 arises from the acquisition of MonteilCosmetics International GmbH in the 2011/12 financial year, the acquisition of the AnalytiCon Group (AnalytiCon Discovery GmbH, AnalytiCon Discovery LLC) in the 2013/14 financial year, and the acquisition of the WeissBioTech Group, WeissBioTech France S.A.R.L) in the 2014/15 financial year.

The intangible assets of key significance for the consolidated financial statements comprise the technologies calculated as part of the acquisition-related purchase price allocation arising from the acquisition of AnalytiCon Discovery GmbH (carrying amount of the technology as of 30 September 2016: € 1,757 thousand (previous year: € 1,999 thousand); remaining amortisation period as of 30 September 2016: 6 years (previous year: 7 years), and from the acquisition of WeissBioTech GmbH (carrying amount as of 30 September 2016: € 1,868 thousand (previous year: € 2,132 thousand); remaining amortisation period after reappraisal as of 30 September 2016: 7 years (previous year: 7 years)).



In accordance with the accounting policies presented above, no development costs were capitalised in the 2015/16 financial year or in the previous year, as it is not possible to distinguish between the research and development phases due to the alternating process, and consequently not all of the criteria specified in IAS 38 were met.

Research and development expenses of € 5,848 thousand (previous year: € 6,184 thousand) are mainly reported in the statement of comprehensive income under the items "personnel expenses", "cost of materials" and "other expenses", as well as in amortisation charges.

### 13 Property, plant, and equipment

Investments in property, plant, and equipment in financial year 2015/16 were attributable primarily to the technical expansion of the research, development, and manufacturing infrastructure. The following table shows the composition and changes:

€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment
<b>FY 2014 / 15</b>			
Net carrying amount at start of financial year	4,877	2,004	6,881
Additions from acquisitions	0	331	331
Additions	0	467	467
Disposals	0	-174	-174
Depreciation – additions	195	588	783
Depreciation – disposals	0	-156	-156
<b>Net carrying amount at end of financial year 30.09.2015</b>	<b>4,682</b>	<b>2,195</b>	<b>6,878</b>
Cost	6,511	5,988	12,498
Cumulative depreciation	1,829	3,792	5,621
<b>Net carrying amount</b>	<b>4,682</b>	<b>2,195</b>	<b>6,878</b>
<b>FY 2015 / 16</b>			
Net carrying amount at start of financial year	4,682	2,195	6,878
Additions	0	989	989
Reclassifications/transfers	0	49	49
Disposals	0	-216	-216
Depreciation – additions	195	611	806
Depreciation – disposals	0	-201	-201
<b>Net carrying amount at end of financial year 30.09.2016</b>	<b>4,488</b>	<b>2,607</b>	<b>7,095</b>
Cost	6,511	6,809	13,320
Cumulative depreciation	2,023	4,202	6,225
<b>Net carrying amount</b>	<b>4,488</b>	<b>2,607</b>	<b>7,095</b>

The net carrying amount of operating and office equipment includes € 217 thousand of assets acquired through finance leasing (previous year: € 355 thousand).

Land and buildings serve partly as collateral for bank loans. Not all of the land and buildings of BRAIN AG that are included in this item were assigned as collateral. More detail can be found in the section on financial liabilities.

#### 14 Equity-accounted investments

The carrying amount of the interest in the associated company Enzymicals AG, Greifswald,<sup>16</sup> reports the following changes:

€ thousand	
Cost in 2009/10 financial year	252
Share of profit or loss after taxes in 2009/10	-18
Carrying amount at 30 September 2010	233
Share of profit or loss after taxes in 2010/11	-47
Carrying amount at 30 September 2011	186
Cost in 2011/12 financial year	50
Share of profit or loss after taxes in 2011/12	-44
Carrying amount at 30 September 2012	192
Share of profit or loss after taxes in 2012/13	-22
Carrying amount at 30 September 2013	170
Share of profit or loss after taxes in 2013/14	-31
Impairment losses	-139
Carrying amount at 30 September 2014	0
Share of profit or loss after taxes in 2014/15	0
Carrying amount at 30 September 2015	0
Share of profit or loss after taxes in 2015/16	38
Reversal of impairment losses	130
Carrying amount at 30 September 2016	168

The interest held by BRAIN AG continued to amount to 24.095% in the 2015/16 financial year. No publicly listed market prices exist for the shares of Enzymicals AG. This participating interest is allocated to the BioScience segment. No losses were recognised in the financial year under review (previous year: € 9 thousand).

Individual contractual arrangements concerning research and development work exist between BRAIN AG and Enzymicals AG. These arrangements are not of a strategic nature. (The type and scope of services rendered in the 2015/16 financial year are described under "Other relationships with related parties".)

The following tables show the aggregated results and balance sheet data of Enzymicals AG, and the amounts of profit or loss for the period and equity attributable to BRAIN AG in line with its interest (24.095%). The figures for Enzymicals AG were calculated on the basis of the accounting principles of the German Commercial Code (HGB), as the Management Board is of the opinion that no material valuation differences exist in relation to IFRS.

<sup>16</sup> financial year = calendar year; the difference arises from the historical difference between the financial year of BRAIN AG and the calendar year

€ thousand	10/2015 – 09/2016	10/2014 – 09/2015
Revenue	1,082	730
Total comprehensive income or loss	157	–37
Share of profit or loss after taxes	38	–9

€ thousand	30. 09. 2016	30. 09. 2015
Non-current assets	183	94
Current assets	453	514
Non-current liabilities	0	0
Current liabilities	613	743
Equity	22	–135
Interest in equity	6	–32

The difference between the recognised a valuation of the participating interests and the proportional equity attributable to BRAIN AG of € 162 thousand reflects goodwill. The difference in the previous year arises from the fact that the company does not participate in negative equity.

The reversal of the impairment loss is due to the positive earnings trend with the attainment of breakeven in 2015, which also enabled the company to fully eliminate its equity deficit as of the 30 September 2016 reporting date, among other effects. To this is added the sustainably positive outlook for business trends and development. The impairment loss reversal is reported in the statement of comprehensive income under profit or loss from equity-accounted investments.

The recoverable amount is calculated on the basis of a value-in-use. This entails utilising five-year planning assuming a sustainable results trend. A post-tax WACC of 6.83 % and a perpetuity growth rate of 1.0 % were also applied.

## 15 Inventories

Inventories are composed as follows:

€ thousand	30. 09. 2016	30. 09. 2015
Raw materials, consumables and supplies	2,334	2,101
Work in progress	975	1,080
Finished goods	3,814	3,335
Prepayments on inventories	8	1
<b>Total</b>	<b>7,130</b>	<b>6,517</b>

The carrying amount of inventories that were assigned as security for the financial liabilities of a subsidiary was € 564 thousand at the end of the reporting period (previous year: € 525 thousand).

Increases in inventory of € 233 thousand based on stocktaking were recognised in relation to raw materials, consumables and supplies.

In the case of inventories, € 234 thousand of value impairments were applied to finished goods (previous year: € 0 thousand). Reversals of value impairments of € 2 thousand were applied (previous year: € 0 thousand)

## 16 Trade receivables

Trade receivables are composed as follows:

€ thousand	30.09.2016	30.09.2015
Trade receivables	2,769	2,736
Receivables from research and development grant revenue	2,139	731
Receivables from contingent premium payments	775	467
<b>Total</b>	<b>5,683</b>	<b>3,934</b>

The above table is presented in greater detail to enhance transparency. The presented carrying amounts of receivables correspond to the fair values.

The recognised amount also includes trade receivables transferred as part of recourse factoring. Such receivables are not derecognised, however, as the collection risk remains with BRAIN. The carrying amount of these receivables stands at € 349 thousand. A financial liability due to the factor exists in the same amount.

Trade receivables have a maturity of up to one year. Specific valuation allowances of € 22 thousand (previous year: € 10 thousand) and global valuation allowances of € 30 thousand (previous year: € 28 thousand) were recognised for receivables as of the 30 September 2016 reporting date. These are recorded in a separate allowance account. Global valuation allowances are recognised to reflect the risk of unexpected financial difficulties at customers.

€ thousand	Trade receivables	Of which: neither overdue nor impaired at the end of the reporting period	Of which: overdue in the following reporting periods				Impairment losses	Carrying amount
			Up to 30 days	Between 30 and 60 days	Between 60 and 90 days	More than 90 days		
30.09.2016	5,735	5,309	246	38	1	141	52	5,683
30.09.2015	3,972	3,662	196	45	51	18	37	3,934

The trade receivables that are neither overdue nor impaired at the end of the reporting period are estimated to be recoverable, taking into account the risk management principles presented in Section VI. The overdue receivables of € 426 thousand (previous year: € 310 thousand) most accurately represent the maximum default risk. The Group has no lien on these receivables, except for those receivables where the general business conditions provide for retention of title. The carrying amount of the impaired receivables as of the reporting date is € 3 thousand (previous year: € 14 thousand). The impairment losses were calculated on the basis of the age and creditworthiness of the receivable.

The following table shows the changes in impairment losses:

€ thousand	2015/16
Carrying amount at start of period	37
Net effect of addition and reversals	15
Carrying amount at end of period	52

€ thousand	2014/15
Carrying amount at start of period	31
Additions from acquisitions	54
Net effect of addition and reversals	-48
Carrying amount at end of period	37

Direct impairment losses of € 20 thousand (previous year: € 83 thousand) were incurred in the 2015/16 financial year for the full derecognition of trade receivables that had not already been expensed in previous years. No impairment losses were reversed in relation to impaired receivables.

## 17 Other financial assets

Other current financial assets were reported separately in the financial year under review, by contrast with the previous year, as this position would have been minor overall in the previous year. Separate reporting consequently requires a restatement of the previous year's figures. The modified presentation as of 30 September 2015 reduces other current assets by € 232,447 and cash and cash equivalents by € 67,400. Taking into account materiality aspects as well as cost-benefit considerations, the company has refrained from presenting a "third balance sheet" in accordance with IAS 1.40A (b).

Financial assets are composed as follows:

€ thousand	30.09.2016	30.09.2015
Term deposits with an original term of more than three months	10,000	0
Loans extended up to one year	196	219
Deposits with a term up to one year	66	66
Miscellaneous other financial assets	138	15
<b>Total</b>	<b>10,400</b>	<b>300</b>

The deposits are invested exclusively at German banks that are members of a deposit protection fund.

## 18 Other non-current and current assets

Other **non-current assets** are composed as follows:

€ thousand	30.09.2016	30.09.2015
Expenses deferred for a period of more than one year	82	45
Deposits	35	78
Loans extended	41	25
<b>Total</b>	<b>158</b>	<b>149</b>

Other **current assets** are composed as follows:

€ thousand	30.09.2016	30.09.2015
VAT receivables due from the tax authorities	227	266
Expenditures relating to the following year	208	529
Prepayments rendered	0	60
Miscellaneous other current assets	56	261
<b>Total</b>	<b>491</b>	<b>1,116</b>

All current assets have a remaining term of up to one year. The portfolio of other assets was neither overdue nor impaired as of the reporting date. Default risk is regarded as low, as in the previous year.

## 19 Cash and cash equivalents / statement of cash flows

Cash and cash equivalents are invested exclusively at German banks that are members of a deposit protection fund.

In the statement of cash flows, other non-cash expenses and income include the following items:

€ thousand	10/2015 – 09/2016	10/2014 – 09/2015
<b>Expenses</b>		
Personnel expenses from share-based compensation and employee share schemes	5,380	171
Finance costs from subsequent measurement of financial liabilities	591	206
Amortisation relating to available-for-sale financial assets	-	159
Impairment losses on inventories	234	0
Losses on receivables/change in value allowances for receivables	36	0
Administration costs for non-controlling interests	25	0
Miscellaneous	222	9
<b>Total</b>	<b>6,488</b>	<b>545</b>

<b>Income</b>		
Write-ups to inventories	2	0
Finance income from subsequent measurement of financial liabilities	254	0
<b>Total</b>	<b>256</b>	<b>0</b>
<b>Net cash expenses / income</b>		
	<b>6,232</b>	<b>545</b>

## 20 Equity

Changes to the equity capital position are shown in the consolidated statement of changes in equity.

### Subscribed share capital

The subscribed share capital amounts to € 16,414,348 and is divided into 16,414,348 ordinary shares, to each of which a proportional amount of the share capital of € 1.00 is attributable. The shares are fully paid-in registered shares. The shares are listed in the Prime Standard stock market segment of the Frankfurt Stock Exchange. In the 2015/16 financial year, the share capital of BRAIN AG increased initially by € 188,530, from € 12,725,818 to € 12,914,348, due to a cash capital increase on 6 November 2015 (date of the entry in the commercial register) approved by the AGM on 20 October 2015, and by a further € 3,500,000 to € 16,414,348 due to a further capital increase in connection with the IPO BRAIN AG under partial utilisation of Authorised Capital 2015/I on 4 February 2016 (date of the entry in the commercial register).

*[For information about shares held by MP Beteiligungsgesellschaft, please refer to "Related party disclosures" (Section VII of these notes to the consolidated financial statements).]*

### Authorised capital

Pursuant to Section 5 (2) of the company's bylaws, the Management Board is authorised, with Supervisory Board approval, to increase the company's share capital once or on several occasions in the period until 7 July 2020, albeit by a maximum of up to nominal € 2,862,909, through issuing up to € 2,862,909 new ordinary registered shares against cash and/or non-cash capital contributions, and for this purpose to wholly or partly exclude, with Supervisory Board approval, shareholders' subscription rights in the instances specified in Section 5 (2) of the bylaws (Authorised Capital 2015/I). The authorised capital was entered in the commercial register on 1 October 2015 at a level of originally € 6,362,909, and partly utilised pursuant to the Management Board resolution of 3 February 2016, with Supervisory Board approval of the same date, in an amount of € 3,500,000 under exclusion of shareholders' statutory subscription rights, in order to implement the IPO of BRAIN AG. The capital increase from authorised capital was entered in the commercial register on 4 February 2016. Authorised capital of € 2,862,909 consequently existed on the 30 September 2016 reporting date.

### Conditional capital

Pursuant to Section 5 (3) and (4) of the company's bylaws, the share capital is conditionally increased by € 5,090,328 through issuing up to 5,090,328 new ordinary registered shares

(Conditional Capital 2015/I) and by a further € 1,272,581 through issuing up to 1,272,581 new ordinary registered shares (Conditional Capital 2015/II).

Conditional Capital 2015/I serves exclusively to grant shares to the holders of bonds with warrants and convertible bonds that the company issues on the basis of the authorisation of the Management Board by way of AGM resolution passed on 8 July 2015. The conditional capital increase is to be implemented through issuing up to 5,090,328 new ordinary registered shares only to the extent that the holders of convertible bonds and/or bonds with warrants utilise their conversion rights or warrant rights, or the holders of convertible bonds that are obligated to convert satisfy their obligation to convert, and to the extent that other forms of satisfaction are not deployed to service the bonds. An increase in the share capital from Conditional Capital 2015/I had not been implemented as of the 30 September 2016 reporting date.

Conditional Capital 2015/II serves exclusively to service subscription rights arising from stock options as part of a stock option plan in the scope of up to 1,272,581 stock options with subscription rights to shares of BRAIN AG with a term of up to eight years that are granted pursuant to the AGM resolution dated 8 July 2015 to the members of the company's Management Board, members of affiliated companies' management boards, as well as managers and other company employees in senior positions. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilise them, and the company does not grant treasury shares or cash settlement to satisfy these subscription rights. An increase in the share capital from Conditional Capital 2015/II had not been implemented as of the 30 September 2016 reporting date.

#### **Stock options**

An AGM resolution dated 8 July 2015 authorised the Management Board, with Supervisory Board approval, to issue as part of a stock option plan until 30 September 2020 up to 1,272,581 stock options with subscription rights to shares of BRAIN AG with a term of up to eight years, with the condition that each stock option grant the right to subscribe for one share, and according to further provisions. As far as issuing shares to members of the Management Board of BRAIN AG is concerned, this authorisation is valid for the Supervisory Board alone. No stock options had yet been issued as of the 30 September 2016 reporting date. The AGM conditionally increased the share capital by € 1,272,581 to hedge and service the stock options (Conditional Capital 2015/II).

#### **Capital reserves**

The capital reserves contain the share premium from the issuance of shares, net of transaction costs after taxes, the amount of other additional payments that owners contribute to equity, as well as the expenses from share-based compensation. For more information about share-based compensation, please refer to the remarks in Section IV "Accounting policies" in the subsection entitled "Share-based payment and other long-term employee benefits". In the financial year under review, the company received the € 28,000,000 premium from issuing new shares as part of the IPO. After deducting capital issue costs of € 1,282,320 after tax, this amount was transferred to the capital reserves pursuant to Section 272 (2) No. 1 of the German Commercial Code (HGB). Capital reserves also include € 2,670,420 of other additional capital contributions to equity from shareholders pursuant Section 272 (2) No. 4 of the German Commercial Code (HGB). This includes a partial amount of € 1,811,470 of a subordinated shareholder loan was contributed to the equity of BRAIN AG by way of an agreement dated 13 November 2015. This capital contribution was realised at nominal value.



**Other reserves**

Other reserves include the gains/losses from remeasuring obligations deriving from post-employment benefits for employees.

**Retained earnings**

Retained earnings in the 2015/16 financial year reduced mainly to reflect profit or loss attributable to shareholders of BRAIN AG.

The following table shows the **non-controlling interests**:

	Financial year	Interest in net assets not held by BRAIN AG	Increase in interest in net assets not held by BRAIN AG	Attributable share of profit or loss for the period	Carrying amount of interest at end of financial year
Monteil Cosmetics International GmbH	2015/16	31.67 %	€ 189 thousand	€ -248 thousand	€ 246 thousand

**Change in non-controlling interests**

€ thousand	30.09.2016	30.09.2015
Value on 1 October	305	128
Attributable share of profit or loss for the period	-248	-239
Debt/equity swap – non-controlling interests	95	301
Transfer to capital reserves by non-controlling interests	94	0
Disproportionate contribution to capital reserves by BRAIN AG	0	152
Dilutive effect due to unilateral share capital increase	0	-37
<b>Value on 30 September</b>	<b>246</b>	<b>305</b>

In the 2015/16 financial year, BRAIN AG added € 410 thousand to capital reserves and non-controlling interests added € 189 thousand, of which € 95 thousand occurred at nominal value through converting a loan.

The non-controlling interests receive no allocation of the results that are recognised directly in equity.

The following section presents summarised financial information for subsidiaries with non-controlling interests of significance to the Group.

Summarised balance sheet data, € thousand	Monteil Cosmetics International GmbH	
	30.09.2016	30.09.2015
Non-current assets	2,191	2,242
Current assets	2,105	1,866
Non-current liabilities	449	409
Current liabilities	948	615
<b>Net assets</b>	<b>2,900</b>	<b>3,084</b>

Summarised statement of comprehensive income, € thousand	Monteil Cosmetics International GmbH	
	2015/16	2014/15
Revenue	2,663	2,566
Result before taxes	-747	-656
Result after taxes	-784	-728
Total comprehensive income or loss	-784	-728
Result attributable to non-controlling interests	-248	-239
Dividends paid to non-controlling interests	0	0

Summarised statement of cash flows, € thousand	Monteil Cosmetics International GmbH	
	2015/16	2014/15
Gross cash flow	-560	-606
Cash flow from operating activities	0	-214
Cash flow from investing activities	-41	-62
Cash flow from financing activities	263	217

Summarised balance sheet data, € thousand	WeissBioTech GmbH	
	30.09.2016	30.09.2015
Non-current assets	2,463	2,473
Current assets	3,971	3,983
Non-current liabilities	614	719
Current liabilities	2,202	2,230
<b>Net assets</b>	<b>3,619</b>	<b>3,508</b>

Summarised statement of comprehensive income, € thousand	WeissBioTech GmbH	
	2015/16	2014/15
Revenue	8,517	7,290
Result before taxes	185	-246
Result after taxes	112	-177
Total comprehensive income or loss	112	-177

Summarised statement of cash flows, € thousand	WeissBioTech GmbH	
	2015/16	2014/15
Gross cash flow	342	87
Cash flow from operating activities	-25	-251
Cash flow from investing activities	-292	-49
Cash flow from financing activities	-138	-584

Summarised balance sheet data, € thousand	WeissBioTech France S.A.R.L.	
	30.09.2016	30.09.2015
Non-current assets	230	313
Current assets	309	267
Non-current liabilities	627	614
Current liabilities	133	172
<b>Net assets</b>	<b>-220</b>	<b>-206</b>

Summarised statement of comprehensive income, € thousand	WeissBioTech France S.A.R.L.	
	2015/16	2014/15
Revenue	427	424
Result before taxes	-14	35
Result after taxes	-14	51
Total comprehensive income or loss	-14	51

Summarised statement of cash flows, € thousand	WeissBioTech France S.A.R.L.	
	2015/16	2014/15
Gross cash flow	70	108
Cash flow from operating activities	39	40
Cash flow from investing activities	17	-7
Cash flow from financing activities	-59	-37

The WBT Group companies are included in the previous year's consolidated statement of comprehensive income for an 11-month period. No results are allocated to the non-controlling shareholders of WBT due to the accounting presentation as part of the anticipated purchase method.

BRAIN AG is not subject to any restrictions limiting its access to the subsidiaries' assets, to utilise such assets, or to satisfy the subsidiaries' liabilities.

## 21 Financial liabilities

The financial liabilities are composed as follows:

€ thousand	30.09.16	30.09.15
Loans	3,166	9,544
Liabilities for the acquisition of non-controlling interests	2,193	1,893
Non-controlling interests' compensation entitlements	2,319	1,918
Contributions by silent partners	1,500	2,340
Factoring liabilities	323	253
Finance lease liabilities	186	174
Contingent purchase price payments measured at fair value through profit or loss	0	234
Other	4	0
<b>Total</b>	<b>9,690</b>	<b>16,357</b>

As of the 30 September 2016 reporting date, contributions by silent partners include a € 1,500 thousand (previous year: € 1,500 thousand) contribution by Hessen Kapital I. Of the contribution by Hessen Kapital I GmbH, 20 % is repayable on 30 June 2022, a further 20 % on 30 June 2023 and 60 % on 30 June 2024. As of 30 September 2015, silent partners' contributions included a € 840 thousand contribution by MBG H Mittelständische Beteiligungsgesellschaft Hessen mbH (MBG H), Frankfurt am Main, that was repaid as scheduled on 31 March 2016. The liabilities due to silent partners are to be reported as current financial liabilities on the reporting date due to an extraordinary termination right, as the company has failed to meet a deadline for providing information when implementing certain measures. The contractual remaining term of more than five years becomes valid again as this duty is complied with as of the date of the preparation of these financial statements.

The company pays fixed remuneration equivalent to nominal 9.0 % p. a. on the contribution of Hessen Kapital I GmbH and a profit participation equivalent to the ratio between the nominal level of the silent partnership of MBG H and the nominal level of the equity of BRAIN AG, albeit to a maximum of 2.5 % of the contribution and not more than 50 % of the profit for the year.

BRAIN AG is entitled to call the silent partner contributions by MBG H and Hessen Kapital I GmbH prior to the agreed dates; due to the negative consequences this would have for the company (prepayment penalties), this option effectively has no economic value for the company, however. The silent partnerships do not participate in any losses. No obligation exists to provide additional funding.

At the end of the previous financial year on 30 September 2015, subordinated liabilities of € 5.5 million with 5 % p. a. interest existed that were due to shareholder MP Beteiligungs-GmbH. These liabilities were repaid in full in the second quarter of the 2015/16 financial year.

Bank borrowings and other loans are recognised at cost. Land charges exist with compulsory enforcement clauses on land owned by BRAIN AG with a notional value of € 3.5 million (previous year: € 3.5 million). All land charges serve to secure bank borrowings, which amount-

ed to € 1,333 thousand at the end of the reporting period (previous year: € 1,833 thousand). The land charges rank behind an unassigned land charge in favour of the owner amounting to € 500 thousand (previous year: € 500 thousand).

In the case of the L.A. Schmitt GmbH subsidiary, the financial liabilities (€ 158 thousand as of 30 September 2016; € 197 thousand as of 30 September 2015) are secured by land charges on its business property amounting to € 400 thousand (previous year: € 400 thousand) and by a global assignment of trade receivables and the assignment of inventories. Other than standard retention of title from individual contracts, no other liabilities are secured by liens or similar rights. The carrying amount of the collateral furnished at the end of the reporting period stood at € 4,947 thousand (€ 4,857 thousand as of 30 September 2015).

The nominal interest rate on the fixed interest loans amounts to between 1.95 % (previous year: 1.95 %) and 6.01 % (previous year: 6.75 %) p. a. The Group has no significant variable interest liabilities.

The factoring liability derives from the carrying amount of the receivables transferred to the factor (€ 359 thousand) less a surety retention (€ 36 thousand).

The following table shows the nominal amounts due at the financial liabilities' terms:

30.09.2016 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners <sup>17</sup>	0	0	1,500
Liabilities from acquiring interests in fully consolidated companies	0	2,300	0
Finance leasing	59	126	0
Factoring liabilities	323	0	0
Non-controlling interests' compensation entitlements	773	1,546	0
Loans	792	2,348	0
Other	1	0	3
<b>Total</b>	<b>1,949</b>	<b>6,321</b>	<b>1,503</b>

30.09.2015 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners	840	0	1,500
Liabilities from acquiring interests in fully consolidated companies	0	2,348	0
Finance leasing	86	85	0
Factoring liabilities	253	0	0
Non-controlling interests' compensation entitlements	0	1,918	0
Loans	924	8,583	0
<b>Total</b>	<b>2,103</b>	<b>12,936</b>	<b>1,500</b>

<sup>17</sup> For more information, see the remarks above concerning the contribution by Hessen Kapital I GmbH.

The contractually agreed due dates for principal and interest payments, and for profit-related payments, are shown in the following overview.

30.09.2016 € thousand	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Principal repayments	1,950	1,629	3,618	271	753	351	300	900	0	0
Interest payments	271	225	190	180	175	163	101	61	0	0
Profit-related payments	38	38	38	38	38	37	28	20	0	0
Total excluding profit-related payments	2,221	1,854	3,808	451	928	515	401	961	0	0
Total including profit-related payments	2,259	1,892	3,845	488	966	551	429	981	0	0

30.09.2015 € thousand	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Principal repayments	2,103	6,547	1,373	4,981	35	0	300	300	900	0
Interest payments	370	293	253	180	135	135	135	128	101	61
Profit-related payments	42	38	38	38	38	38	38	28	17	0
Total excluding profit-related payments	2,473	6,840	1,625	5,161	171	135	435	428	1,001	61
Total including profit-related payments	2,515	6,877	1,663	5,198	208	173	473	456	1,018	61

A debtor warrant has been agreed for one loan of the subsidiary AnalytiCon Discovery GmbH, which includes a payment to the lender in the instance that 75 % of the company's shares are sold. The amount of the loan receivable that would be triggered in this instance depends on the company's total valuation, and varies between € 142 thousand and € 710 thousand depending on the company value that is calculated. The debtor warrant expires on 31 December 2018. Given the current valuations, a payment from the debtor warrant is unlikely. This debtor warrant has consequently been recognised at a valuation of € 0 (previous year: € 0).

## 22 Other liabilities

Non-current other liabilities mainly comprise the share of obligations arising from the employee share scheme at AnalytiCon Discovery GmbH (€ 1,125 thousand) with a remaining term of more than one year.

Current other liabilities are composed as follows:

€ thousand	2015/16	2014/15
Current portion from obligations arising from employee share scheme at AnalytiCon Discovery GmbH	366	0
Wage and salary liabilities	640	118
Accrued vacation pay	684	556
Wage and church tax, social security	204	140
Supervisory Board compensation	134	60
Special payments to subsidiaries' managements and employees	102	201
VAT	55	147
Customer bonuses	35	46
Miscellaneous other liabilities	144	225
<b>Total current other liabilities</b>	<b>2,364</b>	<b>1,493</b>

## 23 Deferred income

Deferred income is composed as follows:

€ thousand	2015/16	2014/15
<b>Grants and subsidies</b>		
of which with a term up to one year	29	54
<b>Deferred revenue from one-time fees</b>		
of which with a term up to one year	379	334
of which with a term of more than one year	100	20
<b>Total deferred income</b>	<b>508</b>	<b>408</b>

## 24 Provisions

The amount reported relates primarily to the estimated expenses for preparing and auditing the financial statements, audit and consulting expenses, and expenses from the employee incentive scheme at BRAIN AG. Utilisation is anticipated mainly within the following financial year. As of the date of the preparation of this balance sheet, an actual payment amount for the employee incentive scheme of BRAIN AG of approximately € 800 thousand is anticipated on the basis of the share price performance until 31 December 2016.

The following table provides an overview of related changes:

	30.09.2015	Utilisation	Release	Addition	30.09.2016
Archiving costs	28	0	0	1	29
Costs for financial statements, auditing and consulting	198	-192	-1	336	341
Decommissioning and dismantling	0	0	0	52	52
Incentive program for BRAIN AG employees	0	0	0	424	424
Other	63	-48	0	7	22
<b>Total</b>	<b>289</b>	<b>-240</b>	<b>-1</b>	<b>820</b>	<b>868</b>

## 25 Prepayments received

Prepayments received are attributable primarily to research and development services and future supplies and have a maturity of up to one year.

## 26 Trade payables

Trade payables have a term up to one year and also include deferred liabilities for goods and services.

## VI. Financial instruments/risks from financial instruments

The following overview presents recognised financial instruments based on their IAS 39 measurement categories. To improve the presentation of the financial instruments relevant to the company in terms of their comparable measurement uncertainties and risks, cash and cash equivalents are presented separately from the other financial instruments in the LaR category in the following.

The following abbreviations are used for the measurement categories:

Abbreviation	IAS 39 measurement categories	
AfS	Available for Sale	Available-for-sale financial assets
LaR	Loans and Receivables	Loans and receivables
FVTPL	Fair Value Through Profit or Loss	Financial assets measured at fair value through profit or loss
LVTPL	Financial Liabilities at fair Value Through Profit or Loss	Financial liabilities measured at fair value through profit or loss
OL	Other Liabilities	Financial liabilities measured at (amortised) cost

In the reporting period is presented, no financial assets or liabilities existed in the "held for trading" (HfT) category.



No reclassifications of financial assets or liabilities occurred in the 2015/16 financial year or in the previous year.

Financial assets and liabilities are as follows on a summarised basis:

Category	Category	Carrying amount		Cost IAS 17	Fair value	
		30.09.16 (30.09.15)	Amortised cost		Fair value through profit or loss	30.09.16 (30.09.15)
€ thousand	IAS 39					
<b>Assets</b>						
Available-for-sale financial assets	AfS	0 (0)	0 (0)			
Trade receivables	LaR	5,683 (3,934)	5,683 (3,934)			
Other current and non-current assets	LaR	96 (25)	96 (25)			96 (25)
Other financial assets	LaR	10,400 (300)	10,400 (300)			
Cash and cash equivalents	LaR	8,261 (3,180)	8,261 (3,180)			
<b>Total</b>		<b>24,439</b> <b>(7,439)</b>	<b>24,439</b> <b>(7,439)</b>			<b>96</b> <b>(25)</b>
<b>Liabilities</b>						
Trade payables	OL	2,862 (3,082)	2,862 (3,082)			
Financial liabilities	LVTPL	0 (234)			0 (234)	
Financial liabilities	OL	7,367 (14,204)	7,181 (14,030)	186 (174)		7,924 (14,204)
Other liabilities	OL	175 (0)	175 (0)			
<b>Total</b>		<b>10,404</b> <b>(17,520)</b>	<b>10,218</b> <b>(17,112)</b>	<b>186</b> <b>(174)</b>	<b>0</b> <b>(234)</b>	<b>7,924</b> <b>(14,204)</b>

The presentation includes restatements of the previous year's figures in accordance with the restatements explained in the section on other financial assets.

Available-for-sale financial assets consist of an equity investment with a carrying amount of € 1 as of 30 September 2016 (€ 1 as of 30 September 2015). It was measured at fair value at the end of the reporting period. In the previous year, an impairment loss of € 159 thousand was recognised through consolidated profit or loss due to a prospectively significant long-term reduction in fair value.

Intangible assets and property, plant, and equipment, tax assets (current, deferred and other), inventories, and the prepaid expenses included in other assets, and prepayments for items of property, plant, and equipment, do not fall within the scope of IFRS 7.

Share-based employee payment obligations (including the employee share scheme for AnalytiCon), tax liabilities, and social security liabilities are not classified as financial liabilities. Tax liabilities, prepayments received, and deferred income also do not fall within the scope of IFRS 7.

Cash and cash equivalents, other current assets, trade receivables, and trade payables mainly have short remaining terms. As a result, their carrying amounts at the end of the reporting period approximate their fair values. Non-current financial assets comprise deposits and loans extended whose rate of interest mainly corresponds to current market interest-rate levels.

Liabilities to banks and other lenders, as well as to silent partners, reported in current and non-current financial liabilities, are measured at amortised cost. The fair values of financial liabilities are determined by discounting, applying current discount rates that match the maturity and risk of the liabilities. The conditions are described in detail in the notes on "Financial liabilities" (21).

The carrying amounts of the financial instruments measured at fair value are classified as follows in accordance with the IFRS fair value hierarchy: listed prices in an active market (Level 1), valuation techniques based on observable inputs (Level 2), and valuation techniques based on unobservable inputs (Level 3).

No reclassifications between the different hierarchy levels were implemented.

The carrying amount of Level 3 financial liabilities (LVPL) at the end of the reporting period amounted to € 0 thousand (previous year: € 234 thousand). This concerns an earnout regulation connected with the acquisition of WeissBioTech GmbH relating to the subsidiary's distributable profit for the financial year. In this context, expectations related to business development and discounting were undertaken in accordance with the probable maturity applying the discounted cash flow method with an actuarial interest rate of 2.0%. The adjustment to profit and loss of this liability as of the end of financial year in the amount of € 234 thousand (previous year: € 117 thousand) arose from a changed assessment of the development of the WBT Group, which was undertaken within the framework of the annual planning process as of the end of the financial year. A change to the expected distributable profit for the financial year of +10% in every year of the regulation would increase financial liabilities by € 0 (previous year: € 63 thousand).

The contractual undiscounted cash outflows of financial liabilities within the scope of IFRS 7 are shown in the following table:

18 See also remarks under Section (21) Financial liabilities.

30.09.2016 € thousand	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
Silent partnerships (without profit-sharing) <sup>18</sup>	135	135	135	135	135	428	401	961	0	0
Liabilities to lenders	874	887	561	291	785	84	0	0	0	0
Finance lease liabilities	64	57	37	24	8	0	0	0	0	0
Liabilities from factoring	333	0	0	0	0	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	0	0	2,300	0	0	0	0	0	0	0
Other liabilities	175	0	0	0	0	0	0	0	0	0
Trade payables	2,861	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>4,442</b>	<b>1,079</b>	<b>3,033</b>	<b>450</b>	<b>928</b>	<b>512</b>	<b>401</b>	<b>961</b>	<b>0</b>	<b>0</b>

30.09.2015 € thousand	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Silent partnerships (without profit-sharing)	1,012	135	135	135	135	135	428	401	961	0
Liabilities to lenders	1,085	6,723	1,423	913	36	0	0	0	0	0
Finance lease liabilities	86	36	34	16	0	0	0	0	0	0
Liabilities from factoring	253	0	0	0	0	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	0	186	0	2,163	0	0	0	0	0	0
Other liabilities	145	0	0	0	0	0	0	0	0	0
Trade payables	3,082	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>5,663</b>	<b>7,080</b>	<b>1,592</b>	<b>3,227</b>	<b>171</b>	<b>135</b>	<b>428</b>	<b>401</b>	<b>961</b>	<b>0</b>

The following table shows the net gains or losses on financial instruments by measurement category:

€ thousand 2015/16 (2014/15)	From interest and dividends	From subsequent fair value measure- ment/impairment	From disposals	Net gains/losses
Loans and receivables	-166 (7)	-52 (133)	-19 (-83)	-238 (57)
Available-for-sale financial assets	0 (0)	0 (-159)	0 (0)	0 (-159)
Financial liabilities measured at (amortised) cost	-283 (-576)	12 (-299)	0 (0)	272 (-875)
Finance leasing	-7 (-5)	0 0	0 0	7 (-5)
Financial liabilities measured at fair value through profit or loss	0 (0)	234 (117)	0 (0)	234 (117)
<b>Total</b>	<b>-456</b> <b>(-574)</b>	<b>193</b> <b>(-208)</b>	<b>-19</b> <b>(-83)</b>	<b>-283</b> <b>(-865)</b>

Interest income and expenses relating to financial instruments are reported under “finance income” and “finance costs” in the consolidated statement of comprehensive income. The total interest expense relating to financial liabilities that are not measured at fair value through profit or loss amounted to € 476 thousand (previous year: € 581 thousand).

### **Risk management / risks from financial instruments**

The Group’s business activities expose it to various financial risks: credit risk, currency risk, interest rate risk, market risk and liquidity risk.

The company has implemented a risk management system to identify and avoid risks. Among other things, this system is based on rigorous supervision of business transactions, comprehensive exchange of information with the employees responsible, and regular – mostly quarterly – analyses of key performance indicators for the business.

The risk management system was implemented to be able to identify adverse developments at an early stage and launch countermeasures as quickly as possible.

With regard to the financial instruments the company deploys, the objective of the risk management function at BRAIN AG is to minimise the risk exposure deriving from financial instruments. The company does not enter into derivative financial instruments without a corresponding underlying basis transaction. In both the reporting period and the prior-year period, liquid funds were invested with domestic financial institutions that are members of a German deposit protection fund.

The financial instruments that are recognised on the balance sheet can generate the following risks for the company, as a matter of principle:

#### **Credit risk**

Credit risk describes the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Credit risk comprises both counter-

party credit risk and the risk of a deterioration in credit quality, along with cluster risk. The maximum exposure to counterparty credit risk is equal to the carrying amounts of the financial instruments at the end of the reporting period. The counterparty credit risk relevant to the Group's operating activities is represented by the risk that business partners will fail to discharge their payment obligations. Risk concentration is not identifiable in the customer receivables area of the BioScience segment insofar as the claims exist in relation to a group of customers exhibiting above-average creditworthiness. Receivables in the BioIndustrial area exist in relation to a large number of different contractual partners. The credit quality of the contracting parties is assessed to mitigate the counterparty credit risk exposure of customer receivables. The factors assessed include financial position, past experience and other factors. The corresponding financial transactions are mostly entered into only with counterparties with excellent credit ratings. Liquid funds are invested mainly in accounts with domestic financial institutions that are members of a German deposit protection fund.

#### **Currency risk**

In addition, BRAIN AG is exposed to foreign currency risks. Income of € 253 thousand from currency differences (previous year: € 558 thousand) is offset by € 270 thousand of expenses from currency differences (previous year: € 517 thousand), so the resultant effects in both the 2015/16 and 2014/15 financial years largely compensate each other. Due to the fact that foreign currency items basically only have a subordinated significance for the BRAIN Group and, in particular, rate fluctuations and currency exchange effects to the USD are at a low level currently, no hedging measures were considered. Because of the lack of significance, a sensitivity analysis of currency risk in accordance with IFRS 7 would not have further relevance.

#### **Interest rate risk**

Interest rate risk describes the risk of fluctuations in the value of a financial instrument because of changes in market interest rates.

The largest portion of the loan has a fixed-interest period matching its maturity. The company consequently believes that it is not exposed to material direct interest rate risk.

The risk exposures of the loans that match their maturities are limited to the risk that the company cannot benefit from any potentially lower lending rates that may be obtained during the terms of the deposits and loans.

If the market rate of interest for investments were to rise by up to 100 basis points, a one-year investment of the liquid funds and short-term deposits of BRAIN AG as of 30 September 2016 amounting to € 18,261 thousand (previous year: € 3,180 thousand) would increase results by up to € 183 thousand (previous year: € 32 thousand).

Negative rates of interest cannot be excluded. Significant effects on the company's financial position or performance are not anticipated. Risk for significant cash positions is countered through investing them in short-term deposits.

BRAIN AG benefited to only a limited extent from lower market borrowing rates due to the high proportion of fixed interest arrangements for its financial liabilities (>95%; previous year: >95%).

Floating-rate interest liabilities mainly comprise € 323 thousand (previous year: € 253 thousand) of factoring liabilities. Floating-rate interest liabilities are subject to the risk of an increase in market interest rates. If market rates were to rise (decline) by a notional 1 percentage point compared with the rate prevailing at the end of the reporting period, interest expense would increase (decrease) by € 3 thousand (previous year: € 3 thousand).

### Capital management / liquidity risk

The capital management function of BRAIN AG pursues the objective of financing the company's planned growth and of securing corresponding resources for the company's short-term financing requirements. For this reason, a minimum 50 % equity ratio is defined as a target. This was exceeded in the financial year under review due to the IPO and stood at 57 % as of 30 September 2016 (previous year: 18 %). The capital under management includes all current and non-current liability items as well as equity components. Financial terminology as presented in the financial accounts is also utilised for debt and equity management purposes.

BRAIN AG and its subsidiaries are not subject to any capital adequacy requirements above and beyond those in the German Stock Corporation Act (AktG) and the German Limited Liability Company Act (GmbHG).

Financial liabilities of a subsidiary amounting to € 158 thousand (nominal value as of 30 September 2016) are subject to a covenant providing for a minimum equity ratio of 30 % of the subsidiary's total assets. This subsidiary's equity ratio amounted to more than 30 % as of 30 September 2016. The subsidiary's contractual clause concerning a minimum equity ratio of 30 % was also met in the prior financial year. This clause comprised financial liabilities with a nominal value of € 197 thousand as of 30 September 2015. For more information about the silent partners' extraordinary termination right, please refer to Section (21) Financial liabilities.

The liquid funds of BRAIN AG are either cash deposited on current bank accounts and fixed term deposits in euros with a term of not more than twelve months to ensure a high level of liquidity at all times.

### Market risk

The available-for-sale financial assets are exposed to the risk of changes in values. The available-for-sale financial assets of BRAIN AG are not listed on active markets. A 10 % increase (decrease) of value would have increased (decreased) Group profit or loss for the period by € 0 (previous year: € 0).

A more detailed listing of opportunities and risks is also presented in the BRAIN Group management report.

## VII. Other information

### Auditor's fees

The fees paid to or accrued for the auditors of BRAIN AG engaged for the financial year in question comprise the following items:

€ thousand	2015/16	2014/15
Audit services	656	88
of which for the previous year <sup>19</sup>	252	0
Tax advice services	0	2
Other certification services	200	175
of which for the previous year	0	0
<b>Total</b>	<b>856</b>	<b>265</b>

### Related party disclosures

The Management Board and Supervisory Board of BRAIN AG comprise the key management of the BRAIN Group.

#### Management and Supervisory Boards

The company's Management Board consists of the following members:

**Dr Jürgen Eck**, Bensheim (Chairman), CEO  
Diplom-Biologe

**Dr Georg Kellinghusen**, Munich (from 1 January 2016), CFO  
Diplom-Kaufmann

**Drs Henricus Marks**, Oud-Zuilen (from 1 November 2015 to 31 October 2016), COO  
Business Economist

**Frank Goebel**, Kelkheim (from 1 November 2016)  
Diplom-Kaufmann

The Management Board is jointly entitled to represent the company. If only one Management Board Member has been appointed, this Management Board member is entitled to represent the company alone.

<sup>19</sup> The higher auditing fees arise mainly from greater requirements made of the consolidated financial statements and reporting due to the planned stock market listing

Management Board compensation in the year under review amounted to:

€ thousand	2015/16	2014/15
Fixed compensation <sup>20</sup>	591	345
Cost of pensions and surviving dependants' and disability benefits arising from defined contribution commitments	43	2
Cost of pensions and surviving dependants' and disability benefits arising from defined benefit commitments <sup>21</sup>	110	157
Performance-related remuneration <sup>20</sup>	180	106
Termination benefits	150	0
Share-based compensation	910	0
<b>Total</b>	<b>1,984</b>	<b>610</b>

Pension provisions of € 1,144 thousand (previous year: € 934 thousand) have been formed for former Management Board members.

The service cost recognised for this purpose amounts to € 89 thousand (previous year: € 89 thousand, included in the above table under 2014/15 among cost of defined benefit commitments, as the Management Board member was active in the previous year). In the financial year under review, share-based payments of € 919 thousand were recognised for former Management Board members for the first time (see remarks in Section "Accounting policies", in the section on "Share-based payment and other long-term employment benefits").

The Management Board members are members of the following supervisory boards or comparable supervisory bodies:

**Dr Jürgen Eck**

Supervisory Board member, Enzymicals AG, Greifswald

**Dr Georg Kellinghusen**

WIV AG, Burg Layen (Supervisory Board member)

Neue Wirtschaftsbriefe GmbH & Co. KG, Herne (Advisory Board member)

Deutsche Bank AG, Frankfurt (Regional Advisory Board member)

The Management Board directly holds 754,166 shares as of the reporting date.

The company's Supervisory Board included the following members in the financial year under review:

**Dr Ludger Müller**, Kaiserslautern (Vorsitzender)

Managing Director, MP Beteiligungs-GmbH

**Dr Holger Zinke**, Heppenheim (Deputy Chairman)

Managing Director, GI Management GmbH

**Siegfried L. Drueker**, Bad Homburg

Managing Director, Drueker GmbH & Co. KG

<sup>20</sup> Short-term employee benefits

<sup>21</sup> Stated amount includes only service costs. (See also section (5) Personnel expenses)



**Dr Georg Kellinghusen**, Munich (until 31 December 2015)  
Managing Director, MP Beteiligungs-GmbH (until 31 December 2015)

**Christian Koerfgen**, Bad Soden am Taunus (from 1 January 2016)  
Partner 'Leader Selection', Bad Soden am Taunus

**Prof Dr Klaus-Peter Koller**, Bad Soden am Taunus  
Independent management consultant

**Dr Matthias Kromayer**, Munich  
Management Board member, MIG Verwaltungs AG

The Supervisory Board members are members of the following supervisory boards or comparable supervisory bodies:

**Dr Ludger Müller**  
Technical University of Kaiserslautern (University Council Chairman)

**Dr Holger Zinke**  
Technical University of Darmstadt, Deputy Chairman of the University Council  
Mannheim University of Applied Sciences, University Council member

**Siegfried L. Drucker**  
Georgsmarienhütte Holding GmbH (Chairman)  
Georgsmarienhütte GmbH

**Dr Georg Kellinghusen**, (until 31 December 2015)  
WIV AG, Burg Layen (Supervisory Board member)  
Neue Wirtschaftsbriefe GmbH & Co. KG, Herne (Advisory Board member)  
Deutsche Bank AG, Frankfurt (Regional Advisory Board member)

**Christian Koerfgen**, Bad Soden am Taunus (from 1 January 2016)  
MP Beteiligungs-GmbH (Advisory Board member)

**Dr Matthias Kromayer**  
Amsilk GmbH, Martinsried (Deputy Chairman of the Advisory Board)  
Biocrates AG, Innsbruck (Deputy Chairman)  
Cerbomed GmbH, Erlangen (Advisory Board Chairman)  
Immatics GmbH, Tübingen (Advisory Board member)  
Nexigen GmbH, Cologne (Advisory Board Chairman)

The **Audit Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Siegfried L. Druker**, Bad Homburg (Chairman)  
Managing Director, Druker GmbH & Co. KG

**Dr Matthias Kromayer**, Munich  
Management Board member, MIG Verwaltungs AG

**Dr Ludger Müller**, Kaiserslautern  
Managing Director, MP Beteiligungs-GmbH

The **Nomination Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr Ludger Müller**, Kaiserslautern (Chairman)  
Managing Director, MP Beteiligungs-GmbH

**Dr Matthias Kromayer**, Munich  
Management Board member, MIG Verwaltungs AG

**Dr Holger Zinke**, Heppenheim  
Managing Director, GI Management GmbH

The **Personnel Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr Ludger Müller**, Kaiserslautern (Chairman)  
Managing Director, MP Beteiligungs-GmbH

**Dr Matthias Kromayer**, Munich  
Management Board member, MIG Verwaltungs AG

The compensation of the Supervisory Board in the year under review was composed as follows:

€ thousand	2015/16	2014/15
Fixed compensation <sup>22</sup>	132	37
of which allowance for special functions	19	
Attendance fees <sup>22</sup>	54	28
<b>Total compensation</b>	<b>186</b>	<b>65</b>

The Supervisory Board indirectly holds 1,350,000 shares in the company as of the reporting date. Please also refer to the information in the compensation report presented in the Group management report.

<sup>22</sup> Short-term employee benefits

### Other relationships with related parties

In the 2015/16 and 2014/15 financial years, the following supplies or purchases of goods and services existed between the members of the governing bodies (Management and Supervisory board members) and their related parties and associated companies of the BRAIN Group and entities with significant influence over BRAIN AG.

In the 2015/16 and 2014/15 financial years, rental relationships existed between BRAIN AG and the Deputy Supervisory Board Chairman of BRAIN AG, Dr Zinke, or companies that he controls. The generally indefinite rental contracts can be cancelled with a six-month notice period as of the quarter-end.

In the 2015/16 financial year, BRAIN AG purchased € 68 thousand (previous year: € 68 thousand) of rental services from Dr Zinke, plus incidental costs of € 10 thousand (previous year: € 10 thousand). Also in the 2015/16 financial year, companies controlled by Dr Zinke purchased € 14 thousand (previous year: € 14 thousand) of rental services from BRAIN AG. The rental services were based on an average rental cost of € 7 plus incidental costs per square metre of office space, of which the by far predominant proportion comprised office premises.

MP Beteiligungs-GmbH, Kaiserslautern, held more than 25 % but less than 50 % of the shares of BRAIN AG as of 30 September 2016. Based on the master lending agreement presented below, in the 2014/15 financial year MP Beteiligungs-GmbH granted to BRAIN AG a subordinated loan in several tranches totalling € 5.5 million. Two further tranches of € 1.0 million each were drawn down in the 2015/16 financial year. A partial amount of the loan of € 1,811 thousand was converted into the capital reserves at nominal value (see remarks on equity in Section 20). The remaining amount of € 5,689 thousand was repaid in full in the 2015/16 financial year. The interest cost for this loan amounted to € 102 thousand in the 2015/16 financial year (previous year: € 110 thousand). A temporary master lending agreement until 31 December 2016 continues to exist on an unchanged basis with MP Beteiligungs-GmbH for subordinated loans up to a level of € 10.0 million with a 5.0 % interest rate. This loan was not drawn upon as of 30 September 2016, however.

Enzymicals AG, Greifswald, is an associate company pursuant to IAS 28.2 and consequently to be categorised as a related party pursuant to IAS 24.9. In the 2015/16 financial year, Enzymicals AG rendered € 0 thousand (previous year: € 30 thousand) of research and development services to BRAIN AG. As of the reporting date, BRAIN AG was owed € 102 thousand (previous year: € 102 thousand) of loan and interest receivables by Enzymicals AG. The interest income for this 6.0 % loan amounted to € 7 thousand in the 2015/16 financial year (previous year: € 7 thousand). As far as the term is concerned, please refer to the following section on contingent liabilities and other financial obligations.

No receivables were due from directors of BRAIN AG or individuals related to these directors as of 30 September 2016. As of the 30 September 2016 reporting date, the following outstanding balances existed in relation to the aforementioned parties, which are reported under other liabilities, and aforementioned compensation elements:

- Payments to the Supervisory Board: € 133,625 (previous year: € 59,750);
- Payments to the Management Board: € 330,000 (previous year: € 105,500);
- Accrued expenses for vacation outstanding (Management Board): € 17,228 (previous year: € 44,586);

No other obligations exist in relation to the key management personnel of BRAIN AG.

### Contingencies and other financial commitments

No contingent liabilities to third parties existed at the end of the reporting period. Other financial commitments (operating leases) relate inter alia to telecommunication systems whose contract terms are extended automatically by one year unless terminated, technical storage systems with fixed terms of between seven months and five years, and working attire rental services with a contractual notice period of six months as of the calendar year-end. In addition, land and buildings are leased at the company sites of BRAIN AG, AnalytiCon GmbH, WBT GmbH and Monteil Cosmetics International GmbH. The rental contracts have terms between 0.3 and 9.2 years.

The minimum rent payments and lease payments have the following terms:

€ thousand	30.09.2016	30.09.2015
Remaining term of up to 1 year	428	411
Remaining term between 1 and 5 years	1,057	105
Remaining term of more than 5 years	1,108	0
<b>Total</b>	<b>2,593</b>	<b>517</b>

The total amount of rent and lease payments expensed in the financial year under review amounts to € 459 thousand (previous year: € 403 thousand).

As of the 30 September 2016 balance sheet date, obligations of € 47 thousand (previous year: € 77 thousand) exist from contracts entered into due to third-party work conducted in the research and development contract area.

As at the end of the previous financial year, as of 30 September 2016 no obligations exist arising from investment projects that have been commenced.

Contingent purchase price obligations exist for intangible assets that depend on the achievement of specific future revenue using these intangible assets up to a maximum amount of € 160 thousand (previous year: € 160 thousand).

As part of a lending facility with a term until 31 December 2017 that is not fully utilised, Enzymicals AG was granted the right to draw down a further € 40 thousand of short-term loans from BRAIN AG.

The Management Board is not aware of other facts or circumstances that could lead to material additional financial commitments.

## Employees

The number of employees reports the following changes:

	2015/16	2014/15
<b>Total employees, of whom</b>	<b>204</b>	<b>191</b>
Salaried employees	191	181
Industrial employees	13	10

The BRAIN Group also employs grant recipients (7, previous year: 11) and temporary help staff (10, previous year: 13).

## Statement of conformity to the German Corporate Governance Code

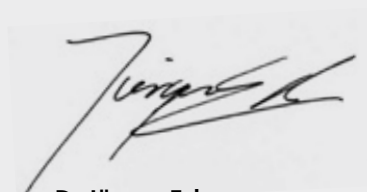
The statement of conformity to the German Corporate Governance Code as required by Section 161 of the German Stock Corporation Act (AktG) was issued by the Management and Supervisory Boards and published on the company's website.

## Events after the reporting date

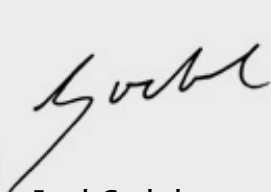
As of 31 October 2016, Mr Henricus Marks stepped down from the Management Board at his own wish and for personal reasons. Mr Frank Goebel was appointed to the Management Board of BRAIN AG as of 1 November 2016.

Since the 30 September 2016 reporting date, no further significant events and developments of particular importance for the company's financial position and performance have occurred.

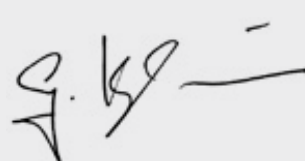
Zwingenberg, 13 January 2017



**Dr Jürgen Eck**  
Management Board  
Chairman (CEO)



**Frank Goebel**  
Management Board  
member



**Dr Georg Kellinghusen**  
Management Board  
member

# Auditor's report

“We have audited the consolidated financial statements – comprising balance sheet, statement of comprehensive income, statement of changes in equity, statement of cash flows, and notes to the financial statements – as well as the Group management report, for the financial year from 1 October 2015 to 30 September 2016, as prepared by B.R.A.I.N. Biotechnology Research and Information Network AG, Zwingenberg. The company's Management Board is responsible for the preparation of the consolidated financial statements and of the Group management report in accordance with IFRS as applicable in the EU, as well as the commercial law regulations that are to be applied additionally pursuant to Section 315a (1) of the German Commercial Code (HGB). Our task is to issue an evaluation of the consolidated financial statements and Group management report based on the audit we conduct.

We conducted our audit of the consolidated financial statements pursuant to Section 317 HGB in compliance with German generally accepted standards for the audit as promulgated by the Institute of Public Auditors in Germany (IDW). Accordingly, the audit is to be planned and conducted so that errors and infringements significantly affecting the presentation of the view of the financial position and performance as conveyed by the consolidated financial statements and Group management report, in compliance with applicable accounting regulations, are identified with sufficient certainty. When setting audit activities, knowledge concerning the operating activities and the Group's economic and legal environment, as well as expectations about potential errors, is taken into consideration. As part of the audit, the efficacy of the accounting-related internal control system and evidence for the disclosures made in the consolidated financial statements and Group management report are appraised predominantly on the basis of random samples. The audit includes an assessment of the separate annual financial statements of the companies included within the consolidated financial statements, the delineation of the consolidation scope, the accounting principles applied, and significant estimates made by the Management Board, as well as an evaluation of the overall presentation of the consolidated financial statements and Group management report. We are of the opinion that our audit forms a sufficiently secure basis for our assessment.

Our audit has not led to reservations. In our assessment based on the findings from the audit, the consolidated financial statements correspond to IFRS as applicable in the EU and the commercial law regulations to be applied additionally pursuant to Section 315a (1) HGB, and in compliance with these regulations convey a true and fair view of the Group's financial position and performance. The Group management report is consistent with the consolidated financial statements, conveys overall an appropriate view of the Group's position, and suitably presents the opportunities and risks pertaining to future development.”

Frankfurt am Main, 14 January 2017

**PricewaterhouseCoopers**  
**Aktiengesellschaft, Wirtschaftsprüfungsgesellschaft**

**Andreas Bröcher,**  
**Certified Public Auditor**

**ppa. Diana Plaum,**  
**Certified Public Auditor**

06

# Further information

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# Glossary

## B

### **B2B market**

Business-to-Business: type of market where goods and services are delivered and rendered by businesses to businesses.

### **BaFin**

German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)

### **Bauhaus**

Founded in Weimar in 1919 by Walter Gropius as an interdisciplinary university of design with an international focus, that aimed to achieve perfect unity between the arts, crafts and architecture. BRAIN's headquarters are located in a listed Bauhaus building that was revitalised with meticulous attention to detail.

### **Bioactive natural substances**

Bioactive natural substances are used to develop products for the food, cosmetics and chemical industries.

### **Bioactive compounds**

Compounds that have an influence on living organisms, tissues and cells

### **BioArchive**

Collection of comprehensively characterised culturable microorganisms, characterised natural substances and fractions of edible plant material as well as a multitude of new enzymes and metabolic pathways from organisms that were previously unculturable

### **Bio-based**

Bio-based products are goods manufactured from renewable raw materials.

### **Biocatalysts**

Enzymes that act as catalysts to accelerate (bio)chemical reactions

### **Bioeconomy**

The bioeconomy concept describes the transformation from a petroleum-based economy to one that uses biological resources such as plants, animals and microorganisms.

### **Bioeconomy Council**

Independent advisory body of the German Government that aims to create optimal economic and political conditions for a bio-based economy

### **BioIndustrial**

Development and marketing of the company's own products along the value chain; one of BRAIN's business segments

### **Biologisation of industry**

Use of biological processes in an industrial setting with the aim of creating a more sustainable economy.

### **BioScience**

Cooperation business set up with globally operating industrial partners; one of BRAIN's business segments

### **Biotechnology**

Application-oriented sub-sector of biology that includes insights and methods of microbiology, genetics and biochemistry as well as those of technical chemistry and process engineering.

### **BMBF**

German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung)

### **BNN**

Ticker symbol for the BRAIN AG share

### **Bookbuilding**

Building a book of offers by interested investors to buy a share within a set price range and period (subscription period)

### **Bulk enzymes markets**

Volume-driven, low-margin mass markets for enzymes sold in large volumes. Opposite: high-margin speciality business

### **Business-to-Business (B2B)**

Business relationship between at least two companies

### **Business-to-Consumer (B2C)**

Communication and business relationships between companies and private individuals (consumers, customers)

## C

### **CAGR**

Compound annual growth rate

### **Cash flow**

Inflow (= positive cash flow) or outflow (= negative cash flow) of liquid assets (cash and cash equivalents) during a period

### **CEO**

Chief Executive Officer



### **CFO**

Chief Financial Officer

### **Clone**

Identical copy of a DNA molecule

### **Compliance**

Compliance in companies with laws and directives, as well as voluntary codes

### **Consumer goods**

All goods that are consumed or used by consumers (end users)

### **Corporate governance**

Legal and effective regulatory framework for the responsible management and controlling of a company

## D

### **D&O**

Directors and officers: Members of the Management and Supervisory Boards, as well as directors, company officers and senior employees

### **Designated Sponsor**

Financial service provider that provides binding price limits for the purchase and sale of securities (quotes) in electronic trading, thereby insuring their marketability.

### **DCGK (German Corporate-Governance Code)**

Main statutory regulations concerning corporate governance and internationally recognised standards of good and responsible corporate management

### **DNA**

Deoxyribonucleic acid: biomolecule that carries genetic information (genes)

### **DOLCE**

Strategic partnership for the development of natural sweeteners and sweet taste enhancers

## E

### **EBIT**

Earnings before interest and tax

### **EBITDA**

Earnings before interest, tax, depreciation and amortisation

### **Enzymes**

Effective catalysts for biochemical reactions

### **Equity ratio**

Equity in relation to total assets

### **EU**

European Union

## F

### **Financial year**

Period for which a company's annual financial statements have to be prepared. Does not necessarily coincide with the calendar year. BRAIN's financial year begins on 1 October and ends on 30 September.

### **Free float**

Proportion of a company's shares that are available to trade freely on the market

## G

### **GRAS status**

Generally regarded as safe: declaration of safety for the use of substances to manufacture foodstuffs. GRAS organisms can be used without restriction in biotechnological production.

### **Green Mining**

Use of the binding capacities of special microorganisms to extract metals such as gold, silver and copper by resource-conserving methods

### **Greenshoe**

Clause in underwriting agreement where the issuer authorises a banking syndicate to distribute additional shares in the event of exceptional public demand

## H

### **Habitat**

The natural environment of an organism

### **HGB**

German Commercial Code

### **Horizon 2020**

EU research and development programme with a budget of approximately € 80 billion over a period of seven years (2014–2020)

### **HTC technology**

Human Taste Cell technology patented by BRAIN, immortalised cell lines isolated from human taste cells

# I

## **IFRS**

International Financial Reporting Standards

## **Income statement**

Also referred to as a profit and loss (P&L) statement

## **Industrial biotechnology**

Also known as white biotechnology; provides the crucial impulse for a targeted paradigm shift away from chemical towards biological processes

## **Industrial waste streams**

Waste of animal and plant origin that occurs during food production. This offers high energy and chemical potential and can be recycled using a specific combination of different microorganisms.

## **IPO**

(Initial Public Offering) A company's first offering of shares to the public (initial public offering), usually accompanied by simultaneous admission to stock market listing

## **ISIN**

International Securities Identification Number: 12-digit combination of letters and numbers to identify a security

## **Issue price**

Price at which investors in a transaction are allocated securities. The issue price in the BRAIN IPO amounted to € 9.

## **Issuer**

Company offering or issued securities (e.g. shares as part of an IPO)

# K

## **Kondratieff cycles**

Long-term economic cycles that play out over 40–60 years, triggered by path-breaking inventions termed basic innovations

# L

## **Liabilities**

Non-current liabilities plus current liabilities

## **Listing prospectus**

### **Securities prospectus**

Precondition for admission of securities to a public offering; includes information about the issuer, the securities, the risks and the offering

## **Lock-up period**

Period following an IPO when insiders agree not to sell shares to protect the share price from falling

# M

## **M & A**

Mergers & Acquisitions: mergers and acquisitions of companies or parts of companies

## **Market capitalisation**

The market valuation of the entirety of a listed company's equity. Calculated by multiplying the number of the company's shares outstanding by its current share price

## **Metagenome**

All the genomic information present in the microorganisms of a specific community

## **Microorganism**

Microscopically tiny unicellular creature

## **MMPI peptide**

Matrix Metalloproteinase Inhibitor Peptide: bioactive natural substance that prevents skin ageing

# N

## **NatLifE 2020**

Natural Life Excellence Network 2020; development project to which BMBF contributes half of the overall budget of € 30 million as part of its Industrial Biotechnology innovation initiative. The aim of NatLifE 2020 is to use biotechnology and an understanding of biological systems to develop a new generation of sustainably produced biologically active components.

## **Nature's toolbox**

Natural biological diversity; BRAIN has captured and classified this in its own BioArchive and made it available for industrial purposes.

## **Non-current assets**

Property, plant and equipment plus investment property, goodwill, intangible assets and financial assets

## P

### **Peptides**

Usually linear, sometimes annular chain of molecules composed of two or more amino acids

### **Performance microorganisms**

Genetically modified microbial cell factories

### **Prime Standard**

Stock exchange segment of the Frankfurt Stock Exchange organised under private law and regulated by statute, entailing the highest transparency standards and also comprising the precondition for inclusion in the DAX, MDAX, TecDAX and SDAX indices

## R

### **R & D**

Research & development

## S

### **Speciality chemicals**

Specific chemical products with a broad range of activities that many other industrial sectors depend on

### **SRI**

Socially Responsible Investment, or Sustainable and Responsible Investment

### **Stage-gate process**

Standardised process model for developing product innovations with the aim of assuring process quality

### **Strategic alliance**

Agreement between companies to cooperate in particular business activities with the aim of leveraging synergies and achieving competitive advantages.

## T

### **Total operating performance**

Revenue + change in inventories of finished goods and work in progress + other income, including income from R&D grants

## V

### **Volatility**

Degree of variation over a given period of the prices of securities, commodities, interest rates or investment fund shares

## W

### **WKN**

German Securities Identification Number (Wertpapier-Kennnummer): six-digit alphanumeric code to clearly identify a security

## Z

### **ZeroCarb FP**

Zero Carbon Footprint: development project to which BMBF contributes half of the overall budget of € 46 million as part of its Industrial Biotechnology innovation initiative. The aim is to use microorganisms to convert carbon-rich industrial waste into biomass.

# Graphs and Tables

## 01

### Company management 21

Table 01.1	Overview of Supervisory Board meetings in the 2015/16 financial year	30
------------	--	----

## 02

### The company 55

Figure 02.1	Setting the scene	58
Figure 02.2	Growing biotech sales	59
Figure 02.3	Our mission: to enable the bioeconomy	61
Figure 02.4	The segments	62
Figure 02.5	From the BioArchive to the B2B market	64
Figure 02.6	The BRAIN Group	67
Figure 02.7	New Product Development	71
Table 02.1	Key IPO data	85
Figure 02.8	Development of BRAIN share price on the Xetra	86
Table 02.2	Key share data	87
Figure 02.9	Shareholder structure	88

## 03

### Corporate governance report 101

Table 03.1	Composition of the Management Board	107
Table 03.2	Supervisory Board members	111

## 04

### Group management report 131

#### Economic and business report 136

Table 04.1	Extract from the statement of comprehensive income	136
------------	--	-----

Table 04.2	Reconciliation of the reported operating result (EBIT) with the adjusted operating result (adjusted EBIT)	137
Table 04.3	Segment share of total operating performance	139
Table 04.4	BioScience segment	139
Table 04.5	BioIndustrial segment	140
Table 04.6	Extract from the balance sheet	141
Table 04.7	Extract from the cash flow statement	143
Table 04.8	Number of employees	144

#### Compensation report 146

Table 04.9	Call options and Subscription rights to cash payments Dr Jürgen Eck	148
Table 04.10	Call options and Subscription rights to cash payments Dr Holger Zinke	149
Table 04.11	granted, expired, forfeited and exercised stock options	149
Table 04.12	Compensation granted for the 2015/16 financial year on the basis of HGB	151
Table 04.13	Management Board compensation	152
Table 04.14	Supervisory Board compensation	154
Table 04.15	Directors' Dealings	154

#### Report on risks and opportunities 157

Table 04.16	Likelihood of occurring within the next two years	158
Table 04.17	Degree of impact	158
Table 04.18	Risk score	159
Figure 04.1	Risk management system	160
Table 04.19	Presentation of the greatest short- and medium-term risks at BRAIN	165

## 05

### Financial statements 173

Table 05.1	Consolidated balance sheet	175
Table 05.2	Consolidated statement of comprehensive income	176
Table 05.3	Consolidated statement of changes in equity	178
Table 05.4	Consolidated statement of cash flows	179

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[www.brain-biotech.de/en/investor-relations/financial-publications](http://www.brain-biotech.de/en/investor-relations/financial-publications)

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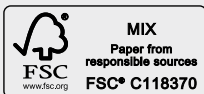
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**reddot award 2017**  
winner

This Annual Report was awarded with the Red Dot Award: Communication Design 2017 for its high design quality and creative performance.



**best of content marketing**  
Silber 2017

Likewise this Annual Report was awarded with a silver certificate in the category Annual Reports Print Industry at the Best of Content Marketing Award, Europe's largest competition for content driven corporate communication.

Addendum 10 August 2017

# Financial calendar

**28 February 2017**      **Publication of the quarterly report for the period ending 31 December 2016 (3M)**

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**09 March 2017**      **Annual General Meeting, Zwingenberg**

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**31 May 2017**      **Publication of the interim report for the period ending 31 March 2017 (6M)**

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**31 August 2017**      **Publication of the quarterly report for the period ending 30 June 2017 (9M)**

## **Disclaimer**

This report might contain certain forward-looking statements that are based on current assumptions and forecasts made by the management of the BRAIN Group and other currently available information. Various known and unknown risks and uncertainties as well as other factors can cause the company's actual results, financial position, development or performance to diverge significantly from the estimates provided here. BRAIN AG does not intend and assumes no obligation of any kind to update such forward-looking statements and adapt them to future events or developments. The report can include information that does not form part of accounting regulations. Such information is to be regarded as a supplement to, but not a substitute for, information prepared according to IFRS. Due to rounding, it is possible that some figures in this and other documents do not add up precisely to the stated sum, and that stated percentages do not reflect the absolute figures to which they relate. This document is a translation of a document prepared originally in German. Where differences occur, preference shall be given to the original German version.



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