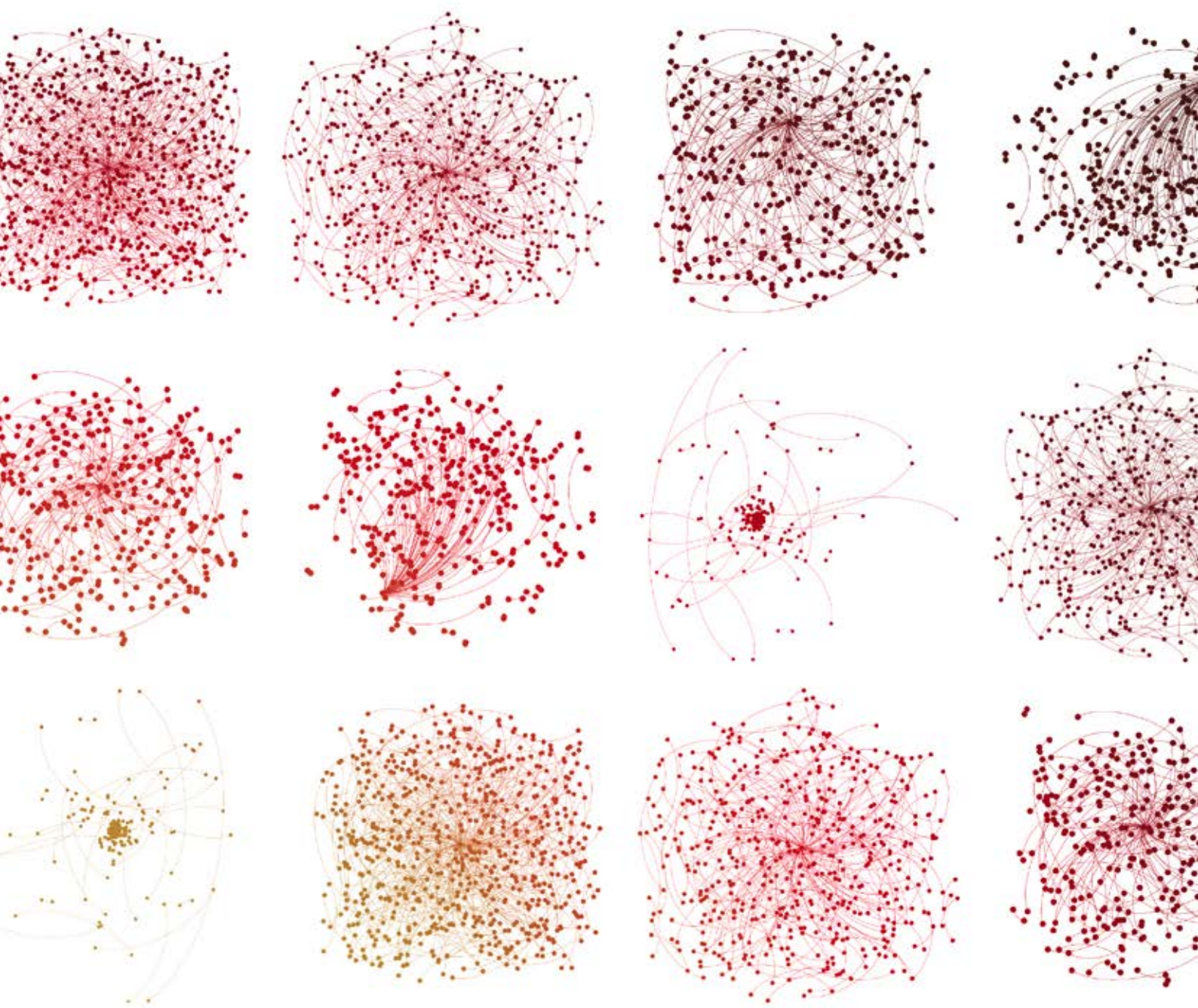


# Living Networks



# BRAIN Group financial highlights

in € million

2017/18

2016/17

2015/16

## Consolidated income statement data:

Revenue	27.1	24.1	22.8
<b>Total operating performance</b>	<b>30.5</b>	<b>26.9</b>	<b>26.1</b>
EBITDA	-6.7	-7.7	-12.4
<b>Adjusted EBITDA</b>	<b>-5.4</b>	<b>-4.7</b>	<b>-6.1</b>
Net loss for the reporting period	-8.3	-9.7	-14.9

## Consolidated balance sheet data:

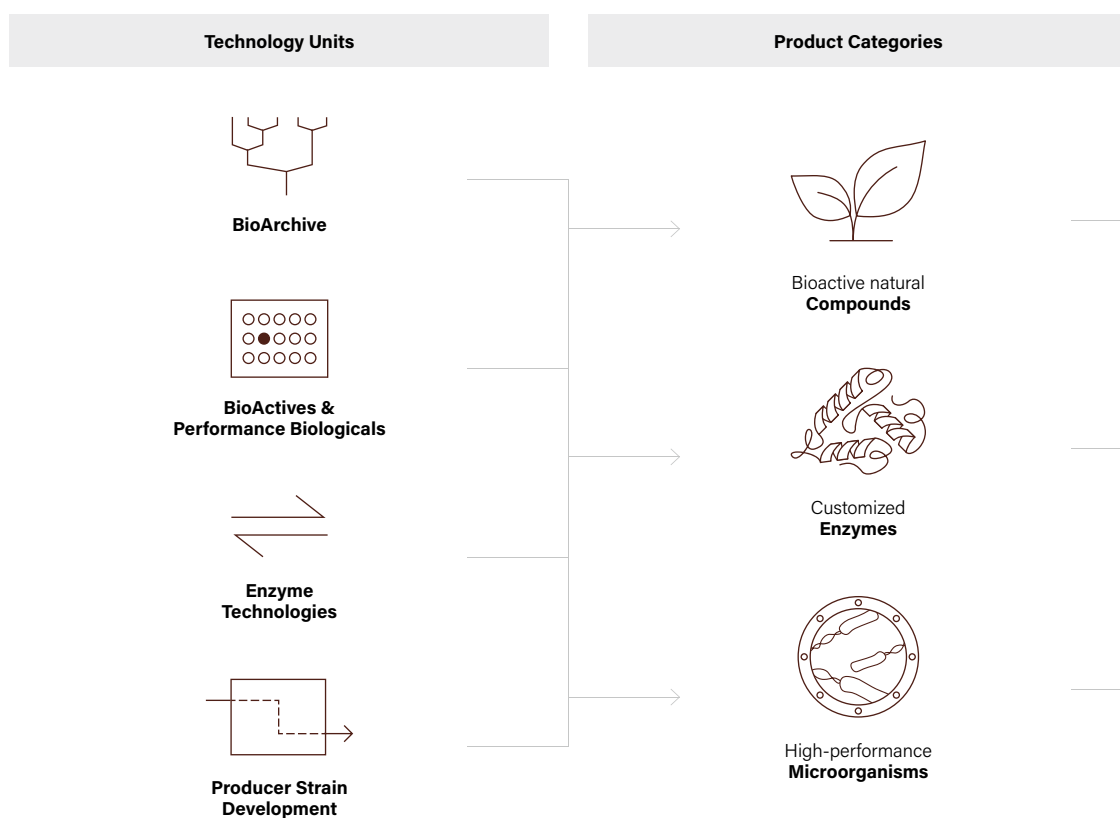
Total equity	30.6	47.4	26.9
<b>Equity ratio (in %)</b>	<b>41 %</b>	<b>69 %</b>	<b>57 %</b>
Total assets	74.5	68.5	47.5

## Consolidated cash flow data:

<b>Cash flows from operating activities</b>	<b>-5.4</b>	<b>-5.8</b>	<b>- 8.7</b>
Cash flows from investing activities	-12.6	8.8	-11.2
Cash flows from financing activities	4.7	27.7	25.0

→ Consolidated financial statements,  
page 151 ff.

## BRAIN BUSINESS MODEL



# Mission Statement

BRAIN is a pacesetter in the bioeconomy and a high-tech pioneer in white industrial biotechnology with a focus on bioactive natural compounds, customized enzymes and high-performance microorganisms. Based on natural species diversity and its proprietary BioArchive, the BRAIN Group develops and markets innovations for Nutrition & Health, Skin Care and Industrial BioSolutions through product sales and development cooperations with industrial partners.

## THE BRAIN GROUP

**B·R·A·I·N**

**AnalytiCon**  
discovery

**BIOCATALYSTS**

**WeissBioTech**

**MONTEIL**  
PARIS

L.A. SCHMITT

**B·R·A·I·N** LLC

**SolasCure**

→ BRAIN Group,  
page 52

### Business Options



Marketing of  
**Products**



Development of tailor-made  
**Solutions**

### Business Units




**Nutrition & Health**



**Skin Care**



**Industrial BioSolutions**



---

“Underpinned by the certainty that BRAIN’s continued growth can be achieved primarily through product scalable businesses, from the beginning of 2018 we implemented measures to strengthen this segment.”

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









**Julian Charrière** On The Sidewalk, Installation view: Jeune Art Suisse, Le Commun – Batiment d'art Contemporain, Geneva, Switzerland, 2013



## ART AS THE GEO-ARCHEOLOGY OF THE FUTURE

While Julian Charrière's work unites art with various sciences, the issues he addresses transcend rigid scientific and artistic categories. From object sculptures, performance and photography to other genres, his approach and the statements his oeuvre makes incorporate aspects of geology, archeology, cultural history and biology. He derives his artistic statements from the simulation of scientific actions.

His works are often based on fieldwork and the search for materials in remote places. Like a researcher in Humboldt's days, he travels the world in search of impressions, insights and materials that he can transform into a work of art. He climbs icebergs, digs deep into the soil of Ethiopia or collects rock samples. What interests Charrière during this process is the relationship between modern civilization and the ancient world of geology. The first is in many ways dependent on the second. This is an interplay that the artist broaches in many of his works. Often, he takes the perspective of a latter-day observer, thus drafting a "geo-archeology of the future".

The works pictured here from the Metamorphism series show a blend of cultural recollections with a geological shell. At first glance, the rocks presented in showcases appear to be meteorites. In reality, though, they are parts of old computers and smartphones (hard disks, etc.), which the artist has melted with magma in Thyssen-Krupp's blast furnaces to produce petrified data. In this way, he takes present-day information technology back to its geological origin. The objects also reflect the extraction and use of mineral resources and the future of our civilization's technological products.

When working on his On the Sidewalk series, he collected core samples from various places, depths and periods, including cores from geological explorations, architectural buildings, modern roads and old Berlin cobblestones. The artist cut these core samples into four parts, reassembled them individually in each sculpture and fastened them with stainless steel clamps. By recomposing the cores, and the stories they contain, the artist mixes and compresses time and space. Each sculpture acts as an avatar of a vertical geological timeline and emphasizes the idea of history as a human construct.

Julian Charrière comes from Switzerland and currently lives in Berlin. In 2013, he completed a course of study at Ólafur Elíasson's Institute for Spatial Experiments in cooperation with Berlin College of Fine Arts. His works have been represented at numerous international exhibitions, including the main exhibition of the Venice Biennale in 2017.



[www.julian-charriere.net](http://www.julian-charriere.net)

The works shown here were not created on behalf of BRAIN.

© copyright: page 3: Julian Charrière, VG Bild-Kunst, Bonn, Courtesy DITTRICH-SCHLECHTRIEM, Berlin, photo credit: Hans-Georg Gaul  
pages 4–5: Julian Charrière, VG Bild-Kunst, Bonn

page 6: Julian Charrière, VG Bild-Kunst, Bonn, Courtesy DITTRICH-SCHLECHTRIEM, Berlin

---

# Solutions inspired by nature

—— A creative spirit and scientific curiosity are an integral part of artistic processes and are essential when it comes to translating biological systems into industrial applications.



Computer-generated  
figure of microdiversity in  
a biological habitat

—— BRAIN sees its corporate action as part of creative societal processes. The company creates links with art and culture in order to strengthen its own creative potential and beyond this, to present its own goals and visions. The works of Julian Charrière show that art may create close links with the natural sciences.

BRAIN applies the term “bioprospecting” to its field research and quest for materials in remote places.

—— In its everyday research activities, BRAIN constantly recombines the growing and often piecemeal knowledge currently available about new or largely unknown biological relationships and systems. The living network of animate nature gives rise to scientific insights that serve as a basis for inventing new industrial applications. Human creative spirit and scientific curiosity thus become an active part of the **living networks** found in nature and find ways to shape and transform them.



---

The living network of animate nature gives rise to scientific insights that serve as a basis for inventing new industrial applications.

---

**80 %**

of all elements in the periodic table are metals, whereas a handful of soil contains millions of different microorganisms. BRAIN translates the biological relationships into disruptive technologies for urban & green mining.

---

**≈ 2000**

different bacteria were collected by BRAIN during bioprospecting in decommissioned mines. The best candidates from among these were selected for the bio-based extraction of metals from waste streams in the BRAIN BioXtractor demonstration plant.



Finely ground gold ore for biological processing with Green Mining technologies.

## CONTENTS – CORPORATE STORIES

Solutions inspired by nature 03

---

BRAIN Group 29

---

BRAIN innovations 69

---

BRAIN networks 95

---

# CONTENTS — REPORT

---

## 01 Company management 11

---

Letter from the CEO	13
Report from the Supervisory Board	16
Senior Management	24
BRAIN Management Board interview	26

---

## 02 The company 41

---

The bioeconomy – the biological transformation of industry	43
Strategy and business model	46
Expertise and product categories	49
Markets and business units	51
BRAIN Group	52
Highlights of the 2017/18 business year	54
Lively corporate culture	58
Staff culture	62
The BRAIN share and the capital market	64

---

## 03 Corporate governance report 77

---

Corporate governance statement	79
Corporate governance practices	91

---

## 04 Group management report 103

---

Basis of the Group	105
Economic and Business Report	108
Compensation report	122
Events after the reporting date	130
Outlook	131
Report on risks and opportunities	132
Takeover-relevant information pursuant to Section 315a of the German Commercial Code (HGB)	145
Corporate governance statement of conformity pursuant to Section 289f and section 315d of the German Commercial Code (HGB)	148
Responsibility statement	148

---

## 05 Financial statements 149

---

Consolidated balance sheet	151
Consolidated statement of comprehensive income	152
Consolidated statement of changes in equity	154
Consolidated statement of cash flows	155
<b>Notes</b>	<b>156</b>
Auditor's report	226

---

## 06 Further information 231

---

Glossary	232
Contact and imprint	238
Financial calendar	239

## 01 Company management

---

11

Letter from the CEO	13
Report from the Supervisory Board	16
Senior Management	24
BRAIN Management Board interview	26



**Dr. Jürgen Eck** — Chief Executive Officer

**Dear shareholders,**

As we prepare our 2017/18 Annual Report, we are experiencing a turbulent start to our new 2018/19 financial year, characterized by significant uncertainty in stock markets. Geopolitical tensions and regional economic issues overshadow a global economic situation. Technology stocks, in particular, have come under pressure. Here it is the case that the smaller the trading volume, the greater the resultant price volatility. The BRAIN share has suffered accordingly. At the end of the 2016/17 financial year, its price amounted to € 19.70, before it climbed to above € 27. As of the end of the 2017/18 financial year, the price stood at € 17.70. Further share price reductions were incurred subsequently and equity markets remained volatile.

This leads to the question of how best to manage BRAIN in such troubled times – a company that is a pioneer in the bioeconomy and is investing in the transition from oil-based processes to bio-based industrial production. A look at the past financial year provides some initial answers.

We are convinced that the bioeconomy is gathering further momentum and we are clearly sensing the confidence that the 21st century will enjoy a more sustainable economy. Nonetheless, we have no wish to obscure the fact that last year we fell short of our own target of participating economically in this megatrend. Especially at the start of our financial year, we have had to recognize that the process of transforming BRAIN into a fully integrated bioeconomy company does not always unfold as rapidly as we might wish. For example, new and follow-up partnerships have been delayed repeatedly in the area of our research cooperations with industrial partners.

“Our exceptional research-driven innovative strength continues to form the core of BRAIN’s success. We continue to see ourselves as well positioned with our current development pipeline and resultant product ideas.”

At a very early stage, we took this as an opportunity to hone our strategy. Driven by the certainty that BRAIN’s continued growth is to be attained chiefly through product-scalable business, we implemented measures from the start of 2018 to

accelerate the strengthening of this segment. Forward-looking steps include focusing on our M&A strategy in order to improve our access to various markets. We succeeded in taking such a step in March 2018 with the acquisition of Biocatalysts Ltd, a leading speciality enzymes company. Greater internationalization and the expansion of global marketing opportunities are also of great significance for BRAIN. The forming of the BRAIN LLC subsidiary, based in Rockville, USA, reflects this objective. Thanks to this newly established presence, our business development in North America and our proximity to customers there has improved since March 2018. Furthermore, the product-specific spin-off of a well-advanced BRAIN development program was completed successfully for the first time. In August 2018, SolasCure Ltd, the first such spin-off from BRAIN, was formed. The company develops and markets innovative medical products for the biological treatment of chronic wounds. These products are based on the innovative wound cleansing enzyme Aurase®, a treatment that BRAIN has developed.

Despite all the challenges, we can look back on a year that the BRAIN team handled well and during which we honed our strategy for the Group’s long-term and sustained growth. On our path to becoming a fully integrated bioeconomy company, we achieved our targeted double-digit sales revenue growth, which was driven mainly by expansion in our strategically important BioIndustrial product segment with the successful integration of Biocatalysts Ltd. into the BRAIN Group.

For some years, we have been realizing significant investments in our research and development activities in order to expand our development pipeline and our strategic networks, which we present to you in greater detail in this 2017/18 Annual Report. The establishment of the three business units of Nutrition & Health, Skin Care and Industrial BioSolutions represents one result from our review of our strategy and development pipeline. This step supports us in our focus on R&D work on our most promising application areas within industrial biotechnology. In order to strengthen our market and product orientation, we also ensured in the 2017/18 financial year that a new role on the Management Board of Chief Business Officer (CBO) was created (see page 26).

Our exceptional research-driven innovative strength still forms the core of BRAIN’s success. We continue to see ourselves as well positioned with our current development pipeline and resultant product ideas. In all three product categories – bioactive natural compounds, customized enzymes and high-performance microorganisms – projects are more advanced, with some on the threshold of market launch.

One member active in a smaller market segment of our DOLCE program for natural sugar substitutes and sweetness enhancers has stepped down for reasons relating to its in-house corporate strategy. However, the DOLCE core team consisting of BRAIN AG, the subsidiary



AnalytiCon Discovery GmbH, and Roquette of France anticipates new partnerships for market segments that have not yet been awarded, underpinned by the achievement of a significant milestone at the start of 2018. Our unique screening technologies based on human taste cell lines are deployed in this program. We have also made progress in our Urban & Green Mining programs for the biological extraction of precious metals from waste flows and ores utilizing microorganisms. Based on successfully scaling up to the metric tonne level for precious metal extraction from ores, we announced our partnership with Evonik subsidiary CyPlus GmbH in June 2018. Our continuing development work on the biotechnological conversion of the greenhouse gas CO<sub>2</sub> in preliminary stages of bioplastics also demonstrates our special expertise for disruptive closed-loop circular economy systems.

Recent development projects that are closely market-aligned include the FRESCO program for bioactive natural products with antimicrobial properties for various industry segments. In December 2018 we were able to launch this program with a first partner active in the global beverage industry. New members of the offering include the TRiP<sup>2</sup>Sensation and TRiP<sup>2</sup>Taste programs. Their aim is to deploy new cell-based assays to investigate skin reactions and taste perceptions in contact with natural substances. This has high relevance for the manufacturing of healthier foods as well as improved cosmetic and skincare products. We present these and other programs that we expect will generate future business and growth for the BRAIN Group in the section entitled BRAIN Innovations (see page 69).

Our goal is to present compelling cases for our products and solutions – which occasionally prove to be groundbreaking in their impact – to our business customers and partners as well as consumers. Our main focus in the 2018/19 financial year continues to be on the Group's growth, driven by both organic and inorganic growth. For the 2018/19 financial year, we expect a positive business trend with a double-digit increase in total operating performance.

This annual report provides insights into the dynamism and determination with which we are committed to a sustainable bioeconomy. On behalf of my Management Board colleagues, I would like to thank all BRAIN Group staff for their special commitment during the past financial year. The success of BRAIN – which in 2018 celebrated the twenty-fifth anniversary of its founding – is based on their innovative spirit and dedication. Our thanks are also due to our cooperation and business partners and, of course, to you, our shareholders, for your unwavering confidence in our work.



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

## Dear shareholders,

In the 2017/18 financial year, BRAIN AG advanced its growth strategy, and reached milestones on its path to becoming a leading bioeconomy company.

Along with continuous operating business activities during the past financial year – which were not entirely satisfactory – successfully achieved milestones include, in particular, the acquisition of the majority interest in the UK company Biocatalysts Ltd. The founding of the US branch operations B.R.A.I.N. Biotechnology Research and Information Network LLC as well as the spin-off of a successful development program into SolasCure Ltd., UK, are also noteworthy in this context. The performance to date of BRAIN AG as well as its prospects continue to prompt interest among correspondingly oriented investors, which was evident not least in numerous meetings arranged at equity capital market conferences. The Supervisory Board continued to play a consultative role in these developments in the past financial year.

The following report provides information about the Supervisory Board's work in the 2017/18 financial year, in other words, from 1 October 2017 until 30 September 2018. During this period, we fulfilled all of 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.

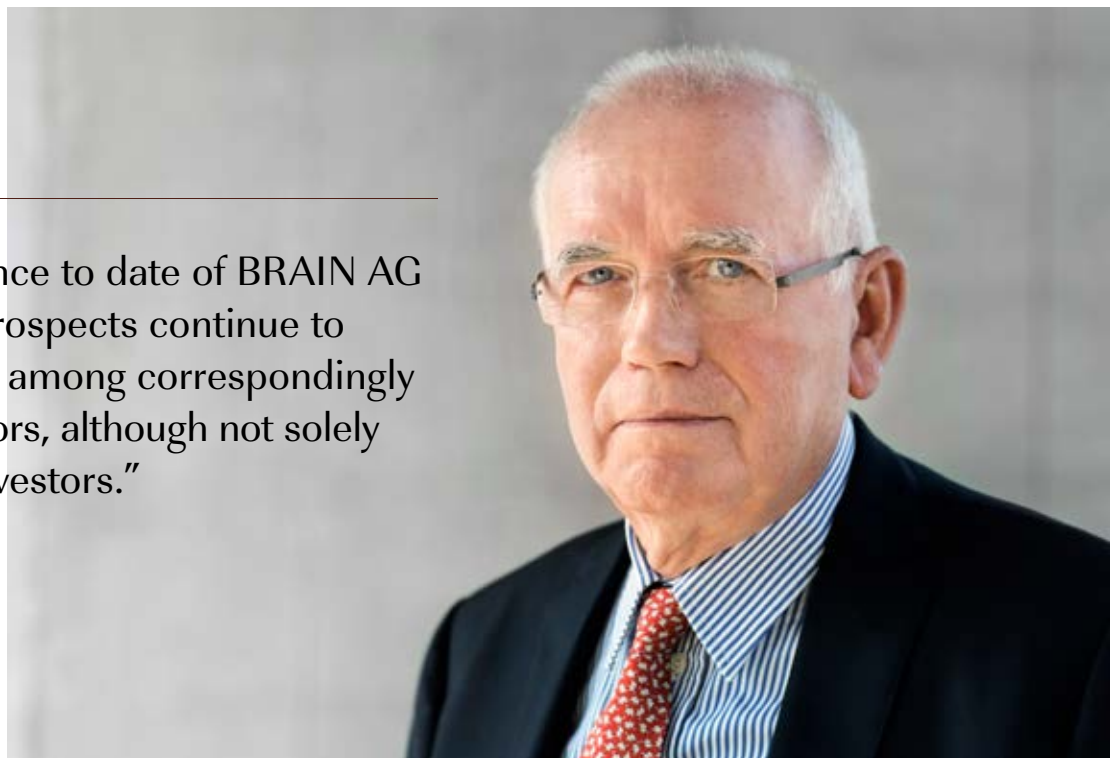
We continuously supervised the Management Board in its management of the business, and consulted on all matters of importance for the company.

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 all matters 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 fully met 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. Collaboration with the Management Board was characterized in all aspects by responsible and purposeful action.

“The performance to date of BRAIN AG as well as its prospects continue to arouse interest among correspondingly oriented investors, although not solely among such investors.”



Dr. Ludger Müller — Chairman of the Supervisory Board

## Personnel matters

The following changes occurred to the composition of the Supervisory Board in the reporting period:

As of the end of the AGM on 8 March 2018, the period of office concluded of Supervisory Board member Prof. Dr. Klaus-Peter Koller, who had had himself be elected to the Supervisory Board in March 2017 for just one further year in light of the requirements of the German Corporate Governance Code (DCGK) concerning the duration of membership on supervisory boards.

On 8 March 2018, the AGM of BRAIN AG appointed Dr. Rainer Marquart to take over the Supervisory Board mandate that was to be reallocated.

No changes occurred to the Management Board during the period under review. In August 2018, however, it was announced that Chief Financial Officer (CFO) Mr. Frank Goebel would step down early from the Management Board, whereby it was agreed that Mr. Goebel would continue to be available on an unrestricted basis until the matter of his succession could be clarified. Consequently, in November 2018 it was announced that Mr. Manfred Bender would be appointed to the Management Board of BRAIN AG as of 1 December 2018, and would assume the role of

Chief Financial Officer (CFO) as of 1 January 2019, while Frank Goebel will leave the company as of the end of the 2018 year. Furthermore, with effect as of 1 January 2019, Mr. Ludger Roedder was appointed as Chief Business Officer (CBO) to the Management Board of BRAIN AG, which consist of three members from January 2019 onwards.

## Supervisory Board meetings

In the 2017/18 financial year, a total of seven Supervisory Board meetings were held on a face-to-face basis, seven face-to-face meetings of the committees, as well as eleven telephone conferences of the Supervisory Board and its committees. The Supervisory Board members always had sufficient time in this context to critically engage with the information submitted by the Management Board, and to 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.

The individualized list of meeting attendances presented below provides additional information about the meetings of the Supervisory Board and its committees.

TABLE 01.1  
**OVERVIEW OF SUPERVISORY BOARD MEETINGS IN THE 2017/18 FINANCIAL YEAR**

Name	Meetings attended <sup>1</sup>	Remarks
Dr. Ludger Müller	12/12	
Dr. Martin B. Jäger	13/13	
Dr. Anna C. Eichhorn	10/10	
Dr. Georg Kellinghusen	11/11	
Prof. Dr. Klaus-Peter Koller (until 8 March 2018)	4/4	Unattended meetings excused
Christian Körfggen	3/7	Successor for Prof. Dr. Klaus-Peter Koller
Dr. Rainer Marquart (from 8 March 2018)	5/6	

Moreover, outside the scope of meetings, the Supervisory Board members, especially myself as Supervisory Board Chairman and Committee Chairman as well as the respective Chairs of the Audit Committee, M&A Committee and Innovation Committee, were in regular communication both with each other as well as with the Management Board. This particularly entailed consultations on questions relating to 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 as of the following plenary or committee meetings.

No conflicts of interest arose within the Supervisory Board in the reporting period.

### Focus consultation areas in the plenary Supervisory Board

During the 2017/18 financial year, we in the plenary Supervisory Board concerned ourselves especially with the following topics:

- Annual financial statements for the 2016/17 financial year
- Corporate governance report and the corporate governance statement of conformity
- Reaching the corporate targets for the 2017/18 financial year relating to developing the BioIndustrial and BioScience operating segments
- Risk management and internal controlling systems
- Strategy development and adapting the strategy for the company
- Planning and implementation of the AGM on 8 March 2018
- Acquisition strategy of BRAIN AG
- Acquisition of a majority interest in Biocatalysts Ltd, UK
- Introduction of an employee stock ownership program (ESOP) for the members of the Management Board
- Founding of and investment in Solascure Ltd
- Current and future research projects
- Strategic alliances and planned partnerships
- Budget for the 2018/19 financial year and planning for the next five years
- Efficiency audit of the Supervisory Board

The Supervisory Board in all cases passed specific resolutions following intensive review and discussion.

The following topics and resolutions are additionally presented:

The Supervisory Board decided to form two further committees in order to enable the respective committee members to provide focused advice to the company's Management Board in the areas of mergers & acquisitions (M&A) as well as innovation strategy and innovation management.

On 15 January 2018, the Supervisory Board approved the financial statements documents for the 2016/17 financial year and concurred with the Management Board's proposal relating to the application of unappropriated profit, after having previously clarified and discussed in depth the financial statements at its face-to-face meetings.

The company's second public AGM was discussed in advance. In particular, election proposals

<sup>1</sup> including committee meetings; based on relevant meetings within the respective mandate period

for the vacant Supervisory Board seat were discussed, and the presentation of the successor candidate was prepared for the Annual General Meeting.

Following the AGM on 8 March 2018, the constituting meeting of the Supervisory Board with its newly elected member, Dr. Rainer Marquart, was held on the same day.

Finally, the recruitment of additional personnel for the Management Board of BRAIN AG formed part of the Supervisory Board's work.

## Committees

The Supervisory Board has currently formed a total of five committees to perform its work efficiently: an Audit Committee, a Nomination Committee, a Personnel Committee, an M&A Committee and a Innovation Committee. Based on their respective rules of business procedure for the committees, these prepare resolutions for the Supervisory Board, as well as topics to be handled by the plenary board. The Supervisory Board's decision-making powers are also transferred to committees where legally permissible. In all cases, the committees' chairs report on the committees' work at the subsequent plenary meeting. The M&A Committee and the Innovation Committee were newly formed in the 2017/18 financial year in order to more effectively support the Supervisory Board in relation to acquisitions and in the area of planning and developing new products and applications.

### Audit Committee

The Audit Committee concerns itself especially with supervising financial accounting, the financial accounting process, the efficacy of the internal control system, the risk management system, the internal audit system, the audit of the financial statements, as well as compliance. The Audit Committee submits a substantiated recommendation for the election of the auditor to the Supervisory Board, which comprises of at least two candidates if the audit mandate is to be put out to tender. The Audit Committee supervises the auditor's independence and concerns

itself with services to be rendered additionally by the auditor, the award of the audit mandate to the auditor, the setting of focus audit areas, as well as arranging the auditor's fee.

Pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG), the audit committee must include at least one supervisory board member with expertise in the financial accounting or financial auditing areas. The Audit Committee Chairman, Dr. Georg Kellinghusen, meets the statutory conditions pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG) and also possesses specialist knowledge and experience as a CFO over a more than thirty-year period, including at four listed companies. His activities focus on controlling, financial matters and financial accounting, among other areas. Moreover, he commands broad knowledge in compliance topics as well as in the investor relations area. Besides the committee chair, the Audit Committee also includes Supervisory Board members Dr. Martin B. Jager and Dr. Ludger Müller.

Furthermore, the Audit Committee has granted its approval that Ernst & Young GmbH as well as management consultancy firms within the group association of Ernst & Young GmbH should render further services besides audit services for the company, having assured itself in this context of the continued independence of Ernst & Young GmbH for the audit mandate.

The Audit Committee held a total of four face-to-face meetings during the 2017/18 financial year.

### Nomination Committee

The Nomination Committee held one face-to-face meeting in the 2017/18 financial year, especially to select an appropriate candidate for the Supervisory Board's election proposal to the AGM on 8 March 2018, as well as one telephone conference. Besides the committee chair Dr. Ludger Müller, the committee comprised of Supervisory Board members Dr. Anna C. Eichhorn and, until he stepped down from the Supervisory Board on 8 March 2018, Prof. Dr. Klaus-Peter Koller. With two members, the Nomination Committee continues to be formed in accordance with the rules of business procedure.

### **Personnel Committee**

The Personnel Committee prepares personnel decisions for the Supervisory Board, especially the selection, appointment and recall from office 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. In addition, the Personnel Committee passes resolutions concerning the representation of the company vis-à-vis 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 committee chair Dr. Ludger Müller, the committee includes Supervisory Board members Dr. Martin B. Jager and Mr. Christian Körfgen.

The Personnel Committee held a total of three telephone conferences during the 2017/18 financial year. The Personnel Committee concerned itself with the appointment of a third Management Board member, in addition to the Chief Executive Officer (CEO), Dr. Jürgen Eck, and the Chief Financial Officer (CFO), Mr. Frank Goebel, and prepared for the appointment of a Chief Business Officer (CBO) for the 2018/19 financial year. Mr. Ludger Roedder was been appointed as a member of the Management Board in the role of CBO with effect as of 1 January 2019. Furthermore, the Personnel Committee concerned itself with the new appointment to the CFO role, and the departure of Mr. Goebel. Mr. Manfred Bender was appointed as a member of the Management Board of BRAIN AG with effect as of 1 December 2018, including to the role of CFO as of 1 January 2019.

### **M&A Committee**

The M&A Committee, which held its constituting meeting on 13 December 2017, advises the Management Board on all relevant strategic questions relating to the initiation and implementation of M&A transactions, especially in reviewing the strategic conformity of planned M&A measures, the implementation of acquisitions or disposals of companies or parts of companies, the valuation of target companies or transactions, the structuring and financing of transactions, the transaction-specific selection of suitable advisors, and the planning and implementation of integration scenarios. The M&A Committee prepares the decisions of the Supervisory Board in relation to the initiation and execution of M&A transactions, and prepares recommendations for Supervisory Board resolutions.

The M&A Committee concerned itself in depth with the acquisition of the majority interest in Biocatalysts Ltd, UK, in the 2017/18 financial year, advised the Management Board on the course of negotiations, and discussed with the Management Board further steps relating to the acquisition strategy. Furthermore, the M&A Committee assessed a further potential acquisition, albeit without the transaction being finally agreed. The M&A Committee held four telephone conferences. Besides the committee chair Dr. Martin B. Jager, the committee includes the Supervisory Board members Dr. Ludger Müller, Dr. Georg Kellinghusen and, since 29 March 2018, Dr. Rainer Marquart.

### **Innovation Committee**

The Innovation Committee held its constituting meeting on 13 December 2017, since when it has advised the Management Board on all matters concerning the company's innovation strategy and innovation management, especially in relation to the planning and development of new products and applications, the allocation of individual projects to business segments or subsidiaries, and the initiation and implementation of research and development partnerships. The Innovation Committee prepares the decisions of the Supervisory Board in relation to

innovation strategy and innovation management, and prepares recommendations for Supervisory Board resolutions. The Innovation Committee held two meetings. Besides committee chair Dr. Anna C. Eichhorn, the committee includes Supervisory Board members Dr. Martin B. Jäger and, after Prof. Koller had stepped down from the Supervisory Board, Dr. Rainer Marquart.

## Corporate governance and the statement of conformity

→ Corporate governance report, page 77

At its meeting, the Supervisory Board consulted on several occasions concerning the company's corporate governance, including requirements deriving from the German Corporate Governance Code (DCGK).

The rules of business procedure for the M&A Committee and Innovation Committee were approved on 27 February 2018 and 29 May 2018 respectively.

The Supervisory Board approved the current statement of conformity in December 2018, after the end of the 2017/18 financial year. The Code's recommendations were, and are, complied with, apart from the exceptions explained in the statement of conformity. 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/investor-relations/corporate-governance/](http://www.brain-biotech.de/investor-relations/corporate-governance/).

Regarding 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. At its meeting on 28 September 2017, the Supervisory Board of BRAIN AG reconfirmed its objective that the Supervisory Board should include one woman, corresponding to a 17% ratio. This corresponds to the status quo, as one woman, Dr. Anna C. Eichhorn, is a member of the Supervisory Board. The target included a deadline of 30 June 2022. Also on 28 September 2017, the Supervisory Board passed

a resolution to leave unchanged the target ratio for women on the Management Board of BRAIN AG of 0% until 30 June 2022.

## Audit of the separate and consolidated annual financial statements

### Auditor

The Annual General Meeting on 8 March 2018 determined that Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY), Stuttgart, should be the auditor for the financial year ending 30 September 2018. This appointment also includes appointing the auditor for the consolidated financial statements for the financial year ending 30 September 2018. Helge-Thomas Grathwol, Diplom-Kaufmann, Wirtschaftsprüfer, Certified Public Accountant (CPA), signs as auditor responsible for the audit, since the financial year 2016/17, and Michael Hällmeyer, Diplom-Kaufmann, Wirtschaftsprüfer, as auditor, as well since the financial year 2016/17. EY audited the separate annual financial statements for the financial year from 1 October 2017 to 30 September 2018, prepared according to the financial accounting regulations of the German Commercial Code (HGB), as well as the management report for BRAIN AG. The auditor EY awarded an unqualified audit certificate. Pursuant to Section 315e of the German Commercial Code (HGB), the consolidated financial statements of BRAIN AG for the financial year from 1 October 2017 to 30 September 2018 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. Moreover, the auditor found that the Management Board has set up an appropriate information and supervision system that is suitable in its design and utilization to identify developments at an early juncture that jeopardize 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 2018 and at the Supervisory Board meeting on 13 December 2018. The auditor EY 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 to respond to additional queries and to provide further information. The review of the separate and consolidated financial statements by the Audit Committee was reported upon in detail by its chair at the plenary meeting. Following in-depth review and discussion of the separate financial statements, the consolidated financial statements and the management report, the Supervisory Board raised no objections against the submitted documents. The Supervisory Board consequently concurred with the Audit Committee's recommendation and approved the result of the audit by the auditor. By way of resolution on 13 December 2018, the Supervisory Board then approved the separate and consolidated annual financial statements of BRAIN AG for the 2017/18 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 1 October 2017 and 30 September 2018 ("dependent companies report") and discussed it extensively with the Management Board as well as with the auditor that additionally 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 led to 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,
2. for the legal transactions listed in the report the consideration rendered by the company was not inappropriately high."

Following the conclusive result 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 that follows 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 2017/18 financial year. We look forward to continuing the past years' growth and success story with them.

Zwingenberg, 13 December 2018



BRAIN AG, The Supervisory Board

**Dr. Ludger Müller** — Supervisory Board Chairman



# Members of the Supervisory Board and Supervisory Board committees

	Further board mandates in 2017/18
<p><b>Dr. Ludger Müller</b> <b>Chairman</b></p> <p>Member since 17 March 2011. Appointed until the AGM 2018/19.</p>	<ul style="list-style-type: none"> <li>Managing Director of KEIPER Brasilien Beteiligungs-GmbH and KEIPER Lateinamerika Beteiligungs-GmbH</li> <li>TU Kaiserslautern, University Council Chairman</li> </ul>
<p><b>Dr. Martin B. Jager</b> <b>Deputy Chairman</b></p> <p>Member since 9 March 2017. Appointed until the AGM 2020/21.</p>	<ul style="list-style-type: none"> <li>until June 2018, member of the Management Board of Herbstreith &amp; Fox Gruppe, Neuenbürg</li> <li>since July 2018 Managing Director and shareholder of InnoVest Nutrition GmbH, Kaiserslautern</li> <li>EIT Food iVZW, Belgium, Supervisory Board member</li> </ul>
<p><b>Dr. Anna C. Eichhorn</b> <b>Supervisory Board member</b></p> <p>Member since 9 March 2017. Appointed until the AGM 2020/21.</p>	<ul style="list-style-type: none"> <li>CEO of humatrix AG, Pfungstadt</li> <li>Management Board member (Deputy Chairwoman) of the Initiative gesundheitswirtschaft-rhein-main e. V.</li> <li>Member of the Supervisory Board of the Frankfurter Innovationszentrums Biotechnologie (FIZ)</li> <li>Member of the Management Board of House of Pharma &amp; Healthcare e. V.</li> </ul>
<p><b>Dr. Georg Kellinghusen</b> <b>Supervisory Board member</b></p> <p>Member since 9 March 2017. Appointed until the AGM 2019/20.</p>	<ul style="list-style-type: none"> <li>Member of the Bavaria Advisory Board of Deutsche Bank AG, Frankfurt am Main</li> <li>Member of the Advisory Board of NWB Verlag GmbH &amp; Co. KG, Herne</li> <li>Member of the Advisory Board of Advyce GmbH, Munich</li> </ul>
<p><b>Prof. Dr. Klaus-Peter Koller</b> <b>Supervisory Board member</b></p> <p>Member since 21 May 2001. Appointed until the AGM 2017/18. (stepped down as of the AGM on 8 March 2018)</p>	<ul style="list-style-type: none"> <li>Member of the Advisory Council and Honorary Member of the German Association for General and Applied Microbiology (VAAM)</li> <li>Member of the Consultant Board for the Subsidy Program of the German Federal Ministry of Education and Research (BMBF) "Validating the Technological and Social Innovation Potential of Scientific Research" (VIP+)</li> <li>Member of the Joint Board of Trustees of the Max Planck Institute for Biophysical Chemistry/ Dynamics and Self-Organization, Göttingen</li> </ul>
<p><b>Christian Körfgen</b> <b>Supervisory Board member</b></p> <p>Member since 1 January 2016. Appointed until the AGM 2018/19.</p>	<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</li> </ul>
<p><b>Dr. Rainer Marquart</b> <b>Supervisory Board member</b></p> <p>Member since 8 March 2018. Appointed until the AGM 2021/22.</p>	<ul style="list-style-type: none"> <li>Leverton GmbH, Berlin, Advisory Board Chairman</li> <li>FLYTXT B.V., Nieuwegein/Netherlands, member of the Board of Directors</li> <li>Onefootball GmbH, Berlin, member of the Advisory Board</li> <li>The Ark Pte. Ltd., Singapore, member of the Board of Directors</li> </ul>

## Audit Committee

**Dr. Georg Kellinghusen**, Chairman, independent

**Dr. Ludger Müller**, Member, not independent

**Dr. Martin B. Jager**, Member, independent

## Nomination Committee

**Dr. Ludger Müller**, Chairman

**Dr. Anna C. Eichhorn**, Member

**Prof. Dr. Klaus-Peter Koller**, Member until 8 March 2018

## Personnel Committee

**Dr. Ludger Müller**, Chairman

**Dr. Martin B. Jager**, Member

**Christian Körfgen**, Member

## M&A Committee

**Dr. Martin B. Jager**, Chairman

**Dr. Ludger Müller**, Member

**Dr. Georg Kellinghusen**, Member

**Dr. Rainer Marquart**, Member since 29 May 2018

## Innovation Committee

**Dr. Anna C. Eichhorn**, Chairwoman

**Dr. Martin B. Jager**, Member

**Prof. Dr. Klaus-Peter Koller**, Member until 8 March 2018

**Dr. Rainer Marquart**, Member since 29 May 2018

# Senior Management

BRAIN has an experienced management team, some of whose members have worked for the company for more than 20 years.

## Business Units

---



**Dr. Martin Langer**  
Member of the Management Board,  
authorised signatory  
Head Business Unit Industrial BioSolutions  
with the company since: March 1995



**Dr. Michael Waidelich**  
Head Business Unit Skin Care  
with the company since: January 2019



**Dr. Wolfgang Ahle**  
New Business Development Enzymes  
with the company since: September 2008



**Dr. Patrick Lorenz**  
New Business Development Nutrition & Health  
with the company since: January 2019



**Dr. Bela Kelety**  
New Business Development Industrial BioSolutions  
with the company since: October 2010

Management Board member Ludger Roedder (CBO) bears responsibility for the Nutrition & Health business unit.

Technology Units

---



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



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



**Dr. Alexander Pelzer**  
Head Technology Unit Enzymes & Biocatalysts  
with the company since: May 2014

Corporate Units

---



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



**Lukas Linnig**  
Head Corporate Unit Finance & Controlling,  
authorised signatory  
with the company since: April 2017

---

# BRAIN Management Board interview



---

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

---

**Ludger Roedder**  
Chief Business Officer  
(CBO)

---

**Manfred Bender**  
Chief Financial Officer  
(CFO)

---

“The establishment of the three business units Nutrition & Health, Skin Care and Industrial BioSolutions serves to focus on our product business.”

Dr. Jürgen Eck — Chief Executive Officer

**Dr. Jürgen Eck (CEO) is a co-founder and since July 2015 Chief Executive Officer of BRAIN AG. Ludger Roedder assumed the newly established position of Chief Business Officer (CBO) as of 1 January 2019. Manfred Bender has been Chief Financial Officer (CFO) since 1 January 2019.**

**Mr. Eck, over the past year, BRAIN's management has set up three new business units. What are the reasons for this?**

**JÜRGEN ECK**

The establishment of the three business units Nutrition & Health, Skin Care and Industrial BioSolutions represents a consistent further development of our growth strategy, and serves to focus on our product business and our most important markets. We have technology units that focus their R&D expertise on innovation for our three product categories of enzymes, natural products and microorganisms. With the product ideas generated by these units we are addressing three major market segments, and for each of these we have established an independent business unit.

**What is the difference between this and the past?**

**JÜRGEN ECK**

The technology units already existed previously. By establishing dedicated business units, we have significantly strengthened our position on the business side. The related background is that we are concentrating on our product-scalable business options – we aim to increase our own product sales by having the BRAIN Group realize direct B2B transactions. We're also focusing on product development together with industrial partners, with subsequent marketing through licensing agreements and other contractual models. We're continuing with our R&D cooperation partnerships to develop customer-

specific solutions for industrial partners, although our focus is on our product business. This is why strengthening the business side is important. The expansion of the Management Board to include a new Chief Business Officer (CBO) goes hand-in-hand with this.

**Has BRAIN's market focus narrowed?**

**JÜRGEN ECK**

With our product categories, we're still in a position to develop bio-based offerings for many different market segments – ranging from food and bioplastics through to mining. The creation of the three business units has enabled us to sharpen our market focus, and consequently also simplify BRAIN's external profile. For example, our Urban & Green Mining programs and the recycling of carbon dioxide are now aggregated within our Industrial BioSolutions business unit. And our active ingredients for cosmetics form part of our Skin Care unit.

**Mr. Roedder, you have been BRAIN's CBO since 1 January 2019. What did your past work concentrate on, and what are you focusing on now at BRAIN?**

**LUDGER ROEDDER**

My expertise and interests form a perfect fit with BRAIN's orientation, in terms of both what it does and its strategy. My most recent position was as Global Business Director at an industrial company with overall responsibility for business development in the food ingredients area, including its enzyme business. I can leverage this experience to specifically expand BRAIN's product-scalable business. In addition to my function as CBO, I've therefore also assumed management of the Nutrition & Health business unit. Additionally, in recent years I've worked mainly in the USA, which is helpful for the company's further internationalization.

“My expertise and interests form a perfect fit with BRAIN’s orientation – in terms of both what it does and its strategy.”

**Ludger Roedder** — Chief Business Officer

**What are the core tasks of the BRAIN business units you manage?**

**LUDGER ROEDDER**

The business units’ task is to analyze rapidly changing market demand and new technology trends, in order to make contact with potential customers and partners, and do business with them. I see myself as a team player and as a catalyst in this regard.

**Mr. Bender, you have been BRAIN’s CFO since 1 January 2019. What do you like about this role?**

**MANFRED BENDER**

BRAIN enjoys an excellent reputation, an attractive R&D pipeline and a strong innovation culture, and it operates in the exciting environment of the growing bioeconomy. I’m very attracted by the fact that as Chief Financial Officer I can help shape this development. Actively accompanying BRAIN on its path to becoming a fully integrated player in the bioeconomy forms a closely related challenge.

**What is your focus at BRAIN and what is your related background experience?**

**MANFRED BENDER**

My last position was as CEO of a successful TecDax company, where I was also responsible for finance, M&A and investor relations. At BRAIN, I’m also focusing on implementing the growth strategy. An important aspect here is our ongoing M&A activities to expand our global B2B market access. In addition, I’m responsible for management of the company’s investments in other companies and, together with my Management Board colleagues, for the controlling of the subsidiaries.

**Are you satisfied with developments during the last business year?**

**JÜRGEN ECK**

On our path to becoming an integrated bioeconomy company, we have achieved the double-digit sales growth we were aiming for. The Group’s growth was driven by our strategically important BioIndustrial product segment, including the successful acquisition of Biocatalysts Ltd. In view of the challenges we faced, particularly at the start of the year, these growth successes were made possible by rapid decisions and the early introduction of growth-based measures. As already mentioned, the integration of Biocatalysts’ specialty enzyme business forms an important pillar in this context. I would like to take this opportunity to thank Frank Goebel once again for his excellent work until his departure as CFO, and for having very successfully looked after our M&A strategy, among his other responsibilities.

My praise and thanks are of course also due to our entire team for having met ever-changing challenges. This spirit is reflected in our excellent research, and in all of our other corporate divisions – and it forms the most important pillar of our continued success.

---

“BRAIN enjoys an excellent reputation, an attractive R&D pipeline and a strong culture of innovation.”

**Manfred Bender** — Chief Financial Officer

Product Categories



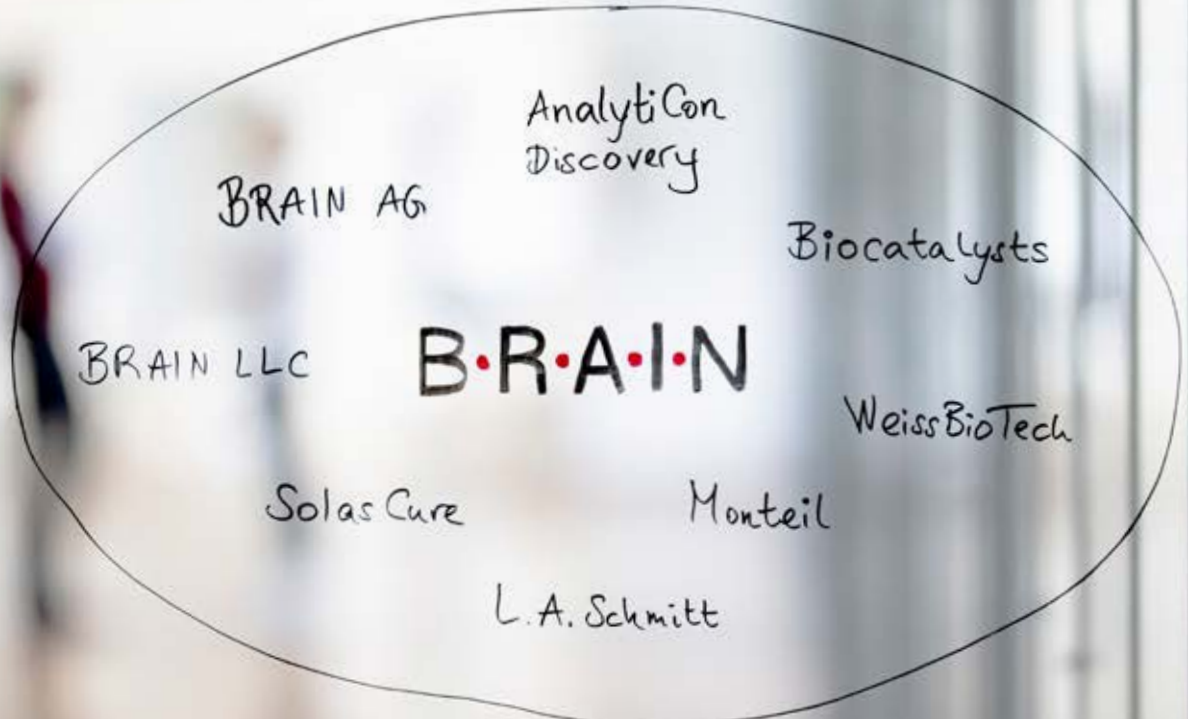
Bioactive natural  
Compounds



Customized  
Enzymes



High-performance  
Microorganisms



Business Units



Nutrition & Health



Skin Care



Industrial  
BioSolutions

**BRAIN Group**

---

# Pioneers in industrial biotechnology



— Strengthening BRAIN by integrating other companies that have specific research skills and access to attractive markets is a key part of BRAIN's industrialization and growth strategy. This harnesses synergies for product business, pools skills, generates new ideas for possible innovations and expands access to specialties markets.

Activities in the fiscal year 2017/18:

- Establishment of BRAIN LLC, the company's US branch
- Acquisition of majority share in Biocatalysts Ltd., UK
- Spin-off of SolasCure Ltd. in UK

— Since 2009, six subsidiaries have been integrated into the parent company B.R.A.I.N. Biotechnology Research and Information Network AG (BRAIN AG for short) to expand the Nutrition & Health and Skin Care business units. There was another spin-off for future skincare product business. So far, BRAIN AG has exclusively handled the development programs of the Industrial BioSolutions business unit.

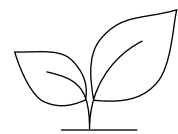


# 3

other companies have strengthened BRAIN's international product business since the fiscal year 2017/18.



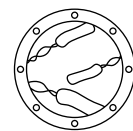
All companies in the BRAIN Group act as independent entities in the fields of research and development, process development and production, or as suppliers in specialty markets.



Bioactive natural  
**Compounds**



Customized  
**Enzymes**

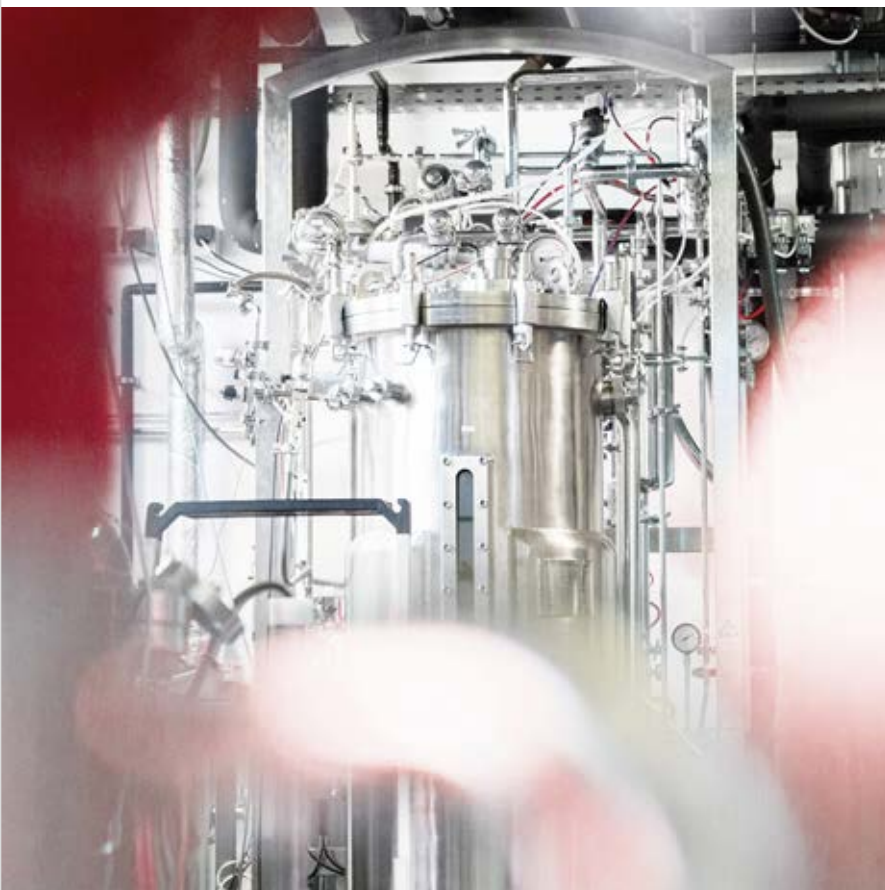


High-performance  
**Microorganisms**

# Engineering Biology

**BRAIN** researches into and develops bioactive natural compounds, customized enzymes and high-performance microorganisms for partners in the BRAIN Group and for external industrial enterprises.

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



**2,500**

square meters of labs, production and office facilities – the size of BRAIN AG's technology campus in Zwingenberg

**53,000**

BRAIN's BioArchives offer access to some 53,000 characterized microorganisms.



**BRAIN AG** in Zwingenberg, Germany is the head office of the BRAIN Group and the location that manages the strategic and administrative resources required for steering research and business activities. Its 125 employees mainly focus on scientific research and development for the three business units Nutrition & Health, Skin Care and Industrial BioSolutions. BRAIN was established in 1993 by bioeconomy visionaries at Technische Universität Darmstadt (TU). In 1996 it moved into the current premises in Zwingenberg, which were extended in 2010. In 2008, the company was transformed into a stock corporation and went public in 2016. BRAIN has cutting-edge laboratories and technologies for scaling up to cubic meter scale.

# The Natural Product Company

— **AnalytiCon Discovery** offers comprehensive excellence for the research and development of natural products for new pharmaceuticals, cosmetics and foodstuffs.

→ [www.ac-discovery.com](http://www.ac-discovery.com)

## 1-1.5

grams of sample are all researchers at AnalytiCon Discovery need to analyze whether plants or microorganisms contain secondary substances that are of interest for industrial applications.



**AnalytiCon Discovery GmbH** has unique resources for discovering and developing actives based on natural products, and cooperates worldwide with companies in the pharmaceutical, food and cosmetics industry. It is a global market leader, with libraries of natural ingredients with fully categorized structures and access to some 15 % of all known secondary substances and thousands of structures that have not yet been published. AnalytiCon Discovery GmbH was founded in 2000, has been a member of the BRAIN Group since 2013 and currently employs 65 people. The predecessor company was set up by doctoral students of Technische Universität (TU) Berlin in 1985.

# Exceeding Enzyme Expectations

— **Biocatalysts** is one of the world's leading developers and producers of custom-tailored specialty enzymes for a wide variety of industrial sectors such as foods and fine chemicals.

→ [www.biocatalysts.com](http://www.biocatalysts.com)

> 70

products that can be directly purchased are currently offered by Biocatalysts in its established specialty enzymes portfolio, with a focus on seven industrial fields of application.

335 m

The MetXtra™ bio-information technology platform offers Biocatalysts customers rapid access to data on some 335 million novel enzymes based on metagenome libraries. Ninety-eight percent of the metagenome sequences are part of Biocatalysts' intellectual property.



**Biocatalysts Ltd.** focuses on developing, producing, obtaining approvals for and distributing specialty enzymes. The company offers the rapid, cost-efficient and customized development of novel enzymes, and has at its disposal the MetXtra™ metagenome library, which allows the rapid identification of tailored enzymatic solutions for customers around the world. Biocatalysts has state-of-the-art enzyme production facilities and international sales structures. It also offers its customers (among them eight of the world's ten largest food producers) a portfolio for the direct purchasing of enzymes in defined fields of application. Biocatalysts was set up in 1983, has been a member of the BRAIN Group since 2018 and currently employs 65 people.

# Your partner in white biotechnology

— **WeissBioTech** is an expert when it comes to enzymes, yeasts, natural preservatives and other products obtained by fermentation for the food industry and other sectors.

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

## 27

sales offices that market WeissBioTech products can be found around the globe, including North, Central and South America as well as China, India, Iran, South Africa and Europe.



**WeissBioTech GmbH** is a leading supplier of bio-based active products for the food industry. It supplies both large multinationals and medium-sized manufacturers of drinking water, fruit juices, beer and wine. The customer base also includes industries that process starch and bioethanol. The company's highly developed technical service, sound knowledge of enzyme technologies and global sales network are cornerstones that underpin its first-class position on the market. Enzymes from WeissBioTech are tailored to customers' wishes and marketed under trademarks such as NATUZYM® and DELTAZYM®. WeissBioTech was founded in 2002, has been a member of the BRAIN Group since 2014 and currently employs 25 people.

# Timeless Beauty. Ever now.

— **MONTEIL** is an experienced partner to beauty establishments and is highly regarded by cosmetics retailers. Its innovative products are represented on markets in over 30 countries around the globe.

→ [www.monteil.com](http://www.monteil.com)

**> 80**

The range offered by MONTEIL includes more than 80 products in the anti-aging, special care and fragrance product lines.



With its cutting-edge technology, MONTEIL, a branded company established in 1936, is one of the leading anti-aging skincare specialists. MONTEIL cosmetics are developed at the highest scientific level and continually provide new impetus for the international cosmetics market. The company focuses on natural bioactive ingredients that are offered in a high-quality and optimally adjusted concentration. MONTEIL sees itself as a competent contact for customers with and on behalf of whom it develops treatment concepts for almost all skin types, based on a broad product range. **MONTEIL Cosmetics International GmbH** has been a member of the BRAIN Group since 2011 and currently employs 15 people.

---

# Cosmetics since 1925

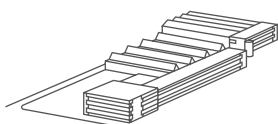
—— **L.A. Schmitt** unites experience and passion for manufacturing cosmetic products that meet the demanding wishes and specifications of customers.

→ [www.schmitt-cosmetics.com](http://www.schmitt-cosmetics.com)

---

## 1925

The Leipzig-based company L.A. Schmitt develops and produces high-end cosmetics and wellness products.



The highly-reputed company **L. A. Schmitt GmbH**, which looks back on a long tradition, develops and produces cosmetics and wellness products in line with customers' wishes and specifications. The company manufactures its own product lines and offerings for trading companies and for wellness and cosmetics brands. Regular new developments feed the latest scientific findings into the company's portfolio. Its business activities center on individual client liaison, sound knowledge and a high degree of flexibility for partners and customers. L. A. Schmitt GmbH has been a member of the BRAIN Group since 2009 and currently employs 20 people.

# Presence in the target market of North America

— Via sales agencies and branches, the BRAIN Group is driving the internationalization of its business and creating shorter access routes to customers in its key markets.

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



## 205 bn

According to BIO, the association of the biotechnology industry, 1.7 million employees were working in the U.S. bio-economy in 2016, and earned US\$ 205 billion, more than half of the globally generated bio-based value added.



BRAIN Group companies with direct product business are represented via sales agencies in key target markets around the world. Group companies have also set up their own branches in the USA in order to directly strengthen business development in North America, one of the key markets for innovations in industrial biotechnology. **BRAIN LLC** took the lead in 2018 and has since been a member of the BRAIN Group. It shares its offices in Rockville, Maryland, near Washington, D.C., with AnalytiCon Discovery LLC, which has been located there since 2011. The US branch Biocatalysts Inc. has been based in Chicago, Illinois since 2011.



# Revolutionising Wound Care

— **SolasCure** focuses on developing, certifying and marketing novel medical products based on the wound-cleaning enzyme Aurase®, discovered by BRAIN.

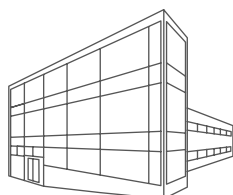
→ [www.solascure.com](http://www.solascure.com)

**20 bn**

The global market for wound treatment products and bandages is expected to grow to a sales volume of more than US\$ 20 billion per year by 2020.

**40 m**

There are over 40 million wound patients around the globe. About one third of patients in Germany develop chronic wounds.



**SolasCure Ltd.** is a spin-off jointly established in 2018 by BRAIN and Dr. Sam Bakri, who is the company's Executive Chairman and an entrepreneur with extensive experience in the healthcare sector. Professor Keith Harding (CBE), founder of the Welsh Wound Innovation Centre and a proven expert in the field of wound bed preparation, is Chair of SolasCure's Medical Advisory Council. BRAIN AG has transferred patents for the commercialization of future Aurase®-based products to the company, and will also provide the novel enzymatic active ingredient for the treatment of chronic wounds for customers in the healthcare sector.

# Facts & figures

---

## 1993

was the year in which BRAIN was founded. It went public in 2016 and celebrated its 25th anniversary in 2018.

---

## > 300

colleagues are currently employed within the BRAIN Group in Europe and North America.

---

## 30.5

million euros – the total operating performance of the BRAIN Group in fiscal 2017/18

---

## 64 %

was the share of the product-related BioIndustrial business segment in the total operating performance of the BRAIN Group in fiscal 2017/18.

---

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

02

# The company



## 02 The company

---

41

The bioeconomy – the biological transformation of industry	43
Strategy and business model	46
Expertise and product categories	49
Markets and business units	51
BRAIN Group	52
Highlights of the 2017/18 business year	54
Lively corporate culture	58
Staff culture	62
The BRAIN share and the capital market	64

# The bioeconomy – the biological transformation of industry

Industrial biotechnology is a driver of innovation in the transition from a petroleum-based industry to a knowledge-based bioeconomy. Biotechnologies enable the efficient harnessing of natural resources, improved industrial production processes and new product worlds. The bioeconomy aims at environmentally compatible, low-CO<sub>2</sub> value creation, and better supplies of sustainably produced goods for the world's population.

## Biotechnology as a driver of innovation

Challenges such as global population growth, climate change and increasing resource shortages have prompted society, policymakers and the business world to reassess the existing paradigm, and move towards a sustainable bioeconomy. The bioeconomy refers to the gradual biologization of industrial processes, products and sectors – based on scientific and engineering knowledge – in order to achieve progress in environmental protection, greater product and supply security for consumers, improved raw material efficiency and the establishment of the principles of a closed-loop economy in the value chain.

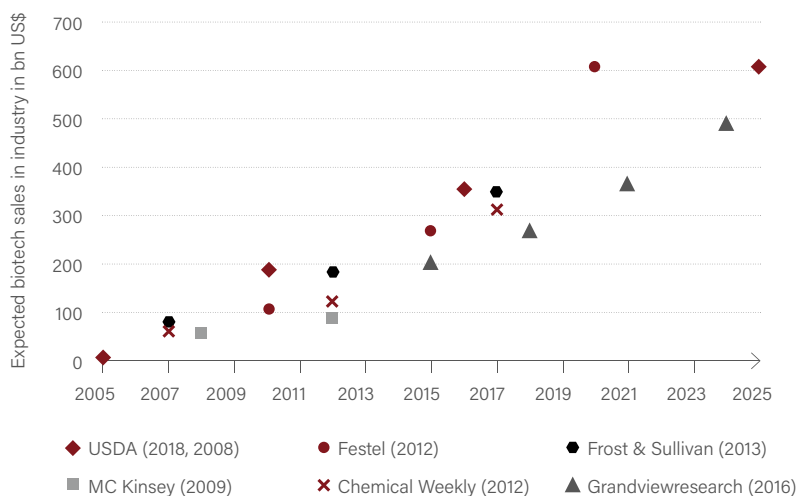
Industrial biotechnology is the pioneer and innovation engine of this evolutionary transformation of the economic system and of society. It offers alternatives for established, disadvantageous processes and products, and helps tackle current problems such as the proliferation of widespread diseases caused by malnutrition or high CO<sub>2</sub> levels. In addition, as a future technology, it enables completely new approaches and solutions that seemed unthinkable just a few years ago. It opens up previously unknown value creation paths and produces disruptive product ideas for a modern bioeconomy.

As a cross-sector technology, industrial biotechnology integrates various disciplines from the life, natural and engineering sciences, as well as areas of medicine, mechanical engineering and materials sciences. This integrative strength enables very diverse target markets in the consumer goods, chemicals, energy and raw materials industries to be addressed.

In recent years, a variety of programs have been launched to strengthen the bioeconomy. In 2012, the European Commission launched its European Bioeconomy Strategy, and in October 2018 presented an updated version entitled "A Sustainable Bioeconomy for Europe." As a pioneer in bioeconomy strategy, Germany has already been pursuing its own "National Bioeconomy Research Strategy 2030" since 2010, and has established several state-supported innovation alliances since 2011 to accelerate structural change. BRAIN coordinates two such alliances – "ZeroCarbon Footprint" (ZeroCarbFP) aimed at converting carbon residue from residual and waste materials flows into industrial materials, and the "Natural Life Excellence Network 2020" (NatLiFE 2020) for bioactive compounds for foodstuffs and cosmetics. The German government has committed itself to promoting a "transition to an economy based on

→ BRAIN networks, page 95

FIGURE 02.1 BIOECONOMY – OUTGROWING CHEMICAL INDUSTRIES<sup>1</sup>



- In 2016 global industrial biotechnology sales were 355 bn US\$.
- Experts expect the revenues of biotech-based chemicals to grow from some 140 bn US\$ in 2010 to around 610 bn US\$ in 2025.
- This revenue increase represents a Compound Annual Growth Rate (CAGR 2010–25) of ca 11%.
- Industrial biotech sales are expected to outgrow the overall chemical markets – which are expected to grow at 4.1% (CAGR 2015–20)

renewable resources with the help of the bioeconomy” and to establishing an interministerial agenda entitled “From Biology to Innovation”.

The second Global Bioeconomy Summit, which was held in April 2018 – and which was first held in 2015 in Berlin – underscores the topic’s international importance and Germany’s pioneering role in relation to it. More than 50 countries have now launched research and development initiatives for the bioeconomy. In large parts of the world, the bioeconomy is now regarded as one of the most important growth topics for the 21st century. In addition to digitalization, the transformation to a bioeconomy represents a megatrend for the coming decades. Bio-based business offers the opportunity for a new cycle entailing groundbreaking innovations, stronger economic growth and a comprehensive improvement of many people’s quality of life.

## Strategies and outlook

Figure 02.1

Sales generated with biotechnology solutions are growing at above-average, double-digit rates in the globally positioned chemicals industry. The US biotechnology sector – which has ranked over many years as one of the top performing industrial sectors in the USA – employed 1.7 million individuals in bio-based businesses, according to a survey conducted by the Biotechnology Innovation Organization (BIO). At more than US\$ 205 billion, these businesses generated around 58% of global bio-based value added, which totals around US\$ 355 billion (USDA: “Indicators of the US Biobased Economy”, March 2018).

According to a study conducted by IDEA Consult for EuropaBio in 2016, the value-creation effects of industrial biotechnology in Europe amounted to € 31.6 billion (“Jobs and Growth generated by Industrial Biotechnology in Europe”). The updated EU bioeconomy strategy of 2018 notes that in Europe around 8.2 percent of employees currently work in the European bioeconomy. The sustained positive trend was recently confirmed by the Federation of German Industries (BDI) in its September 2018 position paper entitled “Making Germany fit for the future with a bio-based economy”. At the same time, the BDI called for further improvements to framework conditions, particularly in relation to industrial biotechnology.

<sup>1</sup> German Bioeconomy-Council (December 2016); Roland Berger, Grandviewresearch (2016); USDA (March 2018)

Expectations about future market opportunities are correspondingly high. The EU Commission expects the European bio-based economy to create a million new jobs by 2030. Other economic experts expect sales of bio-based “green” chemicals to expand from about US\$ 144 billion to US\$ 610 billion over the 2010–2025 period. This corresponds to a compound annual growth rate (CAGR) of about 11 percent – well above the range of expectations for the market growth rates for all chemical products. Sector specialists anticipate that one in every five euros of sales generated by the chemicals industry in 2020 will derive from biotechnology processes and products.

## **Impact investing**

Global financial markets also see the bioeconomy as a megatrend, prompting corresponding capital reallocations. Private and institutional investors have been focusing increasingly on socially responsible asset types, otherwise termed SRIs (Sustainable and Responsible Investments) or “impact investing” – in reference to their intended sustainable impact. In turn, the securities of companies that fail to make corresponding efforts encounter restricted demand, or are eliminated from investment portfolios. Sustainable impact investments are registering continuous growth, and totaled US\$ 8.7 trillion in the USA at the start of 2016, according to the Forum for Sustainable and Re-sponsible Investment (US SIF).

Europe also provides many examples of this trend. At the end of 2017, the World Bank announced that it would no longer invest in oil production projects or coal mining from 2019 onwards – it would do so in the future only in exceptional cases in order to avert societal problems in poorer countries. Norway’s parliament decided in mid-2015 to withdraw its sovereign fund – one of the largest and most successful funds of its kind with a volume in excess of € 800 billion – from investing in companies where climate-damaging carbon business generates more than 30 percent of business. Germany’s Allianz insurance group has also realized this strategic turnaround, having withdrawn from providing individual insurance for coal-fired power plants and coal mining projects since May 2018. Allianz aims to have gradually fully exited the coal business by 2040.

## **BRAIN and the bioeconomy**

BRAIN is the first bioeconomy company to IPO in Germany. BRAIN AG issued new shares in the Prime Standard of the Frankfurt Stock Exchange on 9 February 2016 in order to strengthen the company’s own growth and the biologization of value chains.

The BRAIN Group’s unique selling points include access to nature’s comprehensive “toolbox” in the form of the company’s own BioArchive and an extensive technology portfolio for converting natural resources into industrial applications.

# Strategy and business model

## Industrialization and growth strategy

BRAIN has been a pacesetter and pioneer in the industrial biotechnology and bioeconomy areas since it was founded in 1993. During the first 15 years of its operations, BRAIN developed itself into a preferred research and development cooperation partner for companies in the industrial sectors of chemicals, nutrition and animal feed, as well as cosmetics. The company continuously expanded its BioArchive as part of these R&D partnerships, and established its first propriety technologies to locate new product candidates.

In parallel to its R&D cooperation business, since 2008 BRAIN has been pursuing an industrialization and growth strategy with its own pipeline projects along the value chain, in order to participate more directly in market innovation successes. The aim is to establish the BRAIN Group as a fully integrated bioeconomy company with its own research and development, as well as its own production capacities and related business, marketing and sales structures. Accordingly, BRAIN has been investing in expanding a development pipeline with its own product candidates since 2008. Acquisitions of companies with special R&D expertise or attractive market access form part of the growth strategy.

BRAIN focuses on the product categories of natural compounds, enzymes and microorganisms, and in the 2017/18 financial year established corresponding business units for the Nutrition & Health, Skin Care and Industrial BioSolutions application areas.

The company prioritizes realizing product-scalable business options in order to implement its growth strategy. These are based on direct B2B sales of BRAIN Group offerings as well as products developed together with industrial partners, along with subsequent licensed marketing. Customer-specific solutions developed on the basis of R&D performance payments in the context of R&D cooperation partnerships comprise a further business option. The BRAIN Group manages its product-scalable business through its BioIndustrial operating segment, and its R&D cooperations through its BioScience segment.

→ Group management report,  
page 103

## Product marketing



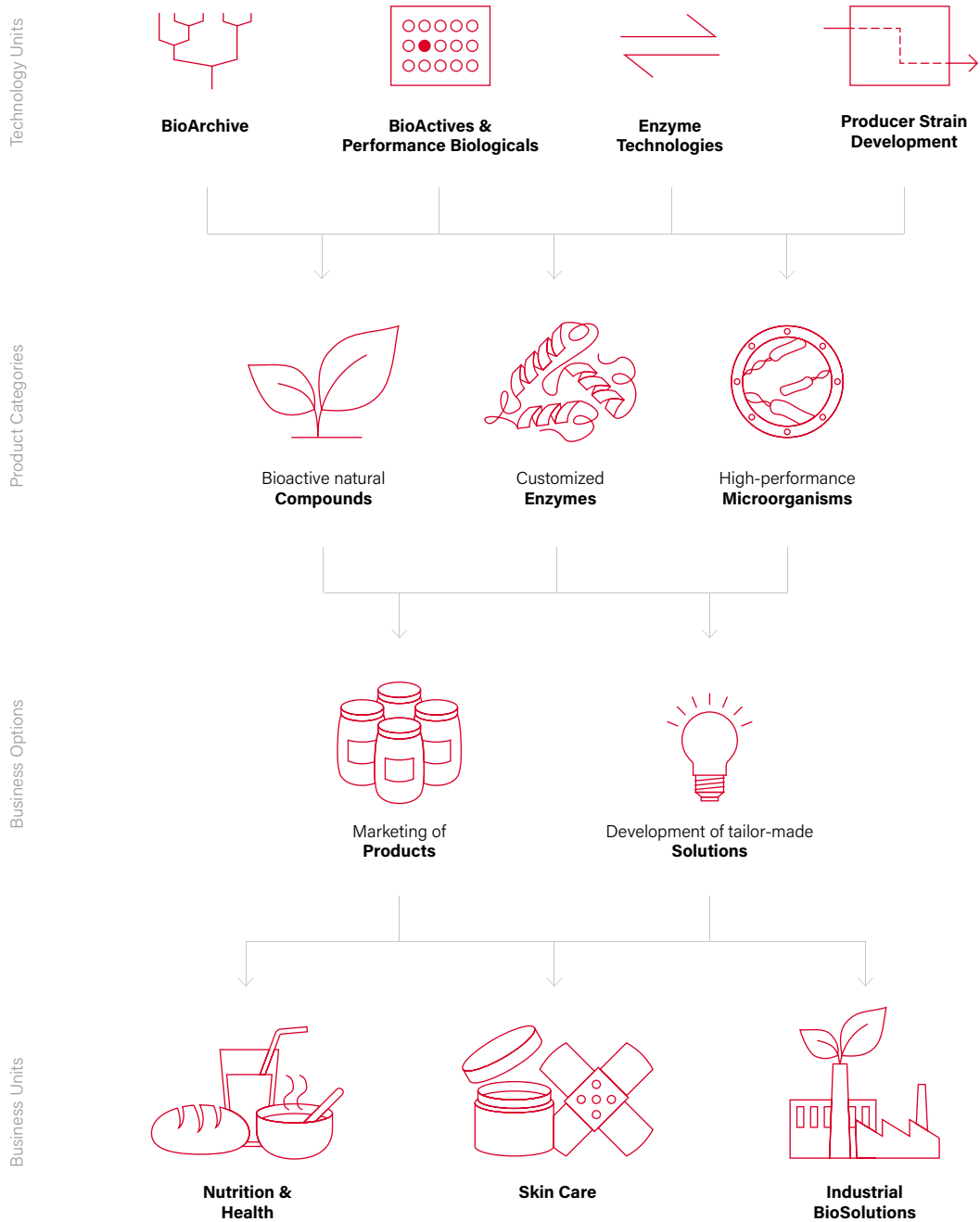
→ New product development,  
page 48

The BRAIN Group achieves market access to specialty markets through direct B2B transactions. At present, enzymes are being developed and marketed by BRAIN AG, Weiss-BioTech GmbH, and Biocatalysts Ltd, which was newly added to the Group in the 2017/18 financial year. The subsidiaries Monteil and L. A. Schmitt offer customers cosmetics and skin care products with innovative bioactive active ingredients. New BRAIN Group offerings arise from the successful implementation of projects from the new product development pipeline.

Scalable product sales can also be achieved through development projects conducted together with industry partners. These projects are linked to new product development projects or are dedicated to the partners' independent objectives. In order to address markets that BRAIN taps together with industrial partners along the value chain, the company implements license agreements or specific contract models for joint product marketing. Along with offering B2B merchandise, scalable product sales include the marketing of technologies or biotechnology system solutions.



FIGURE 02.2 BRAIN BUSINESS MODEL





### Customer-specific solution development

The development of customer-specific solutions for industrial partners on the basis of milestone payments and other research performance compensation – agreed in advance and based mostly on exclusive research and development partnerships – forms a further business option for BRAIN. Furthermore, such R&D work is essential for the development of research expertise aligned to market and customer demand. This business option can be scaled to only a limited extent.

### New product development

As part of its industrialization and growth strategy, BRAIN has been establishing an attractive development pipeline with R&D projects for its own product candidates since 2008. These new product development activities are in various stages of development. Marketing programs are currently being prepared or implemented for some projects.

The DOLCE program was launched in August 2016. As part of it, BRAIN AG and its Group company AnalytiCon Discovery GmbH, together with French industrial partner Roquette, are developing natural sweeteners and sweetness enhancers for globally active food and beverage groups. New skin care product offerings based on BRAIN's product development, the Aurase® wound cleansing enzyme, are being prepared through SolasCure Ltd, a company spun off in 2018. The BRAIN innovation section presents selected projects from the BRAIN development pipeline.

In a "steady state" for new product development, the company aims for a relatively constant volume in its development pipeline. New projects for innovative project ideas are launched as soon as new market potentials are identified or established development projects transition to the marketing phase. New projects are tested in terms of technical and commercial feasibility in order to optimize the development pipeline's likelihood of success.

→ BRAIN innovations, page 69

FIGURE 02.3 BRAND ESSENCE

#### The BRAIN Group stands for:

##### COMPETENCE

"BRAIN disrupts"

BRAIN develops, based on its proprietary BioArchive and protected high-tech portfolio, sustainable disruptive innovations for diverse market segments of the bioeconomy.

##### RELIABILITY

"BRAIN delivers"

BRAIN markets natural compounds, enzymes, and microorganisms and reliably delivers results in strategic partnerships in the field of industrial biotechnology.

##### EXCEPTIONALITY

"BRAIN innovates"

BRAIN maintains a unique culture of innovation and a global network, in which highly qualified experts collaborate for new product ideas and market offers in an interdisciplinary environment.

# Expertise and product categories

## Unique selling points

The BRAIN Group stands for competence, reliability and exceptional quality. BRAIN staff are dedicated to the identification, research, utilization and marketing of natural biological substances and processes for industrial use. The BRAIN Group combines various areas of industrial biotechnology expertise. R&D activities focus on sustainability, efficiency and economic viability, as well as efficacy and added quality.

Key success factors for BRAIN product and process innovations include more than 25 years' experience with the topics of sustainability and biodiversity, and a pronounced innovation culture within the Group. BRAIN started to establish its competences and resources long before the bioeconomy became a prominent economic and social idea. Researchers and developers at BRAIN have subsequently established a series of USPs augmented by the subsidiaries' special expertise areas.

### BioArchive

The BRAIN Group's proprietary BioArchive – including AnalytiCon Discovery's extensive natural product libraries – offers access to an immense variety of new biological solutions for sustainable industrial processes and ingredients. The BioArchive encompasses more than 53,000 comprehensively characterized cultivable microorganisms, more than 50,000 characterized natural compounds and fractions consisting of edible plant material, a large number of highly specialized metagenome libraries as well as many new enzyme libraries and complete metabolic paths comprising previously uncultivable organisms. The company is continuously expanding this unique, dynamic "toolbox of nature".

### Technology portfolio

BRAIN has a broadly protected high-tech portfolio that ensures the targeted discovery, decoding and further development of natural resources and their sustainable availability, and offers extensive know-how and high-end technology platforms to meet new scientific and technological challenges. The company harnesses state-of-the-art technology and specialist expertise such as high-throughput sequencing, metagenome and big data analysis, protein engineering, genome editing, digital 3D modeling and test simulation, cell-based test systems, high-speed screening and AI-assisted process optimization. The high-tech portfolio is broadly secured with more than 350 patents and patent applications for materials and technologies in around 50 patent families. The patent protection encompasses technology and product innovations in all BRAIN product categories.



Figure 02.3



## BRAIN product categories

Based on natural biodiversity and the company's own BioArchive, BRAIN focuses on three product categories for highly differing applications – bioactive natural compounds, customized enzymes and high-performance microorganisms.

### Bioactive natural compounds



BRAIN identifies and develops bioactive natural compounds, so-called BioActives, for product developments in the food, animal feed, skin care, cosmetics and chemical industries. Its focus is on the optimized biological effect of natural compounds and the improvement of formulations for customized applications. The product range includes sugar substitutes and taste modulators for healthier nutrition as well as natural-based active ingredients for cosmetics, BioActives for food preservation as well as for the stabilization of paints, lacquers, and various household products.

### Customized enzymes



BRAIN identifies and develops new and optimized enzymes and biocatalysts that meet complex process and application requirements for very varied product classes, and as starter cultures enable innovative technical production processes to be established. These include enzymes for the production of food and beverages, wound care preparations or lubricants as well as for starch and bioethanol production. Research work in the new product development area focuses on serving high-margin markets for special enzymes.

### High-performance microorganisms



BRAIN identifies and develops high-performance microorganisms as functional biomass for optimized industrial production processes. They serve as so-called BioSubstitutes to establish bioprocesses in chemical processes or to produce bioactive natural compounds and enzymes for specialty markets. Application areas also include the recycling of the climate gas CO<sub>2</sub> as an industrial raw material for bioplastics, as well as urban and green mining for the extraction of precious metals and rare earth metals from waste flows and ores.

# Markets and business units

## Markets addressed by BRAIN

BRAIN translates its expertise in relation to biological systems into industrial applications for the market segments of Nutrition & Health, Skin Care and Industrial BioSolutions. To strengthen its market and product orientation, BRAIN established the corresponding business units Nutrition & Health, Skin Care and Industrial BioSolutions in the 2017/18 financial year. The focus on the most relevant application areas for R&D work serves to strengthen the product business and to address central and promising markets for the BRAIN Group.

### Nutrition & Health

The Nutrition & Health business unit focuses on healthier nutrition and improved animal welfare, and currently addresses the following market segments:

- **Food & Beverages:** natural compounds for calorie reduction and other beneficial properties of foods and beverages, as well as related improved processing
- **Feed:** bio-based feed additives for farm animals
- **Pet Food:** bio-based feed additives for pets
- **Pharmaceuticals:** bioactive agents for new drug formulations (realized by AnalytiCon Discovery GmbH)



### Skin Care

The Skin Care business unit identifies natural active ingredients for skin and wound care. It addresses the following market segments at present:

- **Personal Care:** bio-based aluminum-free antiperspirants and deodorants
- **Cosmetics:** natural compounds for gentle skin care and cosmetics, as well as product stability
- **Wound Care:** biological wound treatment based on the Aurase® enzyme (realized by SolasCure Ltd.)



### Industrial BioSolutions

The Industrial BioSolutions business unit utilizes natural resources to optimize industrial processes and currently addresses the following market segments:

- **Green Mining:** bio-based extraction of valuable metals from ores
- **Urban Mining:** bio-based extraction of valuable metals from waste flows
- **CO<sub>2</sub>-based Intermediates:** bioplastics based on carbon dioxide



# BRAIN Group

→ BRAIN Group, page 29

The BRAIN Group unites first-class research and development work, specific production know-how and access to attractive markets under one roof. All of the subsidiaries within the BRAIN Group act as independent entities in the fields of research and development, process development and production, or as service providers in specific markets. Beyond this, product-specific spin-offs of advanced BRAIN development programs support value-added marketing with the involvement of external expertise in specialist areas and of capital providers.

## B·R·A·I·N



Chief Executive Officer (CEO):  
Dr. Jürgen Eck

### BRAIN AG

Head Office: **Zwingenberg, Germany** — company founded in **1993**

B.R.A.I.N. Biotechnology Research and Information Network AG, or BRAIN AG for short, is the parent company and head office of the international BRAIN Group. Ever since its inception in 1993, BRAIN has been a driver and high-tech pioneer in the fields of industrial biotechnology and the bioeconomy. As part of its growth and industrialization strategy, BRAIN AG has been listed in the Prime Standard of the Frankfurt Stock Exchange since February 2016.

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



Managing Director:  
Dr. Lutz Müller-Kührt

### AnalytiCon Discovery GmbH

Head Office: **Potsdam, Germany** — member of the BRAIN Group since **2013** — share held by BRAIN AG: **59.00 %**

AnalytiCon Discovery GmbH, a company established in 2000, is a global market leader in the field of natural ingredient libraries with completely clarified structures. With its position on the Potsdam Biotech Campus, the company offers services for each phase of the supply chain for discoveries and developments of active ingredients based on natural substances.

[www.ac-discovery.com](http://www.ac-discovery.com)



Managing Directors:  
Stuart West,  
Roderick Clive Sears-Black

### Biocatalysts Ltd.

Head Office: **Cardiff, UK** — member of the BRAIN Group since **2018** — share held by BRAIN AG (indirectly): **65.55 %**

Biocatalysts Ltd., which was set up in 1983, is one of Europe's leading providers of specialty enzymes, with a range that encompasses enzyme development and both small-scale and bulk enzyme production (kilo to multi-tonnes), as well as global sales to various industrial sectors such as foods and fine chemicals. The company has had a U.S. branch in Chicago, IL since 2011 (Biocatalysts Inc.).

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

## WeissBioTech



Managing Director:  
Hans de Bie

### WeissBioTech GmbH

Head Office: **Ascheberg, Germany** — member of the BRAIN Group since **2014** — share held by BRAIN AG: **50.60 %**  
WeissBioTech GmbH was established in 2002 and is one of the leading providers of enzymes, yeasts, natural preservatives and other products manufactured by fermentation for the food industry and other market segments. To consolidate its market position, the company set up a downstream plant at the WeissBioTech France SARL branch in France in 2010.

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

## MONTEIL PARIS



Managing Director:  
Thomas Kessler

### MONTEIL Cosmetics International GmbH

Head Office: **Düsseldorf, Germany** — member of the BRAIN Group since **2011** — share held by BRAIN AG: **68.30 %**  
The branded company MONTEIL, founded in 1936, is an experienced partner to beauty establishments and is highly regarded by cosmetics retailers. It is represented in over 30 countries around the globe. With its cutting-edge technology, MONTEIL is one of the leading anti-aging skincare specialists. The Wilde Cosmetics GmbH is a minority shareholder of MONTEIL as a specialist in hand and nail care.

**[www.monteil.com](http://www.monteil.com)**

## L.A. SCHMITT



Managing Director:  
Ivo Peschke

### L. A. Schmitt GmbH

Head Office: **Ludwigsstadt, Germany** — member of the BRAIN Group since **2009** — share held by BRAIN AG: **100 %**  
L. A. Schmitt GmbH, established in Leipzig in 1925, develops and produces its own product lines, products for retail companies and for high-end wellness and cosmetics markets. Regular new developments feed the latest scientific findings into the company's product lines.

**[www.schmitt-cosmetics.com](http://www.schmitt-cosmetics.com)**

## B·R·A·I·N LLC



Managing Director:  
Dr. Jürgen Eck

### BRAIN LLC

Head Office: **Rockville, MD, USA** — member of the BRAIN Group since **2018** — share held by BRAIN AG: **100 %**  
B.R.A.I.N. Biotechnology Research and Information Network LLC, or BRAIN LLC for short, focuses on addressing key markets for the BRAIN Group in North America and on internationalizing BRAIN's business. The company's US office improves customer proximity, steps up business development and strengthens connections in international research cooperation arrangements.

**[www.brain-biotech.com](http://www.brain-biotech.com)**

## SolasCure



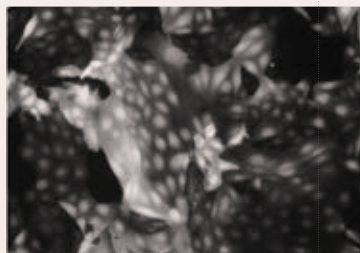
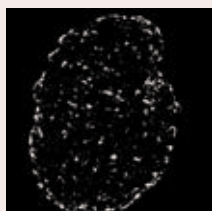
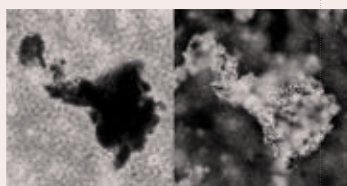
Executive Chairman:  
Dr. Sam Bakri

### SolasCure Ltd.

Head Office: **Cardiff, UK** — member of the BRAIN network since: **2018**  
SolasCure Ltd., established in 2018 with the participation of BRAIN AG, is an independent company that focuses on the development, CE certification and marketing of medical products based on the novel wound-cleaning enzyme Aurase® discovered by BRAIN for the biological conditioning of chronic wounds. BRAIN AG holds a substantial economic share of SolasCure Ltd., but none of the shareholders have a majority vote in the company.

**[www.solascure.com](http://www.solascure.com)**

# Highlights of the 2017/2018 business year



2017

2018

October / November

December

January

**26 October 2017**

## Research project involving BRAIN paves the way for low-impact copper production through bio-leaching

A research team involving scientists from BRAIN has succeeded in extracting nearly the entire copper content from local shale deposits harnessing micro-organisms in combination with a bio-leaching process. The results underscore the significance of Green Mining and Urban Mining for recovering metals from ores and waste streams.

**28 November 2017**

## BRAIN AG's Annual Report honored by the German Designers' Club (DDC)

The first annual report published by BRAIN has been honored with a silver medal in the "Good Design 18" competition run by the German Designers' Club (DDC).

**12 December 2017**

## BRAIN AG and Mannheim University develop 3D skin models for health care and cosmetics

The M<sup>2</sup>Aind (Multimodal Analytics and Intelligent Sensorics for the Health Industries) research project is a public-private partnership project of which BRAIN has been an active partner from the start. Joint projects of BRAIN and Mannheim University of Applied Sciences (MUAS) include the development of a 3D skin model to aid understanding of skin physiology with the aim of providing new insights for health care and cosmetic applications.

**15 December 2017**

## BRAIN achieves clear improvement in revenues and earnings in the 2016/17 financial year

BRAIN announced several key figures for the financial year 2016/17. Accordingly, the BRAIN Group increased its revenues by 5.8% to € 24.1 million in the period under review. Total operating performance grew by 3% to € 26.9 million.

**18 December 2017**

## BRAIN granted patent protection for the development of biological antiperspirants

BRAIN has been granted US patent protection for novel screening systems which help find biological compounds that reduce perspiration. The systems are based on a key molecule discovered at BRAIN that paves the way for the systematic screening of the relevant natural compounds.

**11 January 2018**

## BRAIN publishes annual report for financial year 2016/17

The 2016/17 financial year was the first full reporting cycle as a listed company, following BRAIN's IPO in February 2016. Accordingly, the BRAIN Group increased its revenues in the reporting period from € 22.8 million to € 24.1 million. Total operating performance grew by 3.0% year-on-year, from € 26.1 million to € 26.9 million.





BIOCATALYSTS



February

March

May

22 February 2018

**BRAIN AG expands patent protection to Europe for unique taste cell technology**

BRAIN has been granted patent protection by the European Patent Office (EPO) for novel taste cell technologies. BRAIN holds the right to use the highly innovative screening technologies for novel natural taste modulators described in the patent in the notable markets of Europe and the United States.

22 February 2018

**BRAIN receives “innovator of the year” award from brand eins**

Following the third annual survey by brand eins among more than 25,000 experts, BRAIN has been nominated as one of Germany's leading innovators.

6 March 2018

**BRAIN AG establishes US subsidiary to strengthen business development in North America**

The newly founded BRAIN LLC is based in Rockville, Maryland, near Washington DC. This strategic step is intended to accelerate the internationalization of BRAIN's business operations, improve customer relations and intensify the Group's business development with a US presence.

7 March 2018

**BRAIN, AnalytiCon Discovery and Roquette reach major milestone in DOLCE program**

As a result of joint efforts, the DOLCE core team partners have identified and characterized the first natural-based sucrose sweet taste enhancers and natural-based high intensity sweeteners ahead of schedule.

8 March 2018

**BRAIN AG successfully concludes second Annual General Meeting as a stock listed company**

The past 2016/17 financial year was the first full BRAIN annual cycle reported on at the Annual General Meeting since its IPO in February 2016. All agenda items were resolved by a large majority of the participating shareholders.

17 March 2018

**BRAIN AG acquires majority stake in leading speciality enzyme producer Biocatalysts Ltd.**

BRAIN now holds the majority stake in Biocatalysts Ltd., based in Cardiff, UK. This strengthens BRAIN's BioIndustrial segment, expanding access to specialty enzyme markets and cutting-edge enzyme production facilities. The strategic partnership will widen the commercial opportunities.

30 May 2018

**BRAIN AG expects double-digit revenue growth in fiscal year 2017/18 despite weak first half year**

BRAIN published its financial results for the first half of fiscal year 2017/18. Accordingly, BRAIN Group's total operating performance for the reporting period amounted to € 12.3 million, representing a year-on-year shortfall of approximately 7.2%.



June

August

September

**6 June 2018**

**BRAIN AG Annual Report presented with European Design Award**

The company's second annual report has now also been presented with this year's European Design Award, a renowned international accolade recognising creative excellence.

**20 June 2018**

**BRAIN AG and CyPlus GmbH develop disruptive technologies for biological processing of precious metal ores**

BRAIN and CyPlus aim to develop a range of products for the mining industry, as part of a collaboration arrangement in the area of biological ore processing. Precious metal extraction (gold and silver) from the ores is based on naturally occurring and enhanced microorganisms from the BRAIN BioArchives.

**22 August 2018**

**BRAIN AG announces the creation of SolasCure Ltd. to continue development of Aurase®**

SolasCure Ltd. based in Cardiff, Wales, UK, will be responsible for the development, CE certification and marketing of medical products based on Aurase®, a new enzymatic active ingredient developed by BRAIN for the biological cleaning of chronic wounds.

**31 August 2018**

**BRAIN AG reports growth for the first nine months of the 2017/18 financial year**

BRAIN Group's total operating performance for the reporting period represented a year-on-year growth of approximately 5%. Group revenues for the reporting period increased from € 17.9 million to € 18.1 million.

**18 September 2018**

**BRAIN AG announces strategic research collaboration with BluCon Biotech GmbH**

BRAIN AG announces the start of a strategic research and development collaboration with BluCon Biotech GmbH. The objective of the joint research efforts is the identification and development of special microbial production strains. The collaboration will run for several months.

**25 September 2018**

**BRAIN BioXtractor short-listed twice for the 2018 Global Game Changers Awards**

BRAIN's BioXtractor, a mobile tech-scale operation unit for the biological extraction of precious metals, was honored as a finalist in two categories of the Awards, "Corporates for Good" and "Circular Breakthrough".

**21 September 2018**

**Scientists at BRAIN AG receive top award for developing novel bioactive antiperspirants for cosmetics and skin care**

A senior researcher of BRAIN has received the top award in the Applied Research category at the 30th IFSCC Congress. The research team at BRAIN, together with scientific partners, has developed a new concept for sweat reduction based on directly targeting primary fluid secretion in human sweat glands.

# Press review

## Natural ingredients for wholesome food – the quest for the 'healthy' cookie

Deutschlandfunk, Forschung aktuell, 24 September 2018

## Protein as a treatment for bad wounds

Frankfurter Allgemeine Zeitung, 23 August 2018

## Using bacteria to gain gold

Frankfurter Allgemeine Zeitung, 22 June 2018

## BRAIN and CyPlus advance green mining

International Mining, 20 June 2018

## BRAIN finds substitute for stevia

Platow Börse, 16 May 2018

## BRAIN AG retains future value

Darmstädter Echo, 02 June 2018

## BRAIN among the most innovative companies

brand eins, February/April 2018

## DOLCE “major milestone” in sweetener development

Foodnavigator, 09 March 2018

## “White” Biotech BRAIN makes alchemists’ dream come true

Die Welt, 27 February 2018

## BRAIN integrates specialty enzymes company

Transkript, 17 March 2018

## Full steam ahead for sequencing

LABO online, 7–8 / 2017

## Bio to replace aluminium in deodorants: US patent for Brain

Bergsträßer Anzeiger, 19 December 2017

## Great demand for BRAIN shares among institutional investors

Frankfurter Allgemeine Zeitung, 5 October 2017



The light-filled technology campus and the openly designed outdoor spaces create a working environment that buzzes with innovation and encourages creativity. This promotes staff identification with the company's visions.

# Lively corporate culture

## Technology campus

In 1996, three years after the company's inception, BRAIN bought a technology campus for its head office consisting of laboratories, production and office facilities in Zwingenberg, a town in Hesse's Bergstrasse region. The core of the campus is the Bauhaus building, classed as a historic monument. Further generously dimensioned areas were added in 2010. The new glass building, which serves as the lobby, with access passages and exhibition rooms, builds an optical bridge between the complex of listed buildings and a hall that houses further offices, lab space and production units.

The light-filled 2,500 square metre technology campus, with rooms that offer individual privacy, and the openly designed outdoor spaces create a working environment that buzzes with innovation and encourages creativity. This promotes staff identification with the corporate vision of a bioeconomy.

## Guided by the Bauhaus philosophy

The headquarters of the BRAIN Group is one of the few remaining examples of industrial Bauhaus architecture. The building once housed Deutsche Milchwerke AG, and was also known as the Fissan factory due to its brand name. Back in the 1930s, successful biotechnological research and development activities were therefore already being carried out in Zwingenberg, and there was already a successful product portfolio. After taking over the complex, BRAIN revitalised the building in meticulous detail in 1996, and in 1998 won the prestigious Josef Maria Olbrich prize awarded by the Association of German Architects (BDA).

An aesthetic appearance, a high degree of functionality and innovative approaches were the hallmark of the Bauhaus era and the basis for its success. Until today, BRAIN takes guidance from some aspects of the Bauhaus philosophy. Interdisciplinary work within a team is marked by open discussions, mutual support and a joint approach both to scientific and administrative work. BRAIN considers it important to initiate and support an eye for functional aesthetics in everyday work.

## Cultural involvement as part of the company profile

BRAIN sees its activities as being part of creative societal processes. The company consciously links up with art and culture to strengthen its own creative power and beyond this, to contribute its own aims and visions to public discourse. BRAIN's cultural activities constitute a targeted form of involvement in a dialogue that broadens horizons.

This is also the rationale behind BRAIN's recurring participation in the Kunst privat! art initiative launched by the Hessian Ministry of Economics, Energy, Transport and Regional Development. As part of this initiative, the works of young artists with relevance to the company's activities are exhibited and made accessible to the public. Other individual events are also

offered, such as the studio workshop at Horex Museum in Bad Homburg v.d.H. in June 2018 that ran alongside Tim Hölscher's art exhibition. In 2016, Hölscher created the 'Road to the stock exchange' series using a pinhole camera as a tribute to BRAIN's IPO.

Selected art exhibits remain on show at BRAIN's premises for a longer period, and accompany BRAIN staff throughout their working day. BRAIN thus offers a constant platform for a productive exchange between science and art.

## Award-winning corporate communications

BRAIN considers communication, information and design to be key components of its activities. Alongside lavishly designed annual reports, BRAIN also publishes the regular periodical BLICKWINKEL. This periodical serves to provide information on company-specific themes and trends, and places them in relation to economic, scientific and social affairs. The design of this medium consciously distinguishes itself from other publications in this sector. The artwork in particular is unconventionally designed. Each issue is individually illustrated. Exclusively created photographs underline the aesthetic side to the company's biotechnological research for the bioeconomy.

BRAIN has received numerous awards for its unusual activities related to art, culture and communication. BRAIN's first annual report after going public in 2016 received four awards for outstanding services in design and communication; a Red Dot Design award, an iF Design and BCM Award 2017 and an award from the Deutscher Designer Club (DDC) 2017. The second BRAIN annual report for fiscal 2016/17 also won a European Design Award in 2018. Beyond this, BRAIN received the coveted WERKBUND Label 2016 for groundbreaking, innovative activities that are of importance to society, or stand for good design.

BRAIN began expanding its internet site in late 2017. A dedicated internet site has been set up for the BLICKWINKEL periodical. All issues from business year 2015/2016 can now be called up at [www.brain-biotech.de/blickwinkel](http://www.brain-biotech.de/blickwinkel).

A BRAIN Twitter account (@BRAINbiotech) was also set up and successfully positioned in 2017, followed by a BRAIN LinkedIn account (@BRAIN AG) in 2018. Preparations are currently underway to relaunch the company website.



BRAIN Twitter account:  
@BRAINbiotech



BRAIN LinkedIn account:  
@BRAIN AG



**BLICKWINKEL #1 Naturals**

The plant kingdom contains an inexhaustible reservoir of natural substances that are essential for these organisms. While these substances are useful for the plants themselves, they can be put to equally versatile use for sustainable industrial processes and products such as foods, cosmetics, medications, preservatives and cleaning agents. In this issue we provide some insight into the market segments where we undertake research using bioactive natural substances, and into the specific know-how that leads to success.



You can now find all issues of the quarterly magazine BLICKWINKEL online at: [www.brain-biotech.de/en/blickwinkel](http://www.brain-biotech.de/en/blickwinkel).



**BLICKWINKEL #2 Care**

In this issue, we focus on a story that has connected humanity with insects and diseases for hundreds of years: the larvae of the common green bottle fly that are capable of promoting wound healing. BRAIN has explored the mechanisms behind this healing effect and developed wound treatment products based on the AURASE® enzyme. We have successfully decoded the medical links between bottle fly larvae and wound healing, and transferred this new knowledge to non-invasive wound treatment products.



**BLICKWINKEL #3 Structure**

Scientists at BRAIN are constantly searching for new structures, for example by decoding biological relationships in the skin. In this issue, we explain these special and indeed sometimes unique areas of expertise that distinguish BRAIN's approach. By gaining an ever deeper understanding of the biological structures and systems that exist in our skin or in the taste buds on the human tongue, BRAIN scientists succeed in developing ever more precise cell-based assays for reproducing sensory reactions.

# Staff culture

“Research at BRAIN is distinguished by interdisciplinary team work with mutual support and constructive controversial discussions. We promote a highly innovative corporate culture that we practice in our everyday work.”

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

BRAIN practices an unusual culture of innovation and maintains a global network in which highly qualified scientists, engineers, technicians and managers of supporting work areas collaborate on an interdisciplinary basis to develop new product ideas and market offers. Its scientific curiosity and entrepreneurial thinking stamp BRAIN as an interdisciplinary and cross-sectoral think tank. Work within the organism that is BRAIN is characterised by a focus on dialogue and teamwork. Constructive discourse, and the heated debates that arise from it, support the rapid and reliable transfer of an idea through

to scientific validation and on to marketing. This culture that everyone at BRAIN lives and breathes, and the diversity of the people, expertise and talents that exist within the company, combine to foster a wealth of ideas.

The constellation of the BRAIN Group makes it possible to discuss and realise completely closed value chains. The aim is not to assimilate the Group's companies. Rather, all companies within the BRAIN Group act as independent entities, with their own skills, strengths and cultures. BRAIN sees itself as the core that drives innovation and maintains an open and creative dialogue with its partners. Barrier-free thinking and the broadening of mental horizons are practised as a strategy for creative problem-solving in the Group. This facilitates differentiated thought patterns and modes of perception, and enables rapid clarification processes and the targeted realisation of solutions.

## **Staff in the BRAIN Group**

At the end of the business year in September 2018, a total of 308 colleagues were employed by the BRAIN Group, 125 of them at BRAIN AG, 65 at AnalytiCon Discovery GmbH, 63 at Biocatalysts, 18 at WeissBioTech, 1 at BRAIN LLC, 21 at L.A. Schmitt and 15 at MONTEIL.<sup>2</sup>

## **Networking and promoting education**

BRAIN maintains informal and official networks with famous scientists and research institutions around the world, and takes part in public basic and development research and a number of forums in order to contribute its own expertise and experience to the bioeconomy and to learn from its interactions with others.

In this environment, BRAIN also offers space for students to work on independent research projects with a strong practical bent. For this purpose, it maintains longstanding cooperation arrangements with several universities.

→ BRAIN networks, page 95

<sup>2</sup> All statements made here reflect the status in September 2018, including Management Board members, trainees and volunteers.



### **Training at BRAIN**

It has also set up training partnerships with companies in the Rhine-Main-Neckar metropolitan region. This is BRAIN's contribution to training young people, an unbroken tradition since 1996. Since 2016, the company has offered an independent course of training for office management assistants. Since 2018, BRAIN has also been an independent training company for biology laboratory technicians, an area in which it cooperates with Merck KGaA, Darmstadt. In the summer of 2018, two trainee biology laboratory technicians began their course of training at BRAIN.



### **BRAIN alumni platform**

BRAIN's alumni platform unites trainees, students and present and former staff to promote a personal and professional exchange. The first BRAIN alumni meeting took place in 2011 and was attended by 65 former students, mentors and university lecturers at the Zwingenberg campus. As part of BRAIN's 25th company anniversary, some 85 former employees got together in Zwingenberg in July 2018 to share their scientific, professional and private experiences. These interactions are a valuable resource for developing new scientific ideas and concepts.

# The BRAIN share and the capital market

- BRAIN AG is a growth company from the up-and-coming area of the bioeconomy and industrial biotechnology, and remains the only company of its type in the German equity market.
- At the end of the first trading day in the financial year under review, on 2 October 2017, the BRAIN share traded at € 21.16\* (previous year's close on 29 September 2017: € 19.70) and marked its high for the year in the 2017/18 reporting period of € 27.50 on 29 January 2018.
- Given the closing price of € 17.70 on the last trading day of the financial year (28 September 2018), the share price appreciation compared with the previous year's close of € 19.70 amounts to more than 10%.

## The BRAIN share and the capital market

The capital market environment in the 2017/18 financial year proved to be volatile on the whole, with a slight downtrend. Constant setbacks were suffered as a consequence of trade policies, such as the introduction or the raising of US trade tariffs on various products – which also partly affected the EU – and in the context of the related China crisis. Never-ending reporting on the diesel emissions scandal in the German automotive industry, events reflecting a deterioration of relations with Turkey and North Korea, and the Syria conflict also left their mark on Germany's benchmark equity index. On 29 September 2017, the DAX traded at 12,829 points. It reached its high for the subsequent financial year of 13,560 points on 23 January 2018. It touched its low for the year at 11,787 points on 26 March 2018 (period between 2 October 2017 and 28 September 2018). Since then it has traded mainly sideways, albeit with considerable fluctuations. At the end of BRAIN's financial year, on 28 September 2018, the benchmark index stood at 12,247 points. The DAX thereby reported a decrease of 5% over the course of the financial year. The performance of the SDAX small cap index, which is more relevant to BRAIN, reported a more or less sideways movement in the financial year under review, and closed at the end of the financial year (as of 28 September 2018) at an almost unchanged 11,864 points, near the 12,000-point level. The highs and lows were recorded at 12,737 points in June 2018 and at 11,592 points in November 2017 respectively.

\* In each case based on the XETRA closing price.

## Performance of the BRAIN share

BRAIN AG is a growth company from the up-and-coming area of the bioeconomy and industrial biotechnology, and remains the only company of its type in the German equity market. Along with general economic and political trends, the performance of the BRAIN share is thereby primarily dependent on the company's growth successes and prospects. This is also underscored by the positive trend in the BRAIN share price during the first four months of the financial year elapsed. At the end of the first trading day in the financial year under review, on 2 October 2017, the BRAIN share traded at € 21.16\* (previous year's close on 29 September 2017: € 19.70) and marked its high for the year in the 2017/18 reporting period of € 27.50 on 29 January 2018. Following the announcement as of 28 February 2018 concerning a weak first financial quarter, the share subsequently relinquished most of these price gains by early June, falling back to around the € 20 level. The share then recovered and traded in a range around € 22 between mid-June and the end of August 2018, supported by positive newsflow from the company. On 30 August 2018, the company reported on a modification to its business model in DOLCE, and the exit of a Non-exclusive Member in the "Morning Food & Snacks" categories. In an initial step, the share then traded down to around € 19.70, before stabilizing by 6 September 2018. On 6 September 2018, in the context of weak overall market and given significant share price losses in the USA, the share price registered a further depreciation to € 17.00, which also represented its low for the financial year. Given the closing price of € 17.70 on the last trading day of the financial year (28 September 2018), the share price appreciation compared with the previous year's close of € 19.70 amounts to more than 10%. The BRAIN share thereby underperformed the DAX index and an almost unchanged SDAX index, and slightly outperformed the DAXsubsector Chemicals, Specialty Performance Index, which reported a decrease of around 12% over the same period.

## Further growth and continuation of the industrialization strategy

On 17 March 2018, the company announced in an ad hoc release the arrangement of the acquisition of Cardiff-based company Biocatalysts. Biocatalysts is successfully active in the special enzymes market, and has reported double-digit growth during the past two financial years. The company generated sales revenue of £ 9.55 million in the 2016/17 financial year (equivalent to € 10.9 million). BRAIN has acquired a 65.6% indirect interest in the company. The remaining shares are held by the Biocatalysts management as well as a strategic investor. Put-call options on the management's shares exist.

The reception of the acquisition by the stock market was largely positive. The share price rose by around 1.7% directly after the announcement.

\* In each case based on the XETRA closing price.

FIGURE 02.4 BRAIN SHARE PRICE PERFORMANCE (INDEXED)

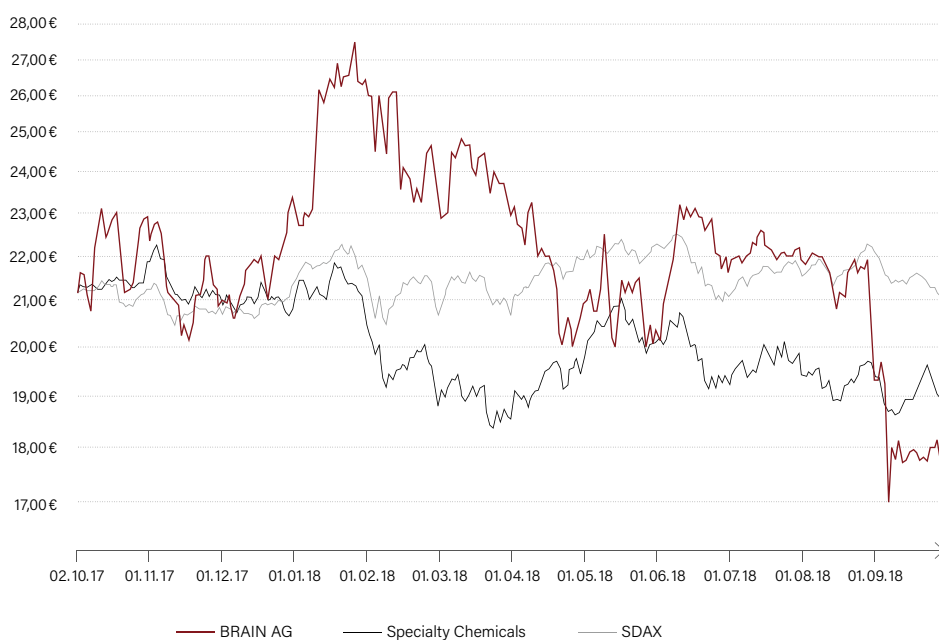


TABLE 02.1 KEY SHARE DATA

<b>Share class</b>	No-par-value registered shares
<b>Stock exchanges</b>	XETRA, Frankfurt, Berlin, Düsseldorf, Munich, Stuttgart, Tradegate
<b>Transparency level</b>	Prime Standard
<b>Number of shares</b>	18,055,782
<b>Share capital</b>	€ 18,055,782
<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 on 28.09.2018<sup>1,2</sup></b>	€ 17.70
<b>52-week high<sup>2</sup></b>	€ 27.50
<b>52-week low<sup>2</sup></b>	€ 17.00
<b>Market capitalization on 28.09.2018<sup>1,2</sup></b>	€ 319.59 million
<b>Average daily trading volume (52 weeks as of 28.09.2018<sup>1</sup>)</b>	22,438 shares/day

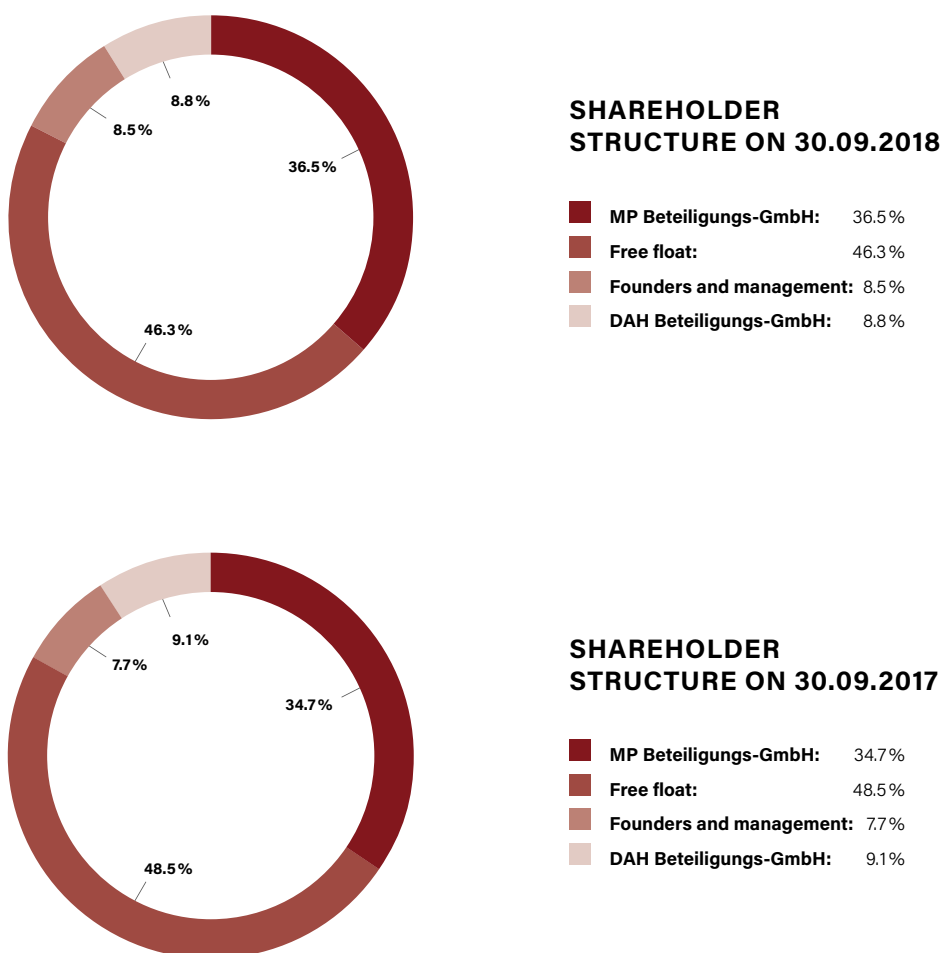
<sup>1</sup> Last trading day of the 2017/18 financial year.

<sup>2</sup> In each case based on the XETRA closing price.

## Shareholder structure

The number of shares in issue of BRAIN AG in the 2017/18 financial year was unchanged at 18,055,782 shares. The free float stood at 46.3% as of 30 September 2018. The shareholder structure of BRAIN AG as of 30 September 2018 (and as of the previous year's reporting date) is as follows:

FIGURE 02.4 SHAREHOLDER STRUCTURE



## Analysts

Estimates and recommendations relating to BRAIN AG are published by the following research houses:

Company	Analyst
<b>Baader Helvea Equity Research</b>	Markus Mayer, Laura López Pineda
<b>Deutsche Bank AG</b>	Falko Friedrichs, Gunnar Romer
<b>EQUITS</b>	Thomas Schiessle
<b>ODDO BHF-Bank</b>	Igor Kim

## Financial communication

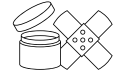
BRAIN AG is listed on the Frankfurt Stock Exchange in the Prime Standard segment of the Regulated Market, the stock exchange segment entailing the highest transparency requirements. Along with corresponding mandatory publications including quarterly statements and the half-year financial report, BRAIN informed investors, analysts and other interested capital market participants in two ad hoc announcements, 23 press announcements and 16 investor relations announcements, as well as through telephone conferences and numerous individual meetings, about the company's further development and about the bioeconomy's global growth potential. As part of roadshows, especially in January and September 2018, company representatives met with investors in Boston, New York, Frankfurt, London, Lyon, Munich, Paris, Lugano, Milan and Zürich. The focus here was on presenting the company and its future prospects to interested new investors. Company representatives were also consistently available at relevant conferences such as the ODDO-BHF Finance Conference in January in Lyon, the DGAP Spring Conference in Frankfurt/Main, the Baader Investment Conference in Munich, as well as the Equity Capital Forum in Frankfurt/Main. Financial announcements and publications as well as all other publications of relevance to the capital market are permanently available on the company's website at [www.brain-biotech.de/investor-relations/](http://www.brain-biotech.de/investor-relations/).

## Annual General Meeting

The second public Ordinary AGM of BRAIN AG was held on 8 March 2018 in Zwingenberg. A total of 74.89% of the share capital of BRAIN AG, which is divided into 18,055,782 shares, was represented there. The participating shareholders accepted all agenda items with mostly large majorities. Only agenda item 6 relating to "Authorized Capital" was questioned critically by some institutional investors, but was also accepted, by 76.92% of the capital present. The voting results can be viewed on the Internet at [www.brain-biotech.de/investor-relations/hauptversammlungen/hauptversammlung-gj-2016-17](http://www.brain-biotech.de/investor-relations/hauptversammlungen/hauptversammlung-gj-2016-17). Votes were held concerning, inter alia, the respective discharge of the members of the Management and Supervisory boards for the 2016/17 financial year, the election of the auditor, the election of a Supervisory Board member and the creation of new authorized capital.



**BRAIN innovations**



# Biological wound management

**Aurase®** is an enzymatic active ingredient developed by BRAIN for the treatment of open wounds. The active mechanism was inspired by the common green bottle fly.



## 2010/099955

Extensive patent coverage is already in place for the commercial use of the Aurase® enzyme in 20 countries across all continents.

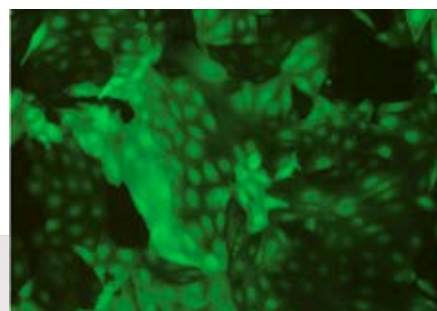
The number of patients with chronic wounds is on the increase due to demographic change and diet-related diseases. It is an established fact that the larvae of the common green bottle fly promote wound healing. Scientists at BRAIN decoded the mechanisms behind this healing effect and developed the Aurase® enzyme for new wound treatment products, as a less invasive alternative to potentially very unpleasant forms of treatment such as surgical debridement or maggot therapy. BRAIN is able to produce the biological active ingredient in an ultrapure form. SolasCure Ltd., a company established with BRAIN's participation, is currently preparing the certification and marketing for Aurase®.





# Natural compounds for reducing perspiration

BRAIN technologies enable the development of biological deodorants and aluminium-free antiperspirants.



10 l

One individual's sweat glands can produce up to 10 liters of sweat per day.



Natural active ingredients that protect against perspiration and body odor are in great demand. These are also sought after as alternatives to products that contain aluminium and pose health risks if used in excess. Together with scientific partners, BRAIN has developed a new concept based on directly influencing primary fluid secretion in human sweat glands using natural compounds. This scientific achievement received the top award in the "Applied Research" category at the IFSCC Congress 2018, the world's major forum for insights into cosmetic science and skin biology. In the **TriP<sup>2</sup>Taste** and **TriP<sup>2</sup>Sensation** programs, BRAIN also offers unique cell-based assay systems for novel skin care products.

# Calorie-free sweeteners

The **DOLCE** program is developing the next generation of natural sweeteners for healthier foods.



**61 bn**

The global sugar market comprises the production of approx. 185 million tons<sup>1</sup> and added value of more than US\$ 61 billion.<sup>2</sup>

**1%**

Natural sweeteners currently hold only one percent of the market.<sup>3</sup>

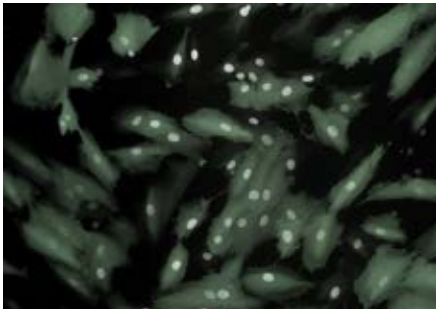
Excessive sugar consumption is a cause of illness and poses an enormous burden for health care systems. With this in mind, BRAIN launched the DOLCE program together with AnalytiCon Discovery and the French Roquette company. The core team offers food manufacturers and beverage companies the opportunity to join the programme. In early 2018, the partnership reached a key milestone by identifying and characterizing a series of highly intensive natural sweeteners and sweetness enhancers.

1 USDA 2017  
 2 Finanzen.net 01/2018  
 3 nutraceuticalsworld.com 2017



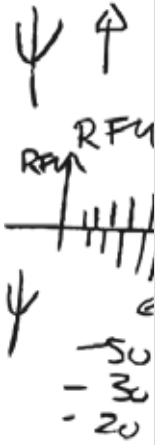
# Healthy food without aftertaste

BRAIN has unique assay systems for identifying plant-based taste modulators.



## 5

The World Health Organization (WHO) recommends a maximum daily salt intake of 5 grams for adults.



## 25

Humans have about 25 bitter taste receptors, a comparatively high number. However, we have only three receptors in all for sweet tastes and umami.



Preparing healthy food is a broad field of application. Using special cell-based assay systems, BRAIN scientists in the **SALT-E** programme also devote their attention to reducing salt and fat, which can both lead to health problems if consumed in excess. Any compromises in terms of taste habits, some of which have evolutionary reasons, are to be ruled out. A bitter taste is a key issue in this connection, since it is often activated together with other taste receptors. Natural plant-based substances make it possible to develop alternative flavor carriers and mask bitter tastes.



# Sustainable metal extraction in the circular economy

Microorganisms from BRAIN's BioArchives can extract precious metals from ores and waste streams with low impact and without the need for chemicals.

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



## 250

One ton of computer boards may contain up to 250 grams of gold and one kilogram of silver.



## 5%

of the gold produced is extracted using biological processes, but this has to be followed by chemical treatment. That is not necessary using bio-based technologies from BRAIN.

Global demand for mineral resources is constantly growing, as is the dependence of regions like Europe on precious metal and technology metal imports. At the same time, ore content in mines is decreasing, while environmental protection requirements in this sector of industry are becoming more and more stringent. Classical recycling technologies find it hard to deliver when it comes to recovering specific metal fractions from waste streams. BRAIN has developed highly efficient technologies based on special microorganisms for green and urban mining. For urban mining, these technologies have already been transferred from lab scale to demonstration scale in BRAIN's BioXtractor. For green mining applications together with CyPlus GmbH, the process has been successfully scaled up to the metric ton level.



Nutrition & Health



Skin Care

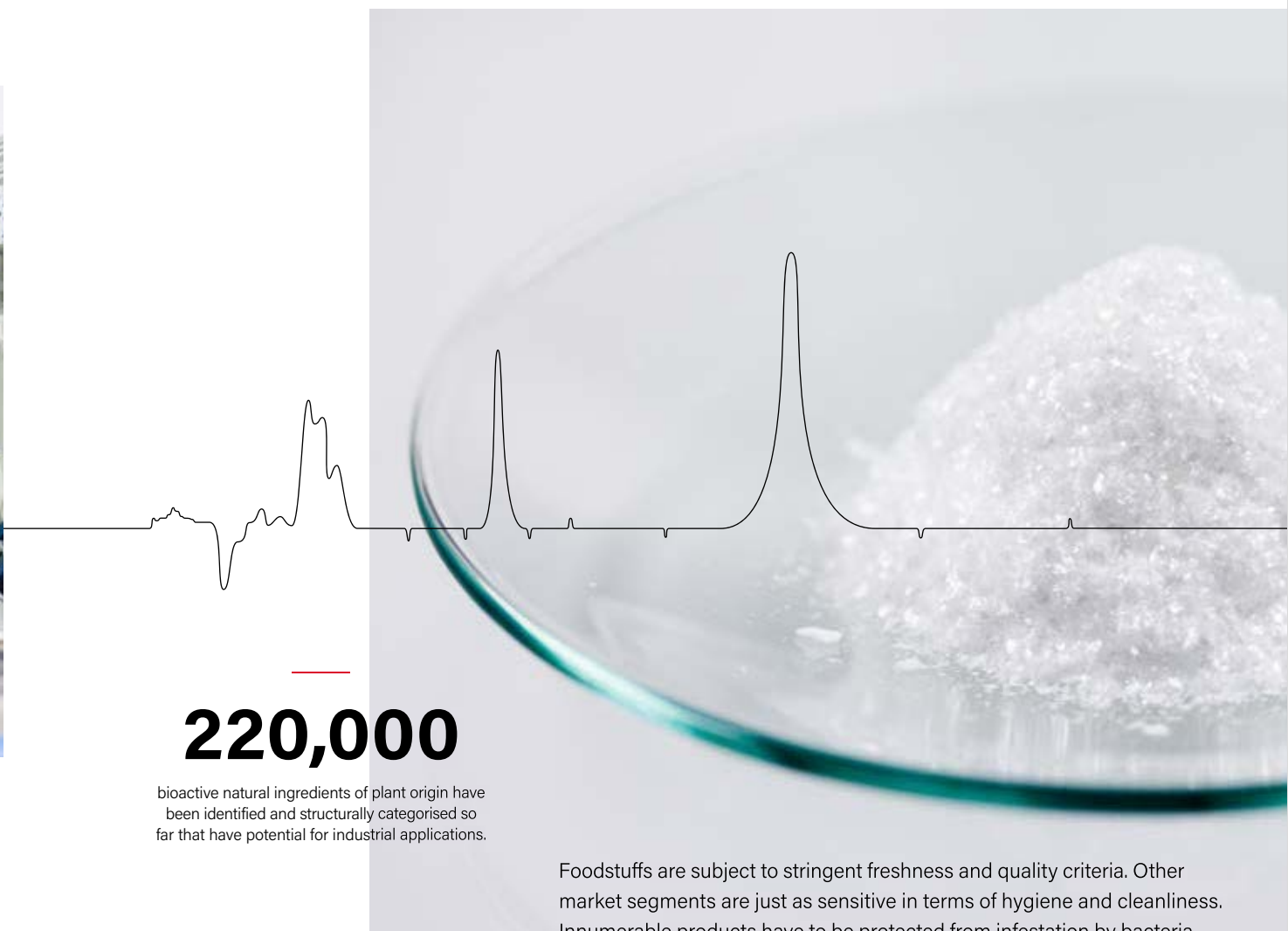


Industrial BioSolutions

---

# Bio-based freshness and product stability

— Edible plants also provide actives that combat harmful organisms. BRAIN's **FRESCO** program identifies the best candidates.



---

## 220,000

bioactive natural ingredients of plant origin have been identified and structurally categorised so far that have potential for industrial applications.

Foodstuffs are subject to stringent freshness and quality criteria. Other market segments are just as sensitive in terms of hygiene and cleanliness. Innumerable products have to be protected from infestation by bacteria, viruses or fungi. Consumers are increasingly expecting this to be achieved by means of natural and sustainably produced active ingredients. BRAIN develops the corresponding bioactive substances that can also be used for medical products and paints and for preservatives, cleaning and other household products, apart from their uses in the food and feed industries. BRAIN **PerillicActive** is a forerunner of the extensive FRESCO program and offers natural freshness based on fermented orange oil.

# Facts & figures

---

## 660 bn

Market analysts expect sales in biotechnologically produced chemicals to rise from around US\$ 144 billion in 2010 to US\$ 660 billion in 2025.<sup>1</sup>

---

## 11 %

It is expected that sales in industrial biotechnology will grow by about 11% per year from 2010 to 2025 (CAGR 2010 – 25), far exceeding the anticipated growth of about 4.1% in all chemical markets taken together (CAGR 2015 – 20).<sup>1</sup>

---

## 355 bn

Global sales in industrial biotechnology amounted to US\$ 335 billion in 2016.<sup>2</sup>

---

## 1 m

The European Commission expects Europe's bio-based economy to create up to one million new jobs by 2030.<sup>3</sup>

---

## > 350

BRAIN has unique product solutions and technology platforms that are protected by more than 350 patents and patent applications in some 50 patent families.

---

## 308

At the end of fiscal 2017/2018, the BRAIN Group employed a total of 308 colleagues including Management Board members, trainees and volunteers.

---

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

<sup>1</sup> German Bioeconomy Council (December 2016); Roland Berger, Grandviewresearch (2016)

<sup>2</sup> USDA (March 2018)

<sup>3</sup> European Commission (2018)

03

# Corporate governance report

---

## 03 Corporate governance report 77

---

Corporate governance statement	79
Corporate governance practices	91



# Corporate governance statement

The Management and Supervisory boards of B.R.A.I.N. Biotechnology Research and Information Network AG (hereinafter also referred to as “BRAIN AG” or “the company”) are aware of the importance of the principles of responsible and good corporate governance, and are committed to them. This statement combines the corporate governance statement of BRAIN AG pursuant to Section 289f of the German Commercial Code (HGB) and the Group corporate governance statement for the BRAIN Group pursuant to Section 315d HGB. It comprises of 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 Management and Supervisory boards of BRAIN AG declare that since the last statement of conformity on 18 December 2017, BRAIN AG has complied with the recommendations of the “Government Commission German Corporate Governance Code” in the version dated 24 April 2017 (with correction dated 17 May 2017), 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 equivalent to 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 generally unsuited 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 suitably qualified candidates.
- **Number 4.2.3 (2) Clauses 2 and 3 DCGK:** The Code recommends that variable compensation elements should generally have a multi-year measurement basis relating mainly to the future. To this end, the company has decided that the variable compensation component in Management Board contracts should continue to be calculated applying a one-year measurement basis for the time being. However, the company regularly reviews whether to adjust Management Board compensation by way of mutual agreement. The company has also approved an employee stock ownership plan (ESOP) for the Management Board members, which ensures that they are exposed to a long-term incentive effect.

- **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 in February 2016 do not include a severance pay cap. The company has taken this into consideration in the case of Management Board contracts concluded before the IPO.
- **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 has taken this into consideration in the case of Management Board contracts concluded before the IPO.
- **Number 5.1.2 (2) Clause 3:** The Code recommends setting an age limit for Management Board members. Given the age of the Management Board members in office, BRAIN AG has not set an age limit for the Management Board members to date. The Supervisory Board of BRAIN AG is reviewing whether such an age limit should be set in the future.
- **Number 5.3.2 Clause 5:** The Code recommends that the Audit Committee chair should be independent, and not be a former member of the company's Management Board whose appointment ended less than two years previously. Dr. Georg Kellinghusen was the CFO of BRAIN AG until his (re-)election to the Supervisory Board on 9 March 2017. The recommended two-year waiting period was thereby not complied with. The position of Audit Committee Chairman was conferred on Dr. Kellinghusen thanks to his very good specialist qualifications and the sector knowledge he has acquired.
- **Number 5.4.1 (2) Clauses 1 and 2:** The Code recommends that supervisory boards set specific targets for their composition and develop a competency profile for the overall board. While considering the specifics of the enterprise, the composition of the supervisory board should take into appropriate 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 is based on the competency profile that was prepared. To date, no regulations have been set for an age limit and a limit for a regular duration of membership of the Supervisory Board. For the time, the Supervisory Board has decided being not to set any age limit and no normal limit for the duration of Supervisory Board membership. However, it engages with both of these issues in the case proposed elections to the Supervisory Board, taking the respective individual into consideration.

- **Number 7.1.2 Clause 3, semi-clause 1 (Code 2017):** The Code recommends publishing consolidated financial statements and the group management report within 90 days after the financial year-end. Due to the additional financial accounting requirements as a listed company, the auditing of the financial statements lasted, and lasts, longer than 90 days, so that the audited figures cannot be published with the annual report within 90 days after the financial year-end, but instead not until after the expiry of 90 days. Prospectively, this will also remain the case with future annual consolidated financial statements.
- **Number 7.1.2 (4) semi-clause 2 (Code 2017):** The Code recommends publishing mandatory interim financial information 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. Furthermore, 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 require for a company 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 or 90-day periods valid pursuant to Prime Standard regulations.

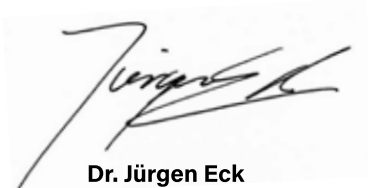
Zwingenberg, December 2018

For the Supervisory Board of BRAIN AG:



**Dr. Ludger Müller**  
Supervisory Board Chairman

For the Management Board of BRAIN AG:



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

## Relevant information about corporate governance practices

The purpose of BRAIN AG and the BRAIN Group is to identify, research, develop, produce and market biological, biochemical and biotechnology processes and products, especially enzymes, biocatalysts, microorganisms and other bioactive natural compounds for industrial applications at chemical companies, for the production of foodstuffs and animal feed, 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 biotechnology applications. Within the BRAIN Group, services are also rendered for the pharmaceuticals industry.

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

The BRAIN Group parent company, BRAIN AG, is a public stock corporation listed on the Regulated Market of the Frankfurt Stock Exchange, and is consequently subject to certain transparency and insider regulations. In particular, all senior staff of BRAIN AG as well as staff in the areas of finance, legal and communications are informed about insider law issues, and the company has prepared a corresponding information sheet for this purpose.

## Description of the Management and Supervisory boards' working methodology as well as composition and working methodology of the Supervisory Board's committees

BRAIN AG is a public stock corporation under German law and the parent company of the BRAIN Group with subsidiaries in Germany, France, England and the USA. 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 the status of strategy implementation at regular intervals. 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 two members as of 30 September 2018.

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
Frank Goebel	Chief Financial Officer	1 November 2016	31 October 2019 <sup>1</sup>

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 during the 2017/18 financial year:

#### 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 optimization
- Information management, patent strategy
- Production, scale-up
- Public and press relations (PR)
- Personnel
- Coordinating the individual Management Board areas and contacts with the company's boards

#### Frank Goebel (Chief Financial Officer – CFO):

- Accounting
- Controlling
- Business development of the BioIndustrial segment
- Management of equity interests, M&A (corporate finance)
- Financial communications (investor relations)
- Compliance and quality assurance
- Risk management
- Legal, administration and organization
- Group audit
- IT, digitalization
- Purchasing

<sup>1</sup> announced early stepping down from office as of the end of the 2018 year

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 28 March 2017. These particularly include regulations about 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 catalog of actions and legal transactions requiring Supervisory Board assent.

#### **Management Board meetings**

Management Board meetings are held as required, which is 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 (CEO) is decisive given an equal number of votes.

#### **Collaboration with subsidiaries**

At least once a quarter, the Management Board of BRAIN AG and the management of the subsidiaries meet in person or hold telephone conferences on the course of business and forthcoming developments at the subsidiaries. The subsidiaries report monthly to BRAIN AG and consult with the Management Board at short notice in the event of deviations from the planning or forecast. The Management Board reports to the Supervisory Board on reporting and coordination with the subsidiaries and, if requisite, consults it separately on individual topics.

#### **Supervisory Board working methodology**

The Supervisory Board has all responsibilities and rights transferred or allocated to it by 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 (the Audit Committee, Personnel Committee, M&A Committee and Nomination Committee). Separate sets of rules are also approved through the committees to regulate their working methodologies. 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 seven face-to-face meetings in the 2017/18 financial year. Otherwise the committees held seven face-to-face meetings, and the Supervisory Board and its committees held eleven telephone conferences. The Audit Committee held four face-to-face meetings in the 2017/18 financial year. The Personnel Committee held three attended meetings in the 2017/18 financial year. The Nomination Committee held one face-to-face meeting and one telephone conference in the 2017/18 financial year. The M&A Committee held four telephone conferences in the 2017/18 financial year. The Nomination Committee held two face-to-face meetings in the 2017/18 financial year.

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

Supervisory Board resolutions are generally passed at face-to-face meetings of the Supervisory Board members. Absent Supervisory Board members can submit a written vote through 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 video conference 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 so doing, the Deputy Supervisory Board Chair. The Supervisory Board is quorate if all members are convened in good 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 so doing, 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 conflicts of interest to the Supervisory Board, including potential conflicts of interest based on advising, or being a director of, a customer, supplier, lender or other third party, whereby this list is not conclusive. In the case of conflicts of interest that are significant or or not just of a 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 handled. No conflicts of interest arose in the reporting period.

The Supervisory Board completed its last efficiency audit in December 2017. In order to conduct the efficiency audit, the current situation was appraised based on questionnaires, and the results of the questionnaires were discussed by the Supervisory Board. After evaluating the results, the Supervisory Board notes that it performs its activities efficiently overall. Potential improvements identified as part of the audit are taken into consideration for the future. The Supervisory Board plans to work continuously on its efficiency.

### **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 – 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 moves up to 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 moving up 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 period of office of Prof. Dr. Klaus-Peter Koller as a member of the company's Supervisory Board concluded as of the end of the AGM on 8 March 2018. As he had already served as a Supervisory Board member for a number of years, Prof. Dr. Koller already stated at the time of his last election on 8 March 2017 that he wished to be elected to the Supervisory Board for only a reduced, one-year, period of office, and would no longer be available for a new period of office. Dr. Rainer Marquart was newly elected to the Supervisory Board by the AGM on 8 March 2018.

During the 2017/18 financial year, the Supervisory Board comprised of the following individuals:

TABLE 03.2 SUPERVISORY BOARD MEMBERS

Name / Function	Member since	Appointed until the AGM in the respective FY	Further board mandates in 2017/18
<b>Dr. Ludger Müller</b> Chairman	17.03.2011	2018/19	<ul style="list-style-type: none"> <li>• Managing Director of KEIPER Brasilien Beteiligungs-GmbH and KEIPER Lateinamerika Beteiligungs-GmbH</li> <li>• TU Kaiserslautern, University Council Chairman</li> </ul>
<b>Dr. Martin B. Jäger</b> Deputy Chairman	09.03.2017	2020/21	<ul style="list-style-type: none"> <li>• until June 2018 member of the Management Board of Herbstreith &amp; Fox Gruppe, Neuenbürg</li> <li>• since July 2018 Managing Director and shareholder of InnoVest Nutrition GmbH, Kaiserslautern</li> <li>• EIT Food iVZW, Belgium, Supervisory Board member</li> </ul>
<b>Dr. Anna C. Eichhorn</b> Supervisory Board member	09.03.2017	2020/21	<ul style="list-style-type: none"> <li>• CEO of humatrix AG, Pfungstadt</li> <li>• Management Board member (Deputy Chairwoman) of the Initiative gesundheitswirtschaft-rhein-main e.V.</li> <li>• Member of the Supervisory Board of the Frankfurter Innovationszentrums Biotechnologie (FIZ)</li> <li>• Member of the Management Board of House of Pharma &amp; Healthcare e.V.</li> </ul>
<b>Dr. Georg Kellinghusen</b> Supervisory Board member	09.03.2017	2019/20	<ul style="list-style-type: none"> <li>• Member of the Bavaria Advisory Board of Deutsche Bank AG, Frankfurt am Main</li> <li>• Member of the Advisory Board of NWB Verlag GmbH &amp; Co. KG, Herne</li> <li>• Member of the Advisory Board of Advyce GmbH, Munich</li> </ul>
<b>Prof. Dr. Klaus-Peter Koller</b> Supervisory Board member	21.05.2011	2017/18 (stepped down at the AGM on 8 March 2018)	<ul style="list-style-type: none"> <li>• Member of the Advisory Council and Honorary Member of the German Association for General and Applied Microbiology (VAAM)</li> <li>• Member of the Consultant Board for the Subsidy Program of the German Federal Ministry of Education and Research (BMBF) "Validating the Technological and Social Innovation Potential of Scientific Research" (VIP+)</li> <li>• Member of the Joint Board of Trustees of the Max Planck Institute for Biophysical Chemistry/ Dynamics and Self-Organization, Göttingen</li> </ul>
<b>Christian Körfgen</b> Supervisory Board member	01.01.2016	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</li> </ul>
<b>Dr. Rainer Marquart</b> Supervisory Board member	08.03.2018	2021/22	<ul style="list-style-type: none"> <li>• Leverton GmbH, Berlin, Advisory Board Chairman</li> <li>• FLYTXT B.V., Nieuwegein/Netherlands, member of the Board of Directors</li> <li>• Onefootball GmbH, Berlin, member of the Advisory Board</li> <li>• The Ark Pte. Ltd., Singapore, member of the Board of Directors</li> </ul>



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

Given the ownership structure (MPBG held a total of 36.45 % of shares in BRAIN AG as of the 30 September 2018 financial year-end, corresponding to 6,581,607 shares), the Supervisory Board regards a total of four independent members as appropriate. With the distribution of these mandates, the company's largest anchor shareholder is approximately represented on the Supervisory Board in accordance with the interest it holds in the company.

The following Supervisory Board members are regarded as independent according to the criteria of the DCGK:

Dr. Martin B. Jager,  
 Dr. Anna C. Eichhorn,  
 Dr. Georg Kellinghusen,  
 Prof. Dr. Klaus-Peter Koller until 8 March 2018,  
 Dr. Rainer Marquart from 8 March 2018.

The competency profile and the objectives of the Supervisory Board are composed as follows: the Supervisory Board is of the opinion that one third of its members should cover, in particular, the areas of Entrepreneurship/New Business Areas and Corporate Finance/Capital Market. Moreover, the Supervisory Board regards the recruiting of a further individual with knowledge of the North American market of relevance to the company as a medium-term objective. In terms of diversity, the Supervisory Board wishes to continue for the time being with the ratio of women that it has achieved. To date, the Supervisory Board has not set a binding age limit or a limit for the maximum length of service.

## **Committees**

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

The Supervisory Board has currently formed a total of five committees to efficiently perform its work: an Audit Committee, a Personnel Committee, a Nomination Committee, an M&A Committee and an Innovation Committee. The committees prepare resolutions for the Supervisory Board as well as agenda items to be handled by the plenary meeting. 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):

Name	Position	Independence
Dr. Georg Kellinghusen	Chairman	yes
Dr. Ludger Müller	Member	no
Dr. Martin B. Jager	Member	yes

The Audit Committee concerns itself especially with supervising financial accounting, the financial accounting process, the efficacy of the internal control system, the risk management system, the internal audit system, the audit of the financial statements, as well as compliance. The Audit Committee submits a substanti-

ated recommendation for the election of the auditor to the Supervisory Board, which comprises of at least two candidates if the audit mandate is to be put out to tender. The Audit Committee supervises the auditor's independence and concerns itself with services to be rendered additionally by the auditor, the award of the audit mandate to the auditor, the setting of focus audit areas, as well as arranging the auditor's fee.

Pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG), the audit committee must include at least one supervisory board member with expertise in the financial accounting or financial auditing areas. The Audit Committee Chairman Dr. Georg Kellinghusen meets the statutory conditions pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG) and also possesses specialist knowledge and experience as a CFO over a more than thirty-year period, including at four listed companies. His activities focus on controlling, financial questions and financial accounting, among other areas. He also possesses broad knowledge in compliance topics as well as in the investor relations area.

### 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):

Name	Position
Dr. Ludger Müller	Chairman
Dr. Martin B. Jager	Member
Christian Körfgen	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):

Name	Position
Dr. Ludger Müller	Chairman
Dr. Anna C. Eichhorn	Member
Prof. Dr. Klaus-Peter Koller	Member until 8 March 2018

The Nomination Committee submits appropriate candidates to the Supervisory Board for it to propose to the AGM for election. Following the stepping down of Prof. Dr. Klaus-Peter Koller, the Nomination Committee will consist of two Supervisory Board members until further notice.

### M&A Committee

The M&A Committee held its constituting meeting on 13 December 2017, and consists of the following individuals until the end of their respective periods of office (the chair and up to three further members):

Name	Position
Dr. Martin B. Jager	Chairman
Dr. Ludger Müller	Member
Dr. Georg Kellinghusen	Member
Dr. Rainer Marquart	Member from 29 May 2018

The M&A Committee advises the Management Board on all relevant strategic questions relating to the initiation and implementation of M&A transactions, especially in reviewing the strategic conformity of planned M&A measures, the implementation of acquisitions or disposals of companies or parts of companies, the valuation of target companies or transactions, the structuring and financing of transactions, the transaction-specific selection of suitable advisors, and the planning and implementation of integration scenarios. The M&A Committee prepares the decisions of the Supervisory Board in relation to the initiation and execution of M&A transactions, and prepares recommendations for Supervisory Board resolutions.

### Innovation Committee

The Innovation Committee held its constituting meeting on 13 December 2017, and consists of the following individuals until the end of their respective periods of office (the chair and up to two further members):

Name	Position
Dr. Anna C. Eichhorn	Chair
Dr. Martin B. Jager	Member
Prof. Dr. Klaus-Peter Koller	Member until 8 March 2018
Dr. Rainer Marquart	Member from 29 May 2018

The Innovation Committee advises the Management Board on all matters concerning the company's innovation strategy and innovation management, especially in relation to the design and development of new products and applications, the allocation of individual projects to business segments or subsidiaries, and the initiation and implementation of research and development partnerships. The Innovation Committee prepares the decisions of the Supervisory Board in relation to innovation strategy and innovation management, and prepares recommendations for Supervisory Board resolutions. The Innovation Committee held two meetings.

Remarks concerning the working methodology of the Management Board, the Supervisory Board, and the committees in the financial year are also presented in the [report by the Supervisory Board](#), which is included in the annual report of BRAIN AG.

→ Report  
from the  
Supervisory  
Board, page 16

### Dialog with investors

The Supervisory Board discussed the suggestion from Number 5.2 (2) of the German Corporate Governance Code (DCGK), and was in favor of the Supervisory Board Chairman being available to answer investors' questions relating specifically to the Supervisory Board. The Management Board of BRAIN AG also welcomes this move.

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

At its meeting on 23 September 2016, the Supervisory Board of BRAIN AG passed a resolution that the Supervisory Board should include one woman, corresponding to a 17% ratio. The deadline for implementation was set at 30 June 2017. This objective was implemented on 9 March 2017 when Dr. Anna C. Eichhorn was elected to the Supervisory Board of BRAIN AG. The retention of this goal was confirmed at the meeting on 28 September 2017 for the period until 30 June 2022. Also on 28 September 2017, the Supervisory Board passed a resolution to leave the ratio of women for the Management Board of BRAIN AG unchanged at 0% until 30 June 2022.

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. This target was reached with a level of 14% on 30 June 2017.

As a consequence, the Management Board of BRAIN AG has set the target for the proportion of women at the first management level below the Management Board at 14%, with a deadline for implementation by the end of 30 September 2020. The target for the first management level maintains the status quo as of 30 June 2017, but does not exclude an increase in the proportion of women at this management level. At present, the company falls short of the target for the proportion of women at the first management level due to the enlargement of this management level, although this does not alter the existing target for this management level. This shortfall in relation to the target mainly reflects the corporate strategy decision to establish three business units within the company with corresponding managerial functions. In the course of strengthening the management team, a long-standing vacancy for a technology unit head was also filled from within the company. Related headhunting efforts, however, have failed to fill the vacant positions with suitable candidates.

Considering the management matrix structure established within the company, especially including command and reporting lines between Management Board and subordinated levels, as well as taking into consideration the company's size, only one management level exists below the Management Board in the meaning of Section 76 (4) AktG.

# Corporate governance practices

## Corporate governance at BRAIN AG

Good corporate governance refers to responsible corporate management with the aim of creating sustainable value. In particular, good corporate governance aims to strengthen trust and confidence in the company on the part of investors, business partners, employees and the general public. Efficient work by the Management and Supervisory boards forms 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. Considerable 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 (DCGK). The Management and Supervisory boards as well as the other management levels and employees are obligated 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 imposed by the regulatory environment and with a view to the company's development and growth.

BRAIN AG informs its employees about the early identification of insider situations in the form of leaflets and talks. The Management Board as well as staff participating in exploratory discussions involve the compliance department at an early juncture in such discussions, as well as in preparatory measures that might lead to insider situations. Regulations relating to closed periods in accordance with the Market Abuse Directive (MAR) are applied not only to the Management Board but also to all staff working in the executive management area as well as in the finance and legal areas, and to staff in the communications area.

Along with capital market law topics of relevance to BRAIN AG, regular training is also conducted on genetic technology safety and occupational safety.

Compliance and risk management meetings are conducted at regular intervals in order to coordinate current measures and medium- and long-term steps to ensure compliance and risk minimization.

The representative of the compliance department participates regularly in further training.

BRAIN AG has also established whistle-blower arrangements for potential misconduct on the part of its own employees. Employees can notify the whistle-blower department of potential misconduct, either anonymously or openly. After initial allocation, and depending on the corporate areas involved, the whistle-blower department forwards such notification to the Management Board and/or Supervisory Board to instigate countermeasures in the instance of actual misconduct, or for archiving at the whistle-blower department if it is established that no misconduct has occurred.

Furthermore, BRAIN AG has decided to obligate its subsidiaries' managers to comply with closed periods 30 days before the publication of business results. This enables transparent communication with the respective

managers in the periods preceding the publication of business results, and ensures that the same governance rules apply to the persons involved.

## Notes to the statement of conformity

In December 2018, the Management and Supervisory boards issued an updated statement of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG) in relation to the German Corporate Governance Code (DCGK). With the exception of the differences listed there, the company has complied with the recommendations of the DCGK during the 2017/18 financial year and will continue to comply with them in the future.

As far as the DCGK recommendations are concerned, the company also intends to comply with them in the future.

## 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 reflecting any Group remuneration. It also regularly reviews such compensation. When setting and reviewing Management Board compensation, the Supervisory Board takes into consideration that – pursuant to the provisions 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 must 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 company's sustainable development and growth. Compensation is set so that it is competitive in a national and international comparison, thereby offering an incentive for committed and successful work.

The Management Board compensation scheme is especially oriented to the company's sustainable development and growth. The monetary compensation components include fixed and one variable element. The Supervisory Board in each case sets the targets for one-year variable compensation for one financial year. A subsequent change of the assessment parameters is not foreseen. 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. In June 2018, the Supervisory Board approved an employee stock ownership plan (ESOP) for the Management Board members. The approved employee stock ownership plan ensures long-term incentive effects for the Management Board members.

### Management Board compensation according to 4.2.5 German Corporate Governance Code (DCGK)

The Compensation Report, which forms part of the company's Group Management Report, provides precise information about 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. This report is presented in the notes to the consolidated financial statements.

## **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 € 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 been Supervisory Board members for a full year of service receive the aforementioned compensation pro rata temporis to the level of one twelfth for each month of service they commence. All Supervisory Board members also receive a meeting fee of € 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 € 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.

## **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 authorized 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 to issue their votes without participating in the meeting by way of written or electronic communications (postal option). The Management Board is also authorized to set the specific arrangements relating to the scope and procedure for online participation and postal voting. These are to be announced 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 request information about the company's affairs, where such information is required in order to arrive at an objective assessment of an agenda item.

The second public Ordinary AGM of BRAIN AG was held on 8 March 2018 in Zwingenberg. The invitation for the AGM was published in good time in the German Federal Gazette (Bundesanzeiger) pursuant to statutory regulations, including the agenda with the proposed resolutions of the management and of the Supervisory Board as well as the terms for participating in the AGM and the exercising of voting rights, among other matters. All reports and documents required by law were available on the website of BRAIN AG from the date when the AGM was convened. Directly following the AGM, BRAIN AG published the attendance and voting results on its website. Seven out of eight items on the agenda were submitted to the vote at the AGM. All proposed resolutions were accepted with significant majorities given an attendance of the share capital of BRAIN AG of 74.89%. At the second AGM, the attendance of shareholders exceeded the already high attendance at the first AGM of BRAIN AG.

## Notifiable securities transactions

The Management and Supervisory board members, other individuals with management responsibilities with regular access to the company's insider information and who are authorized to take 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 upwards of an amount of € 5,000 in the calendar year. Notifications of corresponding transactions are also published on our website at [www.brain-biotech.de/investor-relations](http://www.brain-biotech.de/investor-relations). No such securities transactions were notified to the company for the 2017/18 financial year.



[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 following form:

- annual financial report for the financial year,
- interim financial report as of the first half of the financial year (6M),
- quarterly statements as of the first quarter (3M) and after the first nine months of the financial year (9M),
- quarterly telephone conferences,
- corporate presentations,
- publication of insider information, corporate announcements and IR announcements,
- publication of notifications of shareholding threshold levels,
- publication of ad hoc statements,
- publication of PR, IR and marketing releases.

## Financial accounting and auditing

The unaudited quarterly financial statements as of 31 December 2017 (3M) and 30 June 2018 (9M) as well as the unaudited half-year financial report (6M) as of 31 March 2018 and the consolidated financial statements for the financial year ending 30 June 2018 were prepared in accordance with Section 315e (1) of the German Commercial Code (HGB) and International Financial Reporting Standards (IFRS). The separate financial statements of BRAIN AG for the 2017/18 financial year were prepared in accordance with the regulations of the German Commercial Code (HGB), and the German Stock Corporation Act (AktG).

Zwingenberg, December 2018

Management Board and Supervisory Board

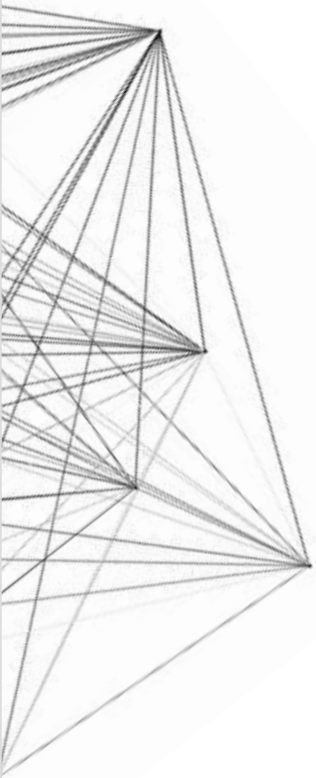




**BRAIN networks**

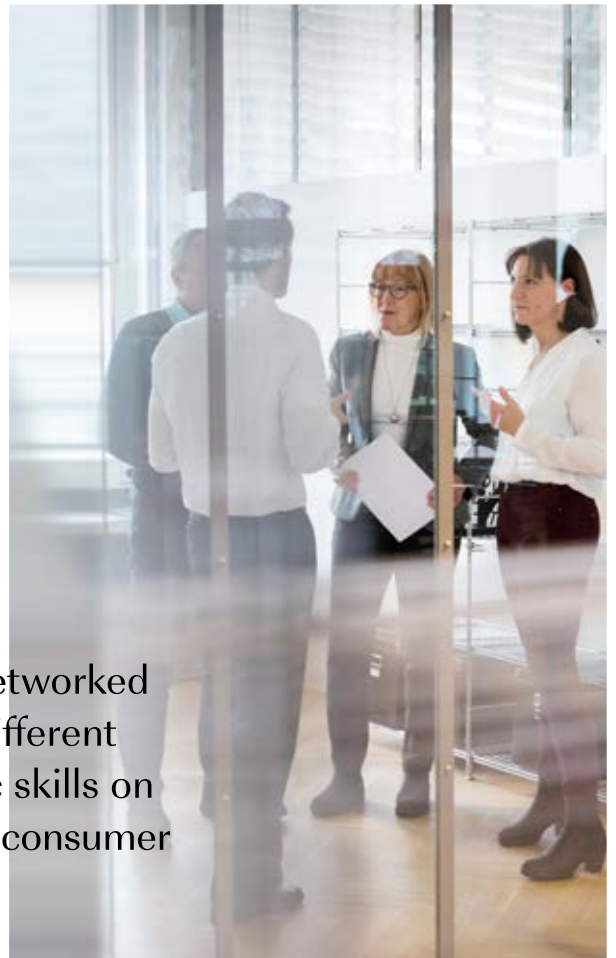
---

# Networks dynamize value added



— Technology-driven innovation cycles are becoming shorter and shorter. This is concurrent with rapidly changing consumer wishes. Sustainable production and the goal of keeping raw materials within value chains for as long as possible and creating closed-loop material cycles have become key factors for corporate strategy planning. Research, process development, production and marketing are becoming more closely dovetailed, and development partnerships across regions and disciplines are gaining importance. More than ever, successful corporate action calls for dynamic networks that develop ideas quickly and efficiently and can bring products to market.

— The bioeconomy involves a transition towards new bio-based products that offer both economic and environmental benefits and are accepted by society. Rapidly evolving biotechnologies have become a driver of innovation in a wide variety of industries. Innovations no longer follow linear value chains to the markets. Instead, new networks are arising to generate value added, and BRAIN embodies a key nexus in this context.



---

“We are witnessing an increasingly networked and cooperative interplay between different technology approaches and scientific skills on the one side and large ingredient and consumer goods industries on the other.”

**Dr. Jürgen Eck** — CEO, BRAIN AG



---

**> 100**

BRAIN has entered into over 100 exclusive research cooperation arrangements with industrial partners.

---

**> 50**

BRAIN currently cooperates with more than 50 partners in different academic networks.

---

# Innovations emerge from strategic alliances

— Scientific and technical challenges can best be tackled by interdisciplinary teams, as is shown by the **NatLifE 2020** and **ZeroCarbFP** alliances which BRAIN coordinates.



---

8

Eight strategic alliances supported by BMBF have meanwhile been established as part of the German Industrial Biotechnology Innovation Initiative.

NatLifE2020



The **Natural Life Excellence Network 2020** that is supported by the German Federal Ministry of Education and Research (BMBF) has been working since 2013 to develop sustainable production processes and new test systems for innovative bioactive ingredients, proteins and small molecules for the food and cosmetics industries. Both NatLifE 2020 and ZeroCarbFP are subdivided into a research, a development and a pilot phase of three years each.

---

# 2.4 bn

The Industrial Biotechnology Innovation Initiative started working in 2011 as the first BMBF promotion measure within the BioEconomy 2030 National Research Strategy, with an overall volume of € 2.4 billion.



The **ZeroCarbonFootPrint** alliance supported by BMBF aims to transform residual and waste streams into new valuable materials that can be put to industrial use. These are bio-based additives for manufacturing high-tech oils or functional biomass for sustainable ore processing and metal recycling processes. The aim is to establish intelligent material cycles that keep the utilized resources within value chains after their primary use.

---

“Secondary and waste streams such as flue gas or waste incineration ash contain masses of carbon. The ZeroCarbFP alliance aims to harness new technologies for transforming these resources into new industrial building blocks.”

Dr. Guido Meurer — Unit Head Producer Strain Development



---

# Networks are part of BRAIN's DNA

— The networking and open innovation concept that is widely practised within academic research is literally part of the DNA of BRAIN, which began life as a university student start-up.



---

## 6

Since 2008, BRAIN employees have undergone continuing professional development in a total of six different courses of study or this is still ongoing.

A key component of the work performed by BRAIN scientists is to exchange the latest insights into highly specialized subject areas with scientists at international research institutes. In some cases, the industrial applications of these findings will only transpire in the distant future. Based on initiatives like these that are also fostered within BRAIN's alumni network, specific cooperation arrangements emerge, such as BRAIN's ongoing research cooperation with Mannheim University in the **M<sup>2</sup>Aind** project for new high-resolution real-time screening technologies for three-dimensional skin spheroids.

BRAIN is regularly represented at international trade shows and conferences to maintain industrial networks, explore the market and customer needs, and to present its own product and cooperation offerings. BRAIN's excellent reputation in the fields of bioeconomy and industrial biotechnology also leads to valuable invitations to discussion forums such as the **German Biotech Days (DBT)** and the **Global Bioeconomy Summit** in Berlin in April 2018.



BRAIN is involved in a large number of projects that aim to promote young professionals. For instance, BRAIN is a partner of the one-week **"Biotechnology inventor lab"**, which is initiated by the Zentrum für Chemie e.V. and supported by Goethe Universität Frankfurt, the German Chemical Industry Association (VCI) and the Government of the Federal State of Hesse. Students in MINT research projects are supported in **regional talent networks**. School classes and groups of students often visit BRAIN to learn about the company's research through technical presentations and guided visits to the labs, and to receive career guidance in the field of biotechnology. Added to this are presentations at graduate school events and workshops for doctoral students for the purpose of academic training.

## 2

young women commenced training in BRAIN's first biology laboratory technician course in 2018. Since 2016, the company has offered an independent course of training for office management assistants.

## 15

Since 2005, 15 young people have received commercial training in various training associations and more than 15 others have undergone company assignments at BRAIN under a partnership with Merck KGaA since 1999.



# Facts & figures

---

# 11

partners from industrial enterprises, medium-sized companies and academic research are currently working together in the ZeroCarbFP alliance coordinated by BRAIN.

---

# 22

alliance partners are currently cooperating in the NatLife 2020 alliance coordinated by BRAIN.

---

# > 150

Since 1996, BRAIN has mentored more than 150 student dissertations and internships.

---

# 20

Students of various natural science disciplines have been involved and promoted for more than 20 years.

---

# 50 %

of the workforce have been with BRAIN in Zwingenberg for more than eight years.

---

# > 60

different types of qualification are held by BRAIN employees.

---

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



04

# Group management report





# Basis of the Group

- BRAIN identifies hitherto untapped bioactive natural compounds, enzymes and high-performance microorganisms derived from complex biological systems to transform them into industrially usable applications.
- Targeted acquisitions in selected industries in BRAIN's areas of expertise are to contribute to the greatest possible leveraging of the bioeconomy's growth potential.

This Group management report includes certain forward-looking statements about the development of the BRAIN Group (hereinafter also referred to as "BRAIN" or "the Group") based on assumptions and estimates that are subject to uncertainties and risks. The Management Board of BRAIN Biotechnology Research and Information Network Aktiengesellschaft, Zwingenberg (hereinafter also referred to as "BRAIN AG" or the "Company"), assumes such statements are realistic. However, potential deviations from planned results cannot be ruled out.

## Group business model

The BRAIN Group 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 compounds, enzymes and high-performance microorganisms derived from complex biological systems to transform them into industrially usable applications. Innovative solutions and products developed from this "Toolbox of Nature" are deployed successfully in the chemical industry, as well as in the cosmetics and food industries.

→ Expertise and product categories, page 49

BRAIN's business model stands on two pillars: its BioScience and BioIndustrial operating segments. The BioScience segment includes the company's collaboration business with industrial partners, usually concluded on an exclusive basis. The BioIndustrial segment, as the second pillar, comprises of 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.

## Targets and strategies

→ Strategy and business model, page 46

As an industrial biotechnology company, BRAIN has set itself the target of outperforming the growth potential offered by the bioeconomy sector. The company aims for sustainable, earnings-oriented growth based on the two pillars of its business model, BioScience and Bio-Industrial. Targeted acquisitions in selected industries in BRAIN's areas of expertise are also to contribute to the greatest possible leveraging of the bioeconomy's growth potential. In the Management Board's opinion, the new investments in Biocatalysts Ltd., Cardiff, UK, and Solas-Cure Ltd., Cardiff, UK, as well as the founding of BRAIN US LLC, Rockville MD, USA, during the past financial year represent important steps towards implementing this strategy.

→ BRAIN Group, page 29

## Management system

BRAIN's financial management metrics include total operating performance<sup>1</sup> and, since the financial year under review, adjusted EBITDA<sup>2</sup>. In the company's view, total operating performance appropriately describes the Group's overall financial performance in the respective reporting period. Adjusted EBITDA appears to better reflect the Group's sustainable earnings than EBIT, as exceptional items are excluded. Management in previous financial years was performed based on adjusted EBIT. This management metric was conclusively modified as of the end of the past financial year. Adjusted EBITDA is calculated by eliminating expenses from the share-based payments of BRAIN AG, an employee participation program at the subsidiary AnalytiCon Discovery GmbH, Potsdam, Germany, and acquisition and integration costs from the BRAIN Group's expansion.

As non-financial management metrics, the company refers to milestones achieved in the context of cooperation agreements and option exercises. The number of milestones reached and exclusive options exercised serves as an important measure of the technological targets achieved in the strategic industrial partnerships, and consequently of BRAIN's technology expertise. The management metrics underlying the planning and steering are calculated based on International Financial Reporting Standards (IFRS).

## Research and development

→ BRAIN innovations, page 69

The biotechnological research and development of innovative biotechnology processes and products form BRAIN's core expertise as well as 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 of various patented special technologies. These include the "Human Taste Cell Technology (HTC)" developed and patented by BRAIN. Such technology is based on isolated human taste buds, and utilized 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.

The BioArchive owned by BRAIN includes around 53,000 comprehensively characterized microorganisms, numerous isolated natural substances, various chassis microorganism strains to develop production organisms, as well as extensive genetic libraries encompassing many

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

<sup>2</sup> Earnings before interest, tax, depreciation and amortization

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 uncharacterized enzymes and natural substances, and new access to biodiversity that has not proved 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 and the USA.

→ BRAIN networks, page 95

Expenses for research and development amounted to € 7.6 million in the 2017/18 financial year, compared with € 8.1 million in the 2016/17 financial year. This corresponds to 25 % of total operating performance in the 2017/18 financial year, after 30 % in the previous financial year. Investments in research and development in the 2017/18 financial year mainly include expenses to develop various products (such as new sweeteners and biological metal extraction processes from waste and byproduct flows) at the sites in Zwingenberg and Potsdam. Research and development expenses include € 1.4 million of third-party services (previous year: € 1.5 million)

# Economic and Business Report

- BRAIN reported € 30.5 million of total operating performance in the 2017/18 financial year, compared with € 26.9 million in the 2016/17 financial year.
- International revenue increased by 18.0% from € 16.7 million to € 19.7 million thanks to the internationalization strategy and the acquisition of Biocatalysts Ltd..

## 1 Macroeconomic and sector-related conditions

Within a global economic environment that remains benign despite an increase in risks to economic growth<sup>3</sup>, overall conditions for industrial biotechnology continued to be positive in the 2017/18 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>

While R&D expenditure in the therapies and diagnostics sector is high in absolute terms, industrial biotechnology recorded the highest percentage growth rate.<sup>5</sup>

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

## 2 Business progress

TABLE 04.1 EXTRACT FROM THE STATEMENT OF COMPREHENSIVE INCOME

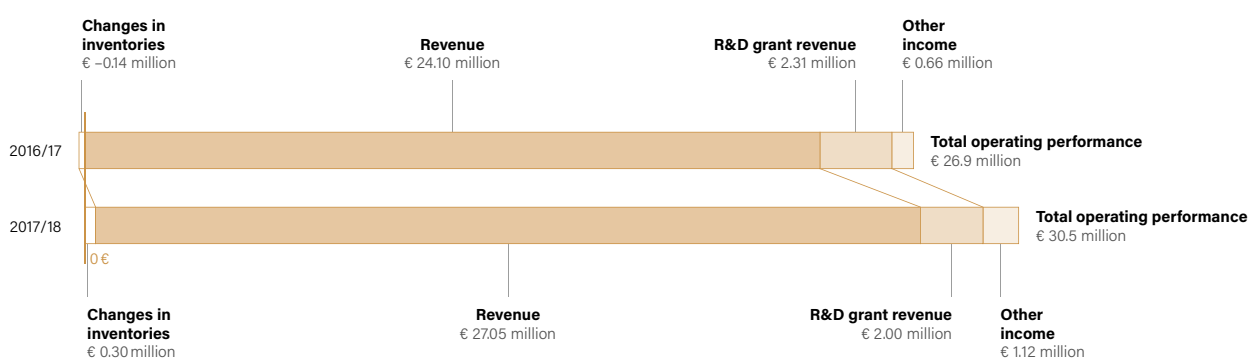
€ thousand	2017/18	2016/17
Revenue	27,051	24,105
Research and development grant revenue	2,000	2,310
Changes in inventories	296	-143
Other income	1,122	660
<b>Total operating performance</b>	<b>30,469</b>	<b>26,932</b>
<b>EBITDA</b>	<b>-6,680</b>	<b>-7,696</b>
<b>Adjusted EBITDA</b>	<b>-5,404</b>	<b>-4,719</b>
<b>EBIT</b>	<b>-9,692</b>	<b>-9,374</b>
<b>Adjusted EBIT</b>	<b>-8,416</b>	<b>-6,397</b>
Net financial result	1,198	-23
Pretax loss for the reporting period	-8,495	-9,398
Net loss for the reporting period	-8,276	-9,671
Earnings per share (in EUR)	-0,45	-0,58

<sup>3</sup> See: International Monetary Fund (IMF): World Economic Outlook, October 2018

<sup>4</sup> According to a survey conducted by publishing and specialist information provider BIOCOM, industrial biotechnology companies participating in the survey reported sales growth of almost 16% in 2017.

<sup>5</sup> According to the aforementioned BIOCOM survey, R&D expenditure in the new therapies and diagnostics sector grew by 0.7%, while spending on industrial biotechnology grew by 6.3%.

FIGURE 04.1 COMPOSITION OF TOTAL OPERATING PERFORMANCE



BRAIN reported € 30.5 million of total operating performance in the 2017/18 financial year, compared with € 26.9 million in the 2016/17 financial year. This 13.1% growth in total operating performance is attributable mainly to the acquisition of Biocatalysts Ltd. on 17 March 2018, and the related pro rata recognition of total operating performance contributions.

Reporting a 12.2% year-on-year increase, the rate of growth in consolidated revenue is at a similar level to the rate of increase in total operating performance. The slightly higher growth rate at the total operating performance level is mainly due to the increase in other income (€ 0.5 million), while the positive effect from the inventory changes (€ 0.4 million) slightly more than offset the effect from the lower research and development grant revenue (€ -0.3 million).

Overall, growth at the level of total operating performance lagged behind the targets we had set, and is not fully satisfactory as a consequence. In general, both segments are affected by this, although the BioIndustrial segment with 40.2% total operating performance growth is clearly above the previous year, which is mainly attributable to the acquisition of Biocatalysts Ltd.. At € 11.1 million, the BioScience segment's total operating performance was below the previous year's figure (€ 13.2 million) due to delays in launching or implementing projects with cooperation partners.

Research and development grant revenue decreased to € 2.0 million in the financial year under review (previous year: € 2.3 million) due to slightly lower costs in connection with funding projects and the winding down of smaller funding projects.

Inventory changes of € 0.3 million reflect the slight increase in inventories in both segments, although the difference of € 0.4 million in the BioIndustrial segment compared to the previous year is greater (due to active stock reduction measures in the previous year).

Other income rose by € 0.5 million to € 1.1 million. This was mainly due to higher reversals of provisions (€ 0.3 million, previous year: € 0.1 million) as well as income from the passing on of costs of services in connection with the successful spin-off of SolasCure Ltd. in August 2018 (€ 0.2 million).

Revenue was generated predominantly in Germany (around 27%, previous year approximately 31% of total revenue), France (c. 15%, previous year c. 21 %) and the USA (c. 18%, previous year c. 15 %). Accordingly, revenue in Germany stagnated at € 7.4 million (previous year: € 7.5 million). International revenue increased by 18.0% from € 16.7 million to € 19.7 million thanks to the internationalization strategy and the acquisition of Biocatalysts Ltd.

### 3 Results of operations

Adjusted EBITDA reduced from € -4.7 million in the previous year to € -5.4 million in the financial year elapsed. This reflected overall weak growth at the revenue and total operating performance level, before including acquisition-led growth, which negatively affected adjusted EBITDA, despite cost savings.

Group profitability in the 2017/18 financial year was also affected by expenses in connection with our M&A activities and to a lesser extent compared with the previous year, by an employee participation program at AnalytiCon Discovery GmbH.

The following table shows the reconciliation of reported EBIT and EBITDA to adjusted EBIT and adjusted EBITDA excluding the effects and expenses described above.

TABLE 04.2 RECONCILIATION OF REPORTED EBIT TO ADJUSTED EBIT

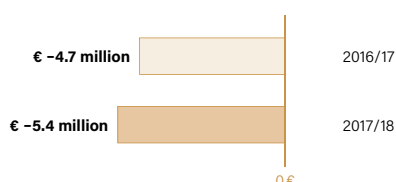
€ thousand	2017/18	2016/17
<b>EBIT, including:</b>	<b>-9,692</b>	<b>-9,374</b>
Personnel expenses from the employee share scheme at AnalytiCon Discovery GmbH	-191	-625
Personnel expenses from share-based payment components	-41	-2,352
Other operating expenses related to M&A transactions and integration of acquired businesses	-1,045	0
<b>Adjusted EBIT</b>	<b>-8,416</b>	<b>-6,397</b>

TABLE 04.3 RECONCILIATION OF REPORTED EBITDA TO ADJUSTED EBITDA

€ thousand	2017/18	2016/17
<b>EBITDA, including:</b>	<b>-6,680</b>	<b>-7,696</b>
Personnel expenses from the employee share scheme at AnalytiCon Discovery GmbH	-191	-625
Personnel expenses from share-based payment components	-41	-2,352
Other operating expenses related to M&A transactions and integration of acquired businesses	-1,045	0
<b>Adjusted EBITDA</b>	<b>-5,404</b>	<b>-4,719</b>



FIGURE 04.2 ADJUSTED EBITDA



The adjustments relate mainly to other expenses (acquisition and integration costs) and personnel expenses (share-based payments).

The cost of materials increased from € 11.2 million in the previous year to € 14.0 million in the financial year under review, mainly due to acquisitions. The cost of materials ratio<sup>6</sup> rose from 41.6% in the previous year to 45.8% in the reporting year. The deterioration in the cost of materials ratio is primarily due to the BioScience segment, where an increase in the share of exclusive library development in the financial year under review led to greater utilization of materials. Although the cost of materials in the BioScience segment reduced in absolute terms, the cost of materials ratio worsened due to the lower total operating performance generated by the BioScience segment. Third-party services were purchased mainly from universities, colleges and other technology companies.

The reduction in the personnel expenses from € 16.5 million to € 15.0 million derives with results mainly from a lower level of exceptional items from share-based payments in relation to personnel expenses and an employee share scheme<sup>7</sup> (€ 0.2 million in the year under review and € 3.0 million in the previous financial year). Personnel expenses adjusted for these effects rose from € 13.5 million to € 14.8 million while the adjusted personnel expense ratio reduced overall. The rise in adjusted personnel expenses derives from a higher number of employees, and wage and salary increases.

Depreciation increased from € 1.7 million to € 3.0 million, which is mainly attributable to the amortization of hidden reserves from the acquisition of Biocatalysts Ltd. in the amount of € 1.0 million, and to the depreciation of the acquired non-current assets of the acquired company in the amount of € 0.2 million.

Other expenses increased from € 6.9 million to € 8.2 million, mainly due to acquisitions and exceptional items. Adjusted for the exceptional items from the aforementioned acquisition and integration costs (see EBITDA adjustments), adjusted other expenses amounted to € 7.1 million in the financial year under review compared with € 6.9 million in the previous year. The slight absolute increase resulted in a lower expense ratio (adjusted other expenses in relation to total operating performance).

Adjusted EBIT decreased from € -6.4 million to € -8.4 million. The reduction mainly reflects the increased non-cash amortization of hidden reserves and the lower adjusted EBITDA.

The net financial result rose from € 0.0 million to € 1.2 million. The result includes finance income of € 1.7 million (previous year: € 0.3 million). This is offset by € 0.4 million of finance expense (previous year: € 0.3 million). The considerable increase in finance income is attributable to the subsequent measurement of put option agreements concluded with non-controlling interests.

<sup>6</sup> Defined as cost of materials in relation to total operating performance

<sup>7</sup> A detailed description of share-based compensation is presented in the section "Share-based compensation and other long-term employee benefits" in the notes to the consolidated financial statements.

The result before tax thereby improved from € -9.4 million to € -8.5 million. In the 2017/18 financial year, the Group recorded a positive tax result of € 0.2 million, compared with a tax expense of € 0.3 million in the previous year. The tax expense for the 2017/18 financial year includes a current income tax expense of € 0.2 million and a deferred tax income of € 0.4 million. Deferred tax income rose by € 0.3 million to € 0.4 million, which is mainly attributable to a reduction in deferred tax liabilities in connection with the amortization of hidden reserves from the acquisition of Biocatalysts Ltd. € -0.2 million of the loss for the period of € -8.3 million is attributable to non-controlling interests (previous year: € -0.1 million).

The improvement in earnings per share from € -0.58 to € -0.45 reflects the lower loss incurred in the 2017/18 financial year as well as the increase in the underlying number of shares from 16.5 million to 18.1 million.

Other comprehensive income in the past financial year was determined by first-time translation differences from the translation of foreign currency financial instruments in an amount of € 0.1 million, and translation differences from the translation of foreign operations in connection with the acquisition of Biocatalysts Ltd. in an amount of € -0.2 million.

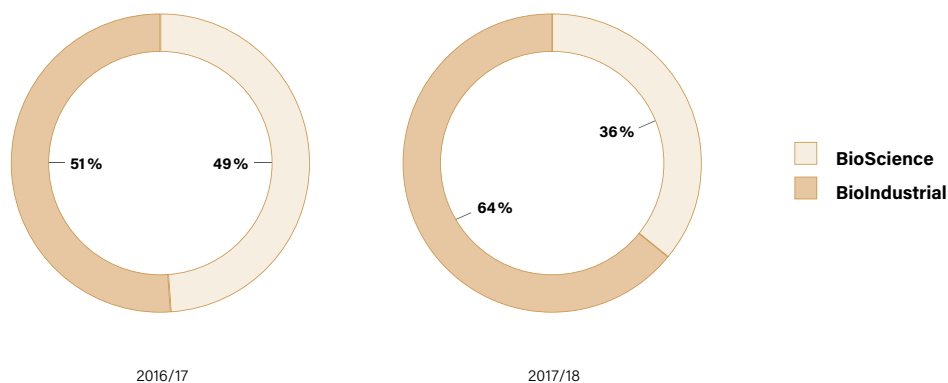
Consolidated total comprehensive income after tax amounted to € -8.3 million, compared with € -9.8 million in the previous year. Of this, € -8.1 million is attributable to the shareholders of BRAIN AG.

The operating segments report the following results:

TABLE 04.4 SEGMENT SHARE OF TOTAL OPERATING PERFORMANCE

	2017/18	2016/17
BioScience	36 %	49 %
BioIndustrial	64 %	51 %

FIGURE 04.3 SEGMENT SHARE OF TOTAL OPERATING PERFORMANCE



## BioScience segment

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

TABLE 04.5 BIOSCIENCE SEGMENT

€ thousand	2017/18	2016/17
Revenue	8,312	10,658
Research and development grant revenue	1,831	2,234
Changes in inventories	123	59
Other income	822	281
<b>Total operating performance</b>	<b>11,087</b>	<b>13,232</b>
Cost of materials	-3,443	-3,642
Personnel expenses	-10,608	-13,893
Other expenses	-4,520	-4,236
<b>EBITDA</b>	<b>-7,484</b>	<b>-8,540</b>
<b>Adjusted EBITDA</b>	<b>-6,336</b>	<b>-5,563</b>
Depreciation, amortization and impairment	-1,128	-998
<b>EBIT</b>	<b>-8,613</b>	<b>-9,538</b>
<b>Adjusted EBIT</b>	<b>-7,464</b>	<b>-6,561</b>

The BioScience segment recorded a decrease in total operating performance compared with the previous year, from € 13.2 million to € 11.1 million. This is due to delays in the initiation and implementation of projects with existing and new cooperation partners, which is reflected in the weaker sales revenue trend (decline from € 10.7 million in the previous year to € 8.3 million in the reporting period). In addition, research and development grant revenue decreased from € 2.2 million in the previous year to € 1.8 million in the financial year under review due to lower eligible costs.

The segment's EBITDA was significantly impacted by the aforementioned operating effects above as well as exceptional items (acquisition and integration costs). This resulted in a negative adjusted EBITDA of € -6.3 million compared with € -5.6 million in the previous year.

### BioIndustrial Segment

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

TABLE 04.6 BIOINDUSTRIAL SEGMENT

€ thousand	2017/18	2016/17
Revenue	18,767	13,503
Research and development grant revenue	169	76
Changes in inventories	173	-201
Other income	319	483
<b>Total operating performance</b>	<b>19,428</b>	<b>13,860</b>
Cost of materials	-10,545	-7,633
Personnel expenses	-4,403	-2,631
Other expenses	-3,670	-2,639
<b>EBITDA</b>	<b>811</b>	<b>956</b>
<b>Adjusted EBITDA</b>	<b>939</b>	<b>956</b>
Depreciation, amortization and impairment	-1,884	-680
<b>EBIT</b>	<b>-1,073</b>	<b>276</b>
<b>Adjusted EBIT</b>	<b>-945</b>	<b>276</b>

Revenue in the BioIndustrial segment increased from € 13.5 million to € 18.8 million, mainly due to acquisitions. The picture within this segment varied: while revenue in the cosmetics segment declined, the specialty enzyme areas of Biocatalysts Ltd. in particular benefited from clear growth drivers, in contrast to other enzyme areas within the segment, which were down year-on-year.

The segment's total operating performance also grew significantly to € 19.4 million, in line with revenue. In addition to the reasons outlined above, the positive trend in inventory changes (€ +0.4 million year-on-year) coupled with a slight reduction in other income (€ -0.2 million year-on-year) contributed to growth at the total operating performance level.

Adjusted EBITDA for the segment stagnated at around € 0.9 million, equivalent to the previous year's level. This is due to the relatively higher adjusted personnel expenses as a consequence of negative volume effects reflecting a lack of fixed cost degression. These relatively higher adjusted personnel expenses were not fully offset by the improvement in cost ratios at the level of cost of materials and adjusted other expenses.

## 4 Financial position

Financial management at BRAIN entails mainly securing the necessary 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 and finance leases.

## 5 Net assets and capital structure

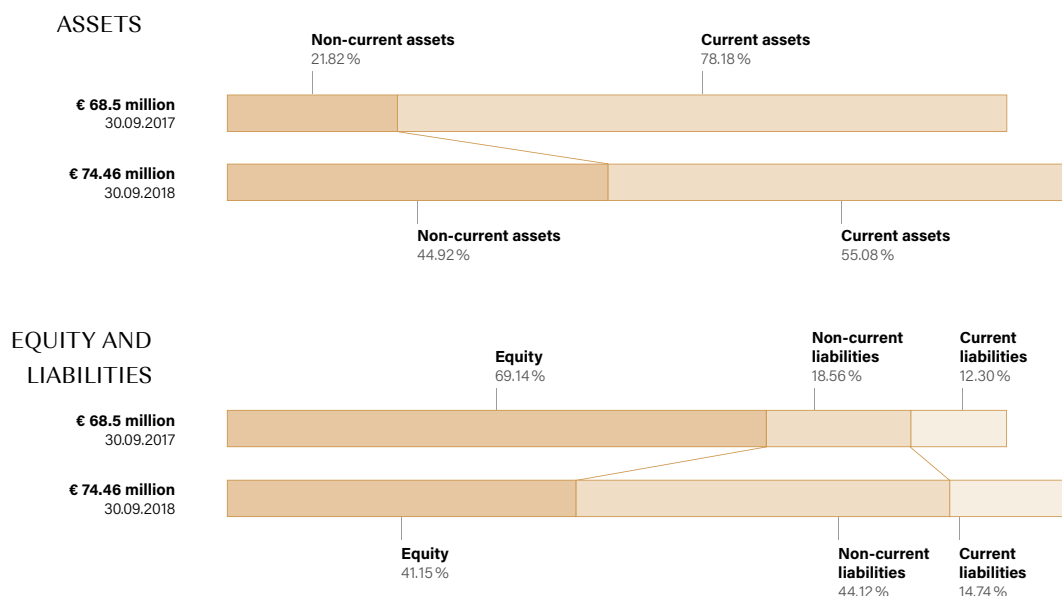
TABLE 04.7 EXTRACT FROM THE BALANCE SHEET

€ thousand	30.09.2018	30.09.2017
<b>Non-current assets</b>		
Intangible assets	19,075	7,087
Property, plant, and equipment	12,042	7,590
Other non-current assets	2,331	269
	<b>33,448</b>	<b>14,947</b>
<b>Current assets</b>		
Other current assets	15,217	14,309
Other financial assets	260	295
Cash and cash equivalents	25,539	38,954
	<b>41,016</b>	<b>53,557</b>
<b>ASSETS</b>	<b>74,464</b>	<b>68,504</b>
<b>Equity</b>		
	<b>30,639</b>	<b>47,362</b>
<b>Non-current liabilities</b>		
Non-current financial liabilities	25,353	8,181
Other non-current liabilities	7,499	4,537
	<b>32,852</b>	<b>12,717</b>
<b>Current liabilities</b>		
Current financial liabilities	2,442	1,514
Other current liabilities	8,531	6,911
	<b>10,973</b>	<b>8,425</b>
<b>EQUITY AND LIABILITIES</b>	<b>74,464</b>	<b>68,504</b>

The changes in the asset position and capital structure in the 2017/18 financial year are attributable mainly to the acquisition of Biocatalysts Ltd. in March 2018, and the Group's operating performance in the reporting period.

Non-current assets increased by € 18.5 million. This growth resulted primarily from intangible assets and property, plant and equipment added as a consequence of Biocatalysts Ltd. (€ 17.5 million including disclosed hidden reserves of € 8.9 million and goodwill of € 3.9 million) as well as the € 1.8 million expansion in equity accounted companies due to the investment in SolasCure Ltd. in August 2018.

FIGURE 04.4 BALANCE SHEET STRUCTURE



Current assets reduced from € 53.6 million to € 41.0 million. In addition to the € 0.8 million increase in inventories to € 8.0 million, which mainly reflected acquisitions, the reduction in cash and cash equivalents from € 39.0 million to € 25.5 million, accompanied by an unchanged level of trade receivables at € 6.5 million, led to a reduction in current assets.

Equity decreased from € 47.4 million to € 30.6 million due to the negative comprehensive result and the reduction in capital reserves (by € 13.3 million to € 64.6 million) due to put option agreements with some non-controlling interests of the Biocatalysts Group. The equity ratio stood at 41 % as of the end of the financial year (previous year: 69 %).

As of the 30 September 2018 reporting date, authorized capital of € 9,027,891 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 increased from € 12.7 million as of 30 September 2017 to € 32.9 million as of 30 September 2018. The increase is largely due to the € 17.2 million rise in non-current financial liabilities. The latter represents the mirror effect of the aforementioned decline in capital reserves due to the put option rights that have been agreed. Furthermore, non-current financial liabilities rose due to the silent partnership approved at the AGM in March 2018 in an amount of € 3.0 million, and an increase in an existing loan facility for property, plant and equipment of € 2.5 million. The funds raised will mainly be employed to finance the company's own research and development activities for BRAIN's development pipeline.

Current liabilities increased from € 8.4 million to € 11.0 million, with the € 1.0 million change attributable mainly to the rise in deferred income due to the pro rata revenue recognition from the license agreement with SolasCure Ltd., an increase in financial liabilities in the amount of € 1.0 million, and a rise in trade payables of € 0.4 million. The latter grew mainly due to acquisitions.

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 1.15% and 6.10%. Of the interest-bearing loans, € 1.4 million have a remaining term of up to one year, € 3.3 million a remaining term of more than one year, and € 1.8 million a remaining term of up to five years.

The debt-to-equity ratio increased from 31% in the previous year to 59% as of 30 September 2018 due to the aforementioned parameters. Total assets rose from € 68.5 million as of 30 September 2017 to € 74.5 million as of 30 September 2018.

### **Investments**

In addition to the acquisition of the majority interest in Biocatalysts Ltd., the focus of investments in the financial year under review, as in the previous year, was on expanding and further strengthening technological expertise, as well as on investments in BRAIN's development pipeline.

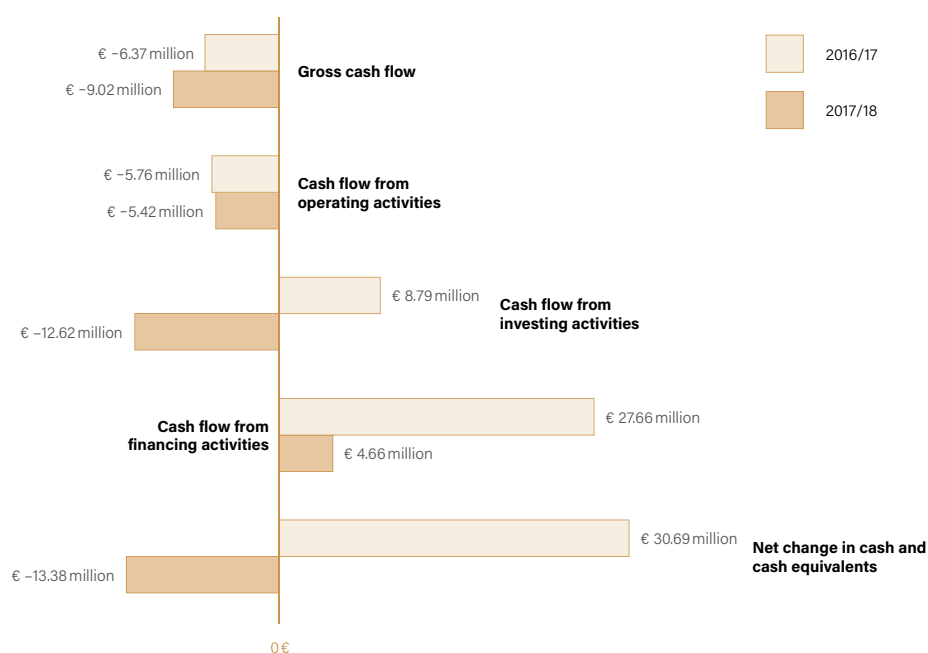
The capital expenditure recognized on the balance sheet, including the aforementioned acquisition, totaled € 12.6 million in the financial year under review, of which € 10.5 million comprised net payments from the acquisition of Biocatalysts Ltd. and € 0.6 million for the acquisition of shares in SolasCure Ltd. (spin-off of the enzyme Aurase® developed by BRAIN AG). Moreover, the focus continued to be on investments in property, plant and equipment in an amount of € 1.3 million compared with € 1.1 million in the previous year, mainly due to the acquisition of Biocatalysts Ltd. In the BioScience segment, further investments were realized in equipping the research and development laboratories at BRAIN AG and its subsidiary Analyt-iCon Discovery GmbH. In the BioIndustrial segment, investment activities focused on expanding production capacities in the area of specialty enzymes. Investment obligations for the expansion of production capacities amounted to € 3,580 thousand as of the balance sheet date. The investment obligations can be financed from the respective subsidiary's cash and cash equivalents, as well as bank loans.

## Liquidity

TABLE 04.8 EXTRACT FROM THE CASH FLOW STATEMENT

€ thousand	2017/18	2016/17
Gross cash flow	-9,020	-6,369
Cash flow from operating activities	-5,418	-5,757
Cash flow from investing activities	-12,620	8,791
Cash flow from financing activities	4,659	27,659
Net change in cash and cash equivalents	-13,379	30,693

FIGURE 04.5 PRESENTATION OF THE CASH FLOW STATEMENT



BRAIN's gross cash flow amounted to € -9.0 million in the 2017/18 financial year compared with € -6.4 million in the previous year. The reduction is mainly attributable to the weaker operative profitability (the improved result for the period compared with the previous year as shown in the table above was burdened by higher deductions for the recognition of deferred income and other non-cash expenses and income in the financial year under review). By contrast, cash flow from operating activities rose from € -5.8 million to € -5.4 million in the financial year under review.

In the previous year, cash flow from investing activities included a cash inflow of € 10.0 million arising from the investment of cash in term deposits, as in the previous year. Adjusted for the aforementioned effect and the acquisition-related cash outflows, cash flow from investing activities amounted to € -1.6 million, compared with € -1.2 million in the previous year. The section above presents examples of such investments.



The cash flow from financing activities in the previous year mainly reflected the € 28.0 million proceeds from a capital increase in September 2017. In the financial year under review, cash flow from financing activities amounted to € 4.7 million, reflecting the aforementioned additional loan funds of € 3.0 million from the silent partnership of Hessen Kapital II GmbH and € 2.5 million from a credit facility secured by property, plant and equipment.

The cash position decreased by € -13.4 million as a result of the individual cash flows. The rise in the previous year amounted to € 30.7 million.

Cash and cash equivalents of € 25.5 million as of 30 September 2018 were offset by current financial liabilities of € 2.4 million and non-current financial liabilities of € 25.4 million, most of which relate to potential payments from the exercise of put options. Undrawn credit lines of € 0.1 million also existed.

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

### **Non-financial performance indicators**

In the 2017/18 financial year, a total of 8 milestones were achieved or exclusivity options exercised (previous year: 12). The milestones reached and exclusivity options drawn relate to different cooperation partners.

## **6 Employees**

As a growth-oriented technology company, BRAIN ascribes special significance to recruiting and developing highly qualified staff. From an early stage, BRAIN has 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 04.9 **NUMBER OF EMPLOYEES**

	2017/18	2016/17
<b>Total employees, of whom</b>	<b>247</b>	<b>212</b>
Salaried employees	230	199
Industrial employees	17	13

→ Staff culture, page 62

The BRAIN Group also employs grant recipients (6, previous year: 8), temporary help staff (11, previous year: 13), trainees (6, previous year: 6).

The number of employees increased, in part due to the acquisition of the Biocatalysts Group.

In research and development functions (167 staff; previous year: 138), besides natural sciences, the company also aims especially for a high proportion of staff from engineering sciences and with operational laboratory training.

## 7 Overall statement on business progress

The megatrend of the bioeconomy as the foundation of a sustainable economic system and demand for natural biological solutions, such as healthier food or more sustainable industrial processes, continues unabated, and in some market sectors has even become stronger. BRAIN achieved some important successes in addressing such markets during the past financial year. In terms of research, BRAIN reached important objectives in the area of green and urban mining in the financial year under review, such as establishing an industry-relevant tonne scale in the process for biologically recovering gold and silver from ores, in partnership with CyPlus, as well as in developing new application areas, such as the results achieved in recovering copper from domestic shale deposits by means of bioleaching. In the field of Nutrition & Health, the extension of patent protection for BRAIN's taste cell technology to Europe in February 2018 represented an important milestone, along with the identification and partial upscaling of candidates as sweetness enhancers or natural high-intensity sweeteners in the DOLCE partnership.

The Group's strategic development was also accelerated by the acquisition of a majority interest in specialty enzyme company Biocatalysts Ltd. in March 2018, and the spin-off of SolasCure Ltd. in August 2018 in order to further develop our Aurase® activities.

A more differentiated picture emerges from the trend in our financial position and performance. Although we achieved our important objective of at least double-digit growth in revenue and total operating performance, the overall situation in terms of revenue growth is not fully satisfactory in retrospect.<sup>8</sup> The partly declining revenue trend in some business areas then also led to a weaker trend in our results, including at the level of adjusted EBITDA. However, the strategic focus of the product-based BioIndustrial segment benefited from the addition of the acquired business activities of Biocatalysts Ltd.

Accordingly, we implemented measures to strengthen our business activities with the aim of achieving sustainable and profitable growth. These include, for example, a refocusing within the Group on our three business units of Nutrition Health, Skin Care and Industrial BioSolutions, implementing a greater concentration of research and development activities within BRAIN AG on a few selected projects, and strengthening the workforce, especially in Business Development. Examples include expanding the previous two-member Management Board to include Ludger Roedder, who after the reporting date was appointed as our future Chief Business Officer (CBO).

Above and beyond this, for the Management Board the continued high level of investments in research and development represents an important indicator and basis for the future potential of BRAIN. The Group holds a position of cash and cash equivalents of € 25.5 million as of 30 September 2018, and reports a 41% equity ratio. In the Management Board's assessment, the pre-requisites to participate to an above-average extent in bioeconomy growth

<sup>8</sup> Further information can be found in the outlook section of this management report

markets long-term continue to exist, including taking the diminished level of cash and cash equivalents as well as the lower equity ratio into consideration.

Overall, the Management Board of BRAIN AG continues to assess the course of business and the Group's net assets and financial positions as positive as of the reporting date.

# 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 consideration 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.

## 1 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, long-term incentives through an equity option program 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 consideration, as well as its compensation structure. The Supervisory Board made 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 consideration a capped performance-related bonus for 100 % target attainment, and for the remaining Management Board members 74 % of target compensation taking into consideration a capped performance-related bonus for 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 including both qualitative and quantitative targets such as the adjusted IFRS EBITDA). The annual bonus level is contractually arranged for each Management Board member for the duration of their 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 out-performance 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 fixed amount 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 14.00 % of basic fixed compensation. If the Supervisory Board increases the fixed amount 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 49.21 % of basic fixed compensation.

### **Performance-based compensation**

Mr. Goebel receives performance-based compensation oriented to a three-year period if he achieves pre-agreed targets for this period. If interim targets are also set out in the target agreement for a maximum of two periods within the three-year period, a partial amount of performance-based compensation of up to 20 % will be paid out in each case to Mr. Goebel, if and to the extent that Mr. Goebel has reached such an interim target.

If targets are missed by a significant margin, the Supervisory Board can reduce or completely refuse the performance-based compensation, as well as increase it to double its amount given significant target outperformance. Setting targets and assessing whether and to what extent targets were reached, and whether performance-based compensation is to be reduced or increased, lies at the Supervisory Board's discretion.

## Share-based compensation

In the 2017/18 financial year, the following share-based employee compensation existed, in which Management Board members have participated:

### Employee Stock Ownership Program (ESOP)

On 8 June 2018, an Employee Stock Ownership Program (ESOP or ESOP 2017) came into force for the 2017/18 financial year to provide incentives for, and to foster the long-term loyalty of, executives at BRAIN AG. The unit heads and the two members of the Management Board of BRAIN AG participate in the program.

The stock option program is based on the AGM resolution of 8 July 2015 to set up a stock option program and create conditional capital 2015/II.

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 corresponds to the average of the share price 10 trading days prior to the contractual grant date, which in this case falls on 8 June 2018. The exercise price of the options is set at € 20.67 per share. 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 consideration, 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. A cap amount is also applied to the Management Board members' options, which limits the maximum value of the options for Management Board members.

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

	Options for Unit Heads	Options for Management Board members
<b>Outstanding as of 30.09.2017</b>	<b>0</b>	<b>0</b>
Granted in the financial year	63,000	100,000
Expired in the financial year	0	0
Forfeited in the financial year	0	40,000
Exercised in the financial year	0	0
<b>Outstanding as of 30.09.2018</b>	<b>63,000</b>	<b>60,000</b>
Exercisable as of 30.09.2018	0	0

The options are to be recognized in accordance with the provisions of IFRS 2 "Share-based Payment", and are to be classified as equity-settled share-based payment transactions.

The fair value of the options is generally measured once as of the grant date applying a Monte Carlo simulation and taking into consideration the conditions on which the subscription rights were granted. The grant date was 8 June 2018.

The following parameters were applied as of the measurement date:

Parameter	Options for Unit Heads	Options for Management Board members
Measurement date	08.06.2018	08.06.2018
Remaining term (in years)	8.0	8.0
Share price on the measurement date (€)	21.20	21.20
Exercise price (€)	20.67	20.67
Expected dividend yield (%)	0.0	0.0
Expected volatility (%)	49.6 %	49.6 %
Risk-free interest rate (%)	-0.3 %	-0.3 %
Model applied	Monte Carlo	Monte Carlo
Value cap per option (EUR) <sup>9</sup>	N/A	25.0
Fair value per option (€)	8.2	5.1

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 from historical volatility about future trends. 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 2018. The risk-free interest rate is based on German government bond yields with congruent 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 recognized at BRAIN AG.

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

The unexercised stock options from the one-time Post IPO Framework Agreement for key personnel of BRAIN AG have not changed in the past financial year. As already announced, no new options have been issued and no further issues are planned. The allocation to expenses was already implemented in the 2016/17 financial year. Further information can be found in the annual report for the 2016/17 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 dependents' benefits. Defined benefit pension schemes in the form of pension commitments exist for the Chief Executive Officer. The benefit entitlements comprise of an old-age pension from the age of 65 as well as surviving dependents' and invalidity benefits. To reinsure pension commitments, BRAIN AG 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

<sup>9</sup> Only for Management Board members' options

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 death, pursuant to related standard contractual regulations.

The company has concluded invalidity insurance policies in favor of the Management Board members for the duration of their service contracts, the premiums of which the company pays. The company also grants Management Board members allowances for private health insurance and social security.

#### **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 with Dr. Eck. In Mr. Goebel's case, no arrangements were made for the instance of early discontinuation of Management Board activity to grant any payments including incidental benefits exceeding the level of two years' compensation (severance cap), or compensating more than the remaining term of the appointment contract. No payments are to be made to Mr. Goebel if his contract of appointment is discontinued for a material reason for which Mr. Goebel is accountable. The calculation of the severance pay cap is based on the total compensation for the respective financial year elapsed, and, where relevant, also based on the prospective total compensation for the current financial year. A post-contractual competitive restraint for a 24-month period has been agreed with Dr. Jürgen Eck, for compliance with which 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 a 12-month period was agreed with Mr. Goebel, for compliance with which the company has committed to pay to him a monthly waiting allowance equivalent to half the average of the monthly compensation payments granted to him during the last 24 months preceding the end of the employment contract.

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

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

Apart from the stock option program, the compensation scheme as presented corresponds to many years' practice from the period before the IPO on 9 February 2016. During the past financial year, the Supervisory Board established the stock option program in order to ensure long-term incentives for Management Board members. At present, the Supervisory Board is not planning any changes to the structure of the compensation scheme.



### Management Board compensation level

For the 2017/18 financial year, the Management Board was granted total compensation of € 513 thousand, as calculated based on the German Commercial Code (HGB). The corresponding figure for the previous year stood at € 762 thousand.

The compensation granted for the 2017/18 financial year based on commercial law regulations is summarized in the following overview.

TABLE 04.10 MANAGEMENT BOARD COMPENSATION BASED ON COMMERCIAL LAW REGULATIONS

€ thousand	Dr. Jürgen Eck	Frank Goebel	Total
<b>Performance-based components</b>			
Fixed salary	240	210	450
Other payments	2	25	27
<b>Total</b>	<b>242</b>	<b>235</b>	<b>477</b>
<b>Performance-based components without long-term incentive effect</b>			
Bonus <sup>10</sup>	27	10	37
<b>Total compensation</b>	<b>268</b>	<b>245</b>	<b>513</b>

The present value of the overall obligation from pension commitments calculated pursuant to International Financial Reporting Standards (IFRS) amounted to € 3,010 thousand as of the reporting date (previous year: € 2,731 thousand), of which € 999 thousand for Dr. Jürgen Eck (previous year: € 867 thousand).

The pension value (present value of the overall obligation) according to the accounting regulations of the German Commercial Code (HGB) amounted to € 2,654 thousand (previous year: € 2,334 thousand), of which € 898 thousand were for Dr. Jürgen Eck (previous year: € 767 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 7 February 2017, the total compensation of Management Board members comprises of 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 2017/18 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.

<sup>10</sup> The performance-related remuneration was reduced in the financial year by the release of the provision for unpaid remuneration in the amount of € 73 thousand.

TABLE 04.11 MANAGEMENT BOARD COMPENSATION

<b>Dr. Jürgen Eck, CEO</b> Since 09.05.2000						
€ thousand	<b>Received</b>		<b>Granted</b>			
	2017/18	2016/17	2017/18	2016/17	2017/18 (maximum)	2017/18 (minimum)
Fixed compensation	240	240	240	240	240	240
Ancillary benefits	0	0	0	0	0	0
<b>Total</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>	<b>240</b>
Variable compensation (one-year)	27	80	80	80*	160	0
Share-based compensation (ESOP)	0	0	15	0	N/A	N/A
Share-based payment of third parties <sup>11</sup>	0	1,504	0	1,504	N/A	N/A
<b>Total</b>	<b>267</b>	<b>1,824</b>	<b>335</b>	<b>1,824</b>	<b>400</b>	<b>240</b>
Pension expense	66	66	68	66	68	68
<b>Total compensation</b>	<b>333</b>	<b>1,890</b>	<b>403</b>	<b>1,890</b>	<b>468</b>	<b>308</b>

<b>Frank Goebel, CFO</b> Since 01.11.2016						
€ thousand	<b>Received</b>		<b>Granted</b>			
	2017/18	2016/17	2017/18	2016/17	2017/18 (maximum)	2017/18 (minimum)
Fixed compensation	210	193	210	193	193	193
Ancillary benefits	0	0	0	0	0	0
<b>Total</b>	<b>210</b>	<b>193</b>	<b>210</b>	<b>193</b>	<b>193</b>	<b>193</b>
Variable compensation (one-year)	10	0	30	30**	60	0
Share-based compensation (ESOP) <sup>12</sup>	0	0	0	0	N/A	N/A
Share-based payment of third parties <sup>13</sup>	0	244	0	244	N/A	N/A
<b>Total</b>	<b>220</b>	<b>437</b>	<b>240</b>	<b>467</b>	<b>253</b>	<b>193</b>
Pension expense	25	23	25	23	25	25
<b>Total compensation</b>	<b>245</b>	<b>460</b>	<b>265</b>	<b>490</b>	<b>278</b>	<b>218</b>

\* Of the payment expected in the previous year, an amount of € 53 thousand was paid out and lapsed accordingly. Correspondingly, an amount of € 27 thousand was paid out in the financial year under review.

\*\* Of the payment expected in the previous year, an amount of € 20 thousand was paid out and lapsed accordingly. Correspondingly, an amount of € 10 thousand was paid out in the financial year under review.

<sup>11</sup> From a former share-based compensation scheme of individual shareholders of the company, without effect on the company's equity or liquidity. Further information is presented in the section of this report entitled "Share-based payment".

<sup>12</sup> By 30 September 2018, it was already foreseeable and had been announced that Mr. Goebel would leave the BRAIN Group. For this reason, a turnover rate of 100% was assumed especially for him, which dispensed with the need to recognize an expense.

<sup>13</sup> From a former share-based compensation scheme of individual shareholders of the company, without effect on the company's equity or liquidity. Further information is presented in the section of this report entitled "Share-based payment".

## 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 taken out asset loss liability insurance cover for

securities issues ("IPO insurance") without deductibles for the Supervisory Board members as part of the IPO, the costs of which the company bears.

The following table shows the cash compensation of the Supervisory Board for the 2017/18 financial year:

TABLE 04.12 CASH COMPENSATION OF THE SUPERVISORY BOARD

€ thousand

Supervisory Board members	Fixed compensation	Allowance for special functions	Meeting fees	Total compensation
Dr. Ludger Müller	30	15	7	52
Dr. Martin B. Jager	23	12	8	43
Dr. Georg Kellinghusen	15	15	6	36
Prof. Dr. Klaus-Peter Koller <sup>14</sup>	7	0	4	11
Christian Koerfgen	15	0	3	18
Dr. Anna C. Eichhorn	15	4	9	28
Dr. Rainer Marquart <sup>15</sup>	8	0	4	12
<b>Total</b>	<b>113</b>	<b>46</b>	<b>41</b>	<b>200</b>

Prior to his mandate, from 3 November 2017 until 7 March 2018, Supervisory Board member Dr. Rainer Marquart had a nonpecuniary consulting agreement with the company.

Supervisory Board Chairman Dr. Ludger Müller waived his entitlement to remuneration as Nomination Committee chair. This waiver shall apply as long as he is also Supervisory Board Chairman and Personnel Committee chair, and until revoked.

## Shares held by the Management and Supervisory boards

As of 30 September 2018, the Management Board members held 754,466 ordinary shares of BRAIN AG and the Supervisory Board members held 13,581 ordinary shares of BRAIN AG.

For the information about authorization of the Management Board to issue shares, please refer to the remarks about "Authorized Capital" and "Conditional Capital" in the section "Take-over-relevant information pursuant to Section 315A HGB".

## Directors' Dealings

In the 2017/18 financial year, the company was not notified of any transactions by persons with managerial responsibilities pursuant to Article 19 Regulation (EU) No. 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (MAR).

<sup>14</sup> until 8 March 2018  
<sup>15</sup> from 8 March 2018

# Events after the reporting date

Since the 30 September 2018 reporting date, no significant events and developments of particular importance for the company's financial position and performance have occurred.

# Outlook

Given the high-growth dynamic of markets for biotechnological products and processes, BRAIN assumes that positive conditions for the future will prevail overall. As a technology company active 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.

The original expectation of a positive business trend during the financial year under review, including a significant increase in total operating performance and a continued negative although improved adjusted EBIT, was only partly fulfilled in the past financial year. Based on the weaker business trend during the first quarter of 2017/18, the company updated its forecast report in February 2018 to the effect that it could no longer be assumed that EBIT breakeven would be reached in the course of the financial year under review, whereby the target of double-digit overall revenue growth including acquisitions was confirmed. Compared with the Group management report for the financial year ending 30 September 2017, this gave specific form to the targets for total operating performance and revenue growth, insofar as growth was no longer expected to be significant, although it was not defined further. This growth target was reached during the past financial year at the level of both revenue and total operating performance. However, the improvement in adjusted operating profit (EBIT) expected originally was not achieved for the aforementioned reasons.

For the 2018/19 financial year, the Management Board anticipates a positive trend in business, with a marked increase in total operating performance and an equally significantly better, although continued negative, adjusted EBITDA at Group level. Given a clear uptrend in both operating segments, an improved, positive EBITDA is anticipated for the BioIndustrial segment, and a continued negative adjusted EBITDA for the BioScience segment. The anticipated considerable growth in total operating performance is expected for both operating segments. The business activities of the newly acquired company Biocatalysts Ltd. will again exert a positive impact in this context.

The milestones and option drawings expected in the previous year were not achieved (8 in the financial year under review; 12 in the previous year). For the following year, a slight increase compared with the current financial year is anticipated. As planned, research and development expenses in the current financial year were almost at the previous year's level. Similarly high research and development expenses are expected for the coming financial year.

As in the previous year, these forecasts are based on the assumption that macroeconomic and sector-related conditions for industrial biotechnology in 2018/19 develop positively as described in the section entitled "Macroeconomic and sector-related conditions," potential projects are not discontinued to a significant extent, and new cooperation partners can be acquired for new projects.

# Report on risks and opportunities

- The aim is to sustainably grow the company's value through tapping into opportunities while considering the risks entailed.
- Balanced risk and opportunities management forms part of all planning processes within BRAIN and its subsidiaries.

## 1 Risk management at BRAIN AG

### Introduction

Identifying opportunities and avoiding risks are the determinants of any corporate business strategy. BRAIN AG ("BRAIN") undertakes great efforts to identify new opportunities and exploit them successfully for its business. At the same time, business success is impossible without consciously assuming risks.

The aim is to sustainably grow the company's value through tapping into opportunities while considering the risks entailed. The systematic handling of risks and opportunities forms part of corporate activity and an element of management steering. BRAIN AG forms part of a fast-growing industry characterized by constant change and progress, with a significant focus on weighing opportunities against risks. It is crucial for BRAIN that opportunities be identified and managed to success, to thereby sustainably improve competitiveness and secure it long-term, as well as to ascertain and minimize risks. BRAIN AG has established instruments and processes to identify risks early and to promptly implement measures to realize opportunities in entrepreneurial activities without delay. Balanced risk and opportunities management forms part of all planning processes within BRAIN and its subsidiaries.

## 2 Report on risks and opportunities

### Risk Management System (RMS)

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

The RMS presented focuses on business risks, and not on opportunities. The operating segments and subsidiaries take opportunities into consideration based on the corporate strategy. Potential market opportunities are evaluated as part of planning processes.

BRAIN's RMS includes the systematic identification, documentation, evaluation, management and reporting as well as constant monitoring of all relevant risks. The management thereby ensures that the targets that are set are not jeopardized by risks, establishing appropriate risk awareness within the entire Group. It represents an integral element in the process system within BRAIN.

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 jeopardize 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. Overall, suitable risk awareness should be created Groupwide to ensure responsible handling of risks and counterstrategies.

The RMS serves solely to ascertain risks within BRAIN. Opportunities are weighed and considered based on the corporate strategy, a process integrated into planning processes. Potential opportunities are evaluated within strategy and planning processes, and compared with potential risks.

The RMS – which undergoes constant further development – integrated previous years' experience in its identification and management of risks. The risks' effects presented in the following risk and opportunities report are reported as annual risks. The evaluation of the presented risks relates to the 30 September 2018 reporting date, and was prepared shortly before the reporting date from a survey in the divisions.

No relevant changes occurred after the balance sheet date that might have necessitated a modified presentation of the Group risk position.

### 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 categorized 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 04.13 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 04.14 DEGREE OF IMPACT

Impact score	Note	EBIT impact
0–2	Minor negative impact on next two years' forecast results of operations	< € 100 thousand
3–5	Moderate negative impact on next two years' forecast results of operations	up to € 500,000
6–7	Considerable negative impact on next two years' forecast results of operations	up to € 2 million
8–10	Critical negative impact on next two years' forecast results of operations	> € 2 million

Impact is defined as the influencing parameter on the forecast EBIT and EBITDA 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 04.15 **RISK SCORE**

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

Particular attention is paid to the "high" and "medium" risk classes. The focus here is on strategies to successfully manage such risks. The "low" risk class is monitored and reviewed quarterly. In instances of doubt, risks are allocated to a higher rather than to a lower risk class.

**"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.

Section 2, the "Assessment of opportunities and risks in overall presentation", provides further information about specific risk strategies applied.

Identified risks are regularly reviewed and discussed at BRAIN. This way specific counter-measures can be implemented at short notice if required.

**Reporting**

The Management Board is informed semi-annually not only about significant identified opportunities and risks, but also about important changes in relation to their impact and



likelihood of occurrence. The Management Board also receives internal ad hoc reports on significant risks that arise unexpectedly, or are discovered. The Supervisory Board is informed by the Management Board where required.

### **Accounting-related internal control system**

The accounting-related internal control system ("ICS") aims to appraise appropriately in financial accounting terms, and to report in full, Group business transactions in accordance with respective applicable accounting regulations. The system comprises of fundamental rules and procedures, as well as a clear functional separation through the two sets of eyes principle. Especially when preparing separate financial statements, when performing the reconciliation to IFRS, as well as when performing consolidation and related standard measurement and reporting, controls exist in the form of the two sets of eyes principle. The clear separation between preparation and internal review enables BRAIN to identify deviations and errors, and ensures that information is complete.

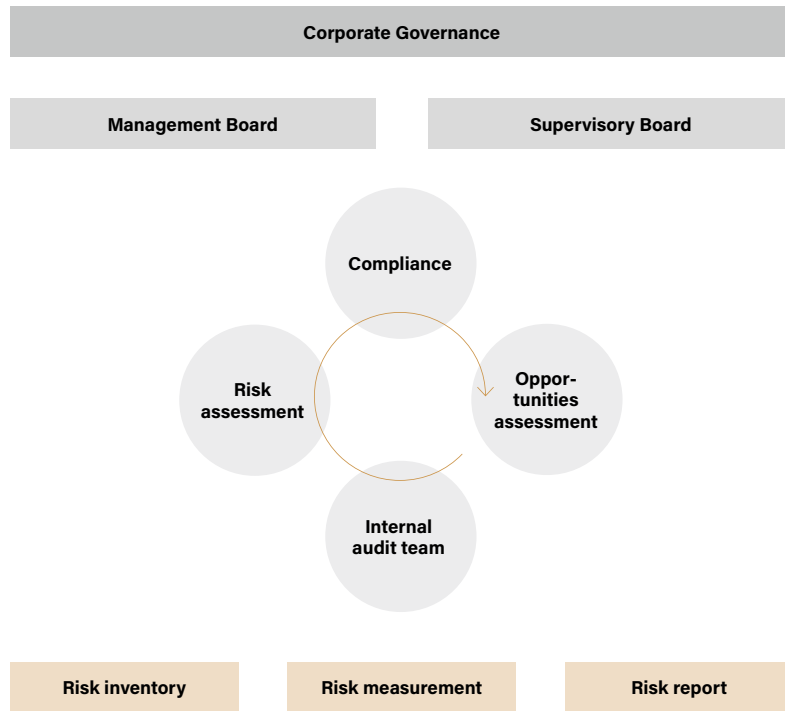
The accounting-related appraisal and recording of business transactions is implemented by the respective Group companies where such transactions occur, as a matter of principle. As an exception to this principle, BRAIN AG evaluates and records the transactions of the subsidiaries Mekon Science Networks GmbH, Zwingenberg, Germany, BRAIN US LLC, BRAIN UK Ltd., Cardiff, UK, BRAIN UK II Ltd., Cardiff, UK, and BRAIN Capital GmbH, Zwingenberg, Germany. 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 based on commercial law. Amendments to acts, accounting standards and other publications are monitored regularly in relation to relevance and their effect on the separate and consolidated financial statements.

Business transactions within the Group are appraised in accounting terms based on standard Group accounting guidelines. The conversion of financial statements prepared according to commercial-law accounting standards 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 realized by the Head of Finance 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 based on the risk classes specified below, and applying their individual risk classification. Requisite controls are defined and subsequently implemented.

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 the auditing of financial statements.

With the accounting-related internal control system, it is ensured that the financial accounting process complies with German commercial law (HGB) regulations and International Financial Reporting Standards (IFRS).

FIGURE 04.6 RISK MANAGEMENT SYSTEM



### 3 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 launch R&D projects. Given BRAIN's planned growth and need to hold resources ready for expansion, risks exist in relation to a lower growth rate and consequently potential negative effects on the operating result. 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 diminish in terms of volume or attractiveness. This could lead to BRAIN achieving lower growth long-term or to reduced earnings.

The risk assessment has not been modified compared with the previous year, as the relevant influencing factors have not changed significantly. This risk concerns both of BRAIN's operating segments, BioScience and BioIndustrial. This characteristic is gauged as a "medium risk", as in the previous year.

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

BRAIN is a technology company, and innovations form an integral part of the BRAIN strategy. The risk always exists that research projects can be delayed, milestones or research targets might not be met and biotechnology solutions might not be found. With more than 100 successful research projects, BRAIN has shown it possesses the expertise to deliver innovations and solve technical challenges. Although a given technical path might often prove unfeasible, it has usually been the case in the past that other solutions to achieve the desired result have been found. The Management Board is convinced it will continue to find similarly innovative solutions in the future, although the risk of diminished innovative capability cannot be ruled out. As far as BRAIN's proprietary development projects are concerned, the company endeavors to minimize research pipeline risks long-term with its continuous portfolio management process at management level.

The same applies when concluding contracts with collaboration partners. Here too feasibility and timeframes are evaluated in detail in diversified and cross-disciplinary teams before contracts are concluded.

The resultant risk in the Tailor-Made Solutions area would at most involve a default on an outstanding milestone payment, a budget overrun, or the abandoning of an individual project. Such risk is to be largely avoided or minimized through the aforementioned evaluation.

Overall, risk rose slightly compared with the previous year, as new projects were delayed, and it proved impossible to complete follow-up projects with existing partners without a delay. As a countermeasure, efforts were made in the financial year under review to bolster the BRAIN Group's business development. BRAIN US LLC, based in Rockville, MD, USA, was formed in order to provide better coverage for the North American market. In addition, various efforts were made at BRAIN AG level to hire additional business development employees. The success of this was particularly evident after the 30 September 2018 reporting date with the appointment of a new Chief Business Officer and the hiring of several employees in the business development area. As in the previous year, a "medium risk" exists here that especially relates to the BioScience segment.

### **Material damage concerning the BioArchive or research results**

The Group's bioarchives, which are physically available mainly at BRAIN AG and at AnalytiCon Discovery GmbH, comprise a significant asset. Physical loss of the archives is minimized 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 as well as the insurance concept undergo constant review and are continuously updated to reduce the risk to BRAIN 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.

It remains the fact that individual research results could also be destroyed by external circumstances. However, these are sufficiently covered by various measures such as emergency power supplies. As in the previous year, a "medium risk" nevertheless exists overall, especially in relation to the BioScience segment.

### **Product liability**

In its BioIndustrial area, BRAIN supplies products directly to customers. Accordingly, there is also a risk of being liable for such products. As the product range differs widely, the related risk is also to be appraised differently. In the area of cosmetics, as well as when delivering enzymes, defective products could entail liability cases for BRAIN's results. Risk has increased due to the acquisition of Biocatalysts Ltd. this year, and a greater focus on the Products business. This risk is continuously monitored by internal and external partners. To date, no significant product liability cases have occurred.

As in the previous year, this risk is categorized as a "medium risk" and relates to the Bio-Industrial segment.

### **Financial risks**

Financial risks are examined regularly. The Group has internal guidelines to identify, investigate and evaluate financial risks at an early stage. Continuous comparison with planning is facilitated through monthly and quarterly written reports and ongoing communication with managers. Depending on the level of differences, BRAIN managerial functions have sufficient time to implement countermeasures. The Groupwide reporting tool for all Group areas has been continuously improved this year, and the retrieval of relevant information has been standardized.

### **Impairment of inventories/assets as well as financing risks at subsidiaries**

In light of expansive growth at some subsidiaries and the holding available of resources for expansive growth, there is a risk of realizing 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. This risk is gauged as a "medium risk", as in the previous year.

### **Goodwill impairment**

Given unfavorable future trends, financial risks to be categorized as “medium risk” might entail impairment losses on acquired goodwill and other intangible assets. An impairment of € 184 thousand was identified in relation to the goodwill of Monteil Cosmetics International GmbH, Oestrich-Winkel, Germany, in the financial year under review. Further information on this topic can be found in the section entitled “Impairment tests” in the notes to the consolidated financial statements.

### **Financing of option liabilities**

As of 30 September 2018, BRAIN holds € 25.5 million of cash. The risk exists that liquidity would be significantly affected if put options were exercised by the non-controlling interests of the newly acquired Biocatalysts Group. This would necessitate the initiation of liquidity assurance measures, such as in the form of capital increases. Based on the incentive provided to the non-controlling interests by rising EBITDA multiples, the earlier exercise of the option rights would be financially unfeasible, and is consequently considered particularly unlikely in the two-year observation period. It is thereby classified as a “medium risk”.

### **Legal risks**

BRAIN generally endeavors 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.

There is always a risk that legislation is amended in the coming years (e.g. in fiscal, capital market or other legal regulations). 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. The probability of becoming involved in significant patent litigation is low, but would presumably affect BRAIN's results. Quantification is not possible, as no specific and significant patent lawsuits are pending at present.

The main risk in this context would be a company claiming freedom to operate. As issued patents become ever more closely intermeshed as intellectual property assets internationally, it is becoming increasingly difficult to find all relevant patents in corresponding patent research. It leads to the risk of patents not being located under certain circumstances, with the potential risk that patents might be infringed unintentionally.

This risk affects both the BioScience and BioIndustrial segments. This risk is gauged as a “medium risk”, as in the previous year.

### **General legal risks**

Due to the increasing industrialization and internationalization of BRAIN's business, the risk of litigation with an international corporate group is also increasing. BRAIN currently appraises the probability that contractual risks will lead to litigation as low. A lawsuit would exert a negative effect on results. Quantification can be estimated at present as no significant litigation exists.

Due to greater activities within the EU, Germany and the German federal states in the area of regulating companies, competition and compliance, the risk has increased at BRAIN AG, as also at other companies, of being restricted through corresponding legislation.

The Management Board of BRAIN AG endeavors to take the enhanced regulation into consideration through regular training and instruction of staff, such as in the field of compliance.

As in the previous year, all general legal risks are categorized as a “medium risk” and relate to both operating segments, BioScience and BioIndustrial.

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

Due to this year's acquisition of Biocatalysts Ltd., opportunities and risks from the acquired company's business operations transfer to BRAIN. The integration of Biocatalysts Ltd. into the BRAIN Group has proved very successful to date. The product portfolio forms a good fit with that of WeissBioTech GmbH, Ascheberg, Germany, and Biocatalysts Ltd. enables the leveraging of extensive synergy effects in interaction with the research of BRAIN AG. Biocatalysts Ltd. complements BRAIN with its own product development and marketing expertise. In terms of finance, integration into the Group's reporting systems is also progressing well. At present, the company is not aware of any further potential risks from the transaction above and beyond the business risks associated with the operations of Biocatalysts Ltd., and the financial risks in connection with the option obligations to existing non-controlling interests (put obligation). This “medium risk” continues to affect both segments.

Due to the Group's expansion, an analysis was also conducted as to whether a possible withdrawal of the United Kingdom from the EU (hereinafter referred to as “Brexit”) would exert an impact on BRAIN's risk position.

In relation to the acquired Biocatalysts Group's specialty enzymes business, an analysis was conducted as to whether any effects would arise for the approval of the enzymes and their international distribution. However, as Biocatalysts Ltd. implements national approvals in each case, this risk can be ruled out as national approvals would not be affected by Brexit.

The company also analyzed the extent to which foreign currency transactions could be subject to risk due to a potentially weaker pound sterling. In general, it is to be noted that potential disadvantages emanating from a weaker pound sterling cannot be ruled out completely. However, as the company's primary risk position exists in relation to the US dollar, the US subsidiary partly forms a natural hedge against such risk.

The recruitment of staff from non-UK countries continues to be regarded as a risk. In the case of Brexit, it is assumed that recruiting EU citizens would become more difficult. However, the company assumes it will continue to find suitable staff in the UK.

With regard to SolasCure Ltd., an analysis was conducted as to whether the planned approval route could be affected by Brexit. However, since approval is conducted through a European authority, approval is independent of Brexit. The marketing of medical devices is also not affected by the UK's withdrawal from the European Union.

## **Other risks**

### **Personnel**

BRAIN has very well-trained personnel overall, who constantly accrue further expertise through operating activities. Recent years' trends show that some positions can be filled only at great expense due to a lack of skilled staff, especially qualified scientists, engineers and laboratory staff. In some instances, we note that competitors have significantly higher salary structures. This generates the risk that qualified staff might migrate if financial and non-financial incentives were to prove inadequate. A bonus program for BRAIN AG staff was already set up in the 2015/16 financial year for the purpose of incentive payments. This program must be approved annually by the Management Board. BRAIN's management is currently investigating corresponding measures.

The risk of loss of key knowledge holders has increased, although it continues to represent a "medium risk" for BRAIN. This risk concerns both operating segments, although mainly the BioScience segment.

### **Environment**

At any company operating in biotechnology or chemicals, there is a residual risk of harm to the environment. Such risk is manageable at BRAIN, as staff are trained continuously, the volumes of utilized and processed materials are very manageable, and BRAIN has instituted organizational measures to avoid accidents and product spillages. Furthermore, BRAIN works very closely together with all relevant authorities and is reviewed by the relevant authorities on an ongoing basis. This also concerns compliance with regulations relating to handling genetically modified objects ("GMOs").

This risk relates to both segments and continues to be categorized as a "medium risk".

TABLE 04.16 PRESENTATION OF THE GREATEST SHORT- AND MEDIUM-TERM RISKS AT BRAIN

Risks	Resultant two-year estimate of impact	Segment mainly affected
<b>Business-related risks</b>		
Growth risk	medium	BioScience and BioIndustrial
Risk with R&D projects	medium	BioScience
Risk of loss of bioarchive	medium	BioScience
Product liability risk	medium	BioScience and BioIndustrial
<b>Financial risks</b>		
Devaluation of inventories / assets	medium	BioScience and BioIndustrial
Financing risks relating to subsidiaries	medium	BioIndustrial
Goodwill impairment	medium	BioIndustrial
Financing of option liabilities	medium	BioScience and BioIndustrial
<b>Legal risks</b>		
IP risks	medium	BioScience and BioIndustrial
General legal risks	medium	BioScience and BioIndustrial
<b>Risks from acquiring companies or parts of companies</b>		
Acquisition risk	medium	BioScience and BioIndustrial
<b>Other risks</b>		
Personnel	medium	BioScience and BioIndustrial
Environmental risk	medium	BioScience and BioIndustrial

BRAIN evaluated a total of 49 risks. Of these risks, 32 risks are to be categorized as “medium risks,” which are aggregated in the 12 risk classes listed above (BioScience and BioIndustrial). A total of 17 risks were appraised as “low risk.” No risk was evaluated as a “high risk” or as a “going concern risk” for BRAIN.

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

At BRAIN, financial instruments<sup>16</sup> are either not deployed, or deployed only to an extent that is insignificant to assess the Group’s position or prospective development.

<sup>16</sup> Defined as purchase transactions, exchange transactions or otherwise endowed fixed or option transactions that are to be settled with a time delay and whose value is derived from the price or measure of an underlying asset, especially relating to the following underlying assets: foreign exchange, interest rates, securities, commodity prices and indices related to these underlying assets 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.



## 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 into new markets or deploy disruptive innovation in order to penetrate markets occupied by competitors.

Some significant examples include:

#### **Founding of BRAIN US LLC**

BRAIN founded the US subsidiary BRAIN US LLC in order to more effectively target the markets in North America that are important for BRAIN. This will create opportunities to accelerate the internationalization of BRAIN's business and improve its proximity to customers. It also leverages synergies and enables faster market access for the company's own product and process developments through cooperation with the subsidiary of AnalytiCon Discovery GmbH.

This is particularly important for BRAIN's developments in the area of biological sugar substitutes and sweetness enhancers.

#### **BioXtractor offers various bio-based solutions**

Growing demand exists for precious metals, which play a key role in many high-tech devices. For this reason, new processes for sustainable metal extraction comprise of an important area of research and development. BRAIN is a pioneer in this area and with its BioXtractor – a demonstration plant in Zwingenberg – BRAIN hopes to develop further business potential in the market for green and urban mining.

The BRAIN BioXtractor offers various bio-based solutions for the enrichment of precious metals such as gold and silver.

### Opportunities generated by IP

#### **BioScience segment**

A broad IP base generates many opportunities. BRAIN has secured a lead position in some areas that will lead to revenue and earnings growth within the foreseeable future.

The BRAIN portfolio includes more than 300 patents and patent applications with claims to proprietary technologies as well as natural substances in various application areas.

#### **BRAIN transfers patents for commercialization of future Aurase® products to joint venture with international partners**

BRAIN has achieved far-reaching patent protection for a newly developed enzyme with the product name Aurase®. For a total of 20 countries in Europe, Asia, North America, Oceania and Africa, this protection has established the preconditions for the later marketing of Aurase®-based applications, especially in the fast-growing market of chronic wound treatment. The joint establishment of SolasCure Ltd. offers the opportunity to accelerate progress, and bundle relevant regulatory and market expertise.

The Aurase® development forms part of the portfolio of the BRAIN BioIndustrial operating segment.

The annual sales revenue potential for the wound healing market targeted by BRAIN and SolasCure Ltd. is estimated by experts at more than € 100 million for Europe alone. Once its Aurase®-based products have obtained approval, SolasCure Ltd. aims to participate in this market.

### **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 consequent step from being a research company to becoming an industrial company. Integration offers the company the possibility to act not only as an innovator but also as a manufacturing firm.

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

The following information reflects circumstances on the 30 September 2018 reporting date.

## **Composition of subscribed share capital (No. 1)**

The share capital of BRAIN AG amounts to € 18,055,782 on the reporting date. The share capital is divided into 18,055,782 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 those potentially deriving from agreements between shareholders.

## **Shareholdings with more than 10% of the voting rights (No. 3)**

MP Beteiligungs-GmbH, Kaiserslautern, holds an approximate 36% interest in the company's share capital as of 30 September 2018. As of 30 September 2018, no further shareholders existed with interests of more than 10% in the voting rights.

## **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, the vote of the Management Board Chair decides given an equal number of votes.

### **Rules concerning amendments to the bylaws (No. 6)**

Pursuant to Section 179 of the German Stock Corporation Act (AktG) and the bylaws of BRAIN AG, amendments to the bylaws require an AGM resolution. AGM resolutions require a simple majority of votes, unless the law stipulates a greater majority.

### **Management Board authorizations concerning issuing and repurchasing shares (No. 7)**

BRAIN AG has the following authorized and conditional capital:

#### **Authorized capital**

The authorized capital of € 6,565,740 as of 30 September 2017 (Authorized Capital 2017/I) was cancelled by AGM resolution on 8 March 2018.

With an AGM resolution on 8 March 2018, authorized capital of € 9,027,891 was created (Authorized Capital 2018/I). Authorized Capital 2018/I was entered in the commercial register on 23 March 2018. The Management Board was authorized, with Supervisory Board assent, to increase the company's share capital in the period until 7 March 2023, once or on several occasions, albeit by a maximum of up to a nominal amount of € 9,027,891 through issuing up to 9,027,891 new ordinary registered shares against cash or non-cash capital contributions, whereby shareholders' statutory subscription rights can be wholly or partly excluded. If the new shares are issued against cash capital contributions, shareholders' statutory subscription rights can be wholly or partially excluded if the new shares' issue price is not significantly less than the stock market price of the company's shares already listed on the date when the issue price is finally determined, and the total number of shares issued in this manner under exclusion of subscription rights does not exceed 10 % of the share capital.

Authorized capital of € 9,027,891 was, therefore, recorded on the 30 September 2018 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 based on the authorization 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 utilize 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 2018 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 utilize 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 2018 reporting date.

### **Stock options**

An AGM resolution dated 8 July 2015 authorized the Management Board, with Supervisory Board assent, 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 is concerned, this authorization is valid for the Supervisory Board alone. A total of 163,000 stock options had been issued as of the balance sheet date of 30 September 2018. Furthermore, it was already certain as of the reporting date that 40,000 stock options would be forfeited as one Management Board member had announced his intention to leave the company. As expected, this will result in a breach of non-exercise conditions in the foreseeable future. The AGM conditionally increased the share capital by € 1,272,581 to hedge and service the stock options (Conditional Capital 2015/II).

With a resolution dated 8 July 2015, the AGM authorized the Management Board pursuant to Section 71 (1) No. 8 AktG to purchase treasury shares for any permissible purpose in the context of statutory restrictions and according to more detailed provisions. This authorization is valid from the date on which the authorization 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 authorization is exercised. The resolution was entered in the commercial register on 1 October 2015. As in the previous year, in the 2017/18 financial year BRAIN made no utilization of this authorization to purchase treasury shares.

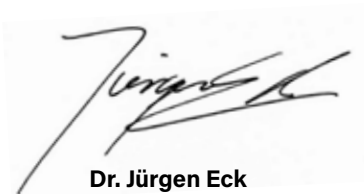
### **Significant agreements for the instance of a change of control due to a takeover offer (Number 8) and compensation agreements in the case of a takeover offer (Number 9)**

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 289f and section 315d of the Ger- man Commercial Code (HGB)

The corporate governance statement of conformity of BRAIN AG pursuant to Section 289f and Section 315d 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).

Zwingenberg, 13 December 2018



**Dr. Jürgen Eck**  
CEO



**Frank Goebel**  
CFO



**Manfred Bender**  
Management Board member

---

## 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 the significant opportunities and risks pertaining to the Group's prospective development are described.

05

# Consolidated financial statements

---





TABLE 05.1 CONSOLIDATED BALANCE SHEET AS OF 30 SEPTEMBER 2018

€ thousand	Note	30.09.2018	30.09.2017
<b>Non-current assets</b>			
Intangible assets	[12]	19,075	7,087
Property, plant, and equipment	[13]	12,042	7,590
Equity-accounted investments	[14]	1,984	166
Available-for-sale financial assets		0	0
Other non-current assets	[18]	347	103
Deferred tax liabilities	[10]	0	0
		<b>33,448</b>	<b>14,947</b>
<b>Current assets</b>			
Inventories	[15]	8,037	7,244
Trade receivables	[16]	6,451	6,472
Other current assets	[18]	672	592
Current tax assets	[10]	57	1
Other financial assets	[17]	260	295
Cash and cash equivalent	[19]	25,539	38,954
		<b>41,016</b>	<b>53,557</b>
<b>ASSETS</b>		<b>74,464</b>	<b>68,504</b>
<b>Equity</b> [20]			
Subscribed capital		18,056	18,056
Capital reserves		64,606	77,950
Retained earnings		-55,789	-47,736
Other reserves		-1,119	-1,090
		<b>25,755</b>	<b>47,180</b>
Non-controlling interests		4,884	182
<b>Total equity</b>		<b>30,639</b>	<b>47,362</b>
<b>Non-current liabilities</b>			
Deferred tax liabilities	[10]	2,887	1,144
Provisions for post-employment benefits for employees	[5]	1,395	1,280
Financial liabilities	[21]	25,353	8,181
Other liabilities	[22]	1,355	1,827
Deferred income	[23]	1,862	286
		<b>32,852</b>	<b>12,717</b>
<b>Current liabilities</b>			
Other provisions	[24]	512	417
Current tax liabilities	[10]	618	580
Financial liabilities	[21]	2,442	1,514
Prepayments received	[25]	41	269
Trade payables	[26]	2,872	2,433
Other liabilities	[22]	3,017	2,705
Deferred income	[23]	1,471	507
		<b>10,973</b>	<b>8,425</b>
<b>EQUITY AND LIABILITIES</b>		<b>74,464</b>	<b>68,504</b>

TABLE 05.2 CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME  
 FOR THE PERIOD 1 OCTOBER 2017 – 30 SEPTEMBER 2018

€ thousand	Note	FY 2017/18 01.10.2017 – 30.09.2018	FY 2016/17 01.10.2016 – 30.09.2017
Revenue	[1]	27,051	24,105
Research and development grant revenue	[2]	2,000	2,310
Change in inventories of unfinished and finished goods and work in progress		296	-143
Other income	[3]	1,122	660
<b>Total operating performance</b>		<b>30,469</b>	<b>26,932</b>
<b>Cost of materials</b>	[4]		
Cost of raw materials, consumables and supplies, and purchased merchandise		-11,700	-8,605
Cost of purchased services		-2,256	-2,611
		<b>-13,956</b>	<b>-11,217</b>
<b>Personnel expenses</b>	[5]		
Wages and salaries		-12,421	-11,912
Share-based employee compensation		-41	-2,252
Social security and post-employment benefit costs		-2,550	-2,361
		<b>-15,011</b>	<b>-16,524</b>
Other expenses	[7]	-8,182	-6,887
<b>EBITDA</b>		<b>-6,680</b>	<b>-7,696</b>
Depreciation and amortization	[6]	-3,012	-1,678
<b>Operating result (EBIT)</b>		<b>-9,692</b>	<b>-9,374</b>
Share of profit or loss from equity-accounted investments	[14]	-77	-2
Finance income	[8]	1,662	291
Finance costs	[9]	-387	-313
<b>Net financial result</b>		<b>1,198</b>	<b>-23</b>
<b>Pretax loss for the reporting period</b>		<b>-8,495</b>	<b>-9,398</b>
<b>Income tax expense/income</b>	[10]		
a) Current tax expense		-179	-404
b) Deferred tax income		398	131
		219	-273
<b>Net loss for the reporting period</b>		<b>-8,276</b>	<b>-9,671</b>
of which attributable to non-controlling interests		-223	-64
of which attributable to shareholders of BRAIN AG		-8,053	-9,607
<b>Earnings per share</b>	[11]		
Earnings per share, basic (undiluted), (in €)		-0,45	-0,58
Number of shares taken as basis		18,055,782	16,486,301
Earnings per share, diluted, (in €)		-0,45	-0,58
Number of shares taken as basis		18,055,782	16,486,301

€ thousand	Note	FY 2017/18 01.10.2017 – 30.09.2018	FY 2016/17 01.10.2016 – 30.09.2017
<b>Net loss for the reporting period</b>		<b>-8,276</b>	<b>-9,671</b>
of which attributable to non-controlling interests		-223	-64
of which attributable to shareholders of BRAIN AG		-8,053	-9,607
<b>Other comprehensive income:*</b>			
Net gain or loss from revaluing obligations from post-employment employee benefits*	[5]	-35	241
Deferred tax liabilities		8	-357
Differences from the translation of foreign-currency financing instruments		118	0
Translation differences from the translation of foreign operations		-163	0
<b>Other comprehensive, net</b>		<b>-73</b>	<b>-116</b>
<b>Consolidated total comprehensive income (loss)</b>		<b>-8,349</b>	<b>-9,786</b>
of which attributable to non-controlling interests		-268	-64
of which attributable to shareholders of BRAIN AG		<b>-8,081</b>	<b>-9,722</b>

\* Items that will not be subsequently reclassified to profit or loss

TABLE 05.3 CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE 2017/18 FINANCIAL YEAR

Note (20)	Interests of shareholders of BRAIN AG					Non-controlling interests		
	Subscribed capital	Capital reserves	Retained earnings	Other reserves		Total	Total	Total
				Pension plans	Currency translation			
€ thousand								
<b>Balance at 30 September 2016 / 01 October 2016</b>	<b>16,414</b>	<b>49,369</b>	<b>-38,129</b>	<b>-974</b>	<b>0</b>	<b>26,680</b>	<b>246</b>	<b>26,926</b>
Total comprehensive income (loss)			-9,607	-116		-9,722	-64	-9,786
Capital increase through issuing new shares	1,641	26,329				27,971		27,971
Transfers due to employee share scheme		2,252				2,252		2,252
<b>Balance at 30 September 2017</b>	<b>18,056</b>	<b>77,950</b>	<b>-47,736</b>	<b>-1,090</b>	<b>0</b>	<b>47,180</b>	<b>182</b>	<b>47,362</b>
Total comprehensive income (loss)			-8,053	-28	-1	-8,081	-268	-8,349
Addition of non-controlling-interests as part of the acquisition of fully consolidated Group companies							4,970	4,970
Addition of liability from put/call agreement relating to the acquisition of non-controlling interests in fully consolidated Group companies		-13,384				-13,384		-13,384
Transfers due to employee share scheme		41				41		41
<b>Balance at 30 September 2018</b>	<b>18,056</b>	<b>64,606</b>	<b>-55,789</b>	<b>-1,118</b>	<b>-1</b>	<b>25,755</b>	<b>4,884</b>	<b>30,639</b>

TABLE 05.4 CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE PERIOD 1 OCTOBER 2017 – 30 SEPTEMBER 2018

€ thousand	FY 2017/18 01.10.2017 – 30.09.2018	FY 2016/17 01.10.2016 – 30.09.2017
Net profit (/loss) for the period, after tax	-8,276	-9,671
Depreciation and amortization	3,012	1,678
Deferred tax expense	-398	-131
Conversion of deferred income into revenue	-2,321	-952
Income from release of provisions and liabilities	-334	-73
Share of profit or loss from equity-accounted investments	77	2
Change in net pension provisions recognized in profit or loss	80	77
Other non-cash expenses/income	-861	2,697
Losses on disposals of intangible assets and property, plant and equipment	2	3
<b>Gross cash flow</b>	<b>-9,020</b>	<b>-6,369</b>
Change in trade receivables	1,349	-820
Change in inventories	239	-106
Change in tax assets and liabilities	-519	364
Change in other assets and financial assets	422	105
Change in trade payables	-90	-429
Change in prepayments	7	194
Change in provisions and other liabilities	-526	304
Additions from deferred income	2,721	1,000
<b>Cash flows from operating activities</b>	<b>-5,418</b>	<b>-5,757</b>
Net cash inflows from acquisitions (less cash and cash equivalents acquired)	-10,483	0
Payments to acquire companies (less cash and cash equivalents acquired)	-74	-152
Payments to acquire intangible assets	-1,268	-1,078
Investments in interests in fully consolidated affiliates	0	0
Payments to acquire property, plant and equipment	-245	13
Investments in equity-accounted shareholdings	-560	0
Net proceeds from other non-current assets	0	0
Payments to acquire financial assets	0	10,000
Proceeds from disposal of property, plant and equipment	10	8
<b>Cash flows from investing activities</b>	<b>-12,620</b>	<b>8,791</b>
Proceeds from borrowings	5,551	485
Repayments of borrowings	-893	-840
Proceeds from shareholders' cash capital increases	0	0
Non-controlling interests' contributions to fully consolidated Group companies' capital reserves	0	44
Contributions to equity less related capital raising costs	0	27,971
<b>Cash flows from financing activities</b>	<b>4,659</b>	<b>27,659</b>
<b>Net change in cash and cash equivalents</b>	<b>-13,379</b>	<b>30,693</b>
Cash and cash equivalents at start of financial year	38,954	8,261
Exchange-rate-related change in cash	-36	0
<b>Cash and cash equivalents at end of financial year</b>	<b>25,539</b>	<b>38,954</b>
<b>Cash flows from operating activities include:</b>		
Interest paid	-323	-242
Interest received	26	6
Income taxes paid	672	-62
Income taxes received	29	140

# 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 entered in the commercial register of the Darmstadt District Court under commercial sheet register number 24758. The company's registered offices 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 novel biological ingredients, especially enzymes, biocatalysts and bioactive natural compounds. Moreover, the BRAIN Group (hereinafter also referred to as "BRAIN" or "the Group", and in the annual report also as the "BRAIN Group") identifies and develops its own product candidates, too. BRAIN 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, with the latter focusing on natural compounds. Special production know-how and market access is offered by further subsidiaries, including for enzyme products by WeissBioTech GmbH, Ascheberg, and Biocatalysts Limited, Cardiff, UK. Markets for cosmetics ingredients are addressed through L.A. Schmitt GmbH, Ludwigstadt, and Monteil Cosmetics International GmbH, Düsseldorf.

Together with strategic partners from the target industry, BRAIN in its BioScience operating segment identifies – including based on exclusive license agreements in R&D cooperation programs, for example – hitherto untapped, high-performance enzymes, microbial producer organisms and natural compounds derived from complex biological systems, in order to transform them into industrial applications. The targets in terms of a "bioeconomy" are to replace conventional chemical-industrial processes with innovative, resource-conserving processes, as well as to establish new processes and products. The BioIndustrial segment mainly comprises of its industrially scaled Products 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 since then. As a consequence, the regulations of Section 315e (1) of the German Commercial Code (HGB) are applicable when preparing the consolidated financial statements. The consolidated financial statements prepared by the parent company BRAIN AG for the year ending 30 September 2018 (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 are published in the German Federal Gazette (Bundesanzeiger).

The reporting period comprises of the period from 1 October 2017 to 30 September 2018. This period corresponds to the financial year of BRAIN AG. For historical reasons, the separate financial statements of WeissBioTech GmbH, Ascheberg, WeissBioTech S.A.R.L., Chanteloup-en-Brie, France, and AnalytiCon Discovery LLC, Rockville, MD, USA, are prepared based on a calendar year-end reporting date. Where a financial year differs, annual figures based on the Group's financial year are calculated for the consolidated financial statements, and included in the financial statements on this basis.

The consolidated financial statements are prepared in thousands of euros (€ thousand). The amounts in the disclosures in the notes to the consolidated financial statements are presented in thousands of euros (€ thousand), unless stated otherwise. Rounding differences can arise due to commercial rounding.

These consolidated financial statements of BRAIN AG were approved by the Management Board for submission to the Supervisory Board on 7 December 2018. The review and approval by the Supervisory Board is to occur as of 13 December 2018.

### **New accounting regulations applied**

For the first time, the Group has applied certain standards and amendments that are to be applied to financial years beginning on or after 1 October 2017. The Group has not voluntarily applied any other standards, interpretations or amendments, which, although published, are not yet effective.

#### **Amendment to IAS 7: Disclosure Initiative:**

*(To be applied to financial years commencing on or after 1 January 2017. Early, voluntary application of the regulations is permitted.)*

The amendments to IAS 7 were published by the IASB in January 2016 as part of its Disclosure Initiative, and include instructions relating to additional disclosures to be made in the notes to financial statements concerning changes to liabilities deriving from financing activities. Disclosures made in the notes to the financial statements have been expanded in order to include the related statement of reconciliation. The corresponding disclosure is made in the section (21) Financial liabilities.

#### **Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealized Losses:**

*(To be applied to financial years commencing on or after 1 January 2017. Early, voluntary application of the regulations is permitted.)*

The amendments address various questions relating to the recognition of deferred tax assets for unrealized losses deriving from available-for-sale debt instruments measured at fair value. This amendment leads to no effects on the financial position and performance of BRAIN AG.

#### **Annual improvements: IFRS 2014–2016:**

Various annual improvements to IFRS.

Apart from the aforementioned amendments to accounting policies, the amended accounting policies 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.

Practical expedients arising from transition regulations were not utilized.

### **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 be implemented retrospectively, as a matter of principle. Various simplification options are granted. Early, voluntary application of the regulations is permitted.)*

In July 2014, the IASB published the final version of IFRS 9 Financial Instruments, which replaces IAS 39 Financial Instruments: Recognition and Measurement as well as all previous versions of IFRS 9. IFRS 9 combines the three project phases for the accounting treatment of financial instruments "Classification and Measurement", "Impairment" and "Hedge Accounting".

IFRS 9 deals with the clarification, recognition and measurement of financial assets and financial liabilities. The complete version of IFRS 9 was published in July 2014. This replaces the regulations of IAS 39 Financial Instruments: Recognition and Measurement, which deals with the classification and measurement of financial instruments. IFRS 9 retains the mixed measurement model with simplifications, and it creates three measurement categories for financial assets: amortized cost, at fair value directly to equity/OCI, and at fair value through profit or loss. The categorization is based on the company's business model and the characteristics of the financial asset's contractual cash flows. 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 impairment model based on expected losses, replacing the IAS 39 model based on occurred losses, also exists now. The categorization 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 recognized 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 actually utilized by the management for risk management purposes. Contemporaneous documentation is still required, although it differs from the documentation prepared currently according to IAS 39.

Apart from hedge accounting, the standard is to be applied retrospectively, although comparative information need not be disclosed. The hedge accounting requirements are generally to be applied prospectively, with a few exceptions. The Group intends to adopt the new standard as of the effective date and will not restate comparative information. In the 2017/18 financial year, the Group conducted a preliminary analysis of the three aspects of IFRS 9. These assessments were made based on available information and may change in the course of first-time application in the coming 2018/19 financial year.

#### **Classification and measurement**

The Group does not expect the application of the classification and measurement regulations to exert a material impact on its financial position and performance. The application will result in classification into the new IFRS 9 categories, although a materially different accounting treatment of existing financial assets is not anticipated based on the analysis.

#### **Impairment**

Pursuant to IFRS 9, expected credit losses (ECLs) from all of the Group's debt instruments, loans and trade receivables are to be measured based on either 12-month ECLs or total lifetime ECLs. The Management Board has not yet decided which approach to apply. Irrespective of the selected approach, the Management Board assumes on the basis of historical impairment losses that no material effects will arise in relation to the financial position and performance.

#### **Hedge accounting**

The Group held no hedges in the financial year under review. If hedges exist, the Group does not apply hedge accounting. For this reason, hedge accounting regulations are not anticipated to exert any effects on the financial position and performance.

#### **Other adjustments**

When IFRS 9 is applied for the first time, various items in the primary elements of the financial statements are adjusted where required. The main adjustments that might occur would be in relation to deferred tax and investments in associates. The currency translation of foreign operations is also adjusted if required.



Overall, however, no material effect on the financial position and performance is anticipated based on the aforementioned explanations.

### **IFRS 15 - Revenue from Contracts with Customers including published clarifications**

*(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 recognized 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 method to calculate revenue to be recognized:

- 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: Recognize revenue proportional to the transaction price allocated as soon as the agreed performance is rendered, or the customer has gained control over the goods or services.

The new IFRS 15 also includes numerous disclosure requirements relating to the type, amount, occurrence and uncertainty of revenue, as well as cash flows arising from contracts with customers.

IFRS 15, which the BRAIN Group is required to apply from 1 October 2018, includes two potential transition methods to implement the new regulations: (1) retrospective application for each past accounting period in accordance with IAS 8, or (2) modified retrospective application with recognition of the cumulative effect from the first-time application of the standard as of the date of first-time application. BRAIN AG will apply the modified retrospective method for the transition to IFRS 15, with the cumulative effect from the first-time application being recognized directly in equity under retained earnings as of 1 October 2018. Comparable figures for prior-year periods are not restated. The option for simplified initial application is also utilized, with IFRS 15 being applied solely to contracts that had not yet been fulfilled as of 1 October 2018.

In the 2017/18 financial year, BRAIN AG conducted a quantitative and qualitative analysis of the effects of the new IFRS 15 regulations on revenue recognition, and also conducted surveys and contract analyses. Based on the status of knowledge as of the date when these consolidated financial statements were prepared, no significant effects were anticipated from the first-time application of the standard. However, the new regulations will lead to additional quantitative and qualitative disclosures in the notes to the financial statements.

### **BioScience**

The first-time application of IFRS 15, and the related evaluation of the accounting treatment of research, development and licensing agreements, will necessitate several discretionary decisions. The initial analysis will be the extent to which such agreements fall into the application scope of IFRS 15. An analysis is subsequently performed in order to establish whether the promises identified result in individual performance obligations and how they are satisfied (at a point in time or over time). In addition, the determination of the transaction price requires discretionary decisions and estimates in light of uncertainties typical of the sector, which are associated with future milestone and license payments. One-off prepaid license payments are recognized immediately if the license grants a right-of-use and the licensed technology is not developed further (static licenses). One-off prepaid license payments are realized over time if and to the extent that the license grants access rights to the technology, and the licensed technology is developed further (dynamic licenses). License income from

royalties will continue to be recognized when the relevant products are sold. The accounting treatment for revenues from research and development projects is not expected to change in relation to previous accounting treatment.

Based on management's current knowledge, the first-time application of IFRS 15 is not expected to have any significant effects on the Group's revenues or net income in relation to existing research, development and license agreements. However, the company anticipates the recognition of contract liabilities due to the reclassification of prepayments received.

### **BioIndustrial**

Under IFRS 15, revenue from product sales is also recognized when the control over the products transfers to the customer. As previously, this will continue to occur when the product is delivered to the customer. Due to the generally simply structured contracts and typically short contract terms, the application of IFRS 15 is not expected to have a significant effect on the Group's revenues or results.

The new IFRS 15 regulations have no or very minor significance for BRAIN AG in the following areas:

- Separable performance obligations such as warranty obligations, transport and other logistics services
- Sales with rights of return
- Consignment arrangements
- Principal versus agent considerations
- Bill-and-hold arrangements
- Financing components
- Costs of obtaining and fulfilling a contract

### **IFRS 16 - Leases**

*(To be applied to financial years commencing on or after 1 January 2019. Earlier voluntary application of the regulations is permitted if IFRS 15 (Revenue from Contracts with Customers) is also applied.)*

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 recognized on the lessee's balance sheet. For leases with a term of up to one year and low-value leases, an option exists to apply the recognition and reporting regulations of IFRS. The company intends to utilize this practical expediency.

For all leases, the lessee recognizes a lease liability on its balance sheet for the obligation to render lease payments in the future. At the same time, the lessee capitalizes 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 Leases regulations for financing leases, while the right-of-use is amortized, which generally leads to higher expenses at the start of a lease term.

The new regulations are to be applied mainly to the contract portfolio, whereby with some expediciencies 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. The Management Board has not yet reached a decision regarding the transitional method.

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 BRAIN Group does not plan to apply IFRS 16 early. A specific analysis of effects has also not yet been conducted. Irrespective of any outstanding detailed analysis, however, initial estimates can already be made. Applying the standard will tend to affect mainly the accounting treatment of rented buildings and machinery, as other lease contracts are not material.

Applying IFRS 16 will consequently change the accounting treatment of existing and future operating leases compared with current standards. The capitalization of rights-of-use for assets and the recognition of operating lease liabilities as liabilities will lead to an increase in total assets and total liabilities overall, prospectively to a level in a low single-digit amount in millions of euros. Including taking depreciation into consideration, application will also exert a positive effect on the operating result (EBITDA), as lease payments are no longer recognized as other operating expenses. In the net financial result, the contracts' financing components are recognized as finance expenses, resulting in a corresponding reduction of this item. The cash flow statement will also be affected. According to IFRS 16, the repayment portion of lease payments is allocated to cash flow from financing activities. The Management Board of BRAIN AG has decided to report the effects under cash flow from operations.

**Amendment to IFRS 4: Applying IFRS 9 "Financial Instruments" with IFRS 4 "Insurance Contracts":**

*(To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.)*

**Amendments to IFRS 2: "Classification and Measurement of Share-based Payments"**

*(To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.)*

**IFRIC 22: "Foreign Currency Transactions and Advance Consideration":**

*(To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.)*

**IFRIC 23: "Uncertainty over Income Tax Treatments":**

*(To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.)*

**Amendments to IAS 19 "Employee Benefits":**

*(To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.)*

**Annual improvements: IFRS 2015–2017:**

*(To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.)*

The effects of the further aforementioned new accounting regulations that are not yet applied are currently being investigated. At present, however, we do not expect these to generate significant effects. All accounting regulations that are not mentioned and have not yet been applied are not relevant for the consolidated financial statements of BRAIN AG.

### **Presentation of the financial statements**

The income statement is extended to include other comprehensive income items recognized in equity, to the extent they do not arise 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" up to the level of EBITDA and EBIT in relation to certain matters. These are shown in a separate reconciliation statement in the section "Adjustments to results". For definitions, please refer to the information provided on segment reporting. The financial statements are presented in thousands of euros, unless stated otherwise, for ease of readability.

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 acquirer gains 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 recognized 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 resultant gain or loss recognized in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is recognized directly in equity.

Identifiable assets and liabilities are recognized 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 recognized at fair value, or based on the proportional interest in the acquiree's revalued net assets.

Acquisition-related costs are expensed when they are incurred.

Goodwill is recognized 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. Any negative difference is recognized directly in profit or loss.

On the basis of written put options, non-controlling shareholders of subsidiaries 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 the first step, a review must be conducted as to whether the arrangement of the put option agreement, taking all other aspects into consideration, substantiates a current power of disposal (hereinafter referred to as “present ownership”).

Where present ownership exists, BRAIN AG applies the anticipated purchase method and recognizes a financial liability pursuant to IAS 32.23. In the case of the anticipated acquisition method, 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 recognized at fair value with changes recognized through profit or loss.

If present ownership does not exist, BRAIN AG recognizes the non-controlling interest in full, reporting the entire non-controlling interest in the statement of comprehensive income or under balance sheet equity. The liability is then recognized as a liability at fair value on the agreement date, with a simultaneous reduction in the capital reserve. Future fair value changes are recognized in profit or loss.

Transactions with non-controlling interests without loss of control are recognized as transactions with the Group’s owners acting in their capacity as owners. The difference between the fair value of the consideration 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 recognized in equity. Gains and losses arising from the disposal of non-controlling interests are also recognized 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 recognizing deferred taxes.

## **Consolidation scope**

All subsidiaries are included in the consolidated financial statements of BRAIN AG. Subsidiaries are companies that BRAIN AG controls. BRAIN AG 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 2018:

Name and domicile of the company	30.09.2018	30.09.2017
AnalytiCon Discovery GmbH, Potsdam, Germany	59.0 %*	59.0 %*
AnalytiCon Discovery LLC, Rockville MD, USA	59.0 %*,***	59.0 %*,***
BRAIN Capital GmbH, Zwingenberg, Germany	100.0 %	100.0 %
Monteil Cosmetics International GmbH, Düsseldorf, Germany	68.3 %	68.3 %
L.A. Schmitt Chem. Kosm. Fabrik GmbH, Ludwigsstadt, Germany	100.0 %	100.0 %
Mekon Science Networks GmbH, Eschborn, Germany	100.0 %	100.0 %
WeissBioTech GmbH, Ascheberg, Germany	50.6 %**	50.6 %**
WeissBioTech France S.A.R.L., Chanteloup-en-Brie, France	50.6 %**,***	50.6 %**,***
BRAIN US LLC, Rockville MD, USA	100.0 %	N/A
BRAIN UK II Ltd., Cardiff, UK	100.0 %	N/A
BRAIN UK Ltd., Cardiff, UK	72.3 %***	N/A
Biocatalysts Ltd., Cardiff, UK	65.5 %***	N/A
Biocatalysts Inc., Dover, USA	65.5 %***	N/A

\* The remaining shares are to be classified as debt capital due to the non-controlling interests' existing termination rights.

\*\* Included by way of full consolidation applying the anticipated acquisition method.

\*\*\* Indirect interests

## Expansion of the consolidation scope

### Acquisition of the Biocatalysts Group

On 17 March 2018, the BRAIN Group concluded a purchase agreement concerning the acquisition of a 65.55 % interest in Biocatalysts Ltd., which is based in Cardiff, UK. This acquisition also included the acquisition of Biocatalysts Inc., Dover, USA, as a wholly-owned subsidiary of Biocatalysts Ltd. (hereinafter referred to together as "Biocatalysts" or the "Biocatalysts Group").

Biocatalysts is one of the leading European companies in special enzymes. Thanks to its strategic orientation, Biocatalysts meets wide-ranging customer requirements in the enzymatic area – either through standardized, customized or novel enzyme products. The company focuses on the application-specific development and production of novel enzymes. Its aim is to significantly improve the application processes of established industries and to tap new application areas for enzymes in a wide range of industries. Enzyme product development, which is driven by the company's application expertise, is partly supported by the MetXtra in-house metagenome library, which provides access to over 300 million unique sequences, offering each customer a wide range of potential enzymatic solutions. Biocatalysts works in strategic partnerships with many globally positioned companies. Biocatalysts forms an outstanding fit for the BRAIN Group's existing product portfolio.

The acquisition of a strategic majority in Biocatalysts will accelerate product-driven growth in the fast-growing specialty enzymes market, and broaden the portfolio of BRAIN's enzymes business. Both companies and their customers will benefit from synergies in the areas of research and development as well as in production and global sales and marketing.

The acquisition price for the acquired 65.55 % interest in the Biocatalysts Group amounted to € 13,368 thousand. The acquisition price comprises of a purchase price component with an immediate cash outflow of € 9,695 thousand as well as a payment of € 3,672 thousand due in

six months and not subject to any further conditions. This payment was rendered in September 2018. No contingent consideration arrangements exist. The Biocatalysts Group's results have been included in the consolidated financial statements since the acquisition date.

The acquisition generated € 3,912 thousand of partial goodwill on the acquisition date that is attributable to BRAIN AG shareholders on the basis of the interest held. The goodwill is not tax deductible. The hidden reserves disclosed under other intangible assets (excluding goodwill) relate mainly to disclosed customer relationships and technology. The following table shows the allocation of the purchase price to the assets and liabilities of the Biocatalysts Group:<sup>1</sup>

€ thousand	IFRS carrying amounts on the acquisition date	Disclosure of hidden reserves and charges	Fair values on the acquisition date
<b>Assets</b>			
Other intangible assets (excluding goodwill)	2	9,438	9,440
Property, plant, and equipment	4,157	0	4,157
Inventories	1,231	495	1,726
Trade receivables	1,677	0	1,677
Miscellaneous receivables and assets and income tax receivables	495	0	495
Cash and cash equivalents	2,820	0	2,820
<b>Total assets</b>	<b>10,383</b>	<b>9,933</b>	<b>20,316</b>
<b>Liabilities</b>			
Deferred tax liabilities	81	2,086	2,167
Non-current financial liabilities	1,510	0	1,510
Deferred income	575	0	575
Trade payables	535	0	535
Current financial liabilities	20	0	20
Current provisions	86	0	86
Current income tax liabilities	506	0	506
Current other liabilities	493	0	493
<b>Total liabilities</b>	<b>3,805</b>	<b>2,086</b>	<b>5,892</b>
<b>Identified net assets at fair value</b>	<b>6,577</b>	<b>7,847</b>	<b>14,424</b>

<sup>1</sup> The table includes rounding differences.

€ thousand	Interest in %	BRAIN AG interest
BRAIN AG share of identified net assets at fair value	65.55	9,456
Goodwill from the acquisition	0	3,912
Consideration for the acquisition	0	13,368

Direct transaction costs in the amount of € 533 thousand were recognized directly in profit or loss.

The non-controlling interests were as follows as of the acquisition date (in € thousands):

€ thousand	Interest in %	Interest in book equity	Share of revalued equity
Non-controlling interest	34.45	2,266	4,970

The gross amount of the acquired receivables amounted to € 2,172 thousand. No impairment losses were incurred. It is expected that the receivables will be settled in full. Due to their current terms, the carrying amounts on the acquisition date did not differ significantly from the fair values.

Deferred tax liabilities comprise of the effects of temporary differences between the fair values of the assets and liabilities identified as part of purchase price allocation, and their carrying amounts on the tax balance sheet.

Goodwill is primarily from the synergies arising at Group level. This reflects the expertise added at BRAIN AG and at the Biocatalysts Group as well as markets that are opening up for the Group. This goodwill was allocated to the "BioIndustrial" segment.

The entirety of the goodwill is not tax deductible.

Since the acquisition date, the Biocatalysts Group has been included in the consolidated financial statements of BRAIN AG with sales revenues of € 6,563 thousand and earnings after tax of € 533 thousand. As part of capital consolidation, the Group also recognized € 957 thousand of amortization and, offsetting this, deferred tax income of € 201 thousand.

If the acquisition of the Biocatalysts Group had already occurred on 1 October 2017, consolidated revenue would have amounted to € 32,876 thousand and earnings after tax to € -7,347 thousand. In this context, it was assumed that the fair values on the 1 October acquisition date were unchanged, that exchange rates were unchanged compared with the current accounting, and that no differing amortization was applied.

Put/call option agreements were also arranged between the predominant proportion (25.1% out of 34.5%) of the remaining non-controlling interests and the BRAIN Group, which enable the BRAIN Group to acquire the remaining non-controlling interests at a contractually agreed EBITDA multiple during two exercise periods between 1 January 2022 and 31 March 2023. The put option gives the non-controlling interests the right to tender shares to the BRAIN Group at contractually agreed EBITDA multiples (depending on the exercise date) in five exercise periods between 1 January 2019 and 31 March 2023.

The financial liability is recognized so as to reflect the highest probable liability, as the actual exercise dates are uncertain. The present value of the resultant contingent acquisition consideration amounted to € 13,384 thousand as of 17 March 2018. The capital reserves were reduced by € 13,384 thousand accordingly. The liability is subsequently remeasured with recognition in profit or loss. As part of subsequent measurement as of 30 September 2018, a cur-



rency gain of € 118 thousand was recognized in other equity and a financial gain of € 412 thousand was recognized in the financial result.

### **Founding of BRAIN US LLC**

Moreover, on 6 February 2018, BRAIN AG formed a wholly owned US subsidiary BRAIN US LLC, based in Rockville, MD, USA, in order to expand business development activities in the USA.

Both expansions to the Group are expected to exert positive effects on the course of business in both this and coming financial years.

### **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, and SolasCure Ltd. were included as equity-accounted investments in the consolidated financial statements for the period ended 30 September 2018. The balance sheet date at the end of a calendar year (Enzymicals AG) or on 30 June (SolasCure Ltd.) differs from the balance sheet date of BRAIN AG. BRAIN AG holds 24.095% (previous year: 24.095%) of the voting rights in Enzymicals AG and 46.667% (previous year: 0%) of the voting rights in SolasCure Ltd., Cardiff.

BRAIN AG would be entitled, as a matter of principle, to a 66.67% share of the voting rights in SolasCure Ltd., whereby 20 percentage points of the voting rights were assigned to the company's managing director as part of a transfer of voting rights. BRAIN AG has the right to terminate the voting right transfer. In addition, the non-controlling shareholders have substantial rights, which means that BRAIN AG has no right of control over SolasCure Ltd., and no full consolidation can occur as a consequence.

Under the equity method, the investment is initially recognized at cost and subsequently adjusted 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 recognized unless a legal or constructive payment obligation exists. Any goodwill recognized is reported as a component of the value of the interest in the associate. Unrealized intragroup 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 recognized in the amount of the difference. If the reasons for an impairment loss recognized in previous periods no longer apply, the impairment loss is reversed through profit or loss.

### 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 based on historical purchase and manufacturing costs, limited by the measurement of financial assets and financial liabilities at fair value through profit or loss.

Where indications exist of potential value impairment (so-called triggering events), a corresponding review is conducted based on 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, among other inputs, can also be applied in this context. If the carrying amount exceeds the recoverable amount, impairment losses are recognized against 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.

#### 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 capitalization of development expenditures (no development costs were capitalizing the financial year under review, and none were capitalized in the previous year);
- the non-capitalization of deferred taxes relating to tax loss carryforwards;
- measuring the useful life of intangible assets;
- the recoverability of recognized goodwill;
- measuring liabilities arising from put options that have been written, applying the anticipated acquisition method;
- the valuation of put options for the acquisition of non-controlling interests;
- in the measurement of future obligations denominated in foreign currencies, the valuation of share-based payment programs, and the requirement to simulate future price movements.

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.

#### Adjustments to earnings and management metrics

Group profitability in the financial year under review was significantly burdened by costs connected with the expansion of the BRAIN Group (acquisition and integration costs) as well as expenses incurred from an employee share scheme relating to AnalytiCon Discovery GmbH. Expenses for share-based payment transactions were also adjusted (see “Share-based payment and other long-term employee benefits” for further information).

With the acquisition of Biocatalysts, the Management Board of the BRAIN Group has decided to modify its key financial management indicators. In the company's view, total operating performance continues to best reflect the Group's overall business performance. As part of the purchase price allocation for the most recent acquisition, significant intangible assets were identified and hidden reserves were disclosed.

In the company's view, the resultant amortization of acquired assets over the coming years can, under certain circumstances, lead to a distortion of the meaningfulness of the previous key financial indicator of "adjusted EBIT". Given this, the Management Board of BRAIN AG has decided to replace the existing key financial indicator of "adjusted EBIT" by "adjusted EBITDA" (adjusted earnings before interest, tax, depreciation and amortization) as of the end of the financial year. For this reason, the income statement and the segment disclosures in these consolidated financial statements include both figures.

The following table shows the reconciliation of reported EBIT and EBITDA to adjusted EBIT, and adjusted EBITDA excluding the effects and expenses described above.

€ thousand	2017/18	2016/17
<b>EBIT, including:</b>	<b>-9,692</b>	<b>-9,374</b>
Personnel expenses from the employee share scheme at AnalytiCon Discovery GmbH	-191	-625
Personnel expenses from share-based payment components	-41	-2,352
Other operating expenses related to M&A transactions and integration of acquired businesses	-1,045	0
<b>Adjusted EBIT</b>	<b>-8,415</b>	<b>-6,397</b>

€ thousand	2017/18	2016/17
<b>EBITDA, including:</b>	<b>-6,680</b>	<b>-7,696</b>
Personnel expenses from the employee share scheme at AnalytiCon Discovery GmbH	-191	-625
Personnel expenses from share-based payment components	-41	-2,352
Other operating expenses related to M&A transactions and integration of acquired businesses	-1,045	0
<b>Adjusted EBITDA</b>	<b>-5,404</b>	<b>-4,719</b>

## Segment reporting

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 realized 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.

The business activities at BRAIN are defined 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 based on total operating performance (defined as the sum of revenue, other income and changes in inventories of finished goods and work in progress), and

€ thousand	BioScience		BioIndustrial	
	17/18	16/17	17/18	16/17
Revenue generated with other segments	12	11	16	45
Revenue generated with external customers	8,300	10,647	18,751	13,458
Total revenue	8,312	10,658	18,767	13,503
R&D grant revenue <sup>3</sup> [external business partners]	1,831	2,234	169	76
Changes in inventories <sup>4</sup>	123	59	173	-201
Other income	822	281	319	483
<b>Total operating performance</b>	<b>11,087</b>	<b>13,232</b>	<b>19,428</b>	<b>13,860</b>
Cost of materials	-3,443	-3,642	-10,545	-7,633
Personnel expenses	-10,608	-13,893	-4,403	-2,631
(of which from the employee share scheme at AnalytiCon Discovery GmbH)	191	625	0	0
(of which from share-based payments)	41	2,352	0	0
Other expenses	-4,520	-4,236	-3,670	-2,639
(of which acquisition and integration costs)	917	0	128	0
<b>EBITDA</b>	<b>-7,484</b>	<b>-8,540</b>	<b>811</b>	<b>956</b>
<b>Adjusted EBITDA</b>	<b>-6,336</b>	<b>-5,563</b>	<b>939</b>	<b>956</b>
Depreciation and amortization	-1,128	-998	-1,884	-680
<b>EBIT</b>	<b>-8,613</b>	<b>-9,538</b>	<b>-1,073</b>	<b>276</b>
<b>Adjusted EBIT</b>	<b>-7,464</b>	<b>-6,561</b>	<b>-945</b>	<b>276</b>
Finance income				
Result from equity-accounted investments				
Finance costs of which:				
Other finance costs				
<b>Result before taxes</b>				

segment profitability is measured based on adjusted operating EBIT and adjusted EBITDA<sup>2</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.

The BioScience segment mainly includes research and development business with industrial partners, and the company's own research and development. Marketing the company's own products and developments with external partners also forms part of this operating segment.

The BioIndustrial segment mainly comprises of its industrially scaled products business which focuses on cosmetic and enzyme products.

<sup>2</sup> The Management Board defines adjustments to eliminate special effects from the operating performance of the business. With effect from 1 October 2018, the Management Board amended its management metric to adjusted EBITDA. See also the notes in the section "Presentation of financial statements"

<sup>3</sup> Research and development grant revenue  
<sup>4</sup> Changes in inventories of finished goods and work in progress

Sum segments		Consolidation		Group	
17/18	16/17	17/18	16/17	17/18	16/17
28	56	-28	-56	0	0
27,051	24,105	0	0	27,051	24,105
27,079	24,161	-28	-56	27,051	24,105
2,000	2,310	0	0	2,000	2,310
296	-143	0	0	296	-143
1,141	763	-19	-103	1,122	660
<b>30,515</b>	<b>27,091</b>	<b>-47</b>	<b>-159</b>	<b>30,469</b>	<b>26,932</b>
-13,988	-11,276	32	59	-13,956	-11,217
-15,011	-16,524	0	0	-15,011	-16,524
191	625	0	0	191	625
41	2,352	0	0	41	2,352
-8,190	-6,875	8	-12	-8,182	-6,887
1,045	0	0	0	1,045	0
<b>-6,674</b>	<b>-7,583</b>	<b>-6</b>	<b>-112</b>	<b>-6,680</b>	<b>-7,696</b>
<b>-5,398</b>	<b>-4,606</b>	<b>-6</b>	<b>-112</b>	<b>-5,404</b>	<b>-4,719</b>
-3,012	-1,678	0	0	-3,012	-1,678
<b>-9,686</b>	<b>-9,262</b>	<b>-6</b>	<b>-112</b>	<b>-9,692</b>	<b>-9,374</b>
<b>-8,410</b>	<b>-6,285</b>	<b>-6</b>	<b>-112</b>	<b>-8,416</b>	<b>-6,397</b>
				1,662	291
				-77	-2
				-387	-313
				-387	-313
				<b>-8,495</b>	<b>-9,398</b>

The allocation of adjustments to the segments is generally made in the segment in which the costs to be adjusted were incurred. Personnel expenses from an employee share scheme at AnalytiCon Discovery GmbH and from share-based payment components in the financial year under review were attributable exclusively to the BioScience segment. Other operating expenses incurred in connection with M&A transactions and the integration of acquired companies related to both the BioScience and the BioIndustrial segments, and were adjusted accordingly in both segments.

Sales revenues generated between the segments are realized on standard market terms. Total operating performance generated with external customers is reported to the Management Board based on 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 page 170/171 presents the segment results.

Revenue derived from the following revenue sources:

€ thousand	2017/18	2016/17
Collaborative Business <sup>5</sup>	8,300	10,647
<b>BioScience</b>	<b>8,300</b>	<b>10,647</b>
Enzymes & Bio-based Products	14,399	8,673
Cosmetics	4,352	4,784
<b>BioIndustrial</b>	<b>18,751</b>	<b>13,457</b>
<b>Group total</b>	<b>27,051</b>	<b>24,105</b>

The following table presents revenue by geographic region:

€ thousand	2017/18	2016/17
Germany	7,351	7,452
Abroad	19,700	16,653
of which USA	4,847	3,733
of which France	4,117	5,037

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>5</sup> Also includes the 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:

€ thousand	30.09.2018	30.09.2017
Intangible assets	19,075	7,087
Property, plant, and equipment	12,042	7,590
<b>Total</b>	<b>31,117</b>	<b>14,678</b>
of which UK	16,359	0
of which Germany	13,582	14,498
of which USA	1,065	13
of which France	111	167

No relationships exist with individual customers where revenue is to be categorized as significant in comparison with consolidated revenue.

## Currency translation

### Translation of foreign currency transactions

Cash and cash equivalents as well as receivables and liabilities denominated in foreign currencies are translated at the closing rate. Currency translation differences are recognized 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 recognized through profit or loss occurs on a net basis. The net results from translation differences are immaterial in total.

### Translation of foreign Group companies' financial statements

In the case of foreign Group companies, the functional currency is the respective local currency, as the companies operate independently in financial, business and organizational terms. The foreign companies' assets and liabilities are translated into euros at the closing rate on the reporting date. Income and expenses are translated into euros at the average exchange rates for the year. Equity components are translated at historical exchange rates on the respective acquisition dates from the Group's perspective. The translation difference compared with the closing rates is recognized directly in equity under "Other reserves".

The exchange rates against the euro report the following changes:<sup>6</sup>

Rate/€ 1	Country	Closing rate		Average rate	
		2017/18	2016/17	2017/18	2016/17
GBP	United Kingdom	1.1228	N/A	1.1305	N/A
USD	USA	0.8618	N/A	0.8458	N/A

<sup>6</sup> Due to the first-time acquisition of companies whose functional currency does not correspond to the reporting currency, no disclosures were required in the previous year.

### **Revenue recognition**

BRAIN recognizes 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 recognized when the significant risks and opportunities have transferred to the customer. The place of transfer can be either at the factory or at the customers premises.

#### **Rendering of services**

Revenues from rendering services 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 analyzed on the date of receipt as to whether they relate to one-off payments for pre-contractual services. If the payment is of a temporary nature (e.g. for the utilization of technology developed by BRAIN over a given contractual term), the revenue is deferred and subsequently recognized over the period of agreed research and development programs. Payments for pre-contractual services are recognized immediately as revenue. R&D revenues are also recognized in the period in which the underlying services are rendered. This generally occurs according to the percentage 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 term.

#### **Royalties**

Revenues from royalties (license agreements) are recognized in the period in which they accrue in accordance with the commercial content of the underlying contract.

#### **Research and development grant revenue**

Research and development (R&D) grant revenue is recognized in the period in which the underlying expenditures are incurred.

### **Intangible assets**

Purchased intangible assets are recognized at cost and amortized straight-line over their economic useful life. Cost comprises of 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	8 – 11
Acquired technology	10 – 12

### **Research and development**

Research costs are recognized as expenses in the period in which they are incurred. In accordance with IAS 38.53 and IAS 38.57, development expenditures are capitalized 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 can be demonstrated. Inter alia, the entity can substantiate 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 reliably measure 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 recognized as expenses as incurred. This is especially applicable as – for all of the Group's product and process development – research and development run alternately and a distinction between the research and development phases is thus rarely 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 depreciation method is applied.

The depreciation period is based on the asset's expected useful economic life. Impairment losses and depreciation charges are recognized if no further, or fewer economic benefits are expected from the asset's continued use or sale. 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 recognized in profit or loss in the period in which the asset is derecognized.

Depreciation charges are based mainly 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	1 – 15

In the case of assets that are manufactured or otherwise made ready for their intended use or sale over a longer period of time (“qualifying assets”), borrowing costs are capitalized if they can be attributed directly to the asset. 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 recognized 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. The recoverable amount is generally determined individually for each asset. If this is not possible, it is determined based on a group of assets representing 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 recognized 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).

The starting point for estimating the recoverable amount of the relevant cash-generating unit for the impairment tests as of 30 September 2018 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 five year planning of the relevant company. The last planning year is generally also applied for cash flows beyond the planning period and modified considering further assumptions for the perpetual return, to the extent that specific related indications exist. These plans are based on Management Board estimates about future trends that are described further in the description of the individual cash-generating units. Past data and expected market performance are utilized to calculate values-in-use for the cash-generating units. The values allocated to the significant assumptions are generally in line with external information sources in this context.

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 are derived from available capital market information.

Significant goodwill existed at the following cash-generating units (CGUs) as at reporting date:

Cash-generating unit	30.09.2018		30.09.2017	
	Goodwill in € thousand	Pre-tax cost of capital (WACC) <sup>7</sup>	Goodwill in € thousand	Pre-tax cost of capital (WACC) <sup>7</sup>
Monteil Cosmetic Products	1,777	8.33 %	1,962	9.58 %
Natural Products Chemistry	699	12.49 %	699	14.06 %
Biocatalysts	3,878	9.80 %	N/A	N/A

The “Monteil Cosmetic Products” CGU comprises of the goodwill from the acquisition of Monteil Cosmetics International GmbH, and is attributable to the BioIndustrial segment. The “Natural Products Chemistry” CGU comprises of the goodwill from the acquisition of AnalytiCon Discovery GmbH and its subsidiary AnalytiCon Discovery LLC, and is attributable to the BioScience segment. The “Biocatalysts” CGU comprises of the goodwill from the acquisition of Biocatalysts Ltd., including its subsidiary Biocatalysts Inc., and is attributable to the BioIndustrial segment.

### Monteil Cosmetic Products

The “Monteil Cosmetic Products” CGU achieved some operating successes in the 2017/18 financial year, which due to difficult circumstances only led to a slight increase in revenues. Taking various exceptional items into consideration such as temporary supply problems, the previous year’s planning was reached by and large both at the level of total operating performance and in terms of the results for the year.

An IAS 36 impairment test was conducted, as in the previous year. This reflected not only the historical trend but also the unit’s strategy, peer group trends as well as market prospects. The unit’s strategy aims to gain additional market shares and improve margins in the area of consulting-intensive bio-based exclusive cosmetics. Monteil’s products are used mainly for customer treatments in cosmetic studios. In addition, care products for customers’ home applications supplement the product range. Between 2013 and 2017, the sales of the overall cosmetics market in Germany grew by around 2.16 % p.a. to € 16.6 billion.<sup>8</sup> The market volume in 2018 amounted to approximately € 17.1 billion. Due to intense competition and associated high pricing pressure, since the 17/18 financial year Monteil has opted to offer a “basic line” in the mid-price segment in addition to its high-priced cosmetic products. In addition to sales to consulting cosmetic studios, the strategic focus will also be on sales to international distributors. The latter strategy contributed to growth in the past financial year. With growing sales, the unit can implement significantly more attractive prices with its suppliers, which in the current year could be realized especially for international orders.

For this reason, it was assumed that margin improvements could be achieved in the planning period as revenues grew, and that margins would approach those of the peer group. For this reason, an alignment and approximation to the peer group was applied over time in the calculation of expected EBITDA margins, albeit with planning lying below the peer group companies’ minimum EBITDA margins. Furthermore, a significantly lower EBITDA margin was assumed compared with the previous year’s planning in the planning period, as well as in the

<sup>7</sup> Weighted average total cost of capital rate before tax

<sup>8</sup> Cf. here and below: Cf. Statista (publisher) – Marktvolumen im Segment Kosmetik und Körperpflege in Deutschland in den Jahren 2013 bis 2018 (in millionen Euro)

perpetual return, in order to reflect the delay in achieving operative EBITDA breakeven. As a consequence, the EBITDA margin increases from a currently negative value to a maximum of 11.5%, thereby remaining below the minimum EBITDA margins of peer group companies. Net cash flows beyond the detailed planning phase were modelled on a terminal growth rate that reflects growth rates derived from current market information (financial year under review and previous year: 1.00%). A value-in-use applying discounted cash flows was calculated based on five-year planning. According to this calculation, the recoverable amount stood at € 3,801 thousand. Consequently an impairment loss of € 184 thousand was recorded as a result of the impairment test on 30 September 2018, and reported under amortization, depreciation and impairment losses. These impairment losses are attributable to the BioIndustrial segment.

An additional impairment loss before tax of € 597 thousand would have been incurred if the weighted average cost of capital were increased by 1.0%. Reducing the EBITDA margin by 2 percentage points in the perpetual return would have incurred an additional impairment loss of € 734 thousand. Due to the impairment loss that was applied in the financial year under review, any negative change in the valuation parameters would lead to a further impairment.

#### **Natural Products Chemistry**

Thanks to positive market feedback and the successful trend in recent financial years, the “Natural Products Chemistry” unit continues in its planning to assume significant revenue growth and a positive trend in its EBITDA margin. Net cash flows beyond the detailed planning phase were modelled on a terminal growth rate that reflects growth rates derived from current market information (financial year under review and previous year: 1.00%). A value-in-use applying discounted cash flows was calculated based on five-year planning. No impairment was determined in the impairment test on 30 September 2018.

An impairment loss of € 411 thousand would have been incurred if the weighted average cost of capital were to be raised by 1.0%. Reducing the EBITDA margin by 2 percentage points in the perpetual return would have incurred an impairment loss of € 483 thousand.

#### **Biocatalysts**

For the Biocatalysts unit acquired in the financial year under review, an IAS 36 impairment test was performed for the first time as of 30 September 2018. Planning is based on a significant rise in sales revenues and successive margin improvements. As planned, these considerable growth increments would be in line with the recent years’ significant increases. Continued strong growth is to be achieved by further expanding business relationships with both existing and new customers. Furthermore, an even stronger focus on customer-specific enzymes is planned, which should contribute to a further improvement in revenue as well as to a margin improvement. Net cash flows beyond the detailed planning phase were modelled on a terminal growth rate that reflects growth rates derived from current market information (financial year under review: 1.00%). A value-in-use applying discounted cash flows was calculated based on five-year planning. No impairment was determined in the impairment test on 30 September 2018.

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 are derived from available capital market information.

An increase in the weighted average cost of capital by 1.0% or a reduction in the EBITDA margin in the perpetual return by 2 percentage points would have also led to no impairment.

The Management Board assumes that the calculated sensitivities suitably and sufficiently reflect the potential deviations from plan in each case.

Goodwill also includes a minor extent of goodwill from the acquisition of the WeissBioTech Group (WeissBioTech GmbH and WeissBioTech France S.A.R.L.) amounting to € 11 thousand.

### **Inventories**

Raw materials, consumables and supplies as well as unfinished goods and services, are measured at cost. In this context, the weighted average cost method is essentially 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 capitalized. Write-downs to the lower net realizable value are applied if necessary.

### **Financial instruments**

Financial instruments are classified to four categories on initial recognition:

- Assets measured at fair value through profit or loss (FVTPL)
- Loans and receivables (LaR)
- Held-to-maturity investments (HtM)
- Available-for-sale financial assets (AfS)

Financial liabilities are classified as financial liabilities measured at fair value through profit or loss or as other financial liabilities.

Financial assets and liabilities are generally recognized 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 recognized on the settlement date.

Financial assets are derecognized 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 derecognized if the underlying obligation is settled or ceases to exist.

Loans and receivables (LaR) originated by BRAIN as well as other financial liabilities (OL) are measured at amortized 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.

Financial assets and liabilities are offset only if a right exists to offset the recognized 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 of interest or principal payments, the probability of insolvency or some other financial reorganization and observable data indicating that a measurable decrease in the estimated future cash flows has occurred, such as adverse changes in the payment status of the borrower or economic conditions that correspond with defaults.

### **Receivables/other assets**

Trade receivables and other assets are generally measured at their principal amounts. Specific valuation allowances are recognized and recorded in a separate allowance account to reflect risks and impairments.

Factored receivables are treated according to the general regulations on derecognition of financial assets and depending on 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 recognized at fair value if satisfactory evidence exists that the grant conditions are met and the grants will be paid. Grants are recognized 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 recognized as deferred income. Such deferred income is recognized as income in line with the depreciation or amortization 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 settled in BRAIN AG equity instruments as either equity or debt capital, it is essential to assess whether a payment obligation exists for BRAIN AG. A financial liability always exists if BRAIN AG is not entitled to avoid rendering liquid assets or realizing 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. If a reporting date occurs between the date on which 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 recognized under assets as prepaid items, and are not offset against equity (capital reserves) until the capital increase is recognized on the balance sheet.

## Provisions

Provisions are recognized for all identifiable present obligations to third parties arising from past events, whose settlement is expected to result in an outflow of resources and whose amount can be reliably estimated. They are recognized at the expected settlement amount. If the outflow of resources is expected to occur at a date after the year following the reporting period, the obligations are recognized 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 utilize 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.

Payments for defined contribution pension schemes are expensed under personnel costs if the employees have rendered the work entitling them to said contributions. Contributions to government pension plans are treated in the same way as 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 current 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 € 127,200. In addition, BRAIN offers a company pension scheme in the form of deferred compensation without topping-up 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 of an old-age pension from the age of 65 as well as surviving dependents' and invalidity benefits. To reinsure 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 early withdrawal from employment, and thereby 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 based on actuarial methods. The calculations are essentially based on statistical data relating 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-rated corporate bonds corresponding to the respective term, or alternatively, yields on respective government bonds. As part of 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 that resulted in particular from the adjustment of actuarial assumptions are recognized directly in other comprehensive income without affecting the operating result (other reserves).

#### **“CoPerBo” Corporate Performance Bonus for employees of BRAIN AG**

In the 2015/16 financial year, a performance-based compensation scheme was set up for BRAIN AG employees. This scheme was continued in the financial year under review, and 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-to-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 EBITDA 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 financial year. The bonus payments for the financial year elapsed are always scheduled to occur in the January of the subsequent year, as the audited segment information is available on that date. The payout range is fixed at between 0 and 30% of the basic salary paid to an employee. Only 10 percentage points may result from each factor. For the current financial year, the Management Board has decided to set a minimum bonus of 6.5% based on the joint successes achieved in expanding the BRAIN Group. This minimum bonus has no effect on the CoPerBo in the coming years.

A liability was formed as of 30 September 2018 for the bonuses to be paid. Segment information from this set of financial statements was utilized to calculate the level of the obligation. The provision's effect on EBIT was taken into account through applying an iterative calculation.

A liability of € 322 thousand was formed as of 30 September 2018. The periodic expense for the 2017/18 financial year under review also amounts to € 322 thousand.



### Share-based payment and other long-term employee benefits

In the 2017/18 financial year, the following share-based employee compensation existed:

#### Employee Stock Ownership Program (ESOP)

On 8 June 2018 an Employee Stock Ownership Program (ESOP) came into force for the 2017/18 financial year to provide incentives for and to foster the long-term loyalty of executives of BRAIN AG. The Unit Heads and the two members of the Management Board of BRAIN AG participate in the program.

The stock option program is based on the AGM resolution to establish a stock option program on 8 July 2015 and to create Conditional Capital 2015/II.

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 corresponds to the average of the share price 10 trading days prior to the contractual grant date, which in this case falls on 8 June 2018. The exercise price of the options is set at € 20.67 per share. 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. A cap amount is also applied to the Management Board members' options, which limits the maximum value of the options for Management Board members.

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

	Options for Unit Heads	Options for Management Board members
<b>Outstanding as of 30.09.2017</b>	<b>0</b>	<b>0</b>
Granted in the financial year	63,000	100,000
Expired in the financial year	0	0
Forfeited in the financial year	0	40,000
Exercised in the financial year	0	0
<b>Outstanding as of 30.09.2018</b>	<b>63,000</b>	<b>60,000</b>
Exercisable as of 30.09.2018	0	0

The options are to be recognized in accordance with the provisions of IFRS 2 "Share-based Payment", and are to be classified as equity-settled share-based payment transactions.

The fair value of the options is generally measured once as of the grant date applying a Monte Carlo simulation and taking into consideration the conditions on which the subscription rights were granted. The grant date was 8 June 2018.

The following parameters were applied as of the measurement date:

Parameter	Options for Unit Heads	Options for Management Board members
Measurement date	08.06.2018	08.06.2018
Remaining term (in years)	8.0	8.0
Share price on the measurement date (€ )	21.20	21.20
Exercise price (€ )	20.67	20.67
Expected dividend yield (%)	0.0	0.0
Expected volatility (%)	49.6 %	49.6 %
Risk-free interest rate (%)	-0.3 %	-0.3 %
Model applied	Monte Carlo	Monte Carlo
Value cap per option (€) <sup>9</sup>	N/A	25.0
Fair value per option (€ )	8.2	5.1

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 from historical volatility about future trends. 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 2018. The risk-free interest rate is based on German government bond yields with congruent maturities. Due to the contractual structure, the management has made assumptions about expected exercise dates and payments. The basic assumption in the valuation was that the options would only be exercised by the beneficiaries at the first possible date when the options were exercisable, and the performance target had been achieved. 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, as no obligation of any kind exists for the company to deliver existing 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 recognized at BRAIN AG.

#### **Employee share scheme of AnalytiCon Discovery GmbH**

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 for 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 (recognized as financial liabilities) that derive from the shares' termination rights (non-controlling interests), they are recognized as personnel expenses distributed over the vesting period pursuant to IAS 19 and are added to other liabilities.

<sup>9</sup> Only for Management Board members' options

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

The unexercised stock options from the one-time Post IPO Framework Agreement for key personnel of BRAIN AG have not changed in the past financial year. As already announced, no new options have been issued and no further issues are planned. The allocation to expenses was already implemented in the 2016/17 financial year. Further information can be found in the annual report for the 2016/17 financial year.

### **Current and deferred taxes**

The expense for the period comprises of current and deferred taxes. Taxes are recognized in the income statement unless they relate to items that were recognized directly in equity or in other comprehensive income. In such cases, the taxes are also recognized directly in equity or in other comprehensive income.

The current tax expense is calculated applying 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. The Management Board regularly reviews tax returns, in particular with regard to matters for which differing interpretations are possible, and recognizes 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 recognized 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 recognized 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 recognized as expenses in the comprehensive income statement for the period in which they are incurred.

Assets from finance leases are capitalized 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 recognized as a liability in the same amount under liabilities. Each lease payment is divided into an interest and repayment portion. The net lease obligation is recognized 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 lease term. 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 of cash in hand, credit balances payable on demand, and term deposits with an original maturity of up to three months.

### **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 € 18,750 thousand (previous year: € 15,501 thousand) and fees from research and development partnerships, including a minimal amount of royalties, amounting to € 8,262 thousand (previous year: € 8,506 thousand). Furthermore, other revenue of € 39 thousand was also generated in the financial year under review (previous year: € 97 thousand).

Fees from research and development partnerships comprise of one-off fees, ongoing research and development fees, and performance-related fees from milestones and project success points.

### 2 Research and development grant revenue

R&D grant revenue amounting to € 2,000 thousand (previous year: € 2,310 thousand) consists of non-repayable 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 comprises of:

€ thousand	2017/18	2016/17
Income from release of liabilities and provisions	334	73
Income from translating foreign currency items	204	201
Benefits in kind and rental income	139	143
Other out-of-period income	26	12
Miscellaneous other operating income	418	232
<b>Total</b>	<b>1,122</b>	<b>660</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 € 41 thousand (previous year: € 2,252 thousand) from the allocation to the capital reserves of share-based employee compensation and € 191 thousand from the pro rata allocation to liabilities from the employee share scheme of AnalytiCon (previous year: € 625 thousand).

These include € 365 thousand (previous year: € 287 thousand) of expenses for pensions (occupational pension scheme, life insurance and pension insurance association contributions).

The employer's contributions to statutory pension insurance in the financial year under review amounted to € 950 thousand (previous year: € 803 thousand).

Post-employment benefit costs of approximately € 376 thousand and employer contributions to the statutory pension insurance scheme (defined contribution benefit pension plan) of approximately € 966 thousand are expected in the 2018/19 financial year.

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, comprise of the following:

€ thousand	2017/18	2016/17
Service cost	210	213
Interest cost	34	26
Notional return on plan assets	-7	-7
<b>Expenses recognized in the operating result</b>	<b>238</b>	<b>233</b>
Remeasurement effects	35	-241
Deferred tax	-8	357
Net effect: other comprehensive income	27	116
<b>Total</b>	<b>265</b>	<b>349</b>

Expenses of € 25 thousand (previous year: € 38 thousand) are also recognized 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 of an old-age pension from the age of 65 as well as surviving dependents' 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	2017/18	2016/17
<b>Value on 1 October</b>	<b>2,731</b>	<b>2,734</b>
Interest cost	34	26
Service cost	210	213
Pension payments	0	0
Remeasurement due to changes to demographic assumptions	0	0
Actuarial gains (-) and losses (+) from changes in financial assumptions	33	-247
Remeasurement due to experience-based adjustments	2	5
<b>Value on 30 September</b>	<b>3,010</b>	<b>2,731</b>

The obligation was covered by reinsurance. Plan assets report the following changes:

€ thousand	2017/18	2016/17
<b>Value on 1 October</b>	<b>1,451</b>	<b>1,289</b>
Notional return on plan assets	7	7
Contributions paid	158	156
Pension payments	0	0
Remeasurement effects	-1	-1
<b>Value on 30 September</b>	<b>1,615</b>	<b>1,451</b>

The plan assets arise exclusively from claims from reinsurance in the form of life insurance policies. To this extent, the fair value cannot be derived from a price in an active market and is consequently calculated and communicated by the insurer.

After offsetting the obligation with the assigned plan assets, the amounts recognized on the balance sheet are as follows:

€ thousand	30.09.2018	30.09.2017
Defined benefit obligation	3,010	2,731
Plan assets	-1,615	-1,451
<b>Provision for pension schemes</b>	<b>1,395</b>	<b>1,280</b>

€ thousand	2017/18	2016/17
Value on 1 October	1,280	1,445
Net interest costs	27	19
Service cost	210	213
Pension payments	0	0
Contributions paid	-158	-156
Remeasurement effects	35	-241
<b>Value on 30 September</b>	<b>1,395</b>	<b>1,280</b>

In relation to pension obligations hedged through corresponding reinsurance, the “Richttafeln 2005G, Heubeck-Richttafeln GmbH, Köln 2005” mortality tables were utilized to measure the pension obligation as of 30 September 2018, as in the previous year.<sup>10</sup>

With the measurement of the obligations from the supplementary agreements, an actuarial interest rate of 1.97 % (previous year: 2.09 %) 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 22.74 years (previous year: 23.54 years).

The significant assumptions applied in the valuation show the following sensitivities:

€ thousand	30.09.2018	30.09.2017
Change in interest rates +0.25 %	-75	-71
Change in interest rates -0.25 %	81	76
Life expectancy +1 year	34	31
Life expectancy -1 year	-35	-31
Increase in staff turnover rate to 100 %	465	489

The expected contributions to plan assets in financial year 2018/19 amount to € 156 thousand. No pension payments are expected for the 2018/19 financial year.

## 6 Depreciation, amortization and impairment

Depreciation, amortization and impairment charges are presented in the statements of changes in intangible assets and property, plant and equipment in the notes to the balance sheet. Such charges include € 184 thousand of goodwill impairment losses for a cash-generating unit (previous year: € 146 thousand).

## 7 Other expenses

Other expenses comprise of the following:

€ thousand	2017/18	2016/17
Legal and consulting expenses	1,563	1,129
Occupancy costs	1,077	1,050
Advertising and travel expenses	1,028	960
Distribution, sales and logistics expenses	900	675
Repair and maintenance expenses	385	338
Office and business supplies	356	280
Services	347	383
Costs of financial statements and auditing	294	467
Loss on receivables	299	1
Insurance	260	213
Supervisory Board compensation	200	184
Currency translation expenses	58	277
Miscellaneous other expenses	1,416	930
<b>Other expenses, total</b>	<b>8,182</b>	<b>6,887</b>

<sup>10</sup> As of the time when these financial statements were prepared, the new 2018 mortality tables had not yet been approved. As of the date when the financial statements were approved, these new tables had been approved, but the 2005 tables continued to be utilised. The expense, the DBO, the difference, and consequently also the provision, would be higher by a mid five-digit amount if the new actuarial tables had been applied.



## 8 Finance income

Finance income comprises of the following:

€ thousand	2017/18	2016/17
Income from subsequent measurement of financial liabilities	1,633	280
Interest income from loans to equity-accounted investments	6	6
Miscellaneous finance income	22	5
<b>Finance income, total</b>	<b>1,662</b>	<b>291</b>

## 9 Finance costs

Finance costs comprise of the following:

€ thousand	2017/18	2016/17
Payments for silent partnerships	184	138
Payments for loans	149	134
Expenses from the subsequent measurement of financial liabilities for the acquisition of non-controlling interests	38	0
Interest costs for finance leases	15	9
Factoring fees	0	31
Miscellaneous finance costs	1	1
<b>Finance costs, total</b>	<b>387</b>	<b>313</b>

## 10 Current and deferred taxes

Deferred taxes are measured using the tax rates expected to apply in the period when the asset is realized, 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 combined tax rate are shown below:

Trade tax rate	2017/18	2016/17
BRAIN AG	13.30 %	13.30 %
BRAIN Capital GmbH	13.30 %	13.30 %
AnalytiCon Discovery GmbH	15.93 %	15.93 %
Mekon Science Networks GmbH	11.55 %	11.55 %
Monteil Cosmetics International GmbH	15.40 %	15.40 %
L. A. Schmitt GmbH	11.20 %	11.20 %
WeissBioTech GmbH	15.02 %	15.02 %

Combined tax rate	2017/18	2016/17
BRAIN AG	29.13 %	29.13 %
BRAIN Capital GmbH	29.13 %	29.13 %
BRAIN US LLC	23.90 %	N/A
AnalytiCon Discovery GmbH	31.75 %	31.75 %
AnalytiCon Discovery LLC	23.90 %	23.90 %
Mekon Science Networks GmbH	27.63 %	27.63 %
Monteil Cosmetics International GmbH	31.23 %	31.23 %
L. A. Schmitt GmbH	27.03 %	27.03 %
Biocatalysts Ltd.	19.00 %	N/A
Biocatalysts Inc.	21.00 %	N/A
WeissBioTech GmbH	30.84 %	30.84 %
WeissBioTech France S.A.R.L.	33.33 %	33.33 %

Of the tax assets of € 57 thousand (previous year: € 1 thousand), € 47 thousand (previous year: € 1 thousand) relate to corporation tax and the solidarity surcharge and € 10 thousand (previous year: € 0 thousand) relate to trade tax. Of the tax liabilities of € 618 thousand (previous year: € 580 thousand), € 0 thousand (previous year: € 283 thousand) relate to corporation tax and the solidarity surcharge and € 618 thousand (previous year: € 297 thousand) relate to trade tax.

Deferred tax assets and liabilities and their changes in the financial year are as follows:

€ thousand	30.09.2018		30.09.2017	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	0	2,709	0	1,007
Tax loss carryforwards/carrybacks	24	0	10	0
Property, plant, and equipment	47	336	45	166
Inventories	0	10	0	37
Trade receivables	0	73	0	73
Pension commitments	59	0	66	0
Provisions and liabilities	19	4	21	4
Deferred income	95	0	0	0
<b>Total</b>	<b>245</b>	<b>3,132</b>	<b>143</b>	<b>1,287</b>
<b>Offset</b>	<b>-245</b>	<b>-245</b>	<b>-143</b>	<b>-143</b>
<b>Total</b>	<b>0</b>	<b>2,887</b>	<b>0</b>	<b>1,144</b>

€ thousand		2017/18
Net deferred tax liabilities at start of financial year (1 October 2017)		1,144
Additions to deferred tax assets/liabilities due to changes in the scope of consolidation		2,167
Change in deferred taxes due to exchange rate differences		-18
Change in deferred taxes from profit/loss from revaluing obligations from post-employment employee benefits		-8
Change in temporary differences between carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base (recognized in profit or loss)	384	
Deferred tax expense from the use, and due to amortization, of tax loss carryforwards	-10	
Deferred tax income from capitalizing tax loss carryforwards and tax carrybacks	24	
Deferred tax income reported in the statement of comprehensive income	398	-398
<b>Net deferred tax liabilities at end of financial year (30 September 2018)</b>		<b>2,887</b>

The differences between the expected income tax income based on the IFRS loss before taxes for the period and combined 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	2017/18	2016/17
Consolidated net profit/loss for the period before taxes	-8,495	-9,398
Expected tax income	-2,474	-2,737
Different tax rates applicable to consolidated subsidiaries	0	5
Effects of changes in tax rates	0	3
Permanent differences from consolidation adjustments	159	202
Permanent differences from subsequent measurement of financial assets and liabilities	-354	-23
Permanent differences from equity-settled share-based compensation	12	656
Non-deductible expenses/add-backs	44	38
Utilization of previous years' tax loss carryforwards	10	3
Non-capitalized tax loss carryforwards	2,385	2,136
Other permanent differences	-1	0
Out-of-period taxes and other differences	0	-9
<b>Reported current or deferred income tax income (-) / expense (+)</b>	<b>-219</b>	<b>273</b>

The following table shows the maturity of the deferred taxes recognized at the end of the reporting period. Deferred taxes are classified as current if the entity expects to realize the asset or settle the liability within twelve months after the reporting period.

€ thousand	2017/18	2016/17
Current deferred tax assets	46	28
Non-current deferred tax assets	199	115
Current deferred tax liabilities	445	291
Non-current deferred tax liabilities	2,687	996
Net current deferred tax assets	-399	-263
Net non-current deferred tax assets	-2,488	-881

Based on the detailed planning horizon of three financial years modelled in the consolidated entities' tax projections, no deferred tax assets were recognized for tax loss carryforwards with an (in principle) unlimited carryforward period resulting from financial year 2017/18 and prior financial years amounting to € 49,556 thousand (corporation tax; previous year: € 41,564 thousand) and € 49,560 thousand (trade tax; previous year: € 41,527 thousand). The potential tax benefits that have consequently not been recognized amount to € 14,501 thousand (prior year: € 12,160 thousand). Capitalization occurs insofar as temporary difference assets exceed existing tax-effective temporary difference liabilities for the detailed planning horizon (€ 24 thousand), and by way of a tax loss carryback of (€ 35 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 based on the loss for the period of € -8,052,553 as reported in the consolidated income statement (previous year: € -9,606,712).

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 2017/18 amounted to 18,055,782 no-par value shares (previous year: 16,486,301 no-par value shares).

No dilutive effects arise at present.

## 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 2017/18</b>			
Net carrying amount at start of financial year	2,671	4,416	7,087
Change in the scope of consolidation	3,913	9,935	13,848
Additions	0	102	102
Disposals	0	-518	-518
Amortization – additions	184	1,659	1,844
Amortization – disposals	0	-516	-516
Currency adjustments	-35	-82	-117
<b>Net carrying amount at end of financial year 30.09.2018</b>	<b>6,365</b>	<b>12,711</b>	<b>19,075</b>
Cost	6,703	16,221	22,923
Cumulative amortization	338	3,510	3,848
<b>Net carrying amount</b>	<b>6,365</b>	<b>12,711</b>	<b>19,075</b>
<b>FY 2016/17</b>			
Net carrying amount at start of financial year	2,818	4,930	7,747
Additions	0	152	152
Disposals	0	-87	-87
Amortization – additions	146	666	812
<b>Net carrying amount at end of financial year 30.09.2017</b>	<b>2,671</b>	<b>4,416</b>	<b>7,087</b>
Cost	2,825	6,786	9,611
Cumulative amortization	154	2,370	2,524
<b>Net carrying amount</b>	<b>2,671</b>	<b>4,416</b>	<b>7,087</b>

The goodwill reported as of 30 September 2018 arises from the acquisition of Monteil Cosmetics 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, the acquisition of the WeissBioTech Group in the 2014/15 financial year and the acquisition of the Biocatalysts Group (Biocatalysts Ltd., Biocatalysts Inc.). The addition of amortization arises from the amortization of the goodwill of Monteil Cosmetics International GmbH in the 2017/18 financial year. Further information is presented in the section "Impairment tests".

The intangible assets that are material to the consolidated financial statements comprise of the intangible assets identified as part of the purchase price allocation, as shown in the following table.

€ thousand	30.09.2018	30.09.2017	Remaining useful life <sup>11</sup> as at 30.09.2018
Technology of AnalytiCon Discovery GmbH	1,272	1,514	5
Technology of WeissBioTech GmbH	1,341	1,605	5
Technology of Biocatalysts Ltd.	4,375	N/A	12
Customer relationships of the Biocatalysts Group	4,518	N/A	11

In accordance with the accounting policies presented above, no development costs were capitalized in the 2017/18 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 € 7,577 thousand (previous year: € 8,068 thousand) are reported in the statement of comprehensive income mainly under the items “personnel expenses”, “cost of materials” and “other expenses”, as well as in amortization charges.

### 13 Property, plant, and equipment

Investments in property, plant and equipment in the financial year 2017/18 were attributable primarily to the technical expansion of 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 2017/18</b>			
Net carrying amount at start of financial year	4,294	3,296	7,590
Change in the scope of consolidation	1,483	2,674	4,157
Additions	732	784	1,516
Reclassifications / transfers	553	-553	0
Disposals	0	-196	-196
Depreciation – additions	219	949	1,168
Depreciation – disposals	0	-184	-184
Currency adjustments	-22	-19	-41
<b>Net carrying amount at end of financial year 30.09.2018</b>	<b>6,821</b>	<b>5,221</b>	<b>12,042</b>
Cost	9,268	10,692	19,960
Cumulative depreciation	2,447	5,471	7,918
<b>Net carrying amount</b>	<b>6,821</b>	<b>5,221</b>	<b>12,042</b>

<sup>11</sup> Remaining useful life in years

€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment
<b>FY 2016/17</b>			
Net carrying amount at start of financial year	4,488	2,607	7,095
Additions	0	1,382	1,382
Reclassifications / transfers	11	-11	0
Disposals	0	-177	-177
Depreciation – additions	198	678	876
Depreciation – disposals	0	-167	-167
<b>Net carrying amount at end of financial year 30.09.2017</b>	<b>4,294</b>	<b>3,296</b>	<b>7,590</b>
Cost	6,522	8,003	14,525
Cumulative depreciation	2,228	4,707	6,935
<b>Net carrying amount</b>	<b>4,294</b>	<b>3,296</b>	<b>7,590</b>

The net carrying amount of operating and office equipment includes € 694 thousand of assets acquired through finance leasing (previous year: € 596 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 Section 21 "Financial liabilities".

#### 14 Equity-accounted investments

##### Enzymicals AG

The carrying amount of the interest in the associated company Enzymicals AG<sup>12</sup> reports the following changes:

€ thousand	
Carrying amount at 30 September 2016	168
Share of profit or loss after taxes in 2016/17	-2
Carrying amount at 30.09.2017	166
Share of profit or loss after taxes in 2017/18	18
<b>Carrying amount at 30.09.2018</b>	<b>184</b>

The interest held by BRAIN AG continued to amount to 24.095 % in the 2017/18 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 recognized in the financial year under review (previous year: € 0 thousand).

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 based on 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>12</sup> financial year = calendar year; the difference arises from the historical difference between the financial year of BRAIN AG and the calendar year

€ thousand	2017/18	2016/17
Revenue	1,322	915
Total comprehensive income or loss	73	-11
Share of profit or loss after taxes	18	-2

€ thousand	30.09.2018	30.09.2017
Non-current assets	341	237
Current assets	326	241
Non-current liabilities	33	33
Current liabilities	561	445
Equity	73	0
Interest in equity	18	0

The difference between the recognized valuation of the participating interest and the proportional equity attributable to BRAIN AG of € 166 thousand reflects goodwill.

#### SolasCure Ltd.

The carrying amount of the interest in the associated company SolasCure Ltd., Cardiff, UK, reports the following changes:

€ thousand	
Carrying amount at 30.09.2017	0
Addition of participating interest	4,479
Share of profit or loss after taxes in 2017/18	-94
Elimination of unrealized results of intra-group transactions	-2,585
<b>Carrying amount at 30.09.2018</b>	<b>1,800</b>

In the 2017/18 financial year, the interest held by BRAIN AG amounted to 66.67 %, with a 46.67 % voting rights interest. No publicly listed market prices are available for the shares of SolasCure Ltd. This participating interest is allocated to the BioScience segment. No losses were recognized in the financial year under review (previous year: € 0 thousand).

The following tables show the aggregated results and balance sheet data of SolasCure Ltd., and the amounts of profit or loss for the period and equity attributable to BRAIN AG in line with its interest (66.67 %). The disclosures reflect the financial statements of SolasCure Ltd. prepared in accordance with IFRS as adopted by the European Union.



€ thousand	21.08.2018 – 30.09.2018	2016/17
Revenue	0	0
Total comprehensive income or loss	-141	0
Share of profit or loss after taxes	-94	0

€ thousand	30.09.2018	30.09.2017
Non-current assets	3,930	0
Current assets	2,325	0
Non-current liabilities	0	0
Current liabilities	58	0
Equity	6,197	0
Interest in equity	4,131	0

Of the difference between the amount recognized for the participating interest and the proportionate equity attributable to BRAIN AG, an amount of € 2,585 thousand is attributable to the elimination of intragroup profits and losses and an amount of € 254 thousand is attributable to goodwill.

## 15 Inventories

Inventories comprise of the following:

€ thousand	30.09.2018	30.09.2017
Finished goods	4,740	3,725
Raw materials, consumables and supplies	2,288	2,545
Work in progress	1,005	919
Prepayments on inventories	5	54
<b>Total</b>	<b>8,037</b>	<b>7,244</b>

Decreases in inventory of € 257 thousand were recognized in relation to raw materials, consumables and supplies (previous year: increases in inventory of € 211 thousand).

Inventories included impairment losses on raw materials and supplies of € 51 thousand (prior year: € 0 thousand), and work in progress and finished goods of € 141 thousand (prior year: € 0 thousand). Reversals of impairment losses of € 0 thousand were recorded (previous year: € 8 thousand).

## 16 Trade receivables

Trade receivables comprise of the following:

€ thousand	30.09.2018	30.09.2017
Trade receivables	5,485	3,954
Receivables from research and development grant revenue	716	2,268
Receivables from contingent premium payments	250	250
<b>Total</b>	<b>6,451</b>	<b>6,472</b>

The presented carrying amounts of receivables correspond to the fair values.

Trade receivables have a maturity of up to one year. Specific valuation allowances of € 103 thousand (previous year: € 47 thousand) and general valuation allowances of € 39 thousand (previous year: € 38 thousand) were recognized for receivables as of the 30 September 2018 reporting date. These are recorded in a separate allowance account. General valuation allowances are recognized to reflect the risk of unexpected financial difficulties of 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		
			30.09.2018	6,594	5,482	602		
30.09.2017	6,556	5,491	527	226	47	266	85	6,472

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 "Financial instruments/risks from financial instruments". The overdue receivables of € 1,112 thousand (previous year: € 1,065 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. As of the balance sheet date, trade receivables with an original carrying amount of € 242 thousand (previous year: € 65 thousand) were written down in an amount of € 103 thousand (previous year: € 47 thousand). The impairment losses were calculated based on the age and creditworthiness of the receivable.

The following table shows the changes in impairment losses:

€ thousand	2017/18
Carrying amount at start of period	84
Net effect of addition and reversals	59
Carrying amount at end of period	143

€ thousand	2016/17
Carrying amount at start of period	52
Net effect of addition and reversals	32
Carrying amount at end of period	84

Trade receivables totalling € 299 thousand were derecognized through profit or loss in the 2017/18 financial year (previous year: € 1 thousand), having not already been expensed in previous years. No impairment losses were reversed in relation to impaired receivables.

**17 Other financial assets**

Financial assets comprise of the following:

€ thousand	30.09.2018	30.09.2017
Loans extended up to one year	153	209
Miscellaneous other financial assets	54	13
Deposits with a term up to one year	53	73
Cash in transit	41	0
<b>Total</b>	<b>301</b>	<b>295</b>

**18 Other non-current and current assets**

Other non-current assets comprise of the following:

€ thousand	30.09.2018	30.09.2017
Expenses deferred for a period of more than one year	251	70
Loans extended	80	16
Deposits	16	17
<b>Total</b>	<b>347</b>	<b>103</b>

Other current assets comprise of the following:

€ thousand	30.09.2018	30.09.2017
Expenditures relating to the following year	344	251
VAT receivables due from the tax authorities	77	162
Miscellaneous other current assets	251	179
<b>Total</b>	<b>672</b>	<b>592</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 held mainly 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	2017/18	2016/17
<b>Expenses</b>		
Personnel expenses from share-based compensation and employee share schemes	231	2,977
Losses on receivables/change in value allowances for receivables	361	33
Administration costs for non-controlling interests	0	30
Net finance costs from subsequent measurement of financial liabilities	38	0
Impairment losses on inventories	192	0
Miscellaneous	20	34
<b>Total</b>	<b>842</b>	<b>3,074</b>
<b>Income</b>		
Net finance income from subsequent measurement of financial and other liabilities	1,632	280
Write-ups to inventories	0	8
Currency translation differences	65	0
Miscellaneous	6	90
<b>Total</b>	<b>1,703</b>	<b>378</b>
<b>Net cash expenses / income</b>	<b>-861</b>	<b>2,696</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 € 18,055,782 (previous year: € 18,055,782) and is divided into 18,055,782 ordinary shares (previous year: 18,055,782), 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.

### Authorized capital

The Authorized Capital of € 6,565,740 existing as of 30 September 2017 (Authorized Capital 2017/I) was cancelled by AGM resolution on 8 March 2018.

With a resolution of the AGM on 8 March 2018, authorized capital of € 9,027,891 was created (Authorized Capital 2018/I). Authorized Capital 2018/I was entered in the commercial register on 23 March 2018. The Management Board is authorized, with Supervisory Board assent, to increase the company's share capital once or on several occasions until 7 March 2023, albeit by up to a maximum of nominal € 9,027,891 through issuing up to 9,027,891 new

ordinary registered shares against cash and/or non-cash capital contributions, whereby shareholders' statutory subscription rights can be wholly or partially excluded. If the new shares are issued against cash capital contributions, shareholders' statutory subscription rights can be wholly or partially excluded if the new shares' issue price is not significantly less than the stock market price of the company's shares that are already listed on the date when the issue price is finally determined, and the total number of shares issued in this manner under exclusion of subscription rights does not exceed 10 % of the share capital.

Authorized capital of € 9,027,891 consequently existed on the 30 September 2018 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 based on the authorization 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 utilize 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 2018 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 utilize 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 2018 reporting date.

### **Stock options**

An AGM resolution dated 8 July 2015 authorized 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 is concerned, this authorization is valid for the Supervisory Board alone. A total of 163,000 stock options had been issued as of the balance sheet date of 30 September 2018. Furthermore, it had already been established by the reporting date that a further 40,000 stock options would expire as one Management Board member had announced that he would leave the company and that he would consequently violate non-exercise conditions within the fore-

seeable future. 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, as well as the expenses from granting stock options. For more information about share-based compensation, please refer to the remarks in Section "Share-based payment and other long-term employee benefits". The capital reserves reduced in the financial year elapsed mainly due to the put option agreement described in section "Expansion of the consolidation scope". Capital reserves as per German commercial law are published in the separate financial statements for BRAIN AG prepared according to German Commercial Code (HGB) accounting policies.

### Other reserves

Other reserves include the gains/losses from remeasuring obligations deriving from post-employment benefits for employees.

### Retained earnings

Retained earnings in the 2017/18 financial year reduced to a significant extent to reflect profit or loss attributable to shareholders of BRAIN AG.

The following table shows the non-controlling interests during the 2017/18 financial year:

€ thousand	Interest in net assets not held by BRAIN AG	Increase in interest in net assets not held by BRAIN AG	Attributable share of total comprehensive income	Carrying amount of interest at end of financial year
Monteil Cosmetics International GmbH	31.67 %	0	-124	58
Biocatalysts Ltd. <sup>13</sup>	34.45 %	4,970	-114	4,856
BRAIN UK Ltd.	27.69 %	0	-30	-30
<b>Total</b>		<b>4,970</b>	<b>-268</b>	<b>4,884</b>

The previous year's non-controlling interests are shown in the table below:

€ thousand	Interest in net assets not held by BRAIN AG	Increase in interest in net assets not held by BRAIN AG	Attributable share of total comprehensive income	Carrying amount of interest at end of financial year
Monteil Cosmetics International GmbH	31.67 %	0	-64	182
<b>Total</b>		<b>0</b>	<b>-64</b>	<b>182</b>

<sup>13</sup> including the subsidiary Biocatalysts Inc. and taking into consideration the amortization of disclosed hidden reserves

Plan assets report the following changes:

#### Monteil Cosmetics International GmbH

€ thousand	30.09.2018	30.09.2017
Value at start of financial year	182	246
Attributable share of profit or loss for the period	-124	-64
Value at end of financial year	58	182

No changes to the shares occurred in the 2017/18 financial year apart from the attribution of proportional net results for the year. The non-controlling interests receive no allocation of the results that are recognized directly in equity.

#### Biocatalysts Ltd.<sup>14</sup>

€ thousand	30.09.2018	30.09.2017
Value at start of financial year	0	0
Addition as part of the acquisition of the Biocatalysts Group	4,970	
Attributable share of profit or loss for the period	-70	0
Share of results recognized directly in equity (currency differences)	-44	0
Value at end of financial year	4,856	0

#### BRAIN UK Ltd.

€ thousand	30.09.2018	30.09.2017
Value at start of financial year	0	0
Attributable share of profit or loss for the period	-30	0
Value at end of financial year	-30	0

The following section presents summarized financial information for subsidiaries with non-controlling interests of significance to the Group.

	Monteil Cosmetics International GmbH	
Summarized balance sheet data € thousand	30.09.2018	30.09.2017
Non-current assets <sup>15</sup>	1,857	2,046
Current assets	1,498	1,680
Non-current liabilities	475	475
Current liabilities	1,577	699
<b>Net assets</b>	<b>1,303</b>	<b>2,552</b>

<sup>14</sup> including the subsidiary Biocatalysts Inc. and taking into consideration the amortization of disclosed hidden reserves

<sup>15</sup> including € 1,777 thousand (previous year: € 1,962 thousand) in proportionate goodwill from BRAIN's acquisition of the company

Summarized statement of comprehensive income € thousand	Monteil Cosmetics International GmbH	
	2017/18	2016/17
Revenue	2,630	2,612
Result before taxes	-392	-202
Result after taxes	-392	-202
Total comprehensive income or loss	-392	-202
Result attributable to non-controlling interests	-124	-64
Dividends paid to non-controlling interests	0	0

Summarized statement of cash flows € thousand	Monteil Cosmetics International GmbH	
	2017/18	2016/17
Gross cash flow	-223	-216
Cash flow from operating activities	-72	-321
Cash flow from investing activities	-28	-44
Cash flow from financing activities	51	249

BRAIN AG is not subject to any restrictions limiting its access to the subsidiaries' assets, to utilize such assets or to settle the subsidiaries' liabilities.

Summarized balance sheet data € thousand	BRAIN UK Ltd./Biocatalysts Ltd. <sup>16</sup>	
	30.09.2018	30.09.2017
Non-current assets	15,634	0
<i>of which proportionate goodwill from the acquisition by BRAIN</i>	3,878	0
<i>of which hidden reserves less deferred tax from the acquisition by BRAIN</i>	7,025	0
Current assets	6,439	0
Non-current liabilities	1,965	0
Current liabilities	2,158	0
<b>Net assets</b>	<b>17,950</b>	<b>0</b>

Summarized statement of comprehensive income € thousand	BRAIN UK Ltd./Biocatalysts Ltd. <sup>16</sup>	
	2017/18	2016/17
Revenue	6,563	0
Result before taxes	-278	0
Result after taxes	-223	0
<i>of which the result from the amortization of hidden reserves less deferred tax from the acquisition by BRAIN</i>	-756	0
Total comprehensive income or loss	-387	0
Result attributable to non-controlling interests	-144	0
Dividends paid to non-controlling interests	0	0

<sup>16</sup> including the Biocatalysts Inc. subsidiary. The financial data are presented on an aggregated basis as BRAIN UK Ltd. does not conduct any business activities of its own in addition to its function as an intermediate holding company.



Summarized statement of cash flows € thousand	BRAIN UK Ltd./Biocatalysts Ltd. <sup>17</sup>	
	2017/18	2016/17
Gross cash flow	749	0
Cash flow from operating activities	1,682	0
Cash flow from investing activities	-823	0
Cash flow from financing activities	-45	0

## 21 Financial liabilities

The financial liabilities comprise of the following:

€ thousand	30.09.2018	30.09.2017
Loans	6,474	2,810
Liabilities from put option rights for the acquisition of non-controlling interests	13,754	2,114
Severance claims from existing termination rights of non-controlling interests	2,411	2,423
Contributions by silent partners	4,500	1,500
Factoring liabilities	0	319
Finance lease liabilities	649	516
Other	8	12
<b>Total</b>	<b>27,795</b>	<b>9,694</b>

As of the 30 September 2018 reporting date, contributions by silent partners include a € 1,500 thousand (previous year: € 1,500 thousand) contribution by Hessen Kapital I, Wiesbaden and a € 3,000 thousand (previous year: € 0 thousand) contribution by Hessen Kapital II GmbH. 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. Of the contribution by Hessen Kapital II GmbH, 20% is repayable on 31 March 2026, a further 20% on 31 March 2027 and 60% on 31 March 2028.

The company pays fixed remuneration equivalent to nominal 7.0% p. a. (previous year: 9.00%) on the contribution of Hessen Kapital I GmbH and a profit participation equivalent to the ratio between the nominal level of the silent partnership 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.

The company pays fixed remuneration equivalent to nominal 6.0% p. a. (previous year: n/a) on the contribution of Hessen Kapital II GmbH and a profit participation equivalent to the ratio between the nominal level of the silent partnership and the nominal level of the equity of BRAIN AG, albeit to a maximum of 1.5% of the contribution and not more than 50% of the profit for the year.

BRAIN AG is entitled to call the silent partner contributions rendered by Hessen Kapital I GmbH and Hessen Kapital II GmbH before the agreed dates; due to the negative consequences this would have for the company (prepayment penalties), however effectively this option has no economic value for the company. The silent partnerships do not participate in any losses. No obligation exists to provide additional funding.

<sup>17</sup> including the Biocatalysts Inc. subsidiary. The financial data are presented on an aggregated basis as BRAIN UK Ltd. does not conduct any business activities of its own in addition to its function as an intermediate holding company.

Land charges exist with compulsory enforcement clauses on land owned by BRAIN AG with a notional value of € 2.5 million (previous year: € 3.5 million). All land charges serve to secure bank borrowings which amounted to € 2,833 thousand at the end of the reporting period (previous year: € 833 thousand). The land charges rank behind an unassigned land charge in favor of the owner amounting to € 500 thousand (previous year: € 500 thousand).

At the Biocatalysts Ltd. subsidiary, € 1,370 thousand of financial liabilities are secured by € 1,370 thousand of land charges on operating property.

In the case of the L.A. Schmitt GmbH subsidiary, the financial liabilities (€ 77 thousand as of 30 September 2018; € 118 thousand as of 30 September 2017) are secured by land charges on its business property amounting to € 400 thousand (previous year: € 400 thousand).

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 € 6,576 thousand (€ 4,004 thousand as of 30 September 2017).

The nominal interest rate on the fixed interest loans is 1.15 % (previous year 1.95 %) and 6.10 % (previous year 6.00 %) p.a. The Group has no significant variable interest liabilities.

The following table shows the nominal amounts due at the financial liabilities' terms:

30.09.2018 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners	0	600	3,900
Liabilities from put option rights for the acquisition of non-controlling interests	914	0	14,548
Finance leasing	158	464	27
Severance claims from existing termination rights of non-controlling interests	7	2,521	0
Loans	1,378	3,314	1,782
Other	0	8	0
<b>Total</b>	<b>2,457</b>	<b>6,907</b>	<b>20,256</b>

30.09.2017 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners	0	300	1,200
Liabilities from put option rights for the acquisition of non-controlling interests	0	2,218	0
Finance leasing	163	309	44
Factoring liabilities	319	0	0
Severance claims from existing termination rights of non-controlling interests	7	2,534	0
Loans	998	1,637	175
Other	4	0	8
<b>Total</b>	<b>1,490</b>	<b>6,998</b>	<b>1,427</b>

The contractually agreed due dates for principal and interest payments and for profit-related payments are shown in the following overview.

30.09.2018 € thousand	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29 ff.
Principal repayments	2,457	1,715	2,329	1,859	1,004	16,078	232	836	796	1,914	399
Interest payments	413	381	429	348	316	273	217	191	148	69	47
Profit-related payments	83	83	83	82	73	65	45	41	32	14	0
Total excluding profit-related payments	2,870	2,096	2,758	2,207	1,320	16,351	449	1,028	943	1,984	446
Total including profit-related payments	2,952	2,178	2,840	2,289	1,393	16,417	494	1,068	975	1,997	446

30.09.2017 € thousand	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28 ff.
Principal repayments	1,487	1,436	3,336	1,806	432	411	967	42	0	0	0
Interest payments	220	170	158	231	137	106	63	1	0	0	0
Profit-related payments	38	38	38	38	37	28	20	0	0	0	0
Total excluding profit-related payments	1,707	1,606	3,493	2,038	569	517	1,030	43	0	0	0
Total including profit-related payments	1,744	1,643	3,531	2,075	605	545	1,050	43	0	0	0

A debtor warrant has been agreed for one loan of the subsidiary AnalytiCon Discovery GmbH, which includes a payment to the lender in the event 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 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 recognized at a valuation of € 0 (previous year: € 0).

The following table shows the change in financial liabilities analyzed by cash and non-cash changes:

€ thousand	Loans	Liabilities for the acquisition of non-controlling interests	Non-controlling interests' compensation entitlements	Contributions by silent partners	Factoring liabilities	Finance lease liabilities	Other	Total
<b>Balance at 30.09.2017</b>	<b>2,810</b>	<b>2,114</b>	<b>2,423</b>	<b>1,500</b>	<b>319</b>	<b>516</b>	<b>12</b>	<b>9,694</b>
Cash inflow from financing activities	2,132	0	-7	3,000	-319	-143	-4	4,659
Subsequent measurement	0	-1,627	-5	0	0	0	0	-1,632
Change in the scope of consolidation	1,530	13,384	0	0	0	0	0	14,914
Currency translation	-13	-118	0	0	0	0	0	-131
Additions to finance leases	0	0	0	0	0	276	0	276
Other changes/offsetting	15	0	0	0	0	0	0	15
<b>Balance at 30.09.2018</b>	<b>6,474</b>	<b>13,754</b>	<b>2,411</b>	<b>4,500</b>	<b>0</b>	<b>649</b>	<b>8</b>	<b>27,795</b>

## 22 Other liabilities

Non-current other liabilities mainly comprise of the share of obligations arising from the employee share scheme at AnalytiCon Discovery GmbH (€ 1,355 thousand; previous year: € 1,827 thousand) with a remaining term of more than one year.

Current other liabilities comprise of the following:

€ thousand	2017/18	2016/17
Wage and salary liabilities	849	1,426
Current portion from obligations arising from employee share scheme at AnalytiCon Discovery GmbH	700	0
Accrued vacation pay	447	551
Wage and church tax, social security	307	348
Supervisory Board compensation	200	143
Special payments to subsidiaries' managements and employees	128	114
VAT	112	40
Customer bonuses	20	15
Miscellaneous other liabilities	255	68
<b>Total current other liabilities</b>	<b>3,017</b>	<b>2,705</b>

## 23 Deferred income

Deferred income consists of current deferred income of € 1,310 thousand (compared with € 507 thousand in the previous year) and non-current deferred income of € 1,353 thousand (compared with € 286 thousand in the previous year). Deferred income increased due to a license agreement concluded with SolasCure Ltd. in the amount of € 1,292 thousand and the acquisition of the Biocatalysts Group.

## 24 Provisions

This item relates mainly to estimated expenses for the preparation auditing of the financial statements and consulting expenses. Utilization is anticipated mainly within the following financial year.

The following table provides an overview of related changes:

€ thousand	30.09.2017	Utilization	Release	Additions from changes in the scope of consolidation	Addition	Currency differences	30.09.2018
Archiving costs	29	0	0	0	1	0	30
Costs for financial statements, auditing and consulting	311	-302	-9	0	299	0	299
Decommissioning and dismantling	56	0	0	0	4	0	60
Other	21	-20	0	86	39	-1	124
<b>Total</b>	<b>417</b>	<b>-322</b>	<b>-9</b>	<b>86</b>	<b>343</b>	<b>-1</b>	<b>512</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 of up to one year.

## VI. Financial instruments/risks from financial instruments

The following overview presents recognized 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 “loans and receivables” 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 (amortized) cost

In the reporting period presented, no financial assets or liabilities existed in the “held for trading” (HfT) category.

No reclassifications of financial assets or liabilities occurred in the 2017/18 financial year or in the previous year.

Financial assets and liabilities are as follows on a summarized basis:

Category	Category	Carrying amount		Fair value		
€ thousand	IAS 39	30.09.18 (30.09.2017)	Amortized cost	Cost	Fair value through profit or loss	30.09.18 (30.09.17)
<b>Assets</b>						
Trade receivables	LaR	6,451 (6,472)	6,451 (6,472)			
Other current and non-current assets	LaR	252 (56)	252 (56)			252 (56)
Other financial assets	LaR	301 (295)	301 (295)			
Cash and cash equivalents	LaR	25,539 (38,954)	25,539 (38,954)			
<b>Total</b>		<b>32,543 (45,777)</b>	<b>32,543 (45,777)</b>			<b>252 (56)</b>
<b>Liabilities</b>						
Trade payables	OL	2,872 (2,433)	2,872 (2,433)			
Financial liabilities	OL	25,385 (7,271)	24,736 (6,755)	649 (516)		25,385 (7,271)
Other liabilities	OL	155 (81)	155 (81)			
<b>Total</b>		<b>28,412 (9,785)</b>	<b>27,763 (9,269)</b>	<b>649 (516)</b>	<b>0 (0)</b>	<b>25,385 (7,327)</b>

Furthermore, available-for-sale financial assets in the form of an equity investment exists with a carrying amount of € 1 as of 30 September 2018 (previous year: € 1).

Intangible assets, property, plant, and equipment, tax assets (current, deferred and other), inventories, 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 terms remaining. As a result, their carrying amounts at the end of the reporting period approximate their fair values. Non-current financial assets comprise of deposits and loans extended whose rates of interest mainly correspond 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 amortized 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 fair values mainly correspond to the carrying amounts due to refinancing measures during the course of the year at market interest rates. The terms are presented in detail in Section 21 "Financial liabilities".

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 (LVTPL) at the end of the reporting period amounted to € 0 thousand (previous year: € 0 thousand). This relates to 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%. 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: € 0 thousand).



The contractual undiscounted cash outflows of financial liabilities within the scope of IFRS 7 are shown in the following table:

30.09.2018 € thousand	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29 ff.
Silent partnerships (without profit-sharing)	285	285	285	580	559	1,127	180	762	726	1,854	0
Liabilities to lenders	1,490	811	1,499	682	670	649	269	266	217	130	446
Finance lease liabilities	174	157	135	106	92	27	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	914	0	0	0	0	14,548	0	0	0	0	0
Other liabilities	155	0	0	0	0	0	0	0	0	0	0
Trade payables	2,872	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>5,890</b>	<b>1,252</b>	<b>1,919</b>	<b>1,368</b>	<b>1,320</b>	<b>16,351</b>	<b>449</b>	<b>1,028</b>	<b>943</b>	<b>1,984</b>	<b>446</b>
30.09.2017 € thousand	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28 ff.
Silent partnerships (without profit-sharing)	135	135	135	135	428	401	961	0	0	0	0
Liabilities to lenders	1,066	517	204	987	73	71	69	43	0	0	0
Finance lease liabilities	176	105	91	75	59	45	0	0	0	0	0
Liabilities from factoring	319	0	0	0	0	0	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	0	0	2,218	0	0	0	0	0	0	0	0
Other liabilities	81	0	0	0	0	0	0	0	0	0	0
Trade payables	2,433	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>4,210</b>	<b>758</b>	<b>2,648</b>	<b>1,197</b>	<b>561</b>	<b>517</b>	<b>1,030</b>	<b>43</b>	<b>0</b>	<b>0</b>	<b>0</b>

The following table shows the net gains or losses on financial instruments by measurement category:

€ thousand 2017/18 (2016/17)	From interest and dividends	From subsequent fair value measurement/ impairment	From currency translation	From disposals	Net gains/losses
Loans and receivables	28 (9)	-92 (-32)	0 (0)	-269 (-1)	-333 (-24)
Financial liabilities measured at (amortized) cost	-333 (-272)	0 (25)	13 (0)	0 (0)	-320 (-247)
Finance leasing	-15 (-9)	0 (0)	0 (0)	0 (0)	-15 (-9)
Financial liabilities measured at fair value through profit or loss	0 (0)	1,627 (0)	118 (0)	0 (0)	1,745 (0)
<b>Total</b>	<b>-320</b> <b>(-272)</b>	<b>-1,535</b> <b>(-7)</b>	<b>131</b> <b>(0)</b>	<b>-269</b> <b>(-1)</b>	<b>1,077</b> <b>(-280)</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 € 348 thousand (previous year: € 281 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 Management Board has implemented a risk management system to identify and avoid risks. This system is based inter alia 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 Group deploys, the objective of the risk management function at BRAIN is to minimize the risk exposure arising 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 mainly invested with domestic financial institutions that are members of a deposit protection fund.

The financial instruments that are recognized on the balance sheet can as a matter of principle generate the following risks for the Group:

#### 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 of both counterparty 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 many 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 deposit protection fund.

#### **Currency risk**

In addition, BRAIN is exposed to foreign currency risks. Income of € 204 thousand from currency differences (previous year: € 201 thousand) is offset by € 58 thousand of expenses from currency differences (previous year: € 277 thousand), so the resulting effects in both the 2017/18 and 2016/17 financial years largely offset each other, with only a small net gain remaining. No hedging measures are considered as foreign currency positions are generally of minor significance within the BRAIN Group. Apart from the risks set out in the section entitled "Valuation risks connected with foreign currency put option agreements", an IFRS 7 sensitivity analysis is not relevant for the financial statements due to the related subordinate importance.

#### **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 Management Board 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 BRAIN cannot benefit from any potentially lower lending rates that may be obtained during the terms of the deposits and loans.

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.

The Group 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%).

Further interest rate risks are detailed in the section "Valuation risks connected with foreign currency put option agreements".

### 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 short-term financing requirements. The company consequently sets a minimum 50 % target equity ratio. This was exceeded due to the IPO and supported by the capital increase in September 2017. The equity ratio amounted to 41% as of 30 September 2018 (previous year: 69%), and consequently below the target figure. 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 utilized 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).

### Market risk

The available-for-sale financial assets are exposed to the risk of changes in value. 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 Group management report of BRAIN AG.

### Valuation risks connected with foreign currency put option agreements

Due to a put option agreement with non-controlling interests in a newly acquired subsidiary in the UK, various valuation risks arise which are presented below. Significant inputs for inclusion in the Group include the relevant EBITDA included in the calculation, the relevant discounting rate as well as the relevant translation exchange rate for the translation into euros.

The actual obligation depends on the relevant EBITDA on the exercise date. Given a 10 % higher relevant EBITDA on the imputed exercise date of the put option rights, a € 1,316 thousand higher liability would arise as of 30 September 2018. Given a 10 % lower relevant EBITDA on the imputed exercise date of the put option rights, a € 1,316 thousand lower liability would arise as of 30 September 2018. Accordingly, the change was reported in profit or loss in the statement of comprehensive income.

Furthermore, the respective interest rate exerts a significant influence on the fair value recognized on the balance sheet. Given a one percentage point lower relevant interest rate on the imputed exercise date of the put option rights, a € 578 thousand higher liability would arise as of 30 September 2018. Given a one percentage point higher relevant interest rate on the imputed exercise date of the put option rights, a € 548 thousand lower liability would arise as of 30 September 2018. Accordingly, the change was reported in profit or loss in the statement of comprehensive income.

Furthermore, the respective exchange rate exerts a significant influence on the fair value recognized on the consolidated balance sheet. Given a 5 % stronger (weaker) pound sterling in relation to the euro, the liability would be € 643 thousand higher (lower). Accordingly, the change was carried directly to equity under other comprehensive income.

## VII. Other information

### Auditor's fees

The fees paid to or accrued for the auditors of the BRAIN Group engaged for the financial year in question comprise of the following items:

€ thousand	2017/18	2016/17
Audit services	183	114
Other certification services	107	0
Tax advisory services	4	0
	<b>293</b>	<b>114</b>

### Related party disclosures

The Management Board and Supervisory Board of BRAIN AG comprise of the key management of the BRAIN Group.

The company's Management Board consisted of the following members in the financial year under review:

**Dr. Jürgen Eck**, Bensheim (Chairman), CEO  
Diploma Biologist

**Frank Goebel**, Kelkheim (Management Board member), CFO  
Diplom-Kaufmann

The Management Board members are entitled to represent the company either jointly or individually with a company officer. If only one Management Board Member has been appointed, this Management Board member is entitled to represent the company alone.

Management Board compensation in the year under review amounted to:

€ thousand	2017/18	2016/17
Fixed compensation	450	554
Cost of pensions and surviving dependents' and disability benefits arising from defined contribution commitments	27	38
Cost of pensions and surviving dependents' and disability benefits arising from defined benefit commitments <sup>18</sup>	93	103
Performance-related remuneration <sup>19,20</sup>	37	110
Termination benefits	0	205
Share-based compensation	15	680
	<b>621</b>	<b>1,690</b>

Pension provisions of € 1,038 thousand (previous year: € 979 thousand) have been created for former Management Board members. The service cost recognized for this purpose amounts to € 92 thousand (previous year: € 90 thousand).

<sup>18</sup> Stated amount includes only service costs. (See also section (5) Personnel expenses)

<sup>19</sup> Short-term employee benefits

<sup>20</sup> The performance-related remuneration was reduced in the financial year by the release of the provision for unpaid remuneration in the amount of € 73 thousand.

The Management Board members are members of the following supervisory boards or comparable supervisory bodies:

**Dr. Jürgen Eck**, Bensheim (Chairman), CEO  
Supervisory Board member, Enzymicals AG, Greifswald  
BRAIN US LLC, Rockville MD, USA (Director)  
BRAIN UK II Ltd., Cardiff, UK (Director)  
BRAIN UK Ltd., Cardiff, UK (Director)  
Biocatalysts Ltd., Cardiff, UK (Director)

**Frank Goebel**, Kelkheim (Management Board member), CFO  
BRAIN UK II Ltd., Cardiff, UK (Director)  
BRAIN UK Ltd., Cardiff, UK (Director)  
Biocatalysts Ltd., Cardiff, UK (Director)  
Solascure Ltd., Cardiff, UK (Director)

The Management Board directly holds 754,466 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 (Chair)  
Independent consultant

**Dr. Martin B. Jäger**, Enkenbach-Alsenborn, (Deputy Chair)  
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

**Dr. Anna C. Eichhorn**, Frankfurt am Main  
CEO, humatrix AG, Pfungstadt

**Dr. Georg Kellinghusen**, Munich  
Independent consultant

**Christian Koerfgen**, Bad Soden am Taunus  
"Leader Selection" Partner

**Prof. Dr. Klaus-Peter Koller**, Bad Soden am Taunus (until 8 March 2018)  
Independent management consultant

**Dr. Rainer Marquart**, Bensheim (from 8 March 2018)  
Consultant

The **Audit Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr. Georg Kellinghusen**, Munich (Chair)  
Independent consultant

**Dr. Martin B. Jager**, Enkenbach-Alsenborn  
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

**Dr. Ludger Müller**, Kaiserslautern  
Independent consultant

The **Personnel Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr. Ludger Müller**, Kaiserslautern (Chair)  
Independent consultant

**Dr. Martin B. Jager**, Enkenbach-Alsenborn  
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

**Christian Koerfgen**, Bad Soden am Taunus  
"Leader Selection" Partner

The **Nomination Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr. Ludger Müller**, Kaiserslautern (Chair)  
Independent consultant

**Dr. Anna C. Eichhorn**, Frankfurt am Main  
CEO, humatrix AG, Pfungstadt

**Prof. Dr. Klaus-Peter Koller**, Bad Soden am Taunus (until 8 March 2018)  
Independent management consultant

The **M&A Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr. Martin B. Jager**, Enkenbach-Alsenborn (Chair)  
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

**Dr. Georg Kellinghusen**, Munich  
Independent consultant

**Dr. Ludger Müller**, Kaiserslautern  
Independent consultant

**Dr. Rainer Marquart**, Bensheim  
Consultant

The **Innovation Committee** of the company's Supervisory Board included the following members in the financial year under review:

**Dr. Anna C. Eichhorn**, Frankfurt am Main (Chair)  
CEO, humatrix AG, Pfungstadt

**Dr. Martin B. Jager**, Enkenbach-Alsenborn  
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

**Prof. Dr. Klaus-Peter Koller**, Bad Soden am Taunus (until 8 March 2018)  
Independent management consultant

**Dr. Rainer Marquart**, Bensheim (from 8 March 2018)  
Consultant

The Supervisory Board members are members of the following supervisory boards or comparable supervisory bodies:

**Dr. Ludger Müller** (Chair)  
Technical University of Kaiserslautern (University Council Chairman)

**Dr. Martin B. Jager** (Deputy Chair)  
EIT Food iVZW, Belgium, Supervisory Board member

**Dr. Anna C. Eichhorn**  
Frankfurt Biotechnology Innovation Center, Frankfurt a. M. (Supervisory Board member)

**Dr. Georg Kellinghusen**  
Advyce GmbH, Munich, (Advisory Board member)  
Neue Wirtschaftsbriefer GmbH & Co., Herne (Advisory Board member)  
Deutsche Bank AG, Frankfurt a. M. (Regional Advisory Board member, Bavaria)



**Christian Koerfgen**, Bad Soden am Taunus  
Putsch GmbH & Co. KG, Kaiserslautern (Advisory Board member)

**Dr. Rainer Marquart**, Bensheim (from 8 March 2018)  
FLYTXT B.V., Nieuwegein, Netherlands, member of the Board of Directors  
Leverton GmbH, Berlin, Advisory Board Chairman  
Onefootball GmbH, Berlin, Advisory Board member  
The Ark Pte. Ltd., Singapore, member of the Board of Directors

The compensation of the Supervisory Board in the year under review was as follows:

€ thousand	2017/18	2016/17
Fixed compensation <sup>21</sup>	159	141
of which allowance for special functions	46	29
Attendance fees <sup>21</sup>	41	43
<b>Total compensation</b>	<b>200</b>	<b>184</b>

The Supervisory Board indirectly holds 13,581 shares in the company as of the reporting date.

Further information is presented in the compensation report in the Group management report.

### Other relationships with related parties

In the 2017/18 and 2016/17 financial years, the following supplies or purchases of goods and services occurred 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.

Enzymicals AG is an associate company pursuant to IAS 28.2 and is therefore categorized as a related party pursuant to IAS 24.9. As of the reporting date, BRAIN AG was owed € 104 thousand (previous year: € 104 thousand) of loan and interest receivables by Enzymicals AG. The interest income for this 6.0% loan amounted to € 6 thousand in the 2017/18 financial year (previous year: € 6 thousand). As far as the term is concerned, please refer to the following section "Contingent liabilities and other financial obligations".

SolasCure Ltd. is an associate company pursuant to IAS 28.2 and is therefore categorized as a related party pursuant to IAS 24.9. A license agreement was concluded with SolasCure Ltd. in the financial year under review as part of the investment, for which BRAIN AG was paid with shares in the company equivalent to an amount of € 3,919 thousand. These have been deferred and will be recognized as revenue until November 2021, as BRAIN AG will be closely involved in the approval process until then and will render further services. Unrealized results of intra-group transactions are eliminated in the consolidated financial statements as part of consolidation, resulting in the recognition in the current financial statements of an amount of € 1,292 thousand. In the 2017/18 financial year, other income € 232 thousand was generated through another connection and revenue of € 42 thousand in the context of the aforementioned transaction.

<sup>21</sup> Short-term employee benefits

No receivables were due from directors of BRAIN AG or individuals related to these directors as of 30 September 2018. As of the 30 September 2018 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: € 200 thousand (previous year: € 184 thousand);
- Payments to the Management Board: € 110 thousand (previous year: € 119 thousand);
- Deferrals for outstanding vacation (Management Board): € 67 thousand (previous year: € 38 thousand);

No other obligations exist in relation to the key management personnel of BRAIN AG.

### **Contingencies and other financial commitments**

As of the balance sheet date, contingent liabilities in an amount of € 267 thousand exist which are attributable to the acquisition of the Biocatalysts Group and put options agreed in this connection. In the event that the put options are exercised, BRAIN is obligated to make payments to a transaction adviser. When they are incurred, these expenses are classified as subsequent costs, and consequently as transaction costs to be adjusted. As of the balance sheet date, no further contingent liabilities existed relation to third parties.

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, and working attire rental services with a six-month contractual notice period as of the calendar year-end. In addition, land and buildings are leased at the company sites of AnalytiCon GmbH, WeissBioTech GmbH and Monteil Cosmetics International GmbH. The rental contracts have terms between 0.3 and 7.3 years. The minimum rent payments and lease payments have the following terms:

€ thousand	30.09.2018	30.09.2017
Remaining term of up to 1 year	314	332
Remaining term between 1 and 5 years	1,064	1,051
Remaining term of more than 5 years	593	1,108
	1,971	2,491

The total amount of rent and lease payments expensed in the financial year under review amounts to € 336 thousand (previous year: € 402 thousand).

As of the 30 September 2018 balance sheet date, obligations of € 49 thousand (previous year: € 33 thousand) exist from contracts entered into due to third-party work conducted in the research and development contract area.

As was the case at the end of the previous financial year, as of 30 September 2018 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 2019 that is not fully utilized, 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:

	2017/18	2016/17
<b>Total employees, of whom</b>	247	212
Salaried employees	230	199
Industrial employees	17	13

The BRAIN Group also employs grant recipients (6, previous year: 8), temporary help staff (11, previous year: 13), trainees (6, previous year: 6).

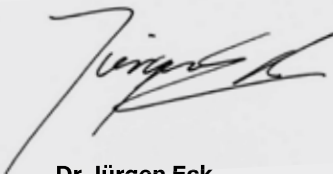
### **Statement of conformity to the German Corporate Governance Code**

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**

Since the 30 September 2018 reporting date, no significant events and developments of particular importance for the company's financial position and performance have occurred.

Zwingenberg, 13 December 2018



**Dr. Jürgen Eck**  
CEO



**Frank Goebel**  
CFO



**Manfred Bender**  
Management Board member

# Independent auditor's report

To B.R.A.I.N. Biotechnology Research and Information Network AG

## Report on the audit of the consolidated financial statements and of the Group management report

### Opinions

We have audited the consolidated financial statements of B.R.A.I.N. Biotechnology Research and Information Network AG, Zwingenberg, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 30 September 2018, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the fiscal year from 1 October 2017 to 30 September 2018, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have examined the Group management report of B.R.A.I.N. Biotechnology Research and Information Network AG for the fiscal year from 1 October 2017 to 30 September 2018. In accordance with the German legal requirements, we have not audited the content of the "Corporate governance statement of conformity pursuant to Section 289f and 315d of the German Commercial Code (HGB)" section included in the Group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets,

liabilities, and financial position of the Group as at 30 September 2018, and of its financial performance for the fiscal year from 1 October 2017 to 30 September 2018, and

- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of the corporate governance statement referred to above.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

### Basis for the opinions

We conducted our audit of the consolidated financial statements and examination of the Group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and the Group management report" section of our auditor's report. We are independent of the group businesses in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in

accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

### **Key audit matters in the audit of the consolidated financial statements**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from 1 October 2017 to 30 September 2018. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

Below, we describe what we consider to be the key audit matters:

#### **1. Recognition of business transactions in the fiscal year**

##### **Reasons why the matter was determined to be a key audit matter**

The acquisition of Biocatalysts Ltd., Cardiff, UK and its subsidiary as well as the equity investment in SolasCure Ltd., Cardiff, UK, had significant effects on the consolidated financial statements in the fiscal year. During our audit, we determined these business transactions to be key audit matters, as the executive directors were required to make assumptions based on judgment, particularly for the recognition and measurement of assets and liabilities. Determining the remaining useful lives of the assets and of the liabilities from put option rights identified in connection with the acquisition of non-controlling interests is also subject to considerable estimation uncertainty and had a significant impact on the consolidated financial statements.

##### **Auditor's response**

In regards to the acquisition of the Biocatalysts Group, we examined the processes for the complete recognition and measurement of the purchase price allocation. On the basis of the underlying agreements, we evaluated the acquirer, the acquisition date and the purchase price, as determined by

the executive directors and the external valuation experts, for compliance with the criteria defined in IFRS 3 "Business Combinations". With the help of our business valuation experts, we assessed the suitability of the valuation model and the calculation inputs used, and performed calculations to verify the purchase price allocation. In this context, we compared the valuation-based assumptions with externally available market data and internal planning data. We assessed the method and calculation used to determine the costs of capital used, appraise the benchmark companies involved in this assessment and carried out a comparison of the parameters used by the executive directors for the current development of interest and market risk premiums with externally available market data. The estimation of useful lives of acquired assets subject to wear and tear, as carried out by an external valuation expert, was discussed with the executive directors and verified with the help of our internal valuation experts based on their general and industry-specific experience.

We assessed the legal background of the equity investment in SolasCure Ltd. using the underlying agreements, in order to determine the potential influence that exists for the Group and the equity investment. In particular, we assessed whether the Group can only exercise significant influence over this equity investment, rather than having controlling influence, based on the legal and actual background as well as the discussions and statements of the executive directors. In addition, we verified the recognition and measurement of the equity investment in SolasCure Ltd. in terms of the requirements of IAS 28 "Investments in Associates". In particular, we compared the recognized acquisition cost with the underlying agreements and other supporting documents.

Our procedures did not lead to any reservations relating to the recognition of business transactions.

##### **Reference to related disclosures**

For the recognition of business transactions, we refer to the disclosures in the section of the notes to the consolidated financial statements on additions to the consolidation scope.

#### **2. Impairment testing of goodwill**

##### **Reasons why the matter was determined to be a key audit matter**

The goodwill impairment test performed annually by the Management Board is based on a valuation model that uses

the discounted cash flow method. Against the background of the complexity and judgment exercised during this valuation, the goodwill impairment test was a key audit matter. The goodwill impairment test is based on assumptions that are derived from corporate planning and influenced by the expected future market and economic conditions. The recoverable amount of goodwill is mainly dependent on the estimated future net cash flows in the business plan as well as the assumed discount and growth rate. Defining these parameters is the responsibility of the executive directors and is subject to judgment. There is a risk that amendments to these judgments entail significant changes to the impairment testing of goodwill.

#### Auditor's response

We assessed the suitability of the valuation process for identifying the potential need to recognize impairment losses. During our audit, we also evaluated the valuation model used to determine the recoverable amounts with the help of our valuation experts, especially in terms of its methodical applicability and clerical accuracy.

We tested the executive directors' forecasts regarding the estimated future net cash flows by comparing the plan adopted by the Management Board and approved by the Supervisory Board for consistency with information from the management accounts as well as the general and industry-specific market expectations. In addition, the plans were compared for consistency with other internal expectations, such as the forecast information provided in the management report. We also compared the plans drawn up in the prior periods with the actual results in order to analyse the accuracy of the forecasts.

We examined the calculation of the inputs used, especially the discount rate applied, for substantive and arithmetical accuracy by comparing them with external market expectations.

We also performed sensitivity analyses in order to assess the potential impact of changes in the inputs used on the recoverable amount.

In addition, we assessed the disclosures in the notes to the financial statements.

Our procedures did not lead to any reservations relating to the valuation of goodwill.

#### Reference to related disclosures

With regard to impairment testing of goodwill, we refer to the

disclosures in the section entitled "Impairment testing" of the notes to the consolidated financial statements.

#### Other information

The Supervisory Board is responsible for the Report from the Supervisory Board in chapter 1 of the Annual Report 2017/18. In all other respects, the executive directors are responsible for the other information.

The other information, of which we received a version prior to issuing this auditor's report, includes:

- the Report from the Supervisory Board in chapter 1 of the Annual Report 2017/18;
- the corporate governance report in chapter 3 of the Annual Report 2017/18;
- the responsibility statement of the executive directors in chapter 4 of the Annual Report 2017/18.

Our opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

#### Responsibilities of the executive directors and the supervisory board for the consolidated financial statements and the group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and the group management report.

#### **Auditor's responsibilities for the audit of the consolidated financial statements and of the group management report**

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der

Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements

present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's

report unless law or regulation precludes public disclosure about the matter.

### **Other legal and regulatory requirements**

#### **Further information pursuant to Art. 10 of the EU Audit Regulation**

We were elected as group auditor by the Annual General Meeting on 8 March 2018 and were engaged by the Supervisory Board on 3 September 2018 to audit the consolidated financial statements as at 30 September 2018. We have been the group auditor of B.R.A.I.N. Biotechnology Research and Information Network AG without interruption since fiscal year 2016/17.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

### **German Public Auditor responsible for the engagement**

The German public auditor responsible for the engagement is Helge-Thomas Grathwol.

Mannheim, 13 December 2018

Ernst & Young GmbH  
Wirtschaftsprüfungsgesellschaft

**Grathwol**  
Wirtschaftsprüfer  
[German Public Auditor]

**Hällmeyer**  
Wirtschaftsprüfer  
[German Public Auditor]



06

# Further information

---

# Glossary

## A

### **ANTI-BITTER**

New enzymatic active ingredient developed by BRAIN for the biotherapeutic treatment of open wounds

### **Aurase®**

New enzymatic active ingredient developed by BRAIN for the treatment of open wounds

## B

### **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 compounds**

Bioactive natural compounds are used to develop products for the food, beverages, skincare, cosmetics and chemical industries.

### **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**

Bioeconomy is a mega-trend that encompasses the transformation from industries based on fossil raw materials to a more sustainable form of economic activity that mainly uses biological resources and processes.

### **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 two operating segments (see also BioScience)

### **Biologization of industry**

Use of biological processes in an industrial setting with the aim of creating a more sustainable economy (see also bioeconomy)

### **BioScience**

Cooperation business set up with globally operating industrial partners; one of BRAIN's two operating segments (see also BioIndustrial)

### **Biotechnology**

Application-oriented sub-sector of biology that includes insights from and methods of microbiology, genetics and biochemistry as well as those of technical chemistry and process engineering

### **BioXtractor**

BRAIN demonstration plant for next-generation metal extraction in the fields of green and urban mining based on microorganisms

### **BMBF**

German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung)

### **BNN**

Ticker symbol for the share of BRAIN AG

### **Bulk enzymes markets**

Volume-driven mass markets for enzymes sold in large volumes. In addition, we have high-margin business with specialty enzymes.

### **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)

### **B2B market**

Business-to-Business: type of market where goods and services are delivered and rendered by businesses to businesses

## 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

### **CBO**

Chief Business Officer

### **CEO**

Chief Executive Officer

### **CFO**

Chief Financial Officer

### **Circular economy**

Concept for the complete recovery of raw materials used, beyond the life cycle of a commodity through to new production processes; component of the bioeconomy

### **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

### **DCGK (German Corporate-Governance Code)**

Main statutory regulations concerning corporate governance and internationally recognized standards of good and responsible corporate management

### **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.

### **Development pipeline**

Total number of BRAIN Group development projects for New Product Development

### **Development programs**

Advanced development projects of BRAIN'S New Product Development; e.g. DOLCE, FRESCO

### **Development projects**

R&D projects of the BRAIN Group for New Product Development

### **DNA**

Deoxyribonucleic acid: biomolecule that carries genetic information (genes)

### **DOLCE**

Strategic partnership initiated by BRAIN for the development of natural sweeteners and sweet taste enhancers

## E

### **EBIT**

Earnings before interest and tax

### **EBITDA**

Earnings before interest, tax, depreciation and amortization

### **Enzymes**

Effective catalysts for biochemical reactions

### **Equity capital**

Equity in relation to total assets; from an accounting perspective, the ratio of equity capital to the balance sheet total

### **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.

### **Freefloat**

Proportion of a company's shares that are available to trade freely on the market

### **FRESCO**

BRAIN development program for bio-based freshness and product stability

## 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**

Sustainable mining, e.g. ore treatment to extract gold, silver or copper using microorganisms instead of chemicals

## H

### **Habitat**

The natural environment of an organism

### **HGB**

German Commercial Code

### **High-performance microorganisms**

High-performance microorganisms: biotechnologically developed microbial cell factories

### **Horizon 2020**

EU Framework Program for Research and Innovation to support the Europe 2020 Strategy

### **HTC technology**

Human Taste Cell technology patented by BRAIN, based on immortalised human taste cell lines

## 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; drives innovation for a paradigm shift away from petroleum-based towards biological processes and bioeconomy products

### **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

### **Issuer**

Company offering or issued securities (e.g. shares as part of an IPO)

## L

### **Liabilities**

Non-current liabilities plus current liabilities

### **Listing prospectus**

also termed 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 capitalization**

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 all the microorganisms of a specific community

### **Microorganism**

Microscopically tiny unicellular creature

## N

### **NatLifE 2020**

Natural Life Excellence Network 2020: strategic innovation alliance initiated and cofinanced by the German Federal Ministry of Education and Research

(BMBF) and coordinated by BRAIN as part of its Industrial Biotechnology innovation initiative. The aim of NatLife 2020 is to research and develop natural bioactive ingredients for the food and cosmetics industries.

#### **New Product Development**

R&D activities that aim to develop product candidates for the BRAIN Group's own market offerings

#### **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

#### **PerillicActive**

BRAIN development program for natural active ingredients based on fermented oil from the peel of oranges or other citrus fruits; forerunner of FRESCO program

#### **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

#### **Product sales**

Sales of products in the form of merchandise, technologies or biotechnological system solutions; can be achieved via direct B2B business of the BRAIN Group or through joint product developments with industrial partners and corresponding licensing agreements; scalable-product business option offered by the BRAIN Group (see also R&D cooperation partnerships)

## R

#### **R&D**

Research & development

#### **R&D cooperation partnerships**

Research cooperation arrangements for the development of customer-specific solutions based on agreed milestone payments and compensation for research services; business option offered by the BRAIN Group that does not generate scalable products (see also product sales)

## S

#### **SALT-E**

BRAIN development program for healthier foods through salt reduction

#### **Specialty chemicals**

Specific chemical products with a broad range of activities that a large number of other industrial sectors depend on

#### **Specialty enzymes market**

Markets for high-margin specialty enzymes business

#### **SRI**

Socially Responsible Investment, or Sustainable and Responsible Investment

#### **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 plus inventory changes and other income, including income from R&D grants

#### **TriP<sup>2</sup>Application**

BRAIN development program using unique cell-based assay systems for novel skincare products (TriP<sup>2</sup>Sensation) and taste modulation (TriP<sup>2</sup>Taste)

## U

#### **Urban mining**

Sustainable extraction of valuable substances from secondary streams and waste streams to keep them in value chains in the long term

## 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

### **ZeroCarbFP**

Zero Carbon Footprint: strategic innovation alliance initiated and co-financed by the German Federal Ministry of Education and Research (BMBF) and coordinated by BRAIN as part of its Industrial Biotechnology innovation initiative. The aim is to research and develop microorganisms to convert carbon-rich secondary and waste streams into valuable industrial substances.

## Photo credits, online version and orders

Photography BRAIN:

### **Luise Böttcher,**

pages: 13, 24 – 25, 26, 29, 30 – 31, 32, 35 – 38, 58, 63, 69 – 75, 95 – 101

Luise Böttcher completed her studies at Dessau University in 2008 with a Bachelor of Integrated Design degree. She went on to obtain a photography degree at Darmstadt University in 2014. Luise Böttcher joined BRAIN as a designer and photographer in the summer of 2014.

Other images:

Cover, pages 8 – 9: BRAIN AG

pages 17, 24 – 25: Anja Jahn

pages 31, 34: Biocatalysts

page 33: AnalytiCon Discovery

page 39: Monet/Adobe Stock

pages 52 – 53: BRAIN AG, AnalytiCon Discovery, Biocatalysts, WeissBioTech, SolasCure

page 58: Thomas Ott

page 75: Jiri Hera/Adobe Stock

page 99: D.aniel /Adobe Stock

page 101: EFIB 2018, Toulouse, France

You can download BRAIN's financial publications as PDFs at:

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

This report is also available in German. If you would like to receive a printed copy, please contact:

BRAIN AG  
Darmstädter Straße 34 – 36  
64673 Zwingenberg  
Germany

phone: +49 (0) 62 51 / 9331-0

fax: +49 (0) 62 51 / 9331-11

email: [public@brain-biotech.de](mailto:public@brain-biotech.de)

# Graphs and Tables

## 01

### Company management 13

Table 01.1	Overview of Supervisory Board meetings in the 2017/18 financial year	18
------------	----------------------------------------------------------------------	----

## 02

### The company 41

Figure 02.1	BioEconomy — outgrowing chemical industries	44
Figure 02.2	BRAIN business model	47
Figure 02.3	Brand essence	48
Figure 02.4	BRAIN share price performance (indexed)	66
Table 02.1	Key share data	66
Figure 02.5	Shareholder structure	67

## 03

### Corporate governance report 77

Table 03.	Composition of the Management Board	83
Table 03.2	Supervisory Board members	86

## 04

### Group management report 103

#### Economic and Business Report 108

Table 04.1	Extract from the statement of comprehensive income	108
Figure 04.1	Composition of total operating performance	109
Table 04.2	Reconciliation of reported EBIT to adjusted EBIT	110
Table 04.3	Reconciliation of reported EBITDA to adjusted EBITDA	110
Figure 04.2	Adjusted EBITDA	111
Table 04.4	Segment share of total operating performance	112
Figure 04.3	Segment share of total operating performance	112
Table 04.5	BioScience Segment	113

Table 04.6	BioIndustrial Segment	114
Table 04.7	Extract from the balance sheet	115
Figure 04.4	Balance sheet structure	116
Table 04.8	Extract from the cash flow statement	118
Figure 04.5	Presentation of the cash flow statement	118
Table 04.9	Number of employees	119

#### Compensation report 122

Table 04.10	Management Board compensation based on commercial law regulations	127
Table 04.11	Management Board compensation	128
Table 04.12	Cash compensation of the Supervisory Board	129

#### Report on risks and opportunities 132

Table 04.13	Likelihood of occurring within the next two years	133
Table 04.14	Degree of impact	134
Table 04.15	Risk score	134
Figure 04.6	Risk management system	136
Table 04.16	Presentation of the greatest short- and medium-term risks at BRAIN	142

## 05

### Consolidated financial statements 149

Table 05.1	Consolidated balance sheet	151
Table 05.2	Consolidated statement of comprehensive income	152
Table 05.3	Consolidated statement of changes in equity	154
Table 05.4	Consolidated statement of cash flows	155

# Contact and imprint

The following contact person is available to respond to your queries:

**Investor Relations**

**Dr. Martin Langer, Member of the Management Board**

**phone: +49 (0) 62 51 / 93 31-0**

**ir@brain-biotech.de**

Published by:

**B·R·A·I·N**

Biotechnology Research And Information Network AG

Darmstädter Straße 34 – 36

64673 Zwingenberg

Germany

phone: +49 (0) 62 51 / 9331-0

fax: +49 (0) 62 51 / 9331-11

email: [public@brain-biotech.de](mailto:public@brain-biotech.de)

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



**Editor:** BRAIN Corporate Communications

**Concept, layout and typesetting:** BRAIN Art Direction: Bettina Schreiner, Elena Reiniger

**Translation:** Mitzi Morgan, Jonathan Spink

**Proofreading:** Wissenschaftslektorat Zimmermann, Andrea Murphy

**Printing:** oeding print GmbH, Braunschweig

The publishers and editorial team would like to thank the many individuals who have worked together to prepare this report.

Publication date: 10 January 2019



# Financial calendar

**28 February 2019**      **Publication of the quarterly report for the period ending 31 December 2018 (3M)**

---

**07 March 2019**      **Annual General Meeting, Zwingenberg**

---

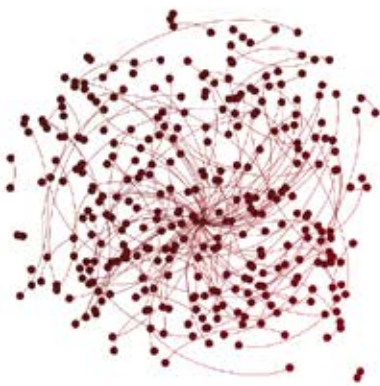
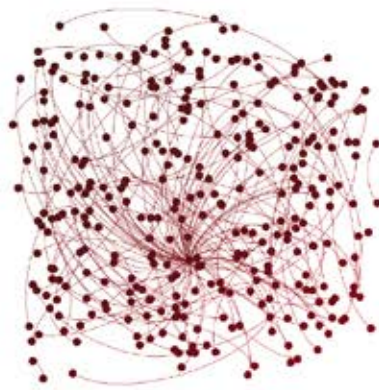
**31 May 2019**      **Publication of the interim report for the period ending 31 March 2019 (6M)**

---

**30 August 2019**      **Publication of the quarterly report for the period ending 30 June 2019 (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.



Published by:

**B·R·A·I·N**

Biotechnology Research And Information Network AG  
Darmstädter Straße 34 - 36  
64673 Zwingenberg  
Germany

phone: +49 (0) 62 51 / 9331-0  
fax: +49 (0) 62 51 / 9331-11  
email: [public@brain-biotech.de](mailto:public@brain-biotech.de)  
web: [www.brain-biotech.de/en](http://www.brain-biotech.de/en)

