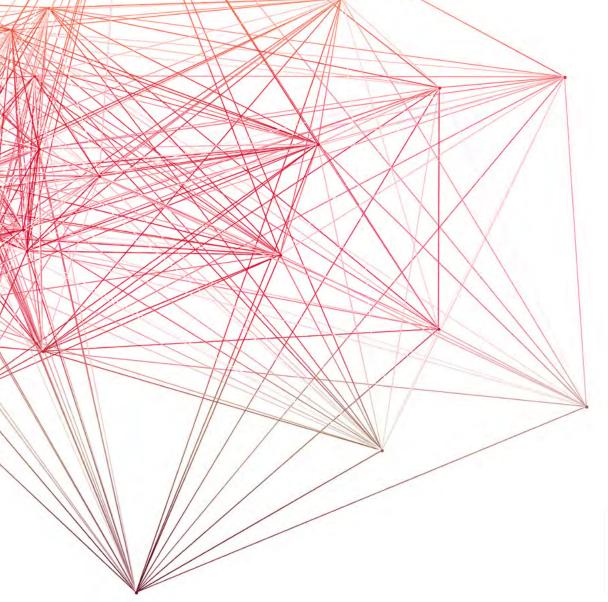
# Applied Evolution





B·R·A·I·N

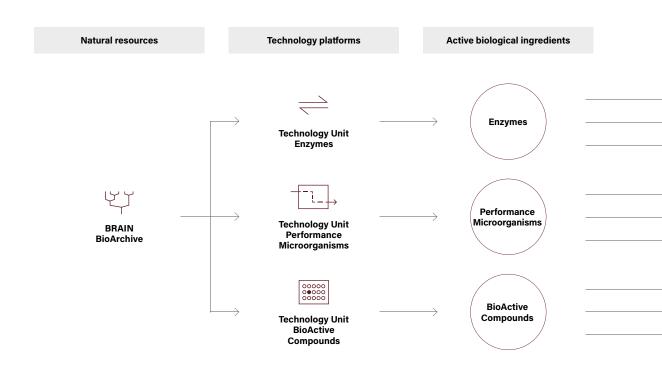
# **BRAIN** Group financial highlights

in € million	2016/17	2015/16	2014/15
Consolidated income statement data:			
Revenue	24.1	22.8	21.1
Total operating performance <sup>1</sup>	26.9	26.1	25.7
Operating result (EBIT)	-9.4	-13.8	- 4.6
Adjusted operating result (adjusted EBIT) <sup>2</sup>	-6.4	- 7.6	-4.4
Net loss for the reporting period	-9.7	-14.9	- 5.9
Total equity	47.2	26.9	5.7
Total equity	47.2	26.9	5.7
Equity ratio (in %)	69 %	57%	19 %
Total assets	68.5	47.5	30.4
Consolidated cash flow data:			
Cash flows from operating activities	-5.8	- 8.7	-4.1
Cash flows from investing activities <sup>3</sup>	8.8	-11.2	
			- 0.5

- Defined as the sum of revenue, other income and changes in inventories of finished goods and work in progress
   Adjusted for a non-cash share-based payment by shareholders of BRAIN AG and a subsidiary's employee share scheme,
- as well as in 2015/16 the IPO costs.

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

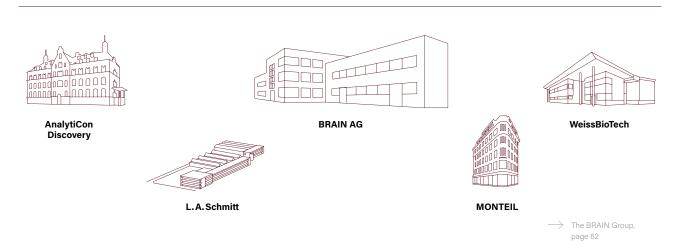
# FROM THE BIOARCHIVE TO THE B2B MARKET

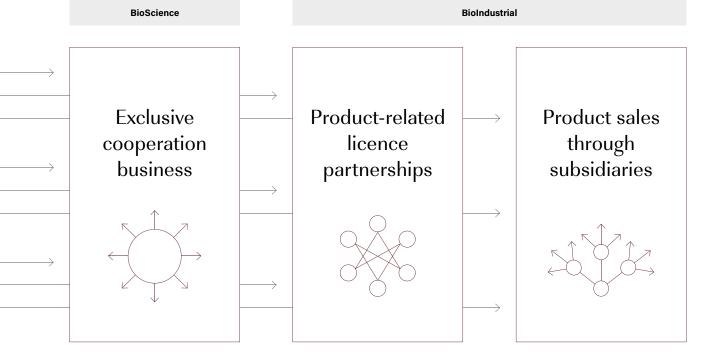


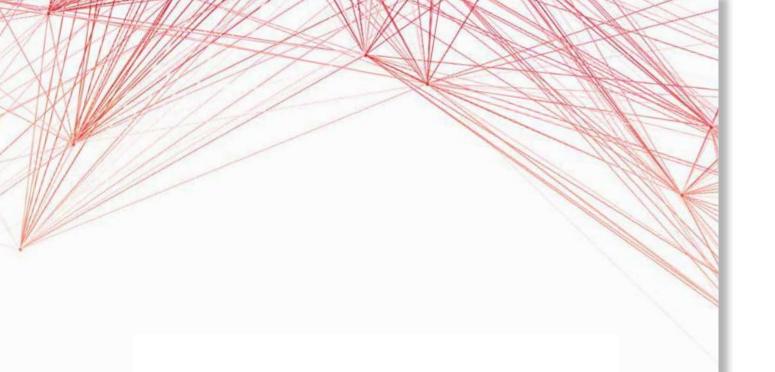
# Mission Statement

BRAIN is a pacemaker of the bioeconomy and a high-tech pioneer of sustainable, applied biotechnology. BRAIN stands for the biologisation of both industry and the consumer world. The Group develops and markets product and process innovations based on species diversity and its own BioArchive. Its work focuses on bioactive natural compounds, nature-based enzymes and customised high-performance microorganisms for sustainable applications in the consumer goods and chemicals industries.

### THE BRAIN GROUP

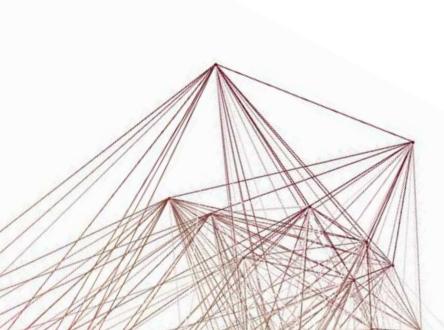




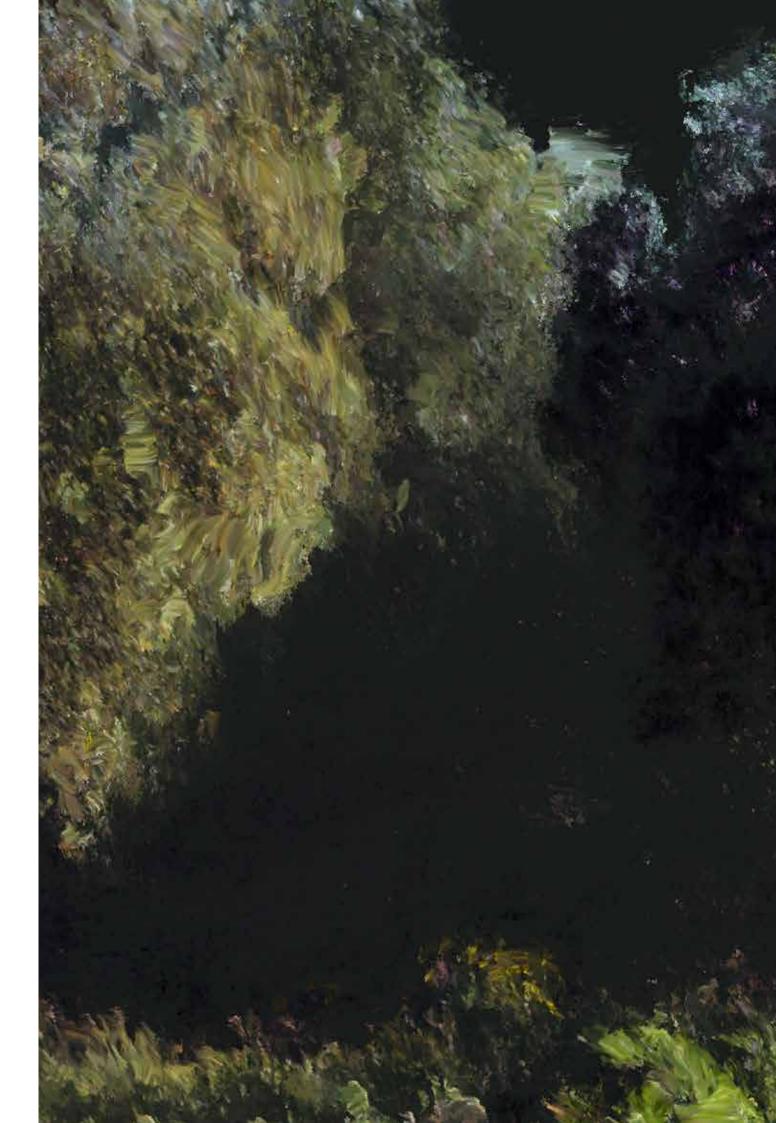


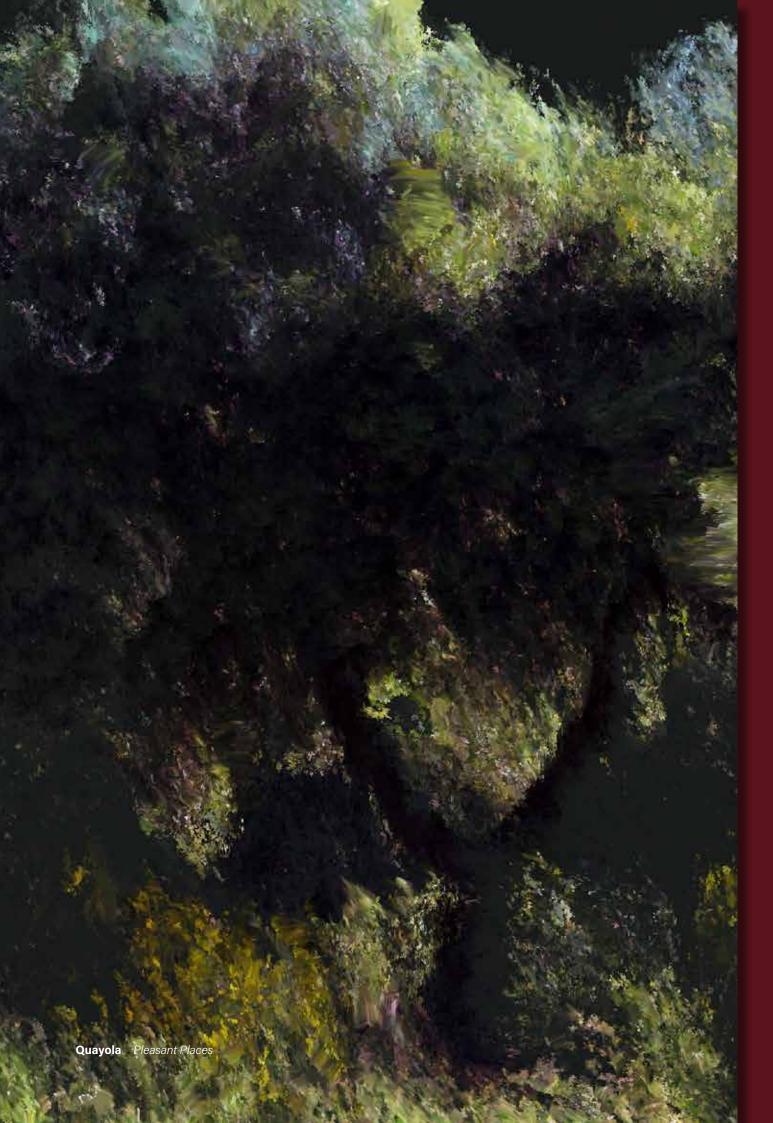
"BRAIN remains on its growth track.
Trends in our 2016/17 financial year confirm our expectation that BRAIN is increasingly benefiting from the advancing biologisation of various industries."

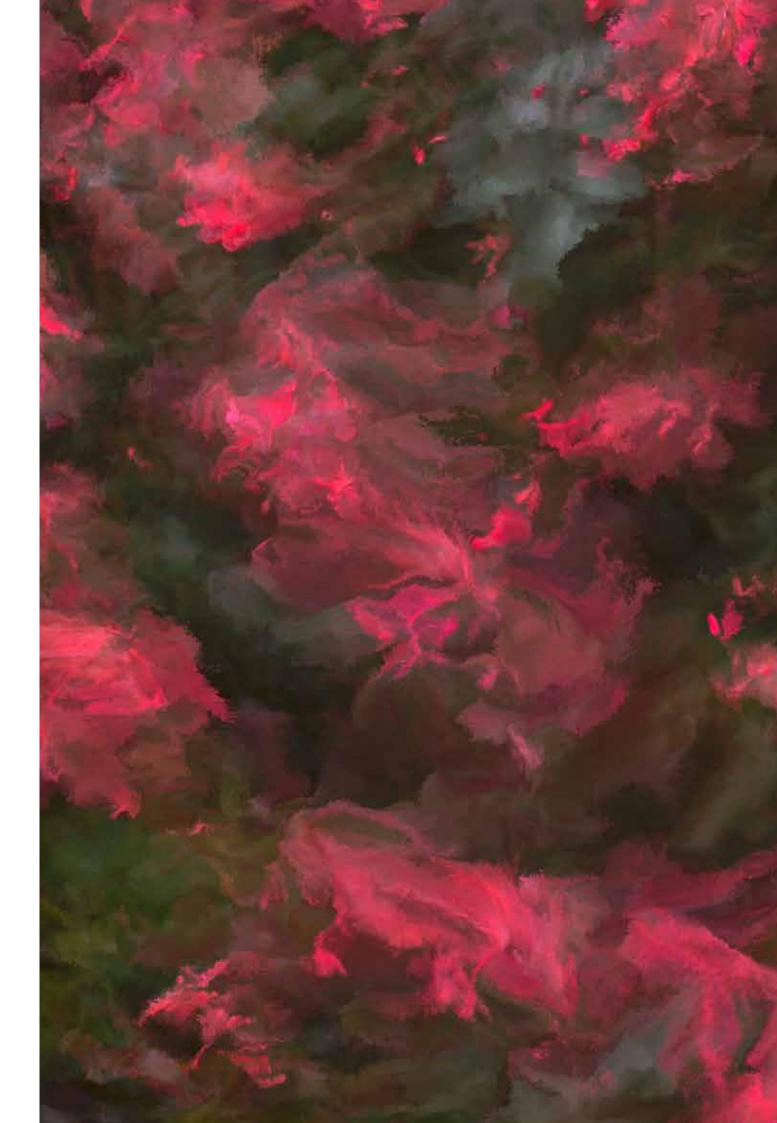
Dr Jürgen Eck — member of the founding team and CEO of BRAIN AG

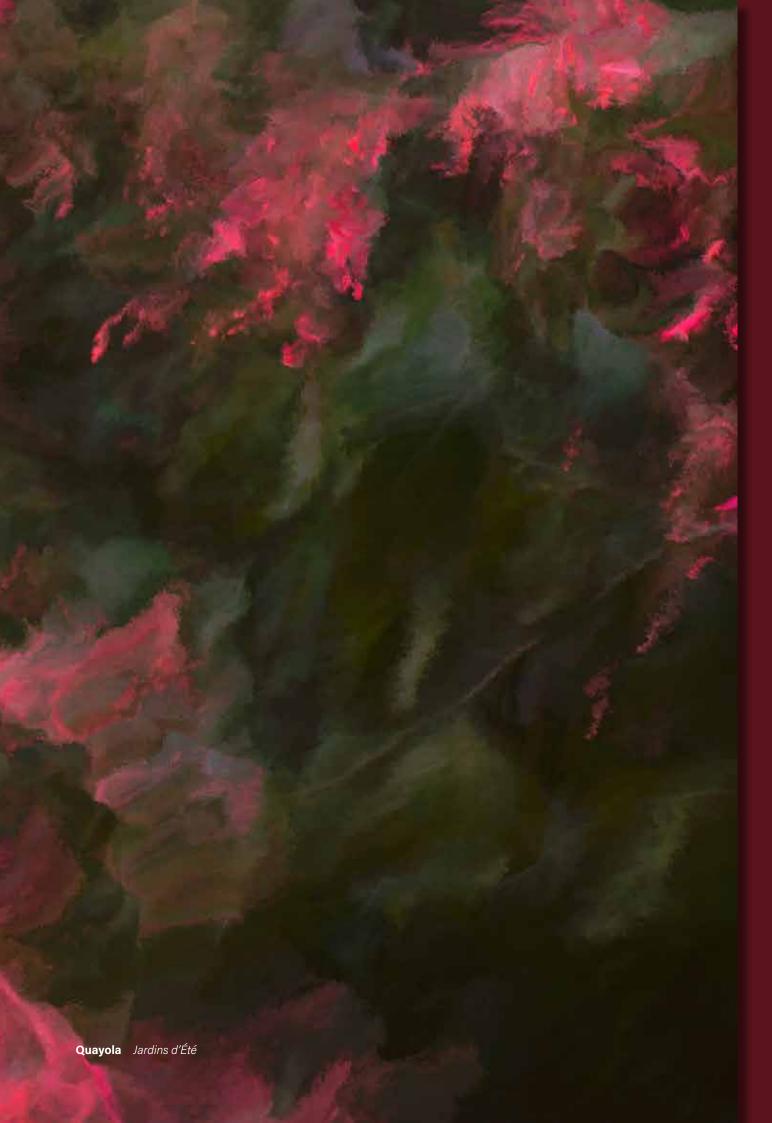




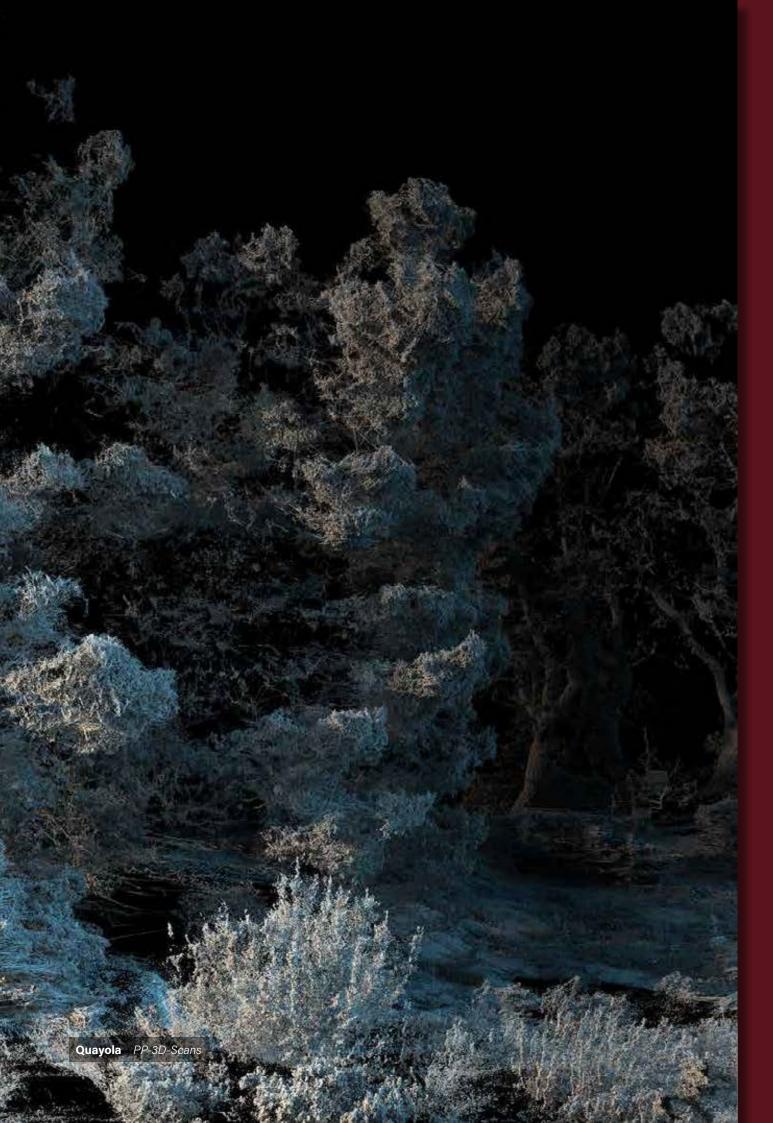


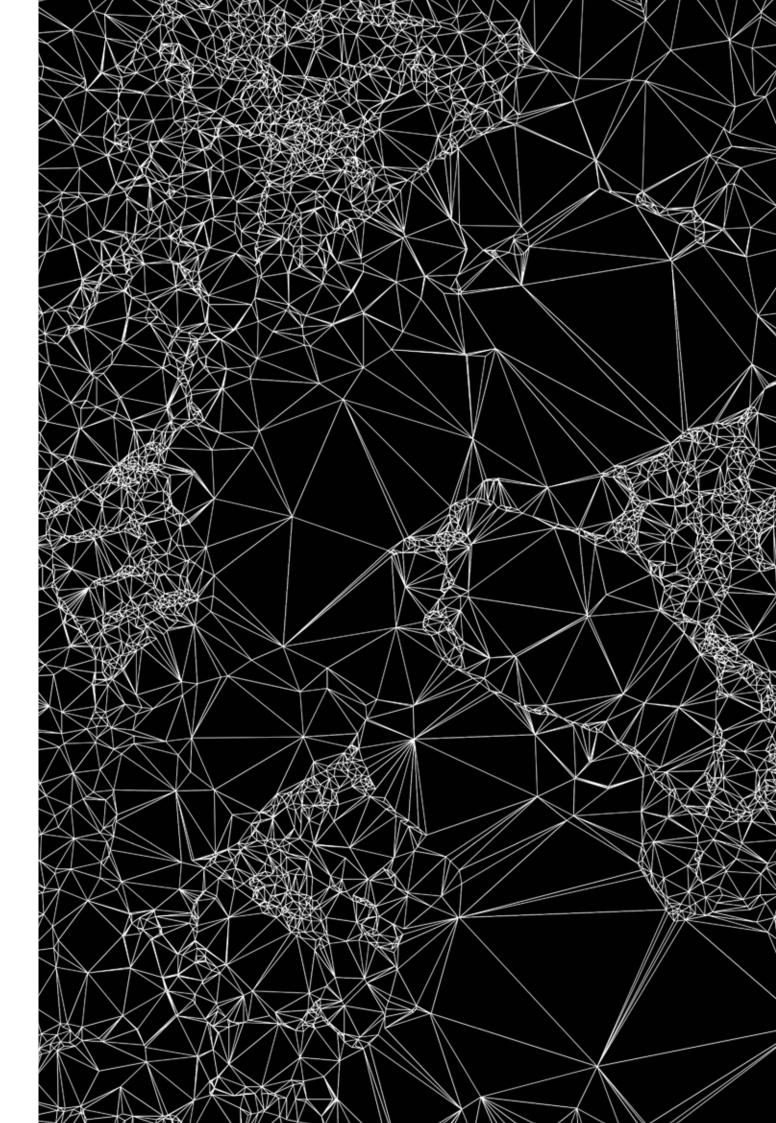






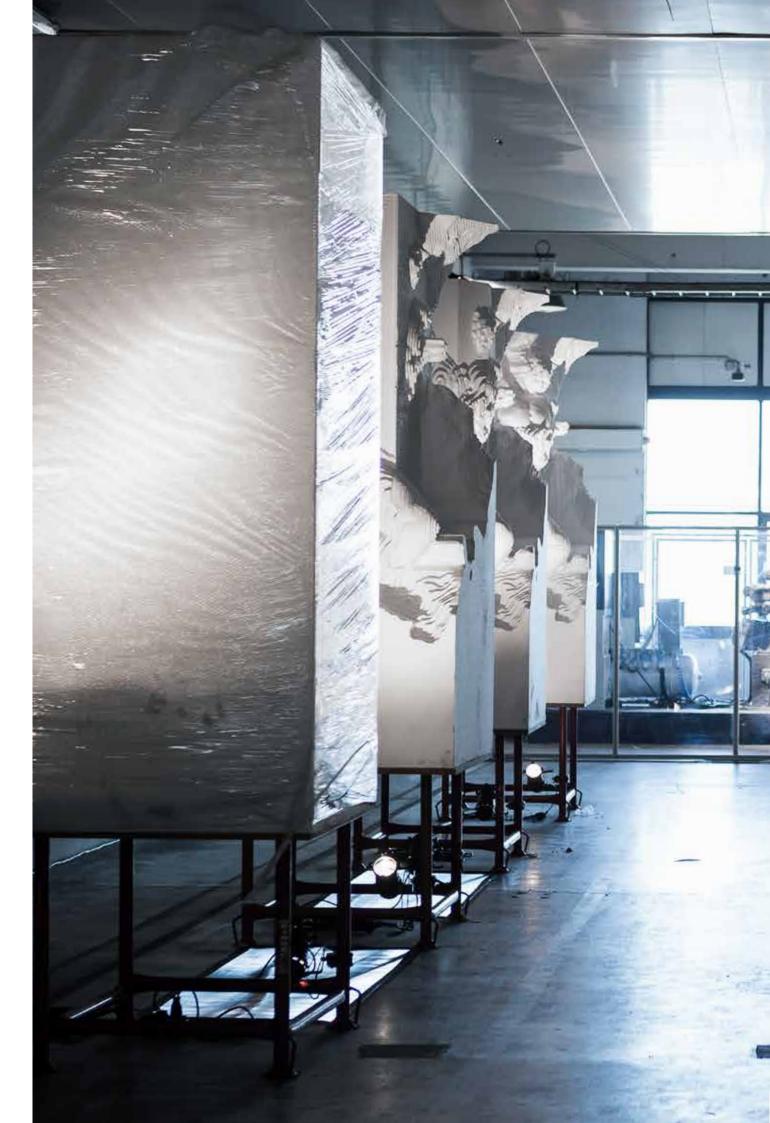












Contents



# BETWEEN REAL AND ARTIFICIAL

Quayola is a visual artist based in London whose work explores the borderlines between art and reality, and examines how technology changes the way we see the world.

The starting point for his works are high-resolution reproductions of the real world — detailed scans of old paintings and 3D scans of landscapes or sculptures. This digital reproduction dissolves reality into data sets that Quayola analyses, deconstructs and artistically alienates to create entirely new artworks.

His *PP-3D-Scans* are a combination of 3D scans and computer simulations of natural landscapes. They result in hyper-realistic images that have been artistically reinterpreted and explore the limits of photography, transforming our habitual view of nature.

Nature also served as the starting point for the *Pleasant Places* and *Jardins d'Été*l series. Using a 3D scanner, the artist captured landscapes in Provence that once inspired the paintings of Vincent Van Gogh. With the help of customised software, Quayola makes these landscapes dissolve into abstract images that examine the relationship between nature, art and technology, and in so doing he creates a form of 'animated digital painting.' The images shown here are stills taken from the artist's animated videos.

In the *Iconographies* series, he deconstructs Baroque and Renaissance paintings charged with iconography by translating their data into new forms. The works are removed from their historical context, enabling them to be seen from new perspectives.

But Quayola does not limit himself to virtual space. In artworks like *Sculpture Factory* or the *Laocoön #D20-Q1* series, which are also based on real-life works such as sculptures by Michelangelo, he brings his oeuvre back to solid ground. The artist uses algorithms specially developed for his work, which he plays with like instruments. The algorithms steer industrial robots that carve the shapes of new sculptures out of foam blocks. Far from being random, the result is controlled by the artist and his powers of imagination. While technology is the vehicle, the value of these works lies in the creativity that the artist brings to the process.





# Biotechnology translates nature into new values

BRAIN's BioArchive is one of the world's most comprehensive collections of biological substances. Together with the company's technology portfolio, the archive enables the transposition of biological diversity into sustainable products and processes.

—— BRAIN's key competence is its understanding of biological and evolutionary processes and its ability to learn from nature. The creativity of the research team transforms the BioArchive into "nature's toolbox", whose treasures are harnessed using a blend of patience, experience and high-tech equipment. This gives rise to unprecedented products and processes.

— The natural model and the ensuing biotechnological transformation steps are continuously compared with each other so as to preserve the properties that need to be transferred. This involves analytics, genome editing and protein engineering. Computer-based 3D modelling, and data visualisation in the CLANS analyses used to identify enzymes, provide 'snapshots' of the process, at the end of which nature is transformed into real products and processes. This is what we call "Applied Evolution".

The BRAIN BioArchive comprises ...

300 m reusable ready-to-screen metagenome clones

53,000 characterised microorganisms for strain development

49,500

natural and naturally inspired

 $13,000^{\,}\text{plant fractions available for isolation campaigns}$ 

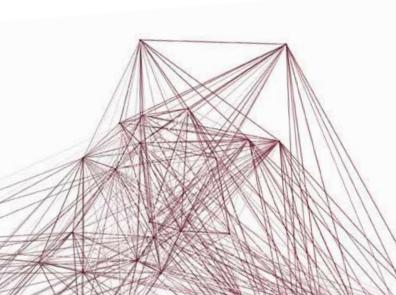
464

450

habitat collections

metagenome libraries isolated from various habitats

CLANS analyses compare pairs of amino acid sequences with the aim of finding new enzymes.



# **CONTENTS** — CORPORATE STORIES

Ÿ	Biotechnology translates nature into new values	03	
	Precious metals from the circular economy	39	
	· · · · · · · · · · · · · · · · · · ·		
	Riological care		
	Biological care for wound patients	81	
00000	Nature-based freshness and product stability	111	

01	Company management	21
	Letter from the CEO	23
	Report from the Supervisory Board	26
	Senior Management BRAIN Management Board interview	34 36
	DNAIN Wanagement board interview	30
02	The company	51
	The bioeconomy – the biologisation of industry	53
	Strategy and business model	57
	Competences and solutions The BRAIN Group	59 62
	Product portfolio	64
	Highlights of the 2016/2017 business year	66
	Lively corporate culture	70
	Staff culture	74
	The BRAIN share and the capital market	76
03	Corporate governance report	93
	Corporate governance statement	95
	Corporate governance statement  Corporate governance practices	106
	Corporate governance practices	100
04	Group management report	123
	Basis of the Group	125
	Economic and Business Report	128
	Compensation report	140
	Events after the reporting date Outlook	150 151
	Report on risks and opportunities	151
	Takeover-relevant information pursuant to Section 315 (4) of the	.02
	German Commercial Code (HGB)	164
	Corporate governance statement of conformity pursuant to	
	Section 289a of the German Commercial Code (HGB)	167
	Responsibility statement	168
05	Financial statements	169
	Consolidated balance sheet	171
	Consolidated statement of comprehensive income	172
	Consolidated statement of changes in equity	174
	Consolidated statement of cash flows	175
	Notes	176
	Auditor's report	240
06	Further information	245
	Glossary	246
	Contact and imprint	252
	Financial calendar	253

# O1 Company management21Letter from the CEO23Report from the Supervisory Board26Senior Management34BRAIN Management Board interview36



Dr Jürgen Eck — Chief Executive Officer

## Dear shareholders,

The past 2016/17 financial year was the first full BRAIN annual cycle with Prime Standard trading of our share on the Frankfurt Stock Exchange. We can look back on successful months during which we have focussed on further developing our industrialisation strategy.

Along with strengthening our research cooperation business with industrial partners – reflected in our BioScience business segment – we are pursuing the objective of further expanding our BioIndustrial segment to market our own product candidates through the BRAIN Group or through licence agreements with globally operating companies. Accordingly, for some years we have been investing at a high rate in our research and development capacities as well as the bolstering of our networks.

We are well positioned with our development pipeline, and during the past financial year we have further advanced our current 15 development programmes, which are in different stages of realisation. In all three of our product categories – bioactive natural compounds, natural-source enzymes and high-performance microorganisms – we are sufficiently advanced in some projects that we now stand on the threshold of market entry and licence agreements. For this reason, we have decided to present to you this product aspect of BRAIN in greater detail in this 2016/17 annual report.

"As an innovator of biological solutions, our goal remains to participate in a leading position in the bioeconomy's growth.

The prospects for this are still good."

In the previous report on the 2015/16 financial year – which garnered several renowned

awards for content and design – we presented our DOLCE programme. Together with our subsidiary AnalytiCon Discovery, and since August 2016 with our production and marketing partner the French company Roquette, we are focusing on a new generation of natural sweeteners and biological sweetness enhancers. In November 2016, we gained our first consumer goods giant for the licence partnership for the "breakfast cereals" and "snacks" product categories. In July 2017, a globally operating US company from the beverages industry joined forces and signed the partnership for our innovations in the categories "non-alcoholic beverages", "milk and yoghurt beverages" and "ginger ales and tonics". (see page 120) We see the fact that consumer goods companies are already joining DOLCE in the development phase as a major success and validation of the significance of our innovative approach for the global food manufacturing industry.

We have also recently reached important milestones in our mining programme, entailing the bio-based extraction of precious metals from waste flows and ores with the help of specialised microorganisms. In August 2017, the BRAIN BioXtractor was completed as a demonstration plant for our groundbreaking approach to meet growing demand for precious metals (see also page 40). Our mining programme as well as development work on the biotechnology conversion of the greenhouse gas  $\mathrm{CO}_2$  in preliminary steps of bioplastic are delivering disruptive solutions to meet the growing demand and requirements of a modern bioeconomy and a closed-loop materials system.

As an innovator of biological solutions, our goal remains to participate in a leading position in the bioeconomy's growth. The prospects for this are still good. In the chemicals industry, sales generated with biotechnology solutions continue to grow at a considerably faster rate than in other areas. Business experts expect that sales generated with bio-based chemicals alone will increase from around \$ 200 billion in 2015 to more than \$ 610 billion by 2025.

Subsidiaries of BRAIN AG are central success factors in our activities (see also page 62). Here we combine first-class research, development, and production know-how with access to markets worldwide. AnalytiCon Discovery is a market leader in natural substance libraries and a core team member of our DOLCE programme. WeissBioTech GmbH is a globally operating supplier, including special enzymes, and offers us access to attractive enzyme markets. We serve markets for active substance cosmetics and biological ingredients through the companies L.A. Schmitt and Monteil.

Our growth strategy includes the targeted expansion of the BRAIN Group to create direct market access for BRAIN's products business. For this reason, we are very pleased to have acquired a major new shareholder in September 2017, with DAH Beteiligungs-GmbH. Gross issue proceeds of around € 28 million accrued to

BRAIN as part of a capital increase in this connection. Entirely in keeping with our strategy, this capital will serve mainly to finance small and medium-sized acquisitions. As potential candidates, we are examining new partners that have good sales networks, established access to markets and profitable product businesses, to which BRAIN innovations as well as the research and development work within the BRAIN Group can be connected.

The possibility to increase the share capital was created with the resolutions relating to "Approved Capital" as part of the first Annual General Meeting of BRAIN in March 2017. This event formed a further highpoint of the financial year. Both lively and constructive shareholder participation in the event at the company's head-quarters in Zwingenberg showed, not least, the strength of the connections of BRAIN with the Rhine-Main-Neckar metropolitan region, as well as our firm anchoring among private investors. All agenda items, including the new elections of Supervisory Board members, were accepted with large majorities.

At the time of the IPO in February 2016, we floated with an opening share price of € 9.15. We ended the 2015/16 financial year with a price of € 11.70. As of the end of the 2016/17 financial year, the price amounted to € 19.70. This performance is even more remarkable insofar as – after the expiry of the one-year blocking period following the IPO – two early-phase investors exited their BRAIN shares, partly driven by their funds' durations. Despite these share placings and subsequent completion of the issuance of new shares as part of the capital increase, our share price reported a gain of more than 68 percent for the year. The free float doubled to almost 50 percent and the trading volume of the BRAIN share increased constantly. The milestones that we have successfully reached in both business segments strengthen us in our conviction that we are on the right path. Accordingly, we are continuing to consistently pursue our industrialisation strategy in the new financial year.

On behalf of my Management Board colleague Frank Goebel and myself, I would like to thank our staff in the BRAIN Group. The success of BRAIN – which in 2018 already celebrates its 25th anniversary – is based on the curiosity, spirit of invention, and creative commitment of these bioeconomy pioneers. Our thanks are also due to our numerous cooperation partners and companions of our company's development and – of course – to you our shareholders for your unwavering trust and confidence in our enterprise – the sustainable biologisation of industries and the consumer world. We wish you and ourselves a successful 2017/18 business year, and stimulating reading of this annual report.

Dr Jürgen Eck - Chief Executive Officer

# Dear shareholders,

In the 2016/17 financial year, BRAIN AG successfully advanced its defined growth strategy, reaching further milestones on its way to becoming a leading bioeconomy company.

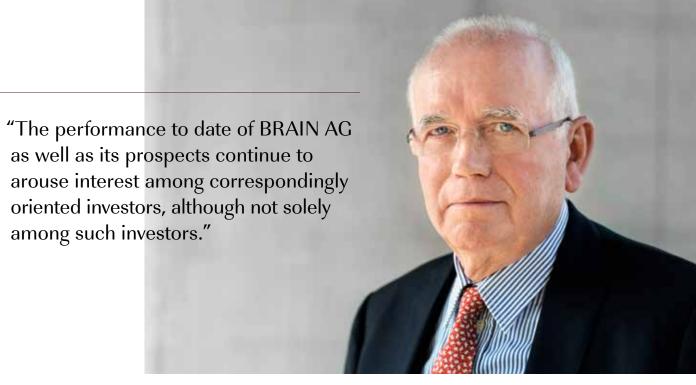
Along with continuous progress in the operating business, such milestones especially include our strategic DOLCE partnership expanding as international food manufacturers join. Our industrialisation process was also successfully advanced further in the "Green and Urban Mining" environment, with a mobile pilot plant being commissioned with the BioXtractor during the year under review. 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. In September 2017, the company not only raised € 28 million as part of a capital increase to finance planned small and medium-sized acquisitions but also acquired a further investor with a longterm and sustainable orientation. The Supervisory Board continued to play a consultative role in these developments in the financial year elapsed.

The following report provides information about the Supervisory Board's work in the 2016/17 financial year, in other words, from 1 October 2016 until 30 September 2017. During this period, we completely fulfilled the tasks and duties incumbent upon us pursuant to the law, the company's bylaws and the rules of business procedure for the Supervisory Board.

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

# Collaboration between the Supervisory and Management boards

The Management Board informed the Supervisory Board regularly, promptly and comprehensively in the form of detailed written and verbal reports on all questions relating to strategy, planning, business development, the risk position, risk trends and compliance that are of importance for the company and the Group, and consequently 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 in this context. Collaboration with the Management Board was characterised in all aspects by responsible and purposeful action.



Dr Ludger Müller — Chairman of the Supervisory Board

### Personnel matters

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

With effect as of 31 October 2016, COO Eric Marks stepped down from the Management Board for personal reasons and at his own wish. No new appointment was made to this position.

With effect as of 1 November 2016, Frank Goebel (48) moved up from the Management Board of BRAIN Capital GmbH to the Management Board of BRAIN AG. This step anchors directly within the company's Management Board M&A activities that are important for the company's forward integration. Along with M&A activities, Frank Goebel also assumes responsibility for managing the company's portfolio of investments, and consequently the steering of the subsidiaries of BRAIN AG, to further expand the interlinking of the respective company management teams and even more intensively exploit synergies within the portfolio of BRAIN AG. As of the end of the AGM on 9 March 2017, Mr Goebel succeeded Dr Georg Kellinghusen as the company's Chief Financial Officer (CFO), as planned.

With the end of the AGM on 9 March 2017, the period of appointment of Dr Georg Kellinghusen as CFO of BRAIN AG ended. This appointment was originally to conclude as of 31 December 2016, and had been extended accordingly. The AGM appointed Dr Georg Kellinghusen to the Supervisory Board of BRAIN AG at the proposal of shareholder MP Beteiligungs-GmbH.

Moreover, the period of office of Supervisory Board members Prof Dr Klaus-Peter Koller and Dr Holger Zinke concluded as of the end of the AGM, as planned. While Prof Dr Klaus-Peter Koller stood for re-election, Dr Holger Zinke stood down. Supervisory Board members Siegfried Drueker and Dr Matthias Kromayer made their posts available.

Along with Dr Georg Kellinghusen, the AGM of BRAIN AG on 9 March 2017 newly issued two further Supervisory Board mandates to Dr Anna C. Eichhorn and Dr Martin B. Jager. The AGM re-elected Prof Dr Klaus-Peter Koller to the Supervisory Board. Taking into consideration the requirements from the German Corporate Governance Code relating to the length of period of office on supervisory boards, Prof Dr Klaus-Peter Koller had himself elected to the Supervisory Board for a further year, instead of for the regular period.

# **Supervisory Board meetings**

In the 2016/17 financial year, a total of six Supervisory Board meetings were held on an attended basis, six attended meetings of the committees, as well as eleven telephone conferences of the Supervisory Board and the committees, and two resolutions were passed by way of written circular. The Supervisory Board members always had sufficient time in this context to critically engage with the information submitted by the Management Board and contribute its own views. As part of the meetings, the information was discussed in detail with the Management Board and examined as to its plausibility. The Supervisory Board issued its approval of specific business transactions as required by law, the company's bylaws or the rules of business procedure for the Supervisory or Management boards.

Both Supervisory Board members who stepped down as of 9 March 2017, Dr Matthias Kromayer and Dr Holger Zinke, participated until that date in at most half of the Supervisory Board and committee meetings of relevance for them. All the meetings that were missed were excused. The individualised listing of participation in meetings below provides more detail.

TABLE 01.1

OVERVIEW OF SUPERVISORY BOARD

MEETINGS IN THE 2016/17 FINANCIAL YEAR

Name	Meetings attended (including com- mittee meetings)	Remarks
Dr Ludger Müller	12/12	_
Dr Martin B. Jager (since 9 March 2017)	7/7	
Dr Holger Zinke (until 9 March 2017)	1/3	Unattended meetings excused
Siegfried L. Drueker (until 9 March 2017)	3/3	
Dr Anna C. Eichhorn (since 9 March 2017)	4/4	
Prof Dr Klaus-Peter Koller	6/6	
Christian Körfgen	7/7	

Dr Matthias Kromayer (until 9 March 2017)	2/4	Unattended meetings excused
Dr Georg Kellinghusen (until 9 March 2017)	6/6	Replacement member for Siegfried L. Drueker

Outside the scope of meetings, too, the Supervisory Board members, especially myself as Supervisory Board Chairman and Committee Chairman as well as the respective Chairs of the Audit Committee, were in regular communication both with each other as well as with the Management Board. This entailed, in particular, consultations about 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 at the next plenary or committee meetings.

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

# Focus consultation areas in the plenary Supervisory Board

During the 2016/17 financial year, we in the plenary Supervisory Board concerned ourselves especially with the following topics:

- Annual financial statements for the 2015/16 financial year
- Results of the tender of the audit of the annual financial statements for the 2016/17 financial year, selection and proposal to the AGM
- Planning and implementation of the AGM on 9 March 2017,
- · Modifications to the Management Board,
- Business allocation plan for the Management Board,
- Current and future research projects,
- · Strategic alliances and planned partnerships,
- Acquisition strategy of BRAIN AG
- Capital measures, especially the capital increase on 7 September 2017 and related exclusion of subscription rights,

- Attainment of the corporate targets for the 2016/17 financial year relating to developing the BioIndustrial and BioSciences divisions,
- · Risk management and internal controlling systems,
- Composition and competency profile of the Supervisory Board and the ratio of women on the Management and Supervisory boards,
- Corporate governance report and the corporate governance statement of conformity,
- Budget for the 2017/18 financial year,
- Employee stock option programme (ESOP).

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

The following topics and resolutions are presented by way of supplement.

On 15 January 2017, the Supervisory Board approved the financial statements documents for the 2015/16 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 attended meetings.

The first public Annual General Meeting (AGM) of shareholders was discussed in advance, especially including the proposed elections for the Supervisory Board posts that would become free, and their presentation to the AGM. In addition, the proposal to elect a new auditor and related change of auditor after conducting a tender procedure was prepared for submission to the AGM.

The realisation of the intended Post-IPO Framework Agreement (PSOP), which was implemented in full in the financial year under review, formed one of the discussion points at several meetings. The Board also discussed establishing an employee stock option programme (ESOP). The intended launch of the ESOP was postponed to the 2017/18 financial year in agreement with the company's Management Board.

Following the AGM on 9 March 2017, the constituting meeting of the Supervisory Board with its newly elected members was held on the same day. Dr Martin B. Jager was elected Deputy Chairman at this constituting meeting.

After the changes to the Supervisory Board composition, the committee members were re-elected at the 28 March 2017 meeting. At the same meeting, the allocation of the business within the Management Board was updated and approved as part of changing the number of Management Board members.

The efficiency audit was continued, and the Supervisory Board decided to conduct a supplementary workshop at the end of 2017 to further improve Supervisory Board work.

### Committees

The Supervisory Board has currently formed a total of three committees to efficiently perform its work: an Audit Committee, a Nomination Committee and a Personnel Committee. 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.

### **Audit Committee**

The Audit Committee concerns itself especially with supervising the 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 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 (until 9 March 2017), Siegfried L. Drueker, met these statutory conditions and possessed special knowledge in the areas of mergers & acquisitions, corporate finance and investment banking. Along with its Chairman, the Audit Committee also included further Supervisory Board members Dr Matthias Kromayer and Dr Ludger Müller. The current Audit Committee Chairman Dr Georg Kellinghusen meets the statutory conditions pursuant to the German Stock Corporation Act (Sections 107 (4), 100 (5) AktG) and possesses special knowledge as a CFO of more than 30 years' standing, 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 area of investor relations.

Along with its Chairman, the Audit Committee currently also includes further Supervisory Board members Dr Martin B. Jager and Dr Ludger Müller.

The proposal to the AGM to elect a new auditor (Ernst & Young GmbH) was preceded by a tender procedure with a total of six candidates. After supplementary discussions with the candidates, the Audit Committee focused its selection on two offers, with the offer of Ernst & Young GmbH finally given preference by the Supervisory Board and being submitted for election to the AGM, which accepted this proposal by a clear majority.

Furthermore, the Audit Committee approved Ernst & Young GmbH, as well as consulting companies forming part of the Ernst & Young Group of companies, to render due diligence services for the company.

The Audit Committee held four attended meetings and five telephone conferences in the 2016/17 financial year.

# **Nomination Committee**

The Nomination Committee met in the 2016/2017 financial year especially to select appropriate candidates for the Supervisory Board's election proposals to the AGM on 9 March 2017, and conferred by telephone. Along with Chairman Dr Ludger Müller, the committee comprised the Supervisory Board members Dr Matthias Kromayer and Dr Holger Zinke until the AGM on 9 March 2017 and after the AGM, Dr Anna C. Eichhorn and Prof Dr Klaus-Peter Koller.

### **Personnel Committee**

The Personnel Committee prepares personnel decisions for the Supervisory Board, especially including the selection, appointment and dismissal of Management Board members, the conclusion and amendment of service contracts and pension arrangements, the compensation scheme including its implementation as part of the service contracts, target setting for variable compensation, setting and reviewing appropriate total compensation for each Management Board member, and approving the annual compensation report. The Personnel Committee also passes resolutions concerning the representation of the company in relation to 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. Along with Chairman Dr Ludger Müller, the committee comprised the Supervisory Board member Dr Matthias Kromayer until the AGM on 9 March 2017, and after the AGM, Dr Martin B. Jager and Mr Christian Körfgen.

The Personnel Committee held one meeting and one telephone conference in the 2016/17 financial year. With effect as of 1 November 2016, Frank Goebel was appointed to the Management Board, and with effect as of 9 March 2017 he was appointed CFO of BRAIN AG.

The Personnel Committee also concerned itself with the short-term extension of Dr Kellinghusen's Management Board contract.

# Corporate governance and the statement of conformity

As part of its meeting, the Supervisory Board consulted on several occasions concerning the company's corporate governance, including requirements deriving from the German Corporate Governance Code.

For the Audit Committee, an update of the rules of business procedure was approved on 28 March 2017, and the rules of business procedure for the Nomination Committee were approved on 29 May 2017.

The Supervisory Board approved the current statement of conformity in December 2017, after the 2016/17 financial year elapsed. 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.

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

→ Corporate governance report page 93

# Audit of the separate and consolidated annual financial statements

### **Auditor**

The Annual General Meeting on 9 March 2017 determined that Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft (EY), Stuttgart, should be the auditor for the financial year ending 30 September 2017. This appointment also includes appointing the auditor for the consolidated financial statements for the financial year ending 30 September 2017. Helge-Thomas Grathwol, Diplom-Kaufmann, Wirtschaftsprüfer, Certified Public Accountant (CPA) signs as auditor responsible for the audit since this financial year, and Michael Hällmeyer, Diplom-Kaufmann, Wirtschaftsprüfer, as auditor since this financial year. EY audited the separate annual financial statements for the financial year from 1 October 2016 to 30 September 2017 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 315a of the German Commercial Code (HGB), the consolidated financial statements of BRAIN AG for the financial year from 1 October 2016 to 30 September 2017 and the Group management report were prepared based on International Financial Reporting Standards (IFRS), as applicable in the European Union. Both the consolidated financial statements and the Group management report were also awarded an unqualified audit certificate. The auditor also found that the Management Board has set up an appropriate information and supervision system that is suitable in its design and use to identify developments at an early juncture that jeopardise the company as a going concern.

## **Review by the Supervisory Board**

The documents for the financial statements and the audit reports were discussed extensively at the meeting of the Audit Committee on 12 December 2017, as well as at the Supervisory Board meeting on 13 December 2017. 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 for additional gueries and information. The review of the separate and consolidated financial statements by the Audit Committee was reported upon in detail by its Chairman at the plenary meeting. Following in-depth review and discussion of the separate financial statements, the consolidated financial statements and the management report, the Supervisory Board raised no objections against the documents presented. 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 2017, the Supervisory Board then approved the separate and consolidated annual financial statements of BRAIN AG for the 2016/17 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 9 March 2017 and 30 September 2017 ("dependent companies report") and discussed it extensively with the Management Board and with the auditor that also audits the dependent companies report.

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

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

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

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

Following the conclusive results of the extensive review of the dependent companies report by the Supervisory Board, the Supervisory Board states that no reservations are to be expressed (Section 314 (3) AktG) against the Management Board statement 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 2016/17 financial year. We look forward to continuing the past years' growth and success story together with you.

Zwingenberg, 13 December 2017

like

BRAIN AG, The Supervisory Board

Dr Ludger Müller — Supervisory Board Chairman

# Members of the Supervisory Board and Supervisory Board committees

# Dr Ludger Müller, Chairman

Member since 17 March 2011.

Appointed until the AGM 2018/19.

Further board mandates in 2016/17:

- Managing Director of KEIPER Brasilien Beteiligungs-GmbH and KEIPER Lateinamerika Beteiligungs-GmbH
- until 30 June 2017, Managing Director of MP Beteiligungs-GmbH, BSN GmbH, BRL GmbH and PUTSCH Immobilien GmbH
- TU Kaiserslautern, University Council Chairman

# Dr Martin B. Jager, Deputy Chairman

Member since 09 March 2017. Appointed until the AGM 2020/21.

Further board mandates in 2016/17:

- since May 2017, member of the Management Board of Herbstreith & Fox Gruppe, Neuenbürg
- until April 2017, member of the Management Board of Doehler Group SE in Darmstadt
- until June 2017, member of the Supervisory Board of the Frankfurter Innovationszentrum Biotechnologie GmbH (FiZ), Frankfurt am Main

# Dr Anna C. Eichhorn

Member since 09 March 2017.

Appointed until the AGM 2020/21.

Further board mandates in 2016/17:

- · CEO of humatrix AG, Pfungstadt
- Management Board member (Deputy Chairwoman) of the Initiative gesundheitswirtschaft-rhein-main e.V.
- Member of the Supervisory Board of the Frankfurter Innovationszentrums Biotechnologie (FIZ)
- · Member of the Management Board of House of Pharma & Healthcare e.V.

# Dr Georg Kellinghusen

Member since 09 March 2017. Appointed until the AGM 2019/20.

Further board mandates in 2016/17:

- Member of the Supervisory Board of WIV Wein International AG, Burg Layen
- Member of the Bavaria Advisory Board of Deutsche Bank AG, Frankfurt am Main
- Member of the Advisory Board of NWB Verlag GmbH & Co. KG, Herne

# Prof Dr Klaus-Peter Koller

Member since 21 May 2001. Appointed until the AGM 2017/18.

Further board mandates in 2016/17:

- Member of the Advisory Council and Honorary Member of the German Association for General and Applied Microbiology (VAAM)
- 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+)
- Member of the Joint Board of Trustees of the Max Planck Institute for Biophysical Chemistry/Dynamics and Self-Organisation, Göttingen

# Christian Körfgen

Member since 01 January 2016. Appointed until the AGM 2018/198.

Further board mandates in 2016/17:

 Putsch GmbH & Co. KG, Advisory Board member, and member of the advisory boards of affiliates of Putsch GmbH & Co. KG

# **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

# **Personnel Committee**

**Dr Ludger Müller,** Chairman **Dr Martin B. Jager,** Member **Christian Körfgen,** Member

see also: Statement of conformity page 102

# Senior Management

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



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

# Corporate



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



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



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



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

#### BioIndustrial



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



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

# BRAIN Management Board interview



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

Frank Goebel Chief Financial Officer (CFO) "We're succeeding in addressing more and more markets in the classic chemicals and consumer goods areas. The bioeconomy is a megatrend and we're optimally positioned."

Dr Jürgen Eck — CEO



As of the first Annual General Meeting of BRAIN since its IPO, Frank Goebel assumed the role of Chief Financial Officer in March 2017, as planned. Dr Jürgen Eck (CEO) and Frank Goebel (CFO) have since formed the two-member Management Board of BRAIN AG.

#### Mr Eck, the bioeconomy is on an uptrend. How can BRAIN participate in this growth?

#### JÜRGEN ECK

Our unique BioArchive and technology portfolio in combination with the strong innovation culture within our company make us a globally recognised bioeconomy pioneer. We're facing the challenges our times pose, we're committed to resource efficiency and other sustainability topics, and we're developing natural ingredients for nutrition, cosmetics and animal feed, for example. In this context, we're focusing on three product categories: natural substances, enzymes and high-performance microorganisms. As a result, we're succeeding in addressing more and more markets in the classic chemicals and consumer goods areas. We're making foods healthier, cosmetics more effective, and we're closing material cycles through harnessing CO<sub>2</sub> as a raw material, or through insulating precious metals with the help of specialised microorganisms. The bioeconomy is a megatrend, and we're optimally positioned for it.

## To what extent are industrial sectors changing in the era of the bioeconomy?

#### JÜRGEN ECK

Biologisation refers to the shift to new products and processes that are economically beneficial and at the same time efficient in terms of resources and energy, and are based on biological solutions instead of fossil resources. We see ourselves playing an active role in shaping such change. Here we note that innovations are no longer moving along linear value chains to reach markets – instead, there's increasingly a networked interplay between different technology approaches and the ingredients and consumer goods industries. Value creation networks are developing around BRAIN as an important hub.

#### FRANK GOEBEL

This trend is evident in our BioIndustrial segment, where we focus on our own product candidates to market them to multinational companies through our Group companies or licence arrangements. Here, too, we're playing a pioneering role by including all players from laboratory work through to the consumer goods group in our development programmes. For example, the DOLCE programme bridges the gap between the development of new sweeteners by the BRAIN Group, and formulation and production by our partner Roquette, before marketing by the food manufacturing groups. Short paths enable rapid development times.

# Mr Goebel, you've been CFO of BRAIN since March 2017. What are your main areas of activity?

#### FRANK GOEBEL

One area of my work concentrates on implementing our growth strategy in the BioIndustrial segment. We have attractive product candidates, some of which are on the threshold of market entry. It's also important to further establish and expand the value chains that are important to us through acquiring companies

BRAIN AG Annual Report 2016/17 37

"We have attractive product candidates, some of which are already on the threshold of market entry. Expanding access to markets and establishing global partnerships form important pillars of our growth strategy."

Frank Goebel — CFO

with market access to growth segments, thereby increasingly combining research and development with our own marketing and sales expertise.

# What can you tell us about the exits of two previous shareholders and the approximately 10 percent increase in the share capital?

#### JÜRGEN ECK

Given their funds' duration and following the expiry of the one-year lock-up period after the IPO, the MIG funds sold their entire position of around 2.5 million shares to institutional investors in February 2017. As earlyphase financiers, they make risk capital available to founders and innovative technology companies, and in this way they have also provided first-class support for the development of BRAIN over many years. Very high demand for our shares was registered in the placing, which was repeated in August 2017 with the disposal of the 1.2 million shares of Green Industries Group GmbH & Co. KG to institutional investors. These placings didn't at all detract from the positive price performance of the BRAIN share, which speaks volumes about the confidence invested in us and in the bioeconomy.

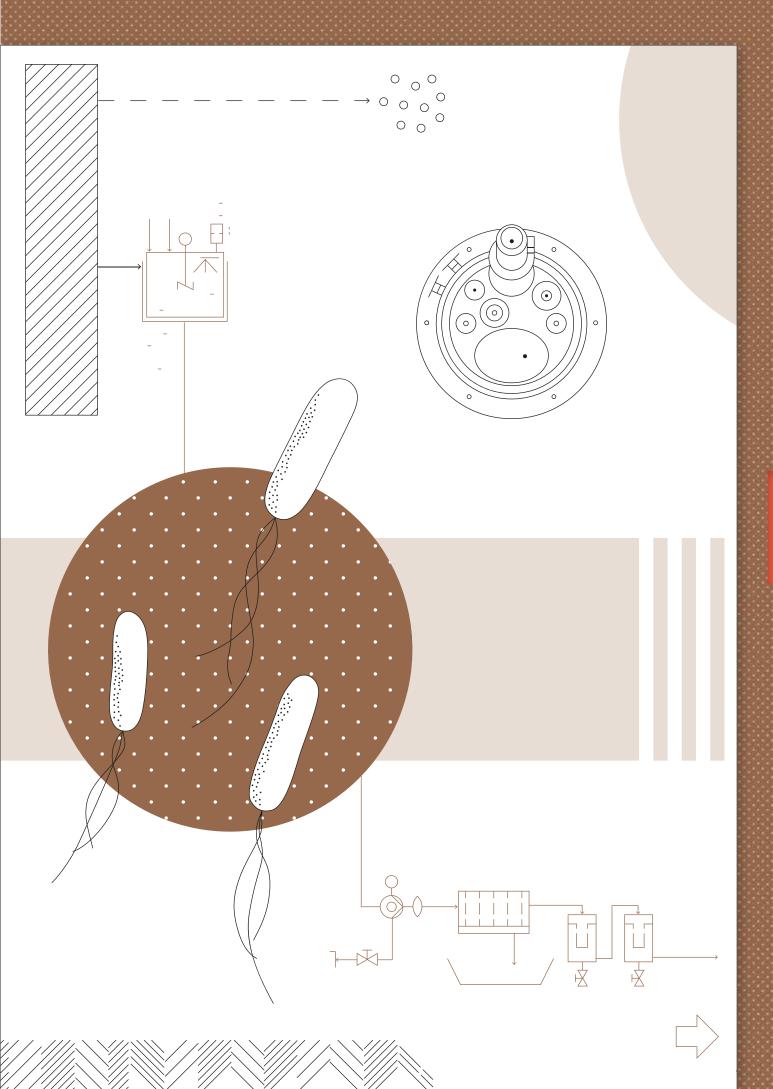
#### FRANK GOEBEL

Our growth strategy includes acquisitions. The proceeds from the capital increase in September 2017 are earmarked to finance small and medium-sized acquisitions to gradually improve our access to markets. We presented this option at the AGM in March 2017, where a very large majority of the shareholders present supported it.

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

#### JÜRGEN ECK

We have made good progress during the financial year that has just elapsed. In particular, the successful arrangement of contracts with further partners for our biological sweetener programme and the completion of our BioXtractor to isolate gold from various sources signified major progress for us in our own product development programmes. Accordingly, we're retaining our business targets and continuing in line with our growth strategy. Over the past business year, we also learned that arranging new contracts with globally operating companies can sometimes become a protracted process - but in some cases they also involve great global marketing potential. I sense we're at the inception of a new era of a modern bioeconomy, and I can see where we can contribute with our expertise. The potential is huge. We can be proud of the milestones and developments that BRAIN has achieved to date.



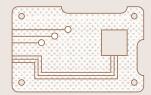
# Precious metals from the circular economy

It is high time we made use of bio-based technologies in order to utilise secondary resources, and not just increasingly scarce primary resources, for creating sustainable added value. Microorganisms can help us in this respect.

— There is a growing demand for metals, especially precious metals such as gold, silver, platinum and palladium, resources that play a key role in many high-tech applications. But precious metals are rare and increasingly difficult to come by. The modern circular economy aims to make them available from waste streams as well.

—— BRAIN is a pioneer in the bioeconomy sector, and has developed solutions for this purpose based on modern biotechnology processes. In the green mining sector, the company offers enrichment and extraction processes for a more environmentally friendly treatment of metal ores from mining operations. For urban mining, BRAIN has developed bio-based processes for extracting precious metals from secondary and waste streams.

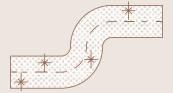




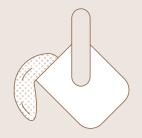
# $40\,\mathrm{m}$

Every year, we produce over **40 million tonnes of electronic waste**. One tonne of computer boards alone may contain up to 250 grams of gold and one kilogram of silver.

3 t



Bottom ashes from waste incineration are added to asphalt for building roads. That means **up to three tonnes of gold** and incredibly large quantities of other metals **are incorporated into German road surfaces every year.** 





Each year, the steel and metallurgical industry produces hundreds of tonnes of dust, sludge and ash that contain precious metals. **Metal slags**, for instance, can contain up to 20 kg of gold per tonne, as well as many other metals.



40

It takes about **one gram of gold to manufacture 40 mobile phones,** which have an average service life of only two and a half years. To extract this quantity of gold, about a tonne of ore has to be mined and processed.



4 km

Eight of the **ten deepest mines** are located in South Africa and reach depths of up to four kilometres. The ore content of newly mined deposits is steadily declining.

#### PERFORMANCE MICROORGANISMS



The first BRAIN BioXtractor pilot plant is located at BRAIN's head office.



— The natural protagonists in these processes are microorganisms that were identified in BRAIN's BioArchive and further developed in the laboratory. These bacteria, for which BRAIN holds property rights, process primary and secondary resources and extract precious metals with a significant yield that sometimes exceeds 90 per cent, depending on the starting material and metal concerned.

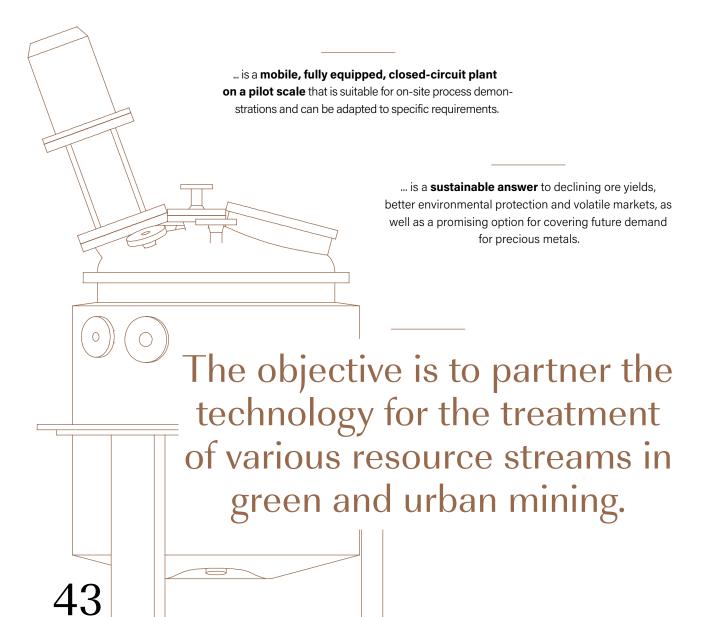
— This technology has been successfully transferred from laboratory to pilot plant scale in the 2016/17 business year. In August 2017, the first BRAIN BioXtractor was set up at the company's head office in Zwingenberg. This demonstration plant will make it possible to process up to six metric tons of raw material per year.

## The BRAIN BioXtractor ...

... is a **pioneering technology** used in the bioeconomy for next-generation metal extraction. It is based on biotechnological processes and microorganisms identified in BRAIN's BioArchive.

... can **extract further substances from residual material streams** in order to use biologically
purified, valuable material in the construction industry,
for example.

... offers innovative, efficient and safe biological process solutions for extracting metals from various secondary and waste streams as well as primary resources.



# The innovation lies in the high yield our processes offer

An interview with Dr Guido Meurer, Member of BRAIN's Management Board and Unit Head Producer Strain Development, and Dr Esther Gabor, Programme Manager Green & Urban Mining.

# You have developed microorganisms and the corresponding processes for recovering metals from waste streams and electronic waste. What makes these streams so interesting? GUIDO MEURER

Processing secondary and waste streams offers advantages in terms of a sustainable circular economy. In the final analysis, this also offers huge business potential because precious and hightech metals are extremely coveted and costly, and mining yield rates are declining. That is especially significant for resource-poor countries like Germany. For these streams, our bio-based processes enable a yield of up to 95 % for gold, and almost 100% for other metals. That puts us in a good position as compared with traditional chemical processes.

### How did you identify the right bacteria for these processes?

#### **ESTHER GABOR**

BRAIN has a large BioArchive with comprehensively characterised microorganisms. We can use our sophisticated screening processes to search through this archive based on specific requirements. But this archive, which we term "nature's toolbox", represents only a fraction of natural biodiversity. Sometimes we specifically set out to identify new product candidates. We don't have to travel far to find them, either. But we do look out for local habitats where we presume these candidates may live.

If you are looking for microorganisms that are supposed to extract silver at a later stage, you choose locations where silver can probably be found in the soil, and collect soil material there. In recent years, we have therefore made trips to closed-down mines and collected innumerable microorganisms that we subsequently analysed, selected and optimised.

#### PERFORMANCE MICROORGANISMS



# What makes biological "gold digging" so attractive, apart from the price of gold?

**GUIDO MEURER** 

For centuries, gold has held high cultural importance, and is also an important currency reserve and investment. But gold, as a precious metal, is also used for many technical applications.

Of all the raw materials obtained by mining, gold is one of the most versatile. So it would be a shame for it to land on the scrap heap, or to be more accurate: it shouldn't be allowed to remain there. We can well imagine that 'BioX gold' from our BioXtractor will be incorporated into high-tech applications in the foreseeable future.

# About five per cent of gold is currently being mined using biotechnological processes, is that correct? What's special about the BRAIN process?

#### **GUIDO MEURER**

At present, biological processes are only a preparatory step in extracting gold from ore, where they make subsequent leaching with chemicals more effective. In our processes, which focus on biology, there is no need for the addition of chemicals.

# There are a number of processes for obtaining metals from primary or secondary resources. Which are you working on?

**GUIDO MEURER** 

BRAIN has developed a variety of biological processes that can be used for specific starting materials and scaled up to different volumes. Here, we are speaking of bioadhesion, one technical variant of which is also termed bioflotation. Other processes are biosorption and bioleaching. Basically, all three processes are suitable for extracting precious metals, and they can be intelligently combined with each other.

## Have you applied for patents, and are research partnerships in place?

ESTHER GABOR

Yes, we have applied for international patents both for the technological process and for the microorganisms used in this process. The first patent specification in this field of research was submitted in 2008. Since 2013, our research work has been embedded in the ZeroCarbFP innovation alliance supported by the German Federal Ministry of Education and Research (BMBF).

"We can well imagine that 'BioX gold' from our BioXtractor will be incorporated into high-tech applications in the foreseeable future."

Dr Guido Meurer

#### How much starting material can you utilise in the BioXtractor, and how much precious metal do you expect to obtain?

#### **ESTHER GABOR**

We expect to be able to process several tonnes of starting material per year in our pilot plant. Of course, it depends on the material itself how much gold or silver we obtain from it. We reckon we will be able to extract precious metals up to kilogram scale each year with such a plant.

#### Do your processes call for special safety precautions?

#### **ESTHER GABOR**

We developed the bacteria for our applications by means of classical biological processes, and work with commercially available materials as well as natural biological materials and processes that pose no risk to human health or the environment. So no special safety precautions are required in general.

## Is it conceivable that your technology could be used in further fields of application?

#### **ESTHER GABOR**

In principle, the processes can also be applied to highly valuable rare earth metals or basic metals such as copper. In fact, we have already done this successfully. But biological processes may also make sense for recovering heavy metals or other undesirable substances from ash, besides metal extraction as such. The purified residual mineral streams can then be used in the construction industry.

## How could the mining programme make contributions to BRAIN's turnover?

#### **GUIDO MEURER**

By entering into partnerships, BRAIN benefits from payments that depend on its personal research contributions and milestone payments. We will also generate licencing fees when the findings and products are marketed. But those are all matters to be negotiated with our future partners.

## Have you already signed partnership agreements?

#### **GUIDO MEURER**

One research partnership has already been in place for several years in the field of green mining. With regard to urban mining, i.e. the utilisation of secondary and waste streams, we are in touch with several companies from various sectors of industry that are interested in our technology and want to take a closer look at our BioXtractor. I can't give you any further details at the present time (end of business year 2016/17).

#### PERFORMANCE MICROORGANISMS



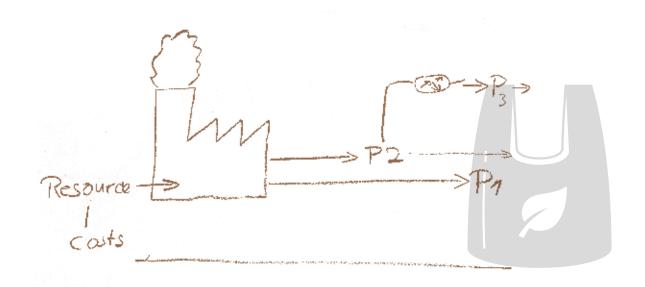


In August 2017, the first BRAIN BioXtractor was set up at the company's head office in Zwingenberg. This demonstration plant will make it possible to process up to six metric tons of raw material per year.



# Microorganisms in sustainable use

Microorganisms are capable of converting all manner of raw materials into valuable industrial substances. At the same time, they serve as microbial production strains in a wide variety of bio-based processes.



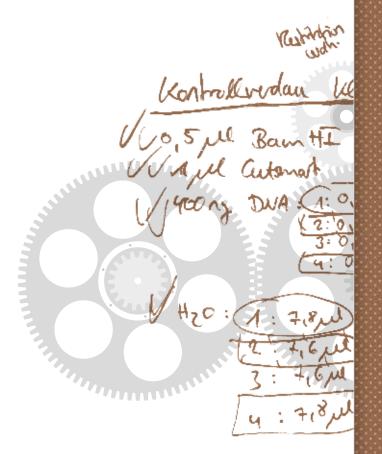
# Bioplastic based on CO<sub>2</sub>

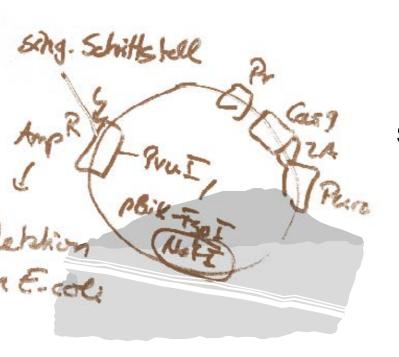
Carbon dioxide (CO<sub>2</sub>) is the most widely discussed resource of our age. Nature points to ways of putting CO<sub>2</sub> to technical use. Nature too uses carbon dioxide as a nutrient and a building block for biomass. So there are several microorganisms that feed on CO<sub>2</sub>. BRAIN identifies such bacteria and optimises them using biotechno-

logical processes to bind gaseous  $\mathrm{CO_2}$  from secondary and waste streams and then make it available for industrial added value. The specific aim in an existing cooperation partnership is to convert the  $\mathrm{CO_2}$  generated in bioethanol plants into intermediates for manufacturing bioplastics.

# Lubricants from biogenic waste

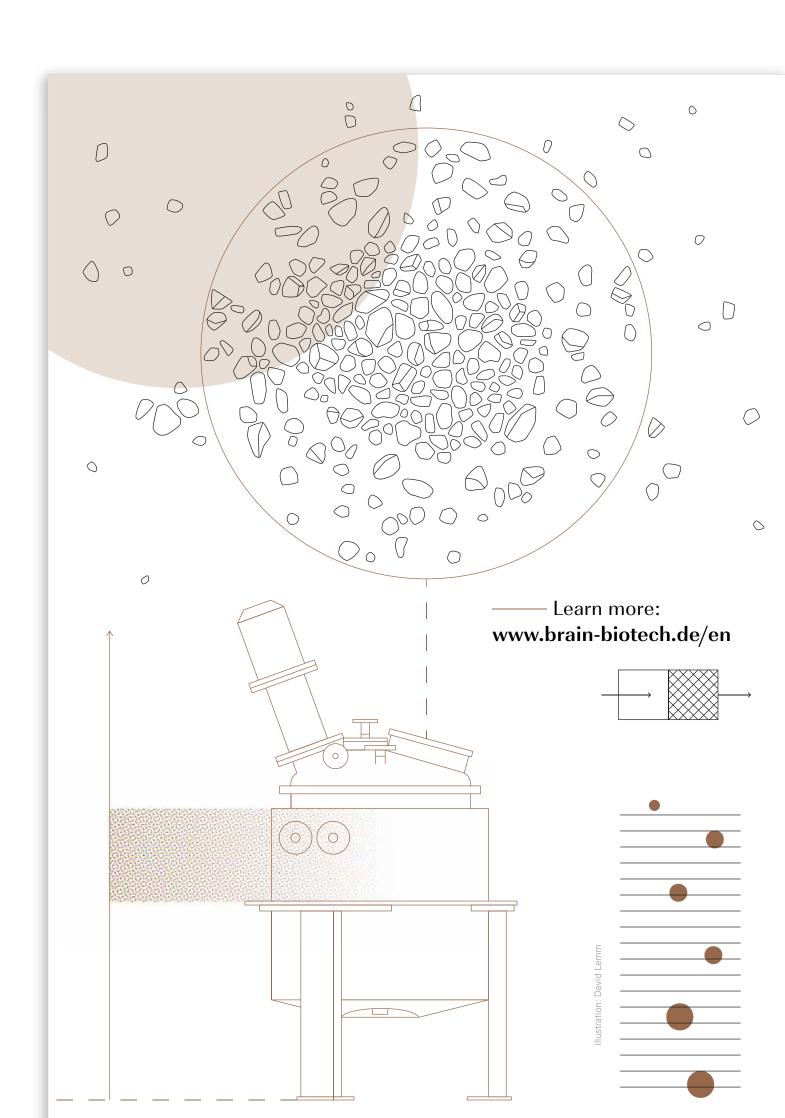
What should we do with waste from biodiesel production? BRAIN is addressing this question within the ZeroCarbFP innovation alliance. A research partnership with FUCHS Schmierstoffe GmbH and other partners is focusing on enzymatic synthesis processes for producing high-quality lubricants based on carbon-rich secondary and waste streams. Used cooking fats and oils, animal fats, residues from biodiesel production and the cell walls of woody plants are all conceivable types of starting material. The waste streams are used on the one hand as nutrients for enzyme production, and on the other as starting materials for synthesising the target products. Research activities have the key task of identifying and optimising microbial production strains that reliably produce the enzymes while providing high yields.





# Bio-based copper slate treatment

A Franco-German research team in which BRAIN is involved has succeeded in extracting almost all of the copper from domestic slate deposits in the EcoMetals research project. This is bilaterally supported by the German Federal Ministry of Education and Research (BMBF) and the French Agence Nationale de la Recherche (ANR). The bacteria, which are used in the bioleaching process, start by converting insoluble ore minerals into water-soluble salts. This is followed by biochemical precipitation, which makes it possible to recover up to 97 per cent of the dissolved copper.



# The company

# The company 51 The bioeconomy – the biologisation of industry 53 Strategy and business model 57 Competences and solutions 59 The BRAIN Group 62 Product portfolio 64 Highlights of the 2016/2017 business year 66 Lively corporate culture 70 Staff culture 74 The BRAIN share and the capital market 76

# The bioeconomy – the biologisation of industry

Modern biosciences and biotechnology have arrived, and the shift to the bioeconomy is underway, with the aim of handling natural resources more efficiently and on a more sustainable basis, and establishing improved industrial manufacturing processes and products to tackle the challenges our times present. The biologisation of entire economic sectors constitutes a megatrend, and is the driver and engine of a sustainable transformation process in industry and society.

#### The bioeconomy megatrend

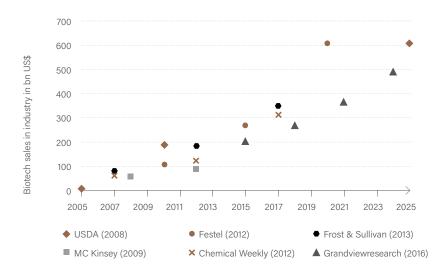
Global challenges such as world population growth, resource bottlenecks and climate change are increasingly prompting society, policymakers and business to rethink in terms of the bioeconomy – the biologisation of processes, products and industrial sectors. With this approach, natural or nature-based production processes and goods replace the deployment of fossil oil resources or solutions that are finite in supply or disadvantageous in other ways. Many current bioeconomy innovations focus on raw materials efficiency, environmental protection and health aspects.

Industrial biotechnology is the driving force and innovation motor, enabling novel solutions that seemed inconceivable even just a few years ago, and new product ideas and ways of creating value. As a cross-sector technology, it integrates highly differing disciplines from natural and engineering sciences, including cell, micro and molecular biology, genetics, immunology, biochemistry, bioprocess engineering and bioinformatics, as well as medicine and areas of machine engineering and materials sciences.

Industrial biotechnology addresses multifaceted target markets in the consumer goods, chemicals, energy and commodity industries. It plays an important role in the implementation of sustainable problem solutions worldwide and is regarded as a pioneer of a sustainable evolutionary transformation of economic systems and society, a fact reflected in numerous national and transnational programmes. The EU Commission launched its European Bioeconomy Strategy in 2012. Germany has pursued its own "National Bioeconomy Research Strategy 2030" since 2010, having established several state-supported innovation alliances since 2011 to accelerate structural change towards bio-based industry. 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 substances for foodstuffs and cosmetics.

BRAIN AG Annual Report 2016/17 53

#### FIGURE 02.1 BIOFCONOMY - OUTGROWING CHEMICAL INDUSTRIES<sup>1</sup>



- Experts expect the revenues of biotechbased chemicals to grow from some 140 bn US \$ in 2010 to around 610 bn US \$ in 2025.
- In 2015 global industrial biotechnology sales were 203 bn US \$.
- This revenue increase over the 15 year period represents a CAGR of approx. 11%.
- Industrial biotech sales are expected to outgrow the overall chemical markets – which are expected to grow at 4.1% (CAGR 2015–20)

All values in bn US \$; Exchange rate € to US \$: End of September 2017

The approval of the UN 2030 Agenda for Sustainable Development (Agenda 2030), the G7 commitment to decarbonisation and the elimination of hunger, as well as the signing of the climate agreement in Paris (COP21) gave the bioeconomy further tailwind in 2015. The first "Global Bioeconomy Summit" held in November 2015 in Berlin showed that more than 40 states have already launched research and development initiatives for the bioeconomy. In large parts of America and Asia, too, the bioeconomy is now regarded as one of the most important areas of growth for the 21st century.

Along with digitalisation, the bioeconomy represents a megatrend for the coming decades. The biotechnology-based tapping of naturally available resources forms the foundation for a new cycle entailing groundbreaking innovations, stronger economic growth and a comprehensive improvement of many people's quality of life.

#### Transformation of industries

In presenting its bioeconomy strategy, the EU Commission showed in its "Innovating for Sustainable Growth" study that nine percent of the European workforce (22 million individuals) were already directly or indirectly allocable to the bioeconomy in 2012, generating EUR 2 trillion of value. Around 2.2 percent of the entire manufacturing output of the USA, and consequently value creation of around USD 353 billion, was already attributable to bio-based products as of this date, too, according to a US National Academy of Sciences survey.

These figures have since continued to rise. Sales generated with biotechnology solutions are growing at double-digit rates in the globally positioned chemicals industry, according to Ernst & Young biotech reports. The US biotechnology sector alone, which has been ranked as one of the USA's top performing economic sectors over the last 15-year period, employed 1.6 million individuals in more than 40,000 companies in 2016, according to a Biotechnology Innovation Organisation (BIO) survey.

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

Expectations for future market opportunities for industrial biotechnology and bioeconomy are correspondingly high worldwide. Business experts predict that sales from bio-based "green" chemicals will expand from around USD 140 billion to USD 610 billion over the 2010–2025 period, reflecting a compound annual growth rate (CAGR) of around 11 percent, well above the level expected for other chemical product markets. Sector specialists anticipate that one in every five euros generated in sales in the chemical industry in 2020 will derive from biotechnology processes and products. This trend is currently accompanied by brisk M&A activity, with established companies endeavouring to reposition or better position themselves within the growing bioeconomy environment.

Figure 02.1

#### Sustainability as an investment factor

Global financial markets also regard the bioeconomy as a megatrend, leading to corresponding capital reallocations. Private individuals, asset managers and institutional investors have been placing a greater focus on socially responsible asset types for years, otherwise termed SRIs (Sustainable and Responsible Investments), or "Impact Investing", referring to their sustainable impacts. An increasing aim is to integrate aspects such as environmental protection, social compatibility and human well-being into investment strategies. Conversely, securities issued by companies that fail to make evident efforts (such as to protect the climate) are frequently subject to restrictions, if not outright rejection. Given this, sustainability reports and rankings have become standard in almost all industrial sectors.

SRIs and impact investments exhibit continuous growth. Sustainable investments in the USA amounted to a total of USD 8.7 trillion at the start of 2016, according to the Forum for Sustainable and Responsible Investment (US SIF), already corresponding to almost one fifth of all investments managed in the USA, having grown by 30% since 2014 to amount to more than USD 2 trillion.

Europe can also offer examples of this trend. Norway's parliament decided in mid-2015 to withdraw its sovereign fund – one of the largest funds of its type with a volume of currently around USD 1 trillion – from investing in companies where climate-damaging carbon business comprises more than 30 percent of business. The biggest disinvestment to date from this segment then commenced, affecting more than 120 companies worldwide. In Germany, for example, insurance and investment giant Allianz took the opportunity ahead of the COP21 UN Climate Conference to announce that it, too, would no longer invest in companies that procure more than 30 percent of their revenue or energy consumption from coalmining. Securities worth EUR 225 million were put up for sale, and EUR 3.9 billion of bonds were earmarked for expiry.

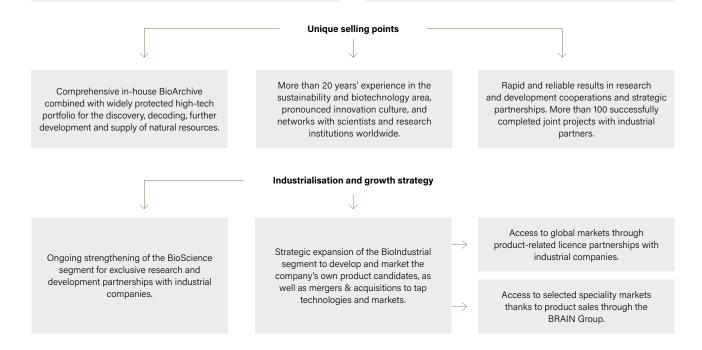
Such moves strengthen the trend to the bioeconomy, in alignment with all three sustainability pillars. Along with ecological and social advantages, economic benefits also exert a positive impact. Norway's sovereign wealth fund generated a record return of 6.5 percent in the first half of 2017, and its asset volumes reached a new all-time high. After appraising 190 high-quality economic studies, a research team from Oxford University arrived at the conclusion in 2014 that 90 percent of such publications show that companies reduced their cost of capital after introducing sustainability standards, while a directly positive share price performance was reported by 80 percent. Improved business performance as a consequence of applying sustainability standards was ascertained in almost 90 percent of the studies.

BRAIN AG Annual Report 2016/17 55

#### FIGURE 02.2 OUR OBJECTIVE: PARTICIPATING IN THE BIOECONOMY'S SUCCESS

BRAIN sees itself as playing an active role in helping shape the change to more sustainable ways of living and doing business. The Group stands for the ongoing biologisation of industries and the consumer world, and aims to participate in the bioeconomy's growing success.

Based on its proprietary BioArchive, BRAIN develops and markets product and process innovations for different B2B markets focused on bioactive natural compounds, natural-source enzymes and customised high-performance microorganisms.



#### BRAIN and the bioeconomy

BRAIN is the first bioeconomy company to IPO in Germany. BRAIN AG floated in the Prime Standard of the Frankfurt Stock Exchange on 9 February 2016, to advance the company's own growth and the biologisation of value chains.

Figure 02.2

BRAIN's USPs include access to the extensive "Toolbox of Nature" in the form of the company's proprietary BioArchive, and a unique and comprehensively patented technology portfolio. Based on this, BRAIN offers solutions to produce processed food and cosmetics on a more compatible basis, and to manufacture highly varied consumer products on a natural basis. BRAIN technologies based on microorganisms also serve to extract precious metals and rare earth metals from waste and byproduct flows such as carbon dioxide, electronic scrap and waste incineration ash, and to provide new product components for industrial utilisation. The BRAIN portfolio equally aims to deploy biological solutions to replace problematic chemicals and manufacturing processes.

# Strategy and business model

Since it was founded in 1993, BRAIN has been a pacemaker and high-tech pioneer in the areas of industrial biotechnology and sustainable bioeconomy. During the first 15 years of its operations, BRAIN developed itself into a preferred research and development cooperation partner for established industrial companies in the chemicals, nutrition and animal feed, as well as cosmetics industries. The company continuously expanded its BioArchive as part of these partnership programs, and developed its first propriety technologies to locate new product candidates. BRAIN has pursued an industrialisation strategy along the value chain since 2008 to establish itself as a fully integrated company with its own production, marketing and sales. Accordingly, the company has two operating segments today: BioScience and BioIndustrial.

Figure 02.3

#### BRAIN's industrialisation and growth strategy

The BioScience segment, which is mostly based on exclusive research and development partnerships with industrial companies, comprises a key anchor of BRAIN operating activities. The cooperation business within the BioScience segment is profitable and, not least, also essential for the further development of in-house expertise aligned to market and customer requirements. Segmental revenues report constant growth. Cooperation programs with industrial partners can only be scaled on a linear basis because of the requirement for more personnel, however, and possibilities to participate in the innovation successes in the market are limited.

Given this, BRAIN started to create a second business pillar in 2008, which was established in 2010 and has since attracted a greater scope of its own investments: the BioIndustrial segment. Targets in this segment include developing product candidates in-house and commercialising them through direct market access and licence partnerships. BioIndustrial licence partnerships address global markets that are tapped together with partners along the value chain through to the end-consumer. BioIndustrial transactions through the BRAIN Group entail mainly product sales in speciality markets.

With this strategy and a comprehensive BioIndustrial product pipeline (see page 64), BRAIN anticipates faster future sales revenue growth in its BioIndustrial segment than in its BioScience segment, and consequently also an increase in its EBIT margin.

Acquisitions of companies with attractive market access form part of the industrialisation and growth strategy.

#### Licence partnerships with industrial partners in global markets

To address big global markets, BRAIN enables the licensing of its own innovations and partnership models for established market participants. The DOLCE programme, which was launched in August 2016, forms one example of such an approach. Together with the BRAIN Group's natural substances specialist, AnalytiCon Discovery GmbH, and Roquette from France, the market leader for substances for special foodstuffs derived from plant-based raw materials, DOLCE is engaged in developing the next generation of natural sweeteners and sweetness enhancers. All three partners of the core team have different tasks in the alliance. The BRAIN

BRAIN AG Annual Report 2016/17 57

companies are responsible for identifying and developing the natural substances. Globally operating Roquette assumes production and marketing tasks. Roquette is a reliable and preferred manufacturing business partner for many consumer goods manufacturers.

#### Addressing speciality markets through the BRAIN Group

BRAIN achieves market access to selected specialty markets through its BRAIN Group companies. The joint development and marketing of enzymes by BRAIN AG and WeissBio-Tech GmbH represents one example. The company has established a close meshed global sales network for enzyme products over the course of many years. WeissBioTech's special enzymes division is currently being bolstered. The innovations of BRAIN in the area of bioactive substances for cosmetic products are realised through its subsidiaries Monteil and L.A. Schmitt.

#### FIGURE 02.3 THE SEGMENTS

#### BioScience

#### Description

- Exclusive collaboration partnerships with large industrial players
- BRAIN is a trusted partner due to its unique IP and know-how
- IP transfer to the customer, BRAIN retains rights

#### Focus

· Technology driven, joint developments

#### **Remuneration & benefits**

- Upfront, milestone, success payments
- Exclusivity fees
- Royalties

#### Rationale

- Continuation of a trusted business model
- · Stable and profitable growth
- · Technology development and retained rights

#### **BioIndustrial**

#### Description

 Developing and marketing our own product innovations through licence partnerships with established industrial partners in global markets, or through addressing speciality markets through subsidiaries

#### Focus

· Value accretive growth strategy

#### Remuneration & benefits

- Licence fees from established industrial partners
- Product-related cash flows
- Realising product/technology synergies

#### Rationale

- Leverage BRAIN's proprietary IP and know-how
- · Optimise the way to market
- Scalability

# Competences and solutions

The BRAIN Group focuses on the identification, research, utilisation and marketing of natural biological substances and processes for industrial use. The group combines various industrial technology competencies to replace unfavourable industrial constituents and production processes. BRAIN also stands for groundbreaking product and process innovations. BRAIN pursues the biologisation of industry and supports the bioeconomy's more resource-conserving business activities. All research and development activities focus on sustainability, efficiency and economic viability, as well as efficacy and added quality.

#### **Outstanding USPs**

Key success factors for product and process innovations from the BRAIN house include more than 20 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 supplemented by special competencies within the BRAIN Group (see page 62).

#### **BRAIN BioArchive**

The company's own BioArchive offers access to an immense variety of new biological solutions for sustainable industrial processes and contents. The BioArchive encompasses more than 53,000 comprehensively characterised cultivable microorganisms, more than 50,000 characterised natural substances and fractions consisting of edible plant material, more than 40 metagenome libraries as well as many new enzymes and metabolic paths comprising previously uncultivable organisms. This unique "Toolbox of Nature" is being expanded continuously.

#### **BRAIN technologies**

BRAIN possesses a high-tech portfolio that ensures the targeted discovery, decoding and further development of natural resources and their long-term and qualitatively reliable availability. State-of-the-art technologies for high throughput sequencing, digital 3D modelling and test simulations, as well as protein engineering and big data analyses are deployed. The high-tech portfolio is broadly secured with more than 350 patents and patent applications to materials and technologies in around 50 patent families. The patent protection encompasses technology and product innovations in all BRAIN product categories.

BRAIN AG Annual Report 2016/17 59

**Active biological** Natural resources **Technology platforms** ingredients **Enzymes Technology Unit** Performance Microorganisms **Technology Unit BioArchive** Performance Microorganisms **BioActive** Compounds **Technology Unit** BioActive

FIGURE 02.5 FROM THE BIOARCHIVE TO THE B2B MARKET

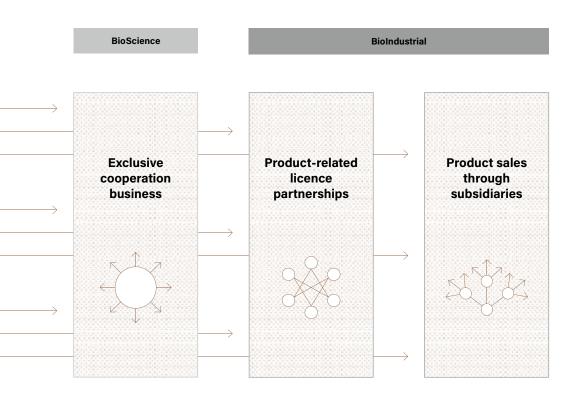
#### **BRAIN** product categories

Based on natural biodiversity and the company's own BioArchive, BRAIN focuses on three biotechnology product categories for highly differing applications in the consumer goods and chemical industries: bioactive natural compounds, natural-source enzymes and customised high-performance microorganisms.

Compounds

#### **Bioactive natural compounds**

BRAIN identifies and develops bioactive natural compounds (BioActives) for product development in the food manufacturing and animal feed industry, cosmetics and chemical industries, focussing on the optimised biological effect of natural substances and improved formulations for customised applications. The product range includes sugar substitutes and taste modulators for healthy nutrition as well as natural-source substances for cosmetics.



#### Natural-source enzymes

BRAIN identifies and develops new or optimised enzymes and biocatalysts that fulfil complex process and application requirements for highly differing product classes, and enable innovative technical production processes to be established. These include enzymes to produce foodstuffs, detergents, wound care preparations and lubricants. The focus is on servicing markets for special enzymes.

#### **High-performance microorganisms**

BRAIN identifies and develops customised high-performance microorganisms as functional biomass for optimised industrial production processes or to establish bioprocesses in chemical procedures (BioSubstitutes), as well as to manufacture bioactive natural compounds and enzymes for speciality markets. Application areas include recycling climate gas carbon dioxide as a new industrial raw material for bioplastics, as well as urban and green mining – the extraction of precious metals from byproduct and waste flows and ores.

BRAIN AG Annual Report 2016/17

# The BRAIN Group

The BRAIN Group combines first-class research and development work, special production expertise and access to attractive markets. All BRAIN Group companies operate as independent entities in the areas of research and development, process development, production/manufacturing or as suppliers in specific markets.

### B·R·A·I·N



Chief Executive Officer (CEO): Dr Jürgen Eck

#### **BRAIN AG**

Zwingenberg. BRAIN AG is the parent company of the BRAIN Group.

BRAIN AG in Zwingenberg in the metropolitan Rhine-Main-Neckar region is the corporate headquarters of the BRAIN Group, focusing on research and development based on the company's own BioArchive. Since it was founded in 1993, BRAIN has been a pacesetter and hightech pioneer in the areas of industrial biotechnology and bioeconomy. Its work focuses on bioactive substances, natural-source enzymes and customised high-performance microorganisms. BRAIN AG delivers rapid and reliable results in research and development cooperations and strategic partnerships for customers worldwide. Since 2010, BRAIN AG has been investing to a greater extent in developing its own product candidates, and commercialising them. As part of a growth-oriented and industrialisation strategy, BRAIN AG has been listed in the Prime Standard of the Frankfurt Stock Exchange since February 2016. www.brain-biotech.de

#### **AnalytiCon Discovery GmbH**

Potsdam. BRAIN AG holds a 59% interest.





Managing Director: Dr Lutz Müller-Kuhrt

AnalytiCon Discovery GmbH, which was founded in 2000, is a global market leader in the area of compound libraries containing fully analysed structures. Situated on the Potsdam Biotech Campus, the company offers services for every stage of the supply chain for natural product-based (NP-based) substance discoveries and developments. Innovative technology concepts enable high-grade partnerships with globally operating companies from the pharmaceutical, food manufacturing and cosmetics industries. AnalytiCon Discovery enjoys access to around 15 percent of all natural compounds known worldwide, as well as to thousands of structures that have not yet been published. The company established technologies to develop and produce focused combinatorial compound libraries based on rare core structures that contain bioactive structural elements. AnalytiCon Discovery has been a member of the BRAIN Group since 2013. www.ac-discovery.com

#### WeissBioTech GmbH

Ascheberg. BRAIN AG holds a 50.6% interest.

WeissBioTech GmbH was founded in 2002, and today is a leading supplier in the area of special enzymes, yeasts, natural conservation agents and other fermentation-based products for the food manufacturing industry. The company also serves the starch processing and bioethanol industries as well as producers of drinking water, fruit juices, beer and wine. The company's highly developed technical service, well-grounded expertise in enzyme technology, application know-how and a worldwide network to supply the food manufacturing and starch processing industries, as well as knowledge about enzyme developers, producers and suppliers, form the basis for its growing enzyme business. To strengthen its market position, in 2010 WeissBioTech established a downstream plant for separation and cleaning as well as mixing and packaging in France at its branch operation WeissBioTech France SARL. Combined with strong quality assurance and controlling (QA/QC), further added value is tapped through utilising concentrates of specific enzymes. The enzymes are customised to client requirements and marketed under the WeissBioTech trademarks NATUZYM® and DELTAZYM®. WeissBioTech has been a member of the BRAIN Group since 2014. www.weissbiotech.com

#### WeissBioTech



Managing Director: Hans de B

#### L.A.Schmitt GmbH

Ludwigsstadt. BRAIN AG holds a 100 % interest.

L.A. Schmitt GmbH, which was founded in Leipzig in 1925, develops and produces cosmetics and wellness products to the highest level. Many years of experience and a passion for cosmetics led to the creation of products that meet customers' high demands and requirements. L.A. Schmitt manufactures its own product lines, as well as products for wholesale and retail companies, and for wellness and cosmetic brands. Regular innovations integrate the latest scientific knowledge into products. The company focuses on individual service, well-founded knowledge and a high level of flexibility for partners and customers. L.A. Schmitt has been a member of the BRAIN Group since 2009. www.schmitt-cosmetics.com

#### L.A. SCHMITT



Managing Director: Manfred Stöver

#### **MONTEIL Cosmetics International GmbH**

Düsseldorf. BRAIN AG holds a 68.3% interest.

MONTEIL, a brand company founded in 1936, is highly regarded as an experienced partner to beauty institutes and perfumery stores, and is represented in more than 20 countries worldwide. MONTEIL is one of the technologically leading anti-ageing specialists in the face care area. MONTEIL cosmetics are developed at the highest scientific level, and boast a track record of setting innovative skincare trends in the international cosmetics market. MONTEIL focuses on bioactive natural substances offered in high-quality and also optimally coordinated concentrations. The company sees itself as an expert partner for customers for which – and with which – it develops treatment concepts for almost all skin types, based on a broad product range. The product spectrum comprises 86 products and 11 product lines. MONTEIL Cosmetics International GmbH has been a member of the BRAIN Group since 2011. Wilde Group, a specialist in hand and nail care, is a minority shareholder. www.monteil.com





Managing Director: Thomas Kessler

BRAIN AG Annual Report 2016/17

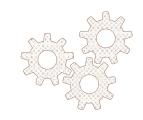
# Product portfolio

As part of BRAIN's industrialisation strategy, an attractive portfolio of product candidates for the BioIndustrial segment has been established over the past years. Such research and development work is in various development stages.

In a "steady state", the company aims for a relatively constant volume in its development pipeline. New projects are started as soon as development lines transfer to the marketing phase. They previously undergo intensive testing in terms of technical and commercial feasibility to optimise the programme's probability of success. At the project evaluation level,

FIGURE 02.5 NEW PRODUCT DEVELOPMENT

15 pipeline-programmes



CONTINUOUS FEASIBILITY STUDY PROGRAMMES



4
ENZYME
DEVELOPMENTS



3
MICROORGANISM
DEVELOPMENTS



8
BIOACTIVE
DEVELOPMENTS

BRAIN can call upon extremely rapid and reliable expertise at every research and development stage.

BRAIN is currently pursuing 15 product development programmes in its BioIndustrial segment, addressing a total of six market categories. Successful product candidates are to be launched on the market in the coming years.

# 6 different markets adressed





PRODUCT LAUNCHES IN THE COMING YEARS

BRAIN AG Annual Report 2016/17

# Highlights of the 2016/2017 business year







Finalist 2016



2016 2017

October

November

December

January

#### 6 October 2016

#### Successful interim evaluation of the ZeroCarbFP strategic alliance

The committee of consultants appointed by the German Federal Ministry of Education and Research (BMBF) recommends that support for the ZeroCarbFP strategic alliance be continued for the upcoming second phase, during which the bio-based processes that have already been identified are to be brought to market. BRAIN acts as the coordinator of this alliance.

#### 16 November 2016

# Two large food product categories participate in DOLCE programme

The first two product categories, breakfast cereals and snacks, are partnering with the DOLCE programme. The consumer goods companies taking part are mainly interested in replacing or reducing sugar with natural substitutes or sweetness enhancers, with the aim of producing healthier foodstuffs.

#### 18 November 2016

#### BRAIN CEO nominated "Entrepreneur of the Year 2016"

Jürgen Eck, CEO of BRAIN AG, is a finalist in the Entrepreneur of the Year 2016 contest. The title is awarded by independent economic experts for innovative corporate management.

#### 2 December 2016

# A "SYMPCURSION" in and to Zwingenberg

BRAIN is organising its first "sympcursion". This neologism is a mix between a SYMPosium and an exCURSION. Biotechnological research issues will be presented and discussed in a round of interdisciplinary talks.

#### 19 December 2016

# BRAIN publishes provisional figures for the 2015/2016 business year

The provisional figures for the BRAIN Group indicate a slight growth in total operating performance of 2% to € 26.1 million. Sales grew by 8% to € 22.8 million in the period under review. The BioScience and BioIndustrial Segments both contributed to this result.

#### 16 January 2017

#### BRAIN publishes Annual Report

BRAIN confirms the provisional figures published in December 2016 for the 2015/2016 business year. BRAIN's first Annual Report following its IPO bears the title "Engineering Biology", and offers exciting insights into the world of industrial biotechnology.

#### 31 January 2017

#### BRAIN proposes candidates for election to the Supervisory Board at ordinary shareholders' meeting

BRAIN's Management Board proposes Dr Anna Eichhorn, Dr Martin Jager and Dr Georg Kellinghusen for election as new Supervisory Board members, since several existing members will withdraw from the Supervisory Board at the forthcoming ordinary shareholders' meeting.









February

March

April

May

#### 9 February 2017

# Free float of BRAIN share successfully increased

BRAIN has announced that MIG-Fonds, a long-standing shareholder of the company, has sold all of its shares. These sales increase the free float of the BRAIN share from 22% to 37%.

#### 28 February 2017

### BRAIN gets off to stable start in 2016/2017 business year

In the period from October to December 2016, the BRAIN Group achieved total operating performance of  $\in$  6.6 million as compared with  $\in$  7 million in the same period of the previous year. Sales revenues rose slightly from  $\in$  6 million to  $\in$  6.1 million.

#### 9 March 2017

#### BRAIN's first ordinary shareholders' meeting since IPO goes off successfully

BRAIN's first ordinary shareholders' meeting since the IPO was held on 9 March 2017. All points on the agenda were approved by a large majority of the participating shareholders.

#### 21 March 2017

#### BRAIN extends patent coverage for Aurase® enzyme for the treatment of chronic wounds

BRAIN has received extensive patent coverage for its new Aurase® enzyme for applications in the treatment of skin, scars and wounds. This important step lays the foundations for subsequent marketing in a total of 20 countries in Europe, Asia, North America, Oceania and Africa.

#### 6 April 2017

#### NatLifE 2020 alliance partners take positive stock at 2017 annual meeting

Over 40 scientists took part in the regular meeting of the NatLifE 2020 strategic alliance and summed up its results on a positive note in light of recent research findings. The alliance is developing a new generation of sustainably produced and biologically active ingredients for the food and cosmetics industries using biotechnology and an understanding of biological systems. BRAIN has been in charge of coordinating the alliance since its inception.

#### 12 May 2017

#### BRAIN nominated for gold award in largest European competition for themebased communication

BRAIN's first Annual Report since its IPO has been nominated for the "Best of Content Marketing" award in the "reporting" category. The prize will be awarded at the BCM congress in Berlin.

#### 31 May 2017

# BRAIN on course for growth in first six months of 2016/2017

The BRAIN Group succeeded in increasing its total operating performance by 3% between October 2016 and 31 March 2017 as compared with the same period of the previous year. Sales revenues rose by 9% and EBIT dropped from € -5.3 million to € -5.6 million.

BRAIN AG Annual Report 2016/17









June July August September

13 June 2017

## Kunst *privat!* at BRAIN AG focuses on "Habitats"

Once again, BRAIN is participating in the art initiative Kunst *privat!* This year's initiative will showcase works on the theme of "Habitats" (Lebensräume) by artists Daniel T. Braun, Thomas Mies, Tatjana Urban and Julia Roppel.

21 June 2017

#### BRAIN and Roquette successfully wind up multiyear research project

BRAIN and Roquette have now concluded a research project that aimed to improve the efficiency and sustainability of production processes for food ingredients. To this end, BRAIN identified, developed and optimised biological resources from its BioArchive.

12 July 2017

## Global beverage corporation joins DOLCE

BRAIN, AnalytiCon and Roquette are pleased to announce that a U.S. beverage corporation with global operations has been acquired as a new member of the strategic DOLCE partnership. The new product categories to join the partnership comprise "non-alcoholic beverages", "milk and yogurt drinks" and "ginger ale and tonic".

2 August 2017

Successful conclusion of joint BRAIN AG and BASF SE research project

10 August 2017

BRAIN AG receives prestigious design and creativity award for first post-IPO annual report

15 August 2017

Scientific study proves high dental treatment costs due to excessive sugar consumption

29 August 2017

Strong demand for BRAIN shares from institutional investors

31 August 2017

BRAIN achieves notable top- and bottom-line improvements in the first nine months 2016/17

7 September 2017

#### BRAIN acquires new longterm investor as part of capital increase

The company is increasing its cash capital, making partial use of the authorised capital.

Some 10% of the previous equity capital will be provided by a new long-term investor, DAH Beteiligungs-GmbH, Mannheim.

## Press review

# Biotech boom drives jobs for young people

Bergsträßer Anzeiger, 17 October 2016

Hall of Fame – Entrepreneur of the Year

EY Werte, Wege, Wachstum, 18.11.2016

First Annual General Meeting after IPO a resounding success

hv magazin, 01.2017

Stock exchange celebrity from the Bergstrasse

FAZ, 02.02.2017

BRAIN jumps on the health bandwagon

Börsen-Zeitung, 18.03.2017

**Sweet hopes** 

Handelsblatt, 23.03.2017

Biology replaces toxic chemicals in mining

EURO AM SONNTAG, 18.03. - 24.04.2017

BRAIN in top spot of German IPOs for 2016

23 May 2017, finanzen.net

Positive results for "NatLifE 2020"

7 April 2017, Darmstädter Echo

BRAIN is one of the most innovative companies in Germany

May 2017, BRAND EINS

Hello sweeties!

7 June 2017, Brigitte

The capital market appreciates BRAIN's IPO performance

2017, Deutscher Biotechnologiereport

Gold from scrap

17 August 2017, HR Hessenschau TV

69





The light-filled technology campus and the openly designed outdoor spaces make for 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, BRAIN bought a technology campus consisting of 2,500 square metres 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 technology campus, with rooms that offer individual privacy, and the openly designed outdoor spaces make for 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 has taken 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 its daily operations.

### 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 many years of participation in the Kunst privat! art initiative launched by the Hessian Ministry of Economics, Energy, Transport and Regional Development. The works of selected young artists that refer to the company's operations are exhibited on BRAIN's premises and made accessible to the public on guided tours. The artists are generally available for in-depth discussions during the exhibition. Selected exhibits remain



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

on show 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, in tandem with the company's quarterly and six-monthly reports. 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 it from other publications in this sector. The photography and graphic design in particular are unconventional. Each issue is individually illustrated. Exclusively created photographs underline the aesthetic side to the company's apparently technical line of work – the bioeconomy. Recently, an inter-active internet site has been developed for the periodical, which strengthen's BRAIN's initial involvement in social media.

BRAIN has received numerous awards for its unusual activities related to art, culture and communication. Following the company's IPO in February 2016, the first Annual Report 2015/2016 received the prestigious Red Dot Award in June 2017. In May 2017, the annual report had already been nominated for a Best of Content Marketing Award, and later received a silver medal. In September 2016, BRAIN received the coveted WERKBUND Label for groundbreaking, innovative activities that are of importance to society, or stand for good design. In addition to these, BRAIN also received a special mention for the exceptional design quality of BLICK-WINKEL at the 2014 German Design Awards presented by the German Design Council. The company magazine received the iF communication design award in 2013 from iF Industrie Forum Design e.V.

BRAIN started to expand its internet presence at the end of the 2016/2017 business year. Thus a dedicated internet site has been established for the longstanding quarterly BLICKWINKEL. All issues from business year 2015/2016 can be found at www.brain-biotech.de/en/blickwinkel.

A BRAIN Twitter account (@BRAINbiotech) has been set up and successfully positioned. Further measures are being prepared.

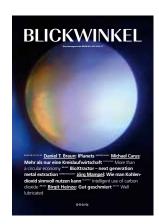




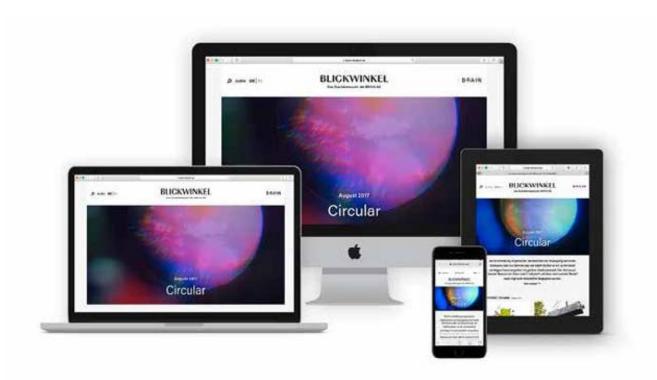
BRAIN's first annual report in 2015/2016 received the Red Dot Award and Best of Content Marketing Award Silver Certificate.







BRAIN's quarterly magazine BLICKWINKEL offers accessible, flexible and compact information on company trends.



You can now find all issues online at: www.brain-biotech.de/en/blickwinkel.

### Staff culture

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

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

Within the BRAIN Group, highly qualified scientists, engineers, technicians and managers work on a variety of different subject areas. Their 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 trans-

fer 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. This often enables BRAIN to recognise research and market opportunities long before they are perceived by the competition.

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 2017, a total of 245 colleagues were employed by the BRAIN Group, 127 of them at BRAIN AG, 68 at AnalytiCon Discovery GmbH, 18 at WeissBioTech, 19 at L. A. Schmitt and 13 at MONTEIL. 2

### Networking and promoting education and training

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.

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

<sup>2</sup> All statements made here reflect the status in September 2017, including executive officers and trainees.

management assistants. In 2018, BRAIN will also become an independent training company for biology laboratory technicians.

The constantly growing BRAIN alumni platform unites trainees, students and present and former staff to promote personal and professional exchange.





# 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 the only company of its type in the German equity market.
- → Given the closing price of € 19.70 on the last trading day of the financial year (29 September 2017), the share price gain compared with the previous year's close of € 11.70 amounts to more than 68%.

### Capital market environment

The capital market environment in the 2016/17 financial year proved to be largely positive. Apart from short-term setbacks, such as ahead of the US presidential elections, the North Korea crisis, reporting on the diesel subject in the German automotive industry and an appreciating euro thanks to an indicated change in European monetary policy, the DAX index of leading German equities reported gains over almost the whole period. The index touched its low of 10,259 points as early as 4 November 2016. The high for the year was reached on 19 June 2017 at almost 12,889 points (XETRA closing prices in each case). On a year view, the DAX closed on 29 September 2017 at 12,829 points, representing a significant gain of 22.1%. The SDAX small cap index that is more relevant for BRAIN performed mainly in line with the DAX. From mid-July, when weak automotive stocks and the stronger euro increasingly weighed down on the DAX, the SDAX clearly decoupled, outperforming the DAX with a more than 6% gain the reporting period.

### 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 the only company of its type in the German equity market. Accordingly, the performance of the BRAIN share is significantly more dependent on the company's growth successes and prospects than on general stock market trends. This is also underscored by the very positive but equally volatile trend in the BRAIN share price, especially during the first five months of the financial year elapsed. The BRAIN share already marked its low¹ for the year of € 11.60 on 6 October 2016, rising to its high¹ for the year of € 24.49 on

<sup>1</sup> In each case based on the closing price

27 January 2017. During the periods surrounding share sales by previous shareholders with the expiry of the lock-up phase (the shares of the early-phase investor MiG Fund were successfully placed among institutional long-term investors during the night of 8 February 2017, thereby boosting the free float to around 40% and tangibly reducing the share's volatility) and the lack-lustre start to the new financial year, the share relinquished most of these gains up to the AGM in March 2017. This setback in the share price proved to be only short-term, however. The share rapidly recovered, trading in a range between € 17.00 and € 19.00 from mid-April 2017, supported by a flow of positive company news. Given the closing price of € 19.70 on the last trading day of the financial year (29 September 2017), the share price gain compared with the previous year's close of € 11.70 amounts to more than 68%. The BRAIN share consequently outperformed its relevant benchmark indices again – the DAX, SDAX and the DAXsubsector Chemicals, Specialty Performance Index – which registered gains of 22.1%, 28.3% and 26.0% respectively over the same period.

### Successful capital increase for further growth

On 7 September 2017, BRAIN AG acquired a further long-term investor by way of a capital increase with DAH Beteiligungs-GmbH, a company run by financial investor Daniel Hopp. This entailed issuing a total of 1,641,434 new ordinary registered shares, corresponding to around 10% of the previous share capital, to DAH Beteiligungs-GmbH. This transaction raised the share capital of BRAIN AG from € 16,414,348.00 to € 18,055,782.00. Gross issue proceeds of around € 28 million accrued to the company from this measure. According to planning, the funds are to be deployed for the further implementation of the sustainable growth strategy of BRAIN AG, especially to finance small and medium-sized acquisitions.

The capital measure and the new investor were received positively by the stock market. During the three weeks following the capital increase (and up until the financial year-end), the share price rose by around 10%, thereby breaking out of its previous trading range. This positive reaction underscores again the high future potential that investors meanwhile ascribe to the advancing biologisation of classic industrial processes to achieve greater resource efficiency, sustainability, and protection of nature and the climate.

### FIGURE 02.6 BRAIN SHARE PRICE PERFORMANCE (INDEXED)

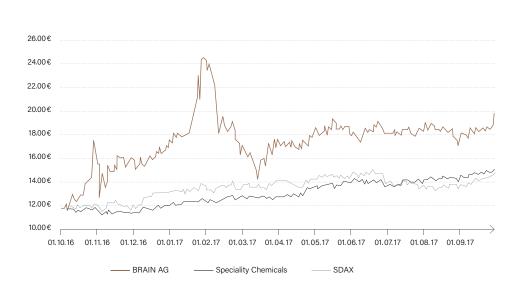


TABLE 02.1 KEY SHARE DATA

Share class	No-par-value registered shares
Stock exchanges	XETRA, Frankfurt, Berlin, Düsseldorf, Munich, Stuttgart, Tradegate
Transparency level	Prime Standard
Number of shares	18,055,782
Share capital	€ 18,055,782
ISIN	DE0005203947
WKN	520394
Ticker symbol	BNN
Specialist	ODDO SEYDLER Bank AG
Designated Sponsor	ODDO SEYDLER Bank AG
Paying agent	Bankhaus Gebr. Martin
Share price on 29.09.2017 <sup>2</sup>	€ 19.70
52-week high³	€ 24.49
52-week low <sup>3</sup>	€ 11.60
Market capitalisation on 29.09.2017 <sup>2</sup>	€ 355.70 million
Average daily trading volume (52 weeks as of 29.09.2017 <sup>2</sup> ) <sup>3</sup>	30,208 shares/day

<sup>2</sup> Last trading day of the 2016/17

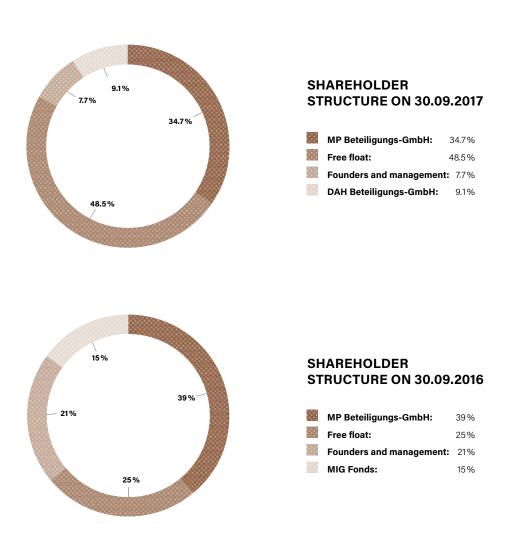
financial year

In each case based on the closing price.

### Shareholder structure

As a result of the capital increase in September 2017, the number of shares in issue of BRAIN AG increased to 18,055,782. Thanks to placements of previous shareholders' investments, the free float increased significantly during the financial year elapsed, and at 47.6% stands currently almost twice as high as on 9 September 2016. This also exerts positive effects on the liquidity and tradeability of the BRAIN share. The shareholder structure of BRAIN AG as of 30 September 2016 (and as of the previous year's reporting date) is as follows:

### FIGURE 02.7 SHAREHOLDER STRUCTURE



### **Analysts**

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

Company	Analyst
Baader Helvea Equity Research	Markus Mayer, Laura López Pineda
Deutsche Bank AG	Falko Friedrichs, Gunnar Romer
EQUI.TS	Thomas Schiessle
ODDO BHF-Bank	Igor Kim, Sebastien Malafosse

### 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 such as quarterly statements and half-year financial reports, BRAIN informed investors, analysts and other interested capital market participants in two ad hoc announcements, 24 press announcements and 15 IR announcements, as well as through telephone conferences and individual meetings, about the company's further development and the bioeconomy's global growth potential. As part of roadshows (a total of 18 days), especially in January (after the publication of the annual financial statements) and September (after the capital increase), company representatives met with investors in Brussels, Chicago, Düsseldorf, Frankfurt, Helsinki, Cologne, London, Lyon, Munich, Paris and Zürich in 2017. 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 Finance Conference in January in Lyon, the DVFA 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/.

### **Annual General Meeting**

The first Annual General Meeting of BRAIN AG, which was held on 9 March 2017 in Zwingenberg, represented an important high point of investor relations work in the 2016/17 financial year. A total of 70.77% of the share capital of BRAIN AG, which is divided into 16,414,348 shares, was represented there. The participating shareholders accepted all agenda items with large majorities. The voting results can be viewed on the Internet at www.brain-biotech.de/investor-relations/hauptversammlungen/hauptversammlung-gj-2015-16. Votes were held concerning the respective discharge of the members of the Management and Supervisory boards for the 2015/16 financial year, the election of a new auditor, the election of four Supervisory Board members and the creation of new authorised capital. At the end of the AGM, temporary CFO Dr Georg Kellinghusen returned to the company's Supervisory Board. As planned, Frank Goebel replaced him as the CFO on the Management Board of BRAIN AG.

Management report Corporate Governance

# Biological care for wound patients

The combination of natural biodiversity and biotechnology opens up new prospects in wound treatment. This benefits patients, nursing staff and the health system in equal measure. Special enzymes point the way.

— There are a growing number of patients with chronic wounds in Europe and other parts of the world. The number of cases in Germany alone is estimated at three million, but there are surely a large number of unreported cases. Since this mainly concerns elderly people, demographic change is pushing up patient figures. Other factors include diet-related conditions such as obesity, diabetes or malnutrition.

——BRAIN's researchers have developed a new treatment to improve the situation of wound patients. The active principle is an enzyme with the product name Aurase®, which is modelled on the maggots of the common green bottle fly (Lucilia sericata). It has been known for centuries that open wounds infected with these maggots heal better.

# $40\,\mathrm{m}$

There are more than **40 million patients with chronic wounds** worldwide. Doctors speak of chronic cases when treatment takes longer than eight weeks. In Germany, the wounds of about one third of patients become chronic.

# EUR 10,000

The costs of treating patients with chronic wounds amount to EUR 2–4 billion each year in EU member states. **Individual treatment costs are around EUR 10,000 per patient**. Wound dressings and bandages account for about a fifth of these costs.

50%



About **half of all patients with decubitus ulcers** (also known as bed sores) and diabetic foot syndrome **become chronic wound patients**. Treatment may take many months or even years.

# USD 20 bn

Experts presume that the **global market for wound treatment products and bandages** will reach an annual volume of **more than USD 20 billion by 2020.** The average annual growth rate of this market between 2014 and 2020 is estimated at eight per cent.





BRAIN's researchers have developed a new treatment to improve the situation of wound patients. The active principle is an enzyme with the product name Aurase®, which is modelled on the maggots of the common green bottle fly (Lucilia sericata).

BRAIN has translated this gift from nature's treasure trove into new wound care products.

— The starting point was the identification of an enzyme that promotes wound healing in maggot therapies. The high-purity Aurase® enzyme is produced by means of biotechnological processes. The product name was based on the Latin for gold (aurum) and refers to the German name of the fly (literally "golden bottle fly") that served as the natural model.

—— BRAIN extended its patent coverage for commercial use of Aurase® in the 2016/17 business year. We are currently exploring specific applications and various marketing options.

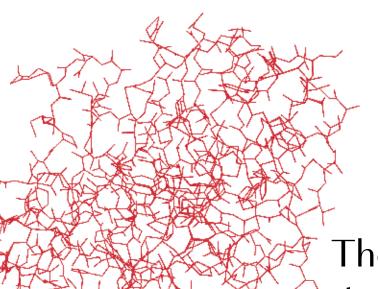
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## Aurase® ...

... is a new enzymatic active ingredient developed by BRAIN for the **biological treatment of open wounds**.

... illustrates the **enormous and still largely untapped potential of biodiversity**, here based on the common green
bottle fly as a natural model. BRAIN's BioArchive contains
a sliver of this biodiversity.

... is a new enzyme product for which BRAIN has already received **patent coverage in some 20 countries** of Europe, Asia, North America, Oceania and Africa for the fast growing market for the treatment of chronic wounds.



... is a **gentle option** for the growing number of chronic wound patients, and an **effective addition** to other sometimes painful and unpleasant procedures such as surgical debridement or maggot therapy.

The objective is to create a range of Aurase® products based on proven processes.

# Our Aurase® enzyme unites biotech with nature

An interview with Dr Bela Kelety, Unit Head New Business Development at BRAIN AG, and Dr Alexander Pelzer, Project Manager and Platform Coordinator Tailor-made Biocatalysts

## What is the special challenge involved in the treatment of open wounds?

### **BELA KELETY**

Our skin acts as a barrier that protects us from pathogens. If this barrier is destroyed, there is a risk of contamination and infection that adds to the task of wound healing. Open wounds therefore require regular cleaning. To allow new tissue to grow, dead tissue has to be continually removed. This procedure is called debridement, and can be performed surgically under anaesthetic or by applying enzymatic substances. A third option is maggot therapy, in which fly maggots feed on the dead tissue. The choice of suitable debridement procedure depends on the type and size of the wound.

### What was the starting point of your research into the Aurase® enzyme?

### ALEXANDER PELZER

We worked on the assumption that therapies using the maggots of the common green bottle fly rely on the action of specific enzymes. Enzymes are proteins (biocatalysts) that speed up biochemical reactions. Nature offers a rich collection of these biomolecules that are essential to life.

### How do enzymes act in maggot therapy? ALEXANDER PELZER

Maggots use the wound debris as a source of nutrients and export enzymes that break down the protein fibrin, among others. That is one of the main constituents of the wound debris that impedes wound healing. Before we carried out our work, it was not known which enzyme plays a key role in this biological process. We knew that maggot therapies are either very unpleasant or completely unacceptable for many patients. That spurred us on to decode the process involved.

### What were the essential steps in this research? ALEXANDER PELZER

We have managed to develop a gentle biological option for wound treatment that unites nature and biotechnology. First of all, we succeeded in identifying exactly which maggot enzyme breaks down fibrin without attacking the surrounding





healthy tissue. We characterised this enzyme, which we later baptised Aurase®, and then developed a biotechnological process to produce it in large volumes with a high degree of purity. The microorganism Pichia Pastoris is the production organism here. This involves a safe biotechnological expression system that is already being widely used.

### How did people discover that the maggots of the common green bottle fly have medical properties?

### **BELA KELETY**

It has been known since the Middle Ages that open wounds infected with maggots often heal better. Some even say that the Maya, the indigenous people of America, and the aborigines in Australia used maggots to heal wounds. The first scientific foundations were laid in the 1920s. This form of treatment fell into oblivion due to the development of antibiotics, and only regained popularity in the 1990s. Its current applications in hospitals are based on this ancient knowledge, and make use of specially bred sterile maggots.

## What advantages does the Aurase® enzyme offer as compared with other enzymatic active substances?

### ALEXANDER PELZER

The Aurase® developed by BRAIN is an enzyme derived from the serin protease family that can break down proteins or peptides. Aurase® acts very specifically on the protein fibrin. This is not always the case with other enzymes. Some wound treatment enzymes are obtained from pineapple plants or pathogens. Such enzymes act unspecifically and not only break down fibrin, but may also damage healthy tissue. They are therefore used in low concentrations or only applied for short periods of time. That makes nursing more time-consuming and lengthens the wound cleaning process.

### What positive effects do you expect from the Aurase® products?

### BELA KELETY

Our interest focuses on wound patients whom we would like to offer a well-tolerated, effective alternative to the sometimes very painful and unpleasant

# "Aurase® will be easy to use and fit smoothly into existing processes."

Dr Bela Kelety

forms of therapy available at present. While both surgical debridement and maggot therapy are effective, they are also time-consuming and cost-intensive forms of treatment, which call for a specialised infrastructure and detailed medical knowledge. We hope the Aurase® products will reduce the need to train nursing staff and the overall healing outlay. Aurase® will be easy to use and fit smoothly into existing wound management processes at hospitals, nursing homes or nursing care at home.

### What form will the final Aurase® products take?

### ALEXANDER PELZER

Various forms are conceivable in theory. A wound gel containing the active ingredient Aurase® has proved to be favourable, and has been shown to be effective and well-tolerated in pre-clinical trials.

## Can we expect BRAIN to focus on pharmaceutical biotechnology as well in future? BELA KELETY

Our focus is and remains industrial biotechnology. In this context, we concentrate on developing new enzymes, natural active ingredients and high-performance microorganisms. However, our expertise in these three areas also enables us to address a variety of tasks. Aurase® is a medical product, and this is admittedly an unusual market segment for BRAIN. But when we realised the benefits we could harness with our know-how for patients and nursing staff, we couldn't just ignore it. Apart from that, this offers attractive market opportunities.

## What are the next steps in realising Aurase® products?

### **BELA KELETY**

On the one hand, we are presently working to optimise the yield of the biotechnological production system for the Aurase® enzyme. Parallel to this, we are taking steps to extend patent coverage. We are also in touch with experts to prepare clinical studies for our first Aurase® products and to obtain marketing authorisation.

# When do you intend to launch Aurase® products on the market, and what business model will you use?

#### **BELA KELETY**

We will continue to drive development forward until we receive marketing authorisation and make the products available on the market. We intend to show that Aurase® products work under real-life nursing conditions and offer clear advantages for patients, nursing staff and doctors. We expect our first sales at the end of the decade, and are currently examining various options for business models to grow this business in future.

Experts estimate the annual sales volume of the market that BRAIN can address for Aurase®-based products at more than EUR 100 million in Europe alone. We intend to take part in this development.

### ENZYMES





The next steps include expanding patent coverage and preparing for a clinical study in order to obtain market authorisation.



We succeeded in identifying We succeeded in identifying exactly which maggot enzyme breaks down fibrin without attacking the surrounding healthy tissue. We are presently working to optimise the yield of the biotechnological production system for the Aurase® enzyme.

# Tailor-made enzymes for various industries

The BRAIN Group researches efficient enzymes for food and beverage manufacturers and for special applications in a variety of industries.



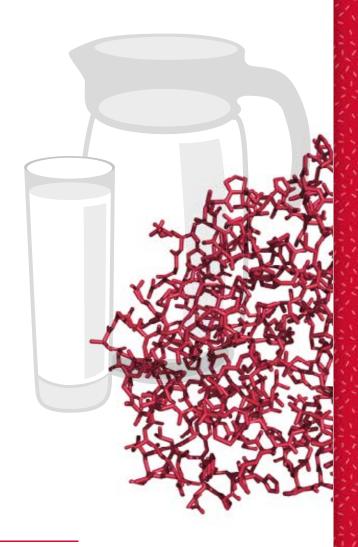
# Improved enzyme systems for starch-processing industries

The inclusion of WeissBioTech GmbH in the BRAIN Group in 2014 combined proven research expertise with a global production and distribution network, thereby harnessing potential for new development and growth. WeissBioTech is familiar with the manifold applications for a huge variety of enzymes and has distribution partners around the globe

that provide excellent access to markets. A joint development project is looking into more efficient enzyme systems that boost the hydrolysis of starch into glucose and thus enhances glucose yield. These enzyme systems are relevant for industrial manufacturers of starch, alcohol, beer and bioethanol.

## Nature-based lactase prevents lactose intolerance

BRAIN and WeissBioTech are developing and producing a variety of special enzymes for various sectors of the food industry. The focus is also on a new nature-based lactase formulation for dairy products in response to the growing problem posed by lactose intolerance. Lactase is an enzyme that breaks milk sugar (lactose) down into its constituents. Lactase deficiency causes digestive problems in those affected. The BRAIN Group is able to produce lactase enzymes in a fermentation process. The development of new lactase products also aims to reduce unpleasant taste in lactose-free food and minimise the residual milk sugar in dairy products.

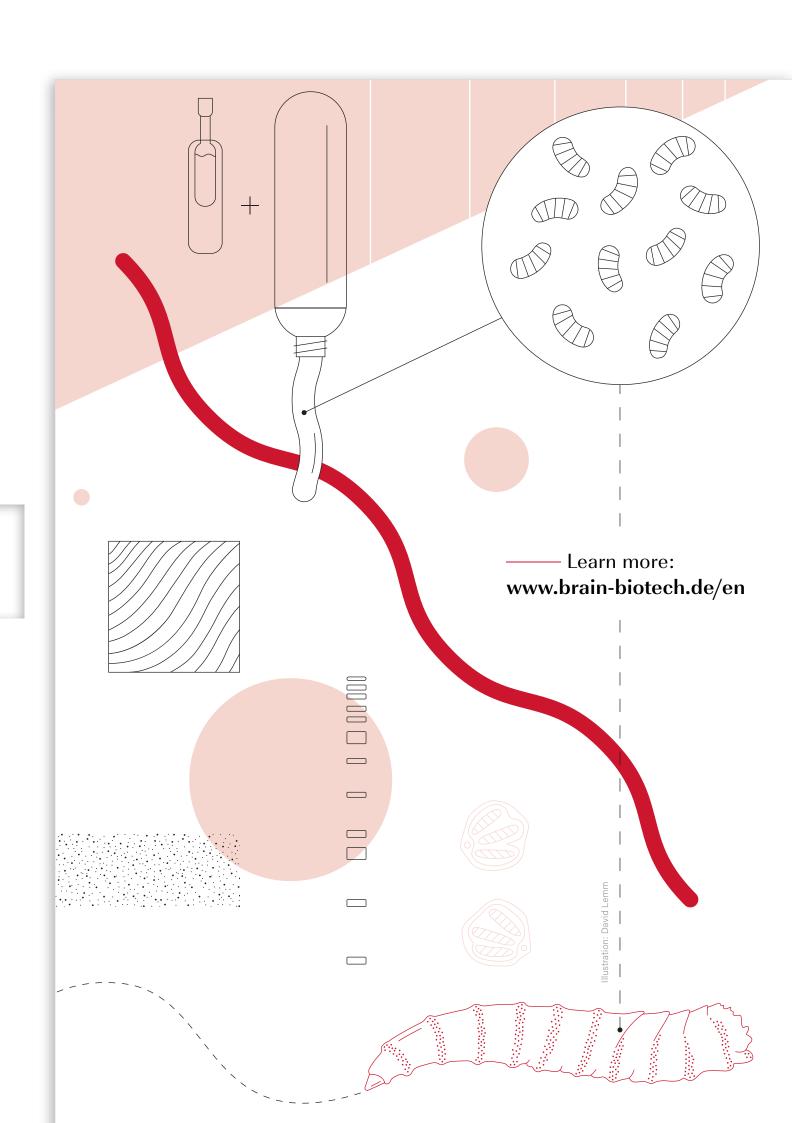


# Proteases for *in vitro* diagnostics

Based on BRAIN's own BioArchive and its special expertise in identifying and subsequently optimising new enzyme candidates, BRAIN is able to develop a continuous series of efficient solutions for special applications. This includes a new enzyme from the protease family, which hydrolyses other proteins, i.e. breaks them down by means of a chemical process using water. Proteases are also used to remove protein impurities from blood and tissue samples prior to analyses in medical and clinical diagnostics. BRAIN has developed a protease product for this application that is currently being evaluated for possible application.

# Pectinase enzymes for fruit juice and wine

Fruit juice and wine producers depend on pectinases. This family of enzymes breaks down plant pectins and plays a key role in terms of product quality and process yield. There is a growing demand for non-genetically-engineered pectinases for fruit juice and wine production. WeissBioTech performs research for this market segment based on traditional production strain developments. This has made it possible to develop new types of pectinase enzymes for special applications and to improve well-known enzyme lines.



# Corporate governance report

## Corporate governance statement

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

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

The Management and Supervisory boards of BRAIN AG declare that, since its last statement of conformity on 23 December 2016, BRAIN AG has complied with the recommendations of the "Government Commission German Corporate Governance Code" (DCGK) in the version dated 5 May 2015 (hereinafter referred to as "Code 2015") until 24 April 2017 as well as in the version dated 7 February 2017 (hereinafter referred to as "Code 2017") from 24 April 2017 (along with correction on 17 May 2017), and will continue to comply with them, with the following exceptions.

All differences state to which Code version the difference relates.

### Code 2015 and Code 2017

• Number 3.8 (3): The Code recommends that in a D&O insurance policy (directors' & officers' liability insurance) for Supervisory Board members a deductible of at least 10 % of the loss up to a minimum of one and a half times the fixed annual compensation be agreed. BRAIN AG has taken out D&O insurance cover, although it currently includes no deductible for the Supervisory Board members. The company regards a deductible as not generally suited to enhancing the quality of Supervisory Board activity, while at the same time it diminishes the attractiveness of the Supervisory Board mandate, making it more difficult to compete for correspondingly qualified candidates.

### Code 2017

Number 4.2.3 (2) Clauses 2 and 3: The Code recommends that variable compensation elements should
generally have a multi-year measurement basis relating mainly to the future. The company will amend in the
fiscal year 2017/18 the Management Board contracts to comply with this recommendation in the future.

### Code 2015 and Code 2017

• 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 for the first time in the case of a Management Board contract concluded after the IPO, and will amend in the fiscal year 2017/18 the contract of the second Management Board member currently in office to comply with the recommendation in the future.

### Code 2015 and Code 2017

• 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 based on 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 for the first time in the case of a Management Board contract concluded after the IPO, and will amend in the fiscal year 2017/18 the contract of the second Management Board member currently in office so as to comply with the recommendation in the future.

### Code 2015 and Code 2017

• Number 4.2.3 (5): The Code recommends that payments promised in the event of early termination of a Management Board member's contract in the case of a change of control do not exceed 150% of the severance pay cap. The current employment contracts of the Management Board members do not include any severance payments in the case of a change of control. It should also be considered that BRAIN AG continues to endeavour to grow independently and not become a takeover candidate. The company will amend in the fiscal year 2017/18 the contracts of Management Board members currently in office so as to comply with this recommendation in the future.

### Code 2015 and Code 2017

• **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.

### Code 2015 and Code 2017

• Number 5.3.2 Clause 3 (Code 2015) and Number 5.3.2 Clause 5 (Code 2017): The Code recommends that the Audit Committee chair should be independent and not 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 not complied with as a consequence. 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.

### Code 2015

• Number 5.4.1 (2) Clause 1: The Code recommends that the Supervisory Board should specify concrete targets for its composition, which – while considering the specifics of the enterprise – take into account the company's international activities, potential conflicts of interest, the number of independent Supervisory Board members in the meaning of Number 5.4.2, setting an age limit for Supervisory Board members, and determining a standard limit to Supervisory Board membership, as well as diversity. The Supervisory Board intends to set specific targets for its future composition to enable the recommendation to be complied with in the future. Aspects of the company's specific situation, the number of independent Supervisory Board members and diversity were taken into consideration as part of the election proposals and the new elections of Supervisory Board members on 9 March 2017.

### Code 2017

Number 5.4.1 (2) Clauses 1 and 2: The Code recommends that the Supervisory Board should specify concrete targets for its composition and develop a competency profile for the overall board, which – while considering the specifics of the enterprise – 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. The Supervisory Board intends to set specific targets for its future composition encompassing all recommendations from Number 5.4.1 (2) Clause 2 to enable the recommendation to be complied with in the future.

### Code 2015 and Code 2017

Number 5.6: The Code recommends that the Supervisory Board conduct a regular examination of the efficiency of its activities. The Supervisory Board launched an in-depth efficiency audit in the 2015/2016 financial year. This efficiency audit was continued taking into account the change in the Supervisory Board in the 2016/2017 financial year, and it was concluded in December 2017. The Supervisory Board will take its findings into consideration for the future.

### Code 2015 and Code 2017

- Number 7.1.2 (4) semi-clause 1 (Code 2015): The Code recommends publishing consolidated financial statements within 90 days after the financial year-end.
- 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 reports within 90 days after the financial year-end, but instead not until after 90 days have elapsed. Prospectively, this will also remain the case with future annual consolidated financial statements.

### Code 2015 and Code 2017

- Number 7.1.2 (4) semi-clause 2 (Code 2015): The Code recommends publishing interim reports within 45 days after the end of the reporting period.
- **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, especially given the fact that BRAIN AG reports on the whole Group every quarter. Also in light of various unlisted subsidiaries and participating interests held abroad, publication within shorter periods would necessitate the deployment of considerable financial and personnel resources that would not be appropriately related to the information that shareholders need for a company of the size of BRAIN AG. As a consequence, the 45 days required in the Corporate Governance Code are not complied with. Publication nevertheless occurs within the 60-day period valid according to the Prime Standard regulations.

Dr Jürgen Eck

Zwingenberg, December 2017

For the Supervisory Board of BRAIN AG: For the Management Board of BRAIN AG:

Dr Ludger Müller

Supervisory Board Chairman Management Board Chairman (CEO)

### Relevant information about corporate governance practices

The purpose of BRAIN AG is to identify, research, develop, produce and market biological, biochemical and biotechnology processes and products, especially enzymes, biocatalysts, microorganisms and other bioactive natural materials 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.

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

As part of the IPO, the company informed its employees, in particular, about insider legislation, and prepared an information sheet for this purpose which it distributed to the employees and published on the company's intranet.

### 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 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 at regular intervals the status of strategy implementation. The Management and Supervisory boards' joint goal is to successfully implement the growth strategy that has been approved.

### **Management Board working methodology**

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

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

### **Composition of the Management Board**

The Management Board of BRAIN AG consisted of two members as of 30 September 2017.

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

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

The business allocation plan includes the following allocations until 30 September 2017:

### Dr Jürgen Eck (Chief Executive Officer - CEO):

- Corporate strategy
- Business development of the BioScience segment
- Grants and academic cooperations
- Technology management, research and development, process optimisation
- Information management, patent strategy
- · Production, scale-up
- · Public and press relations
- 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 (IR)
- Compliance and quality assurance
- Risk management
- · Legal, administration and organisation
- Group audit
- IT, digitalisation
- Purchasing

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 include, in particular, 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 catalogue of actions and legal transactions requiring Supervisory Board assent.

### **Management Board meetings**

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

### **Supervisory Board working methodology**

The Supervisory Board has all responsibilities and rights transferred or allocated to it by the law, the company's bylaws or in another manner. This especially includes supervising the executive management of the company, the appointment and dismissal of Management Board members, as well as the amendment, cancellation and termination of employment contracts with the Management Board members. The Supervisory Board consults regularly with the Management Board concerning the management of the company. The Supervisory Board is involved in good time in all decisions of fundamental significance for the company. The Supervisory Board has established a set of rules for its own business procedures. These include, among other matters, the working methodology and type of passing of resolutions on the Supervisory Board, as well as the tasks of the Supervisory Board committees that are formed (the Audit Committee, Personnel 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 six attended meetings in the 2016/17 financial year. Otherwise the committees held six attended meetings, and the Supervisory Board and its committees held eleven telephone conferences. Two resolutions were passed by way of written circular. The Audit Committee held four attended meetings in the 2016/17 financial year. The Personnel Committee and Nomination Committee both held one attended meeting in the 2016/17 financial year.

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

Supervisory Board resolutions are generally passed at meetings that are actually attended by the Supervisory Board members. Absent Supervisory Board members can submit a written vote via another Supervisory Board member. This also applies for the submission of the second vote of the Supervisory Board Chair. Outside the scope of attended meetings, the passing of resolutions is permissible through votes conveyed by written, telegram, telephone, telex or

modern telecommunications means (by telephone conference or 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 doing so, the Deputy Supervisory Board Chair. The Supervisory Board is quorate if all members are invited in time via their last provided address, and at least half of the members of which it is to consist in total participate in the passing of the resolution. Supervisory Board members also participate in the passing of a resolution if they abstain from voting. Supervisory Board resolutions are passed with a simple majority of votes submitted, unless other majorities are required by law. This is also applicable in the case of elections. Abstentions are not counted when determining the results of voting. Given an equal number of votes, the Supervisory Board Chair – or if the Supervisory Board Chair is prevented from doing so, the Deputy Supervisory Board Chair – decides whether a further vote is to be held at the same meeting. Given a further vote on the same matter, the Supervisory Board Chair has two votes; the Deputy Supervisory Board Chair does not have this right to a second vote.

All Supervisory Board members must disclose 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 of not just of temporary nature, the respective Supervisory Board members must step down from office. The Supervisory Board provides information in its report to the AGM on conflicts of interest that arise and how they are managed. No conflicts of interest occurred in the reporting period.

In the 2016/17 financial year, the Supervisory Board conducted an efficiency audit, in the Supervisory Board composition following the AGM on 9 March, and concluded it following the 2016/17 financial year. To conduct the efficiency audit, the current situation was appraised based on questionnaires, and the results of the questionnaires were discussed in 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 will be taken into consideration for the future.

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

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

The Supervisory Board currently consists of the following six individuals:

TABLE 03.2 SUPERVISORY BOARD MEMBERS

		Appointed until	
Name, Function	Member since	the AGM in the respective FY	Further board mandates in 2016/17
Dr Ludger Müller, Chairman	17.03.2011	2018/19	Managing Director of KEIPER Brasilien Beteiligungs-GmbH and KEIPER Lateinamerika Beteiligungs-GmbH     until 30 June 2017, Managing Director of MP Beteiligungs-GmbH, BSN GmbH, BRL GmbH and PUTSCH Immobilien GmbH     TU Kaiserslautern, University Council Chairman
<b>Dr Martin B. Jager,</b> Deputy Chairman	09.03.2017	2020/21	<ul> <li>since May 2017, member of the Management Board of Herbstreith &amp; Fox Gruppe, Neuenbürg</li> <li>until April 2017, member of the Management Board of Doehler Group SE in Darmstadt</li> <li>until June 2017, member of the Supervisory Board of the Frankfurter Innovationszentrum Biotechnologie GmbH (FiZ), Frankfurt am Main</li> </ul>
Dr Anna C. Eichhorn, Supervisory Board member	09.03.2017	2020/21	CEO of humatrix AG, Pfungstadt     Management Board member (Deputy Chairwoman) of the Initiative gesundheitswirtschaft-rhein-main e.V.     Member of the Supervisory Board of the Frankfurter Innovationszentrum Biotechnologie (FIZ)     Member of the Management Board of House of Pharma & Healthcare e.V.
Dr Georg Kellinghusen, Supervisory Board member	09.03.2017	2019/20	Member of the Supervisory Board of WIV Wein International AG, Burg Layen     Member of the Bavaria Advisory Board of Deutsche Bank AG, Frankfurt am Main     Member of the Advisory Board of NWB Verlag GmbH & Co. KG, Herne
Prof Dr Klaus- Peter Koller, Supervisory Board member	21.05.2001	2017/18	Member of the Advisory Council and Honorary Member of the German Association for General and Applied Microbiology (VAAM)     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+)     Member of the Joint Board of Trustees of the Max Planck Institute for Biophysical Chemistry/Dynamics and Self-Organisation, Göttingen
Christian Körfgen, Supervisory Board member	01.01.2016	2018/19	Putsch GmbH & Co. KG, Advisory Board member, and member of the advisory boards of affiliates of Putsch GmbH & Co. KG

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

Given the ownership structure (MPBG held a total of 34.7% of shares in BRAIN AG as of the 2016/17 financial year-end, corresponding to 6,265,146 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.

The following Supervisory Board members are regarded as independent according to the criteria of the German Corporate Governance Code:

Dr Martin B. Jager

Dr Anna C. Eichhorn

Dr Georg Kellinghusen

Prof Dr Klaus-Peter Koller

### **Committees**

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

The Supervisory Board has currently formed a total of three committees to efficiently perform its work: an Audit Committee, a Personnel Committee and a Nomination Committee. 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 the 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 at least two candidates if the audit mandate is to be put out to tender. The Audit Committee supervises the auditor's independence and also 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 independent supervisory board member with expertise in the areas of financial accounting or financial auditing. The Audit Committee Chairman (until 9 March 2017), Siegfried L. Drueker, meets these statutory conditions and also possesses special

knowledge in the areas of mergers & acquisitions, corporate finance and investment banking. Along with its Chairman, the Audit Committee also included further Supervisory Board members Dr Ludger Müller and Dr Matthias Kromayer. The current 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 special knowledge as a CFO of more than 30 years' standing, 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.

Along with its Chairman, the Audit Committee currently also includes further Supervisory Board members Dr B. Jager and Dr Ludger Müller.

### **Personnel 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
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 contacts, 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

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

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

Report from the Supervisory Board page 26

### **Dialogue with investors**

The Supervisory Board discussed the suggestion from Number 5.2 (2) of the German Corporate Governance Code (DCGK), and was in favour 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), Section 111 (5) of the German Stock Corporation Act (AktG)

The 23 September 2016 meeting of the Supervisory Board of BRAIN AG passed a resolution that the Supervisory Board should include one woman, corresponding to a 17% ratio. The implementation period for this was set to 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 provisionally leave unchanged the ratio of women for the Management Board of BRAIN AG 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%.

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 an implementation deadline until the end of 30 September 2020. The target for the first management level maintains the status quo, but does not exclude an increase in the proportion of women at this management level.

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 the company's size into account, only one management level exists below the Management Board in the meaning of Section 76 (4) AktG. The management level consists of the unit heads of the seven management areas.

# Corporate governance practices

### Corporate governance at BRAIN AC

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

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 to coordinate current measures and medium- and long-term steps to ensure compliance and risk minimisation.

The representative of the compliance department regularly participates in further training. BRAIN AG has also made 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.

## Notes to the statement of conformity

In December 2017, 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. With the exception of the differences listed there, the company has complied with the Code's recommendations during the 2016/17 financial year and will continue to comply with them in the future.

As far as the Code's recommendations are concerned, the company also plans to comply with them in the future.

## Supervisory Board competency profile and targets for its composition

The Supervisory Board's competency profile and targets are as follows: The Supervisory Board is of the view that in each case one third of its members are to cover the areas of Industry Sector Expertise, 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. As far as the Supervisory Board's composition is concerned, at least half of its members are to be independent in the meaning of the German Corporate Governance Code (in the version valid as of 24 April 2017). In terms of diversity, the Supervisory Board would like to continue for the time being with the ratio of women that it has achieved, although it plans to gradually increase it in the medium term.

## Outline of the compensation scheme

## **Management Board compensation**

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

Compensation is set so that it is competitive in a national and international comparison, thereby offering an incentive for committed and successful work.

In accordance with Section 4.2.3 of the German Corporate Governance Code, the Management Board's compensation scheme is oriented especially to the sustainable development and growth of the company. The monetary compensation components include fixed and in future two variable elements. The Supervisory Board in each case sets the targets for the established one-year variable compensation for one financial year. The criteria for multi-year variable compensation will be set in the Management Board contracts based on certain measurement parameters. The company does not plan to make any subsequent modification to the measurement parameters. 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. Former members of the Management Board received as ancillary benefits furthermore reimbursement of accommodation and travel costs. By way of clarification, it is noticed that the multi-year variable compensation components will apply only for Management Board members in office beyond the 2016/17 financial year.

## Management Board compensation as per 4.2.5 DCGK

The Compensation Report, which forms part of the company's 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 separate annual 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 belonged to the Supervisory Board for a full year receive the aforementioned compensation pro rata temporis to the level of one twelfth for each month of activity they commence. All Supervisory Board members also receive a meeting fee of € 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.

Group management report / Compensation report page 140

## **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 be exercised by a proxy of their choosing or by a company proxy. The Management Board is authorised to ensure that shareholders who do not attend the AGM can also participate in the AGM and exercise their rights wholly or partly by way of electronic communications (online participation), or to issue their votes without participating in the meeting by way of written or electronic communications (postal option). The Management Board is also authorised to set the specific arrangements relating to the scope and procedure for online participation and postal voting. These are to be notified in the convening document for the AGM. All shareholders are entitled to participate in the AGM, to speak on the respective agenda items, and to demand information about the company's affairs where required to arrive at an objective assessment of an agenda item.

The first public Ordinary AGM of BRAIN AG was held on 9 March 2017 in Zwingenberg. The invitation to the AGM was announced in good time in the German Federal Gazette (Bundesanzeiger) pursuant to statutory regulations, including the agenda with the proposed resolutions of the management and 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. Five out of a total of six agenda items were to be voted upon in this context. All proposed resolutions were accepted with significant majorities given an attendance of the share capital of BRAIN AG of between 62.01% and 70.62%.

## Notifiable securities transactions

The Management and Supervisory board members, other individuals with management responsibilities with regular access to the company's inside information and who are authorised to 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 an amount of more than € 5,000 in the calendar year. Notifications of corresponding transactions can also be found published on the website at <a href="www.brain-biotech.de/investor-relations">www.brain-biotech.de/investor-relations</a>. No such securities transactions were notified to the <a href="company">company</a> for the 2016/17 financial year.

www.brain-biotech.de/

## Transparency

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

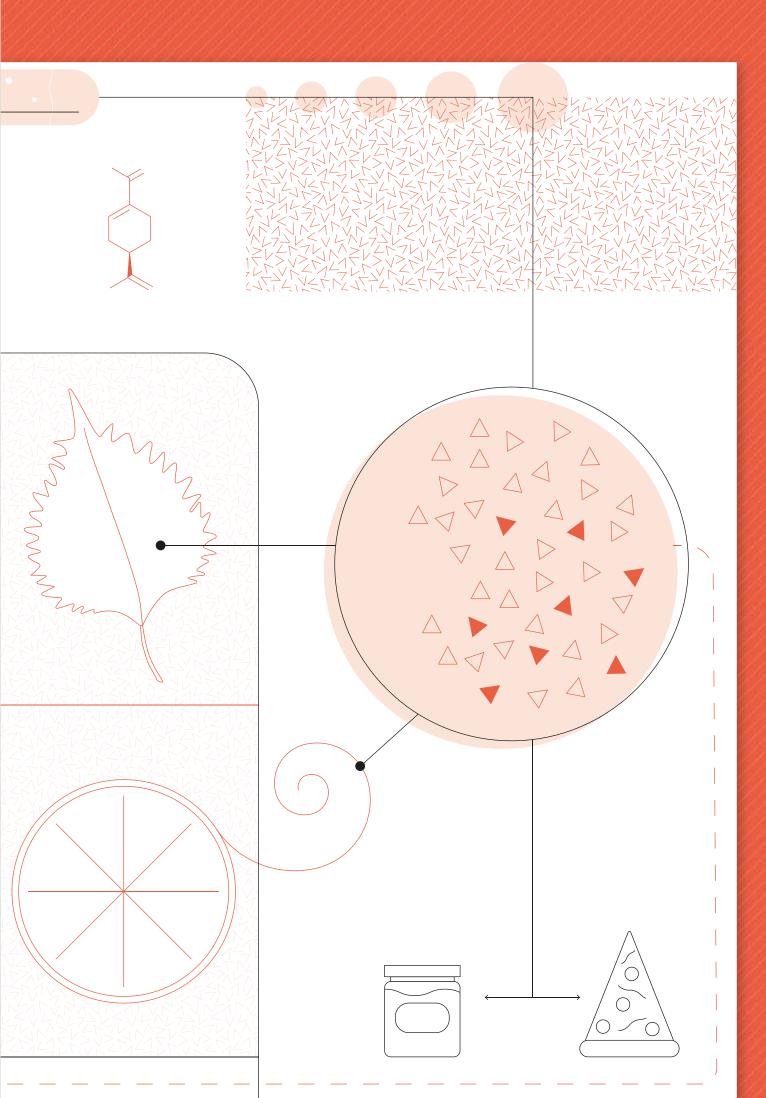
- an annual financial report for the financial year and an interim financial report as of the first half-year of a financial year,
- quarterly statements as of the first quarter and after the first nine months of a financial year,
- quarterly telephone conferences,
- · company presentations,
- · publication of insider information, corporate announcements and IR announcements,
- publication of notifications of shareholding threshold levels,
- · publication of ad hoc statements,
- PR, IR and marketing announcements.

## Financial accounting and auditing

The unaudited quarterly financial statements as of 31 December 2016 and 30 June 2017 as well as the unaudited half-year financial report as of 31 March 2017 and the consolidated financial statements as of 30 September 2017 were prepared in accordance with Section 315a (1) of the German Commercial Code (HGB) and International Financial Reporting Standards (IFRS). The separate financial statements of BRAIN AG for the 2016/17 financial year were prepared according to the regulations of the German Commercial Code (HGB), and the German Stock Corporation Act (AktG).

Zwingenberg, December 2017

Management Board and Supervisory Board



# Nature-based freshness and product stability

Plants serve as natural resources for bioactive substances that are used as flavourings in foods, and skin-care ingredients in cosmetics. In addition, they also stabilise products. Bioprocesses enable the sustainable production of plant-based active ingredients.

The quality standards to be met by consumer goods products are becoming more and more stringent. Consumers are mainly interested in environmental protection, product safety and sustainable production processes. Foods, feedstuffs and cosmetics are preparing the ground for a change in demand for biobased products. There is also an urgent need to reduce product losses. According to estimates, one third of all food produce worldwide is thrown away.

—— BRAIN faces up to these challenges by developing bioactive natural substances for industrial use. BRAIN's PerillicActive development programme focuses on the edible plant Perilla frutescens. Its constituents show properties that are useful for many market segments. The active ingredients of perilla protect





1.3 bn

**1.3 billion metric tons of foods are thrown away** around the world every year, according to estimates by the Food and Agriculture Organization (FAO) of the United Nations. This is mainly due to the raw materials being infested by pests and disease, and to bacterial decay of food products.

61%

of food waste is generated by private households, according to a study by the University of Stuttgart, followed by 17 per cent from bulk consumers such as restaurants, canteens and catering firms. Industry and trade together account for 21 per cent.





220,000

**bioactive natural ingredients of plant origin** have been identified and structurally categorised by 2015. They have enormous potential for industrial applications in a variety of market segments.

1,780

**new plant species** were discovered in 2017 according to the State of the World's Plants Report. Some of them can add to our range of foodstuffs. There are a total of 390,000 plant species in all.





PerillicActive from BRAIN responds to the growing demand for natural and sustainably produced ingredients.

foods and cosmetics against microbial decay and keep products fresh, so they can be stored and enjoyed longer. In skin-care products, they support and harmonise dermal microflora.

—— BRAIN has harnessed these properties using biotechnological processes. The starting material for the PerillicActive development programme is the oil from orange peel, a natural raw material that is left over from fruit juice manufacture. A soil microorganism converts the orange oil into bioactive ingredients that can be processed for a variety of applications.

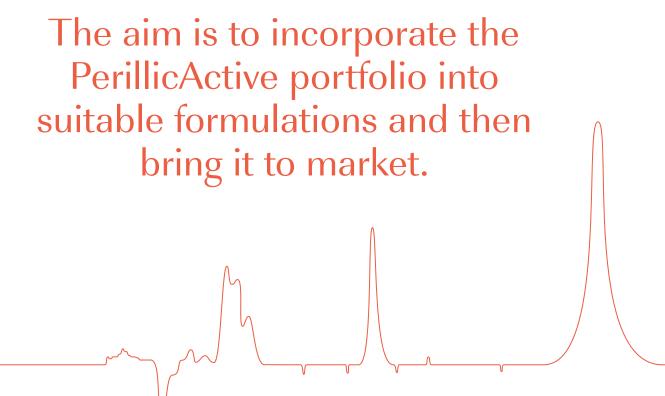
—— In the 2016/17 business year, BRAIN's Perillic-Active development programme began to strategically address potential target markets.

## BRAIN PerillicActive...

... is a **BRAIN programme** that is designed to develop natural active ingredients based on fermented oil from orange peel or other citrus fruits.

... is based on the properties of ingredients from the edible perilla plant, which has been used in food preparation for many generations, particularly in Asia. ... is a **portfolio of BRAIN products** with bioactive substances containing virtually 100% pure ingredients and microbial extracts with 90% pure ingredients, depending on the requirements of the segment in which they are used.

... is relevant for various market segments including foods and beverages as an **active antimicrobial ingredient**. It can also be used in cosmetics to protect products and to support and harmonise the skin's microflora.



# PerillicActive is based on fermented orange oil

An interview with Dr Michael Krohn, Member of BRAIN's Management Board and Unit Head BioActives & Performance Biologicals, Dr Jessica Rehdorf, New Business Development, and Dr Yvonne Tiffert, Project Manager & Platform Coordinator.

## What is so interesting about *Perilla frutescens*? MICHAEL KROHN

We have noticed a trend towards natural and sustainably produced products and ingredients. Consumers have become more critical and are questioning production processes and product composition. In this context, one of our three main research areas is bioactive natural substances. Our subsidiary AnalytiCon Discovery is a market leader with an extensive library of natural substances. Together we have identified the perilla plant as an attractive candidate for a myriad of applications.

## JESSICA REHDORF

The perilla plant has been in use for many years, especially in Asia. Our research focuses on the plant's natural constituents, more precisely on its essential oils. Its active ingredients have been comprehensively characterised, are safe to use and suitable for many different fields of application. They can also be found in the human body after eating oranges. The body converts them into

other metabolic products.

## Is this trend also reflected in the political arena? MICHAEL KROHN

Our research work is embedded in the NatLife-2020 innovation alliance supported by the German Federal Ministry of Education and Research (BMBF). BRAIN coordinates the alliance, and our subsidiaries AnalytiCon Discovery and L.A. Schmitt are also on board.

## What is special about your process to obtain active ingredients from perilla?

YVONNE TIFFERT

One option is to cultivate and harvest the perilla plant and then to extract its active ingredients. We rely on biotechnological processes for a number of ecological and economic reasons. The starting material is the oil from the peel of oranges or other citrus fruits that is generated in large volumes during food production. We can use it for other utilisation steps in the value chain.

The orange oil is distilled to obtain an extract that consists of more than 90 per cent natural substance





(limonene). We use this limonene as a substrate in our biotechnological process, in which a microorganism converts it into the active ingredients of perilla that we want to obtain. This microorganism is a soil bacterium that provides all the enzymes required for biotransformation of the limonene.

## JESSICA REHDORF

The raw product obtained from biotransformation is then further processed and purified in a series of steps. This gives us products of different purity levels that meet the requirements of the different fields of application and can be further formulated for the relevant markets.

## Which microorganism do you use and have you modified it by biotechnological means? YVONNE TIFFERT

We use an ordinary soil bacterium as the production strain for this biotransformation. This comprehensively characterised organism is widespread and we use it in its wild-type form as it occurs in nature. That also makes our production strain more

attractive for sensitive applications such as foods and cosmetics.

## That all sounds very complicated. Are there any alternatives?

### MICHAEL KROHN

The production of pure active perilla ingredients in several stages does not call for any extraordinary outlay, as we have shown. But there are also ways of shortening the process. Whether that is desirable depends on the end product. Cleaning agents have to meet lower standards in terms of purity or appearance than foods or body-care products. So we can also offer perilla extracts with a purity of about 90 per cent as well as the pure product.

## Doesn't it cost less to synthesise the active ingredients chemically?

## JESSICA REHDORF

Our continual challenge is to develop bioprocesses that can match up to products already established on the market in economic as well as ecological terms. Within the NatLife 2020 alliance, we

"Owing to their antimicrobial properties, the active ingredients of perilla can be used wherever undesirable microbes may cause problems."

Dr Jessica Rehdorf

carried out extensive sustainability studies for our bioprocess with Denmark's Technical University (DTU). One priority was to compare it with a chemical production process. We were able to clearly demonstrate that the bioprocess is much more sustainable and ecological.

## What other applications do you envisage? JESSICA REHDORF

Owing to their antimicrobial properties, the active ingredients of perilla can be used wherever undesirable microbes may cause problems. That applies to medical care and to handling foods, feedstuffs and beverages. A lot of food gets wasted every day because it has gone off. We see possibilities of using the product during food storage, transportation and packaging.

As regards cosmetics, applications from our Perillic-Active development programme might include high-quality ingredients for skin-care products, since they harmonise the microflora of the skin. The natural active ingredients also help to stabilise cosmetic products.

## Can the active ingredients of perilla also be used for plant protection?

YVONNE TIFFERT

We are currently examining this option. In the laboratory, the active ingredients of perilla have also

proved effective against fungi and bacteria that cause plant diseases. This may end up being useful for many crop plants and offer effective alternatives to conventional chemical plant protection products.

## How far are you from launching the first products on the market?

### JESSICA REHDORF

We submitted the first patent applications during the first project phase of NatLife 2020. At present we are concerned with driving product ideas forward to find specific market applications, developing the suitable formulations and preparing the required authorisation processes. We expect to launch the first products on the market in a few years from now.

## What business model do you envisage for marketing the products that come out of this programme?

## MICHAEL KROHN

We need partners who can reliably manufacture the products from our PerillicActive programme and bring them to customers. Whether we will handle marketing ourselves or set up partnerships with other companies remains to be seen. The second option is more likely.

## BIOACTIVE COMPOUNDS



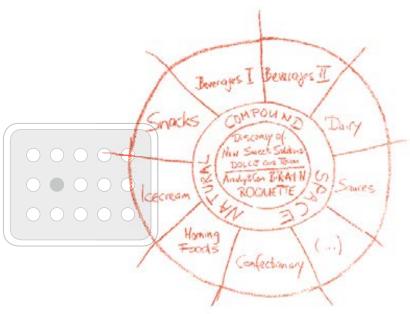
Product ideas are currently being driven forward to identify specific applications on the market. The suitable formulations are being developed and preparations made for the required authorisation procedures.





## Plant-based bioactive ingredients

BRAIN develops nature-based bioactive ingredients for a multitude of applications and different target industries. The unique library of natural substances held by subsidiary AnalytiCon Discovery is of key importance for these purposes.



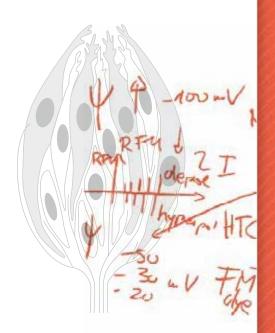
## Reducing sugar and calories with DOLCE

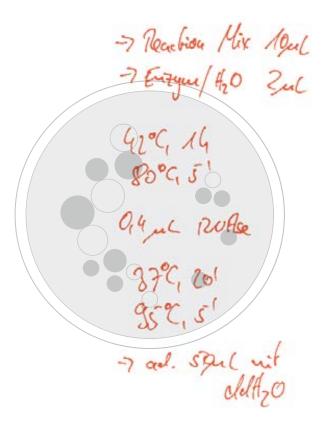
Together with AnalytiCon Discovery and the French Roquette company, BRAIN launched the DOLCE programme for natural sweeteners and sweetness enhancers in August 2016 to reduce excessive levels of sugar and calories in foodstuffs. The core team's "sweetbox" grew to encompass some 60 natural substances in the 2016/17 business year. The first suitable natural substances for specific applications

are now being selected with companies from the food and beverage industries. Partners for the breakfast cereals and snacks segments were found in November 2016 via a global market player. In July 2017, a globally active beverages firm came on board with access to DOLCE innovations for non-alcoholic drinks, milk and yogurt drinks, and ginger ales and tonics. BRAIN envisages entering into partnerships for other product categories.

## Healthy nutrition without sacrificing taste

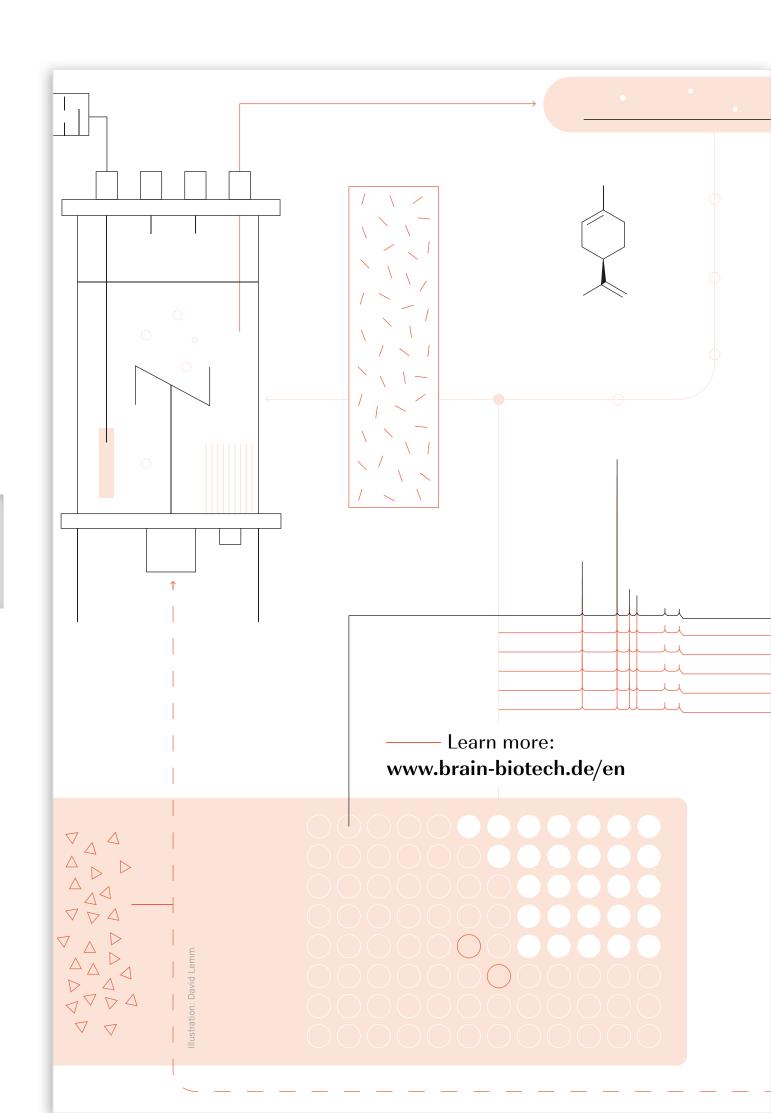
Based on the patented technology developed by BRAIN for the cultivation of human taste cells in the laboratory, scientists at BRAIN are now examining further ways of improving human nutrition. One focus, for example, is on salt and fat, which, like sugar, can cause health problems if eaten in excessive quantities. The bitter taste is another research topic, since this is often activated together with other taste receptors. The aim is to develop alternative flavourings for healthier foodstuffs without sacrificing quality. Industrial partnerships will also be set up to pursue these innovations.





## Antimicrobial natural substances

Freshness is a key criterion for the production, marketing and sale of foods. Other market segments are also highly sensitive in terms of hygiene and cleanliness. Harmful organisms such as bacteria, yeasts or fungi have the evolutionary ability to develop resistance against their foes. This, and the increasing demand for natural over chemical cleaning agents and preservatives opens up market opportunities for the bioeconomy. In the 2016/17 business year, BRAIN and AnalytiCon Discovery identified several hundreds of promising "jump-start" candidates and initially characterised their effect on various problematic pathogens. Edible plants served as the starting material. Scientists use this research to identify product candidates for various fields of application.



## Group management report

# Basis of the Group Basis of the Group Compensation report Events after the reporting date Outlook Report on risks and opportunities Takeover-relevant information pursuant to Section 315 (4) of the German Commercial Code (HGB) Corporate governance statement of conformity pursuant to

Responsibility statement

## Basis of the Group

- → BRAIN identifies hitherto untapped bioactive natural materials, enzymes, and high-performing microorganisms derived from complex biological systems to transform them into industrially usable applications.
- → The business model of BRAIN stands on two pillars: the operating segments BioScience and BioIndustrial.

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 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. Potential deviations from planned results cannot be excluded, however.

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

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

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

Competences and solutions page 59

## Targets and strategies

Strategy and business model page 57

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 <u>business model</u>, BioScience and Bio-Industrial. Targeted acquisitions in selected industries in the areas of expertise of BRAIN are also to contribute to the greatest possible exploitation of the bioeconomy's growth potential.

## Management system

Total operating performance¹ and the adjusted operating result (adjusted EBIT²) are the financial management metrics of BRAIN. In the company's view, total operating performance appropriately describes the Group's overall financial performance in the respective reporting period. The adjusted operating result (adjusted EBIT) appears better suited to show the Group's sustainable earnings than the (unadjusted) operating result (EBIT), as one-off items are excluded. The adjusted operating result is calculated by eliminating the costs of share-based compensation for a share-based compensation scheme of BRAIN AG from the 2015/16 and 2016/17 financial years, costs from an employee share scheme at the subsidiary AnalytiCon Discovery GmbH, Potsdam, as well as costs from the IPO of BRAIN in February 2016.

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

## Research and development

The biotechnological research and development of innovative biotechnology processes and products form the core expertise of BRAIN 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. The portfolio of BRAIN today comprises 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 used to develop natural substances for taste modulation or as taste molecules. Deployed as new sweetness enhancers or salt substitutes, they can reduce sugar or salt content in foods, for example.

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

→ Biotechnology translates nature into new values page 18

<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 and tax (EBIT) adjusted for the IPO costs and costs from a share-based compensation scheme of BRAIN AG from 2015/16 and 2016 to 17 as well as expenses from an employee share scheme at AnalytiCon Discovery GmbH

uncharacterised 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 works within a far-reaching network of companies and academic cooperation partners across the whole of Europe and the USA.

Expenses for research and development amounted to € 8.1 million in the 2016/17 financial year, compared with € 5.8 million in the 2015/16 financial year. This corresponds to 30 % of total operating performance in the 2016/17 financial year, after 22% in the previous financial year. Investments in research and development in the 2016/17 financial year comprise mainly 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.

Precious metals from the circular economy page 40

## **Economic and Business Report**

- → BRAIN reported € 26.9 million of total operating performance in the 2016/17 financial year, compared with € 26.1 million in the 2015/16 financial year.
- → An increase in revenue from € 22.8 million to € 24.1 million was achieved, reflecting 5.8 % revenue growth.
- → Adjusted EBIT improved from € -7.6 million to € -6.4 million.

## 1 Macroeconomic and sector-related conditions

Within a positive global economic environment<sup>3</sup>, conditions for industrial biotechnology continued to be positive in the 2016/17 financial year.

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

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

## 2 Business progress

TABLE 04.1 EXTRACT FROM THE STATEMENT OF COMPREHENSIVE INCOME

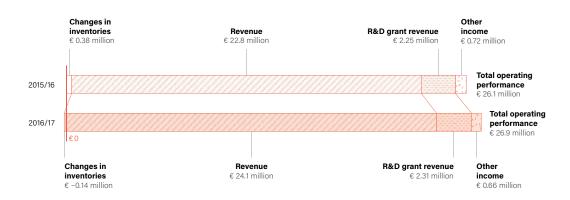
€ thousand	2016/17	2015/16
Revenue	24,105	22,790
Research and development grant revenue	2,310	2,249
Changes in inventories	-143	377
Other income	660	724
Total operating performance	26,932	26,139
Operating result (EBIT)	-9,374	-13,812
Adjusted operating result (adjusted EBIT)	-6,397	-7,557
Net financial result	-23	-616
Pretax loss for the reporting period	-9,398	-14,427
Net loss for the reporting period	-9,671	-14,938
Earnings per share (in EUR)	-0.58	-0.97

BRAIN reported € 26.9 million of total operating performance in the 2016/17 financial year, compared with € 26.1 million in the 2015/16 financial year. This 3.0% increase in total operating performance is mainly attributable to two effects that are commented on below.

First, an increase in revenue – chiefly in the cooperation business with international collaboration partners – from  $\ \in\ 22.8\$ million to  $\ \in\ 24.1\$ million was achieved in the 2016/17 financial year, reflecting 5.8% revenue growth. The lower growth rate in total operating performance

<sup>3</sup> See: International Monetary Fund (IMF): World Economic Outlook, October 2017.
4 According to a survey conducted by publishing and specialist information provider BIOCOM, industrial biotechnology companies participating in the survey reported 14.3% growth in 2015.

## FIGURE 04.1 COMPOSITION OF TOTAL OPERATING PERFORMANCE



compared with the revenue growth rate derives mainly from the fact that the company pursued a reduction in the level of its capital tied up in the form of finished goods and work in progress during the financial year under review. Changes in inventories of finished goods and work in progress recognised by the company as income amounted to  $\bigcirc$  -0.1 million, compared with  $\bigcirc$  0.4 million in the previous year.

The revenue growth includes both an expansion of the activities of the BioScience segment and an increase in the product business of the BioIndustrial segment. The negative change in inventories is primarily due to the BioIndustrial segment.

Research and development grant revenue stabilised at € 2.3 million in the financial year under review (previous year: € 2.2 million).

Other income also stabilised at € 0.7 million (previous year: € 0.7 million), with slightly less income from the translation of foreign currency items and lower income from reversing valuation allowances on receivables.

In turn, revenue was generated predominantly in Germany (around 31%, previous year approximately 32% of total revenue), France (c. 21%, previous year c. 23%) and the USA (c. 15%, previous year c. 13%). The high export ratio reflects a high level of international sales activities, among other factors.

## 3 Results of operations

Adjusted EBIT improved from € -7.6 million to € -6.4 million in the financial year elapsed.

The Group's results of operations in the 2016/17 financial year were characterised by effects from non-cash share-based compensation paid by shareholders of BRAIN AG, from an employee share scheme relating to AnalytiCon Discovery GmbH. In addition, the previous year was affected by costs incurred as part of the IPO in February 2016. The following overview presents a reconciliation of the reported operating result (EBIT) with the adjusted operating result (adjusted EBIT), excluding such effects and expenses.

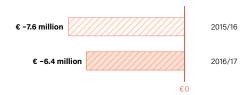
TABLE 04.2 RECONCILIATION OF THE REPORTED OPERATING RESULT (EBIT)
WITH THE ADJUSTED OPERATING RESULT (ADJUSTED EBIT)

€ thousand	2016/17	2015/16
Operating result (EBIT), including:	-9,374	-13,812
Expense for share-based employee compensation at BRAIN AG	-2,352	-3,857
Expense for share-based employee compensation at AnalytiCon Discovery GmbH	-625	-1,423
IPO costs	0	-974
Adjusted operating result (adjusted EBIT)	-6,397	-7,557

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

Despite increase in revenue, the cost of materials was reduced from € 11.8 million in the previous year to € 11.2 million in the financial year under review, thereby improving the cost of materials ratio<sup>5</sup> from 45.1% in the previous year to 41.6% in the reporting year. As a consequence, the improvement in the cost of materials ratio is attributable to both operating segments, with the greater proportion attributable to the BioIndustrial segment. The improvement in the BioIndustrial segment derives from better selling terms and the acquisition of new customers, among other factors. The improvement in the BioScience segment is thanks to a lower level of costs for third-party services. Purchased services were procured mainly from universities, higher education institutions and from other technology companies.

FIGURE 04.2 ADJUSTED OPERATING RESULT (ADJUSTED EBIT)



<sup>5</sup> Defined as cost of materials in relation to total operating performance

The reduction in personnel expenses from € 18.2 million to € 16.5 million derives mainly from a lower level of special effects relating to personnel expenses deriving from share-based compensation and an employee share scheme (€ 3.0 million in the year under review and € 5.3 million in the previous financial year). Personnel expenses adjusted for these effects rose from € 13.0 million to € 13.5 million. The rise in adjusted personal expenses derives from a higher number of employees and wage and salary increases.

Depreciation, amortisation and impairment rose slightly from  $\in$  1.4 million to  $\in$  1.7 million due to a higher level of investments in property, plant and equipment and a  $\in$  0.1 million goodwill impairment loss.

Other expenses reduced by 18.6% from € 8.5 million to € 6.9 million. This decrease is primarily attributable to a lower level of legal and consulting expenses as well as the IPO of BRAIN AG in the previous year.

The adjusted operating result (adjusted EBIT) improved chiefly thanks to a lower level of other expenses and operating improvements such as the aforementioned margin improvements in the product business.

The net financial result includes  $\in$  0.3 million of finance income (previous year:  $\in$  0.3 million). This is also offset by  $\in$  0.3 million of finance expense (previous year:  $\in$  1.0 million). The improvement in finance expense is attributable to, among other factors, lower interest payments on loans and a silent partnership, as well as expenses from the subsequent measurement of financial liabilities for the acquisition of non-controlling interests.

The result before tax thereby improved from  $\[ \in \]$  -14.4 million to  $\[ \in \]$  -9.4 million. The tax expense amounted to  $\[ \in \]$  0.3 million in the 2016/17 financial year, compared with  $\[ \in \]$  0.5 million in the previous year. The tax expense for the 2016/17 financial year includes a current income tax expense of  $\[ \in \]$  0.4 million and a deferred tax income of  $\[ \in \]$  0.1 million. Of the loss for the period of  $\[ \in \]$  -9.8 million,  $\[ \in \]$  -0.1 million is attributable to non-controlling interests (previous year:  $\[ \in \]$  -0.2 million).

The improvement in the result per share (EPS) from  $\ell$  -0.97 to  $\ell$  -0.58 reflects not only the lower loss incurred in the 2016/17 financial year but also the increase in the underlying share base from 15.1 to 16.5 million shares.

Other comprehensive income includes the result from revaluing defined benefit pension commitments to one active and one former Management Board member of  $\in$  0.2 million (previous year:  $\in$  -0.4 million), and related tax effects of  $\in$  -0.4 million (previous year:  $\in$  0.1 million).

Consolidated total comprehensive income after tax amounted to  $\varepsilon$  -9.8 million, compared with  $\varepsilon$  -15.2 million in the previous year. Of this,  $\varepsilon$  -9.7 million is attributable to the shareholders of BRAIN AG.

The operating segments report the following results:

TABLE 04.3 SEGMENT SHARE OF TOTAL OPERATING PERFORMANCE

	2016/17	2015/16
BioScience	49 %	47 %
BioIndustrial	51%	53%

<sup>6</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.

## **BioScience segment**

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

TABLE 04.4 BIOSCIENCE SEGMENT

€ thousand	2016/17	2015/16
Revenue	10,658	9,795
Research and development grant revenue	2,234	2,212
Changes in inventories	59	114
Other income	281	272
Total operating performance, of which	13,232	12,394
Cost of materials	-3,642	-3,710
Personnel expenses	-13,893	-15,676
Depreciation, amortisation and impairment	-998	-940
Other expenses	-4,236	-5,593
Operating result (EBIT)	-9,538	-13,526
Adjusted operating result (adjusted EBIT)	-6,561	-7,271

The BioScience segment grew its total operating performance by 6.8% year-on-year, from € 12.4 million to € 13.2 million. Given a further expansion of the strategic cooperation business and partnerships, segment revenue, in particular, increased by 8.8% from € 9.8 million to € 10.7 million.

The segment operating result was mainly burdened by the aforementioned special effects. Operating improvements led to a reduction in the negative adjusted operating result from  $\ell$  -7.3 million to  $\ell$  -6.6 million.

## **BioIndustrial Segment**

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

TABLE 04.5 BIOINDUSTRIAL SEGMENT

€ thousand	2016/17	2015/16
Revenue	13,503	13,024
Research and development grant revenue	76	36
Changes in inventories	-201	263
Other income	483	546
Total operating performance, of which	13,860	13,869
Cost of materials	-7,633	-8,212
Personnel expenses	-2,631	-2,569
Depreciation, amortisation and impairment	-680	-508
Other expenses	-2,639	-2,980
Operating result (EBIT) <sup>7</sup>	276	-398

Revenue in the BioIndustrial segment increased from  $\in$  13.0 million to  $\in$  13.5 million. Within the segment, revenue was increased both with enzymes and other bio-based products as well as in the cosmetics area.

The segment's total operating performance was unchanged at  $\in$  13.9 million. This significantly reflects the fact that in the previous financial year stock accumulation of  $\in$  0.3 million supported total operating performance, and in this year total operating performance reduced by  $\in$  0.2 million reflecting active destocking.

An improvement in the operating result was realised in the financial year under review thanks to the improved gross profit margin and lower other expenses, with the BioIndustrial segment thereby achieving breakeven of  $\in$  0.3 million for the first time (previous year:  $\in$  -0.4 million).

133

<sup>7</sup> No adjustment effects arose in the BioIndustrial segment in the 2016/17 financial year, or in the previous year.

## 4 Financial position

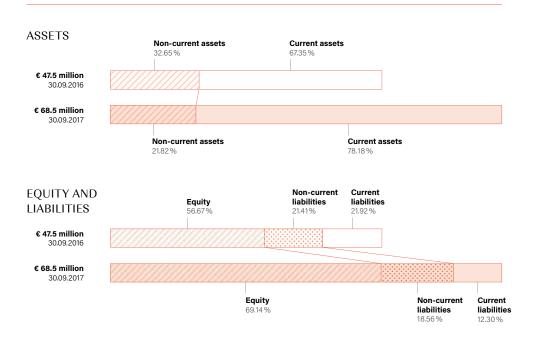
Financial management at BRAIN entails mainly securing the correspondingly necessary liquidity to finance the attainment of the company's objectives and to meet payment obligations at all times. Such financial management includes deploying various financing instruments such as loans, finance leases and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

## 5 Net assets and capital structure

TABLE 04.6 EXTRACT FROM THE BALANCE SHEET

€ thousand	30.09.2017	30.09.2016
Non-current assets		
Intangible assets	7,087	7,747
Property, plant, and equipment	7,590	7,095
Other non-current assets	269	669
	14,947	15,511
Current assets		
Other current assets	14,309	13,341
Other financial assets	295	10,400
Cash and cash equivalents	38,954	8,261
	53,557	32,001
ASSETS	68,504	47,512
Equity	47,362	26,926
Non-current liabilities		
Non-current financial liabilities	8,181	6,241
Other non-current liabilities	4,537	3,932
	12,717	10,173
Current liabilities		
Current financial liabilities	1,514	3,449
Other current liabilities	6,911	6,964
	8,425	10,413
EQUITY AND LIABILITIES	68,504	47,512

FIGURE 04.3 BALANCE SHEET STRUCTURE



The changes in net assets and capital structure during the 2016/17 financial year are mainly attributable to the capital increase in September 2017. The company generated € 28.0 million of cash proceeds from the capital increase after deducting equity procurement costs (€ 65 thousand). The funds raised from the capital increase are mainly to serve the financing of small and medium-sized acquisitions.

Non-current assets reduced by around  $\in$  0.6 million. This decrease derives not only from a  $\in$  0.7 million reduction in intangible assets but also a  $\in$  0.3 million fall in non-current deferred tax assets. This is offset by a  $\in$  0.5 million rise in property, plant and equipment. The increase in property, plant and equipment derives chiefly from a higher level of investment in laboratory equipment and a demonstration plant to extract metals from various sources (please see the related remarks in the following section).

Current assets increased by 67.4% from € 32.0 million to € 53.6 million. The significant proportion of this is attributable to the rise in cash and cash equivalents of € 8.3 million to € 39.0 million. This is offset by a reduction in other current financial assets from € 10.4 million to € 0.3 million. As of 30 September 2016, funds in an amount of € 10.0 million were invested in fixed term deposits with an original term between 3 and 12 months. Pursuant to accounting regulations, such funds are not reported as cash and cash equivalents, but instead under other current financial assets. As of 30 September 2017, only term deposits with an original term of up to 3 months exist. The "expanded cash position" increased from € 18.3 million to € 39.0 million.

Equity grew from € 26.9 million to € 47.4 million, despite the loss incurred for the accounting period, thanks to the capital increase implemented during the financial year under review. The equity ratio stood at 69 % as of the end of the financial year (previous year: 57%).

As of the 30 September 2017 reporting date, authorised capital of  $\in$  6,565,740 and conditional capital of  $\in$  5,090,328 existed (conditional capital to satisfy warrant and conversion rights

<sup>8</sup> Defined as cash and cash equivalents plus term deposits with an original term between 3 and 12 months.

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 € 10.2 million as of 30 September 2016 to € 12.7 million as of 30 September 2017. This rise mainly reflects a re-categorisation from current to non-current financial liabilities. The re-categorisation derives from the fact that a silent partnership, which actually comprises a non-current financial liability, was potentially cancellable as of 30 September 2016, and consequently had to be reported as a current liability. This effect discontinued as of 30 September 2017, and the financial liability became non-current again.

In parallel, current financial liabilities reduced from  $\mathfrak E$  3.5 million to  $\mathfrak E$  1.5 million, whereby  $\mathfrak E$  1.5 million of the change is chiefly attributable to the reclassification of the silent partnership. Overall, the sum of non-current and current financial liabilities remained unchanged at  $\mathfrak E$  9.7 million.

The financial liabilities are predominantly denominated in euros. Besides the aforementioned silent partnership, interest-bearing financial liabilities relate mainly to bank loans with fixed nominal interest rates between 1.95% and 6.00%. Of the interest-bearing loans,  $\in$  1.0 million have a remaining term of up to one year and  $\in$  1.6 million a remaining term of between more than one year and up to five years.

The debt-to-equity ratio (gearing) reduced from 43 % in the previous year to 31% as of 30 September 2017 thanks to the capital increase. Total assets rose from € 47.5 million as of 30 September 2016 to € 68.5 million as of 30 September 2017.

## Investments

Investments during the reporting year focused on expanding and further strengthening the company's technology expertise.

Capitalised investments in intangible assets amounted to  $\in$  0.2 million in the financial year under review, compared with  $\in$  0.4 million in the previous year. Of these investments,  $\in$  51 thousand were attributable to the BioScience segment and  $\in$  102 thousand to the BioIndustrial segment.

Investments of € 1.1 million in property, plant and equipment in the 2016/17 financial year were up again compared with the previous year's investment level of € 0.9 million. As in the previous year, capitalised investments in property, plant and equipment focused on equipping the research and development laboratories at BRAIN AG, Zwingenberg, and at its subsidiary AnalytiCon Discovery GmbH, Potsdam. The BioXtractor, which BRAIN AG developed to extract metals from different byproduct and waste flows as well as primary resources at the Zwingenberg site, represents one example of the investments realised in the financial year under review.9 Along with further investments in individual laboratory equipment items, an extraction and isolation pilot plant was established at the Potsdam location of the subsidiary AnalytiCon Discovery GmbH. This plant makes it possible to isolate natural substances at kilogram scale, using preparative chromatography, for example. Of these capitalised investments, € 0.9 million were attributable to the BioScience segment and € 0.2 million to the BioIndustrial segment. No investment obligations exist as of the reporting date.

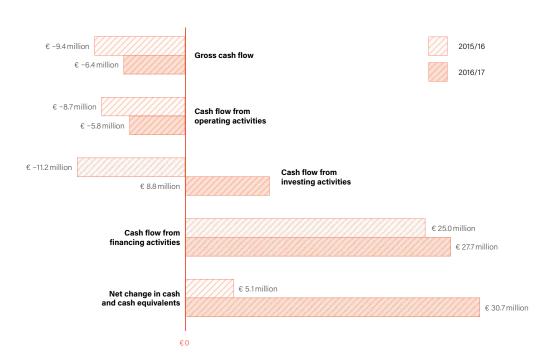
**<sup>9</sup>** Further information can be found in the annual report and at www.brain-biotech.de, bioxtractor.

## Liquidity

TABLE 04.7 EXTRACT FROM THE CASH FLOW STATEMENT

€ thousand	2016/17	2015/16
Gross cash flow	-6,369	-9,414
Cash flow from operating activities	-5,757	-8,683
Cash flow from investing activities	8,791	-11,227
Cash flow from financing activities	27,659	24,992
Net change in cash and cash equivalents	30,693	5,081

FIGURE 04.4 PRESENTATION OF THE CASH FLOW STATEMENT



The gross cash flow of BRAIN amounted to  $\varepsilon$  -6.4 million in the 2016/17 financial year,  $\varepsilon$  3.0 million above the previous year's level of  $\varepsilon$  -9.4 million. This improvement is chiefly attributable to the better result achieved in the reporting period. Cash flow from operating activities rose from  $\varepsilon$  -8.7 million to  $\varepsilon$  -5.8 million in the financial year under review as a consequence.

As described above, cash flow from investing activities included a cash outflow of  $\[ \in \]$  -10.0 million arising from the investment of cash in term deposits, as in the previous year. In the financial year under review, a countervailing positive effect of  $\[ \in \]$  10.0 million determines cash flow from investing activities. Cash flow from investing activities adjusted for the aforementioned effect amounted to  $\[ \in \]$  -1.2 million, as in the previous year. The section above presents examples of such investments.

The cash position increased by  $\in$  30.7 million as a result of the individual cash flows. The rise in the previous year amounted to  $\in$  5.1 million.

Cash and cash equivalents of € 39.0 million as of the 30 September 2017 reporting date were offset by € 1.5 million of current financial liabilities and € 8.2 million of non-current financial liabilities. Undrawn credit lines of € 0.4 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 2016/17 financial year, a total of 12 milestones were achieved or exclusivity options exercised (previous year: 11). The milestones reached and exclusivity options exercised relate to different cooperation partners and also comprise successes from human taste cell (HTC) technology.

## 6 Employees

Staff culture page 74

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

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

The number of employees reports the following changes:

TABLE 04.8 NUMBER OF EMPLOYEES

	2016/17	2015/16
Total employees, of whom	212	204
Salaried employees	199	191
Industrial employees	13	13

The BRAIN Group also employs grant recipients (8, previous year: 7), temporary help staff (13, previous year: 10) and trainees (6, previous year: 3).

In the research and development functions (138 staff; previous year: 127), 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

BRAIN achieved many important successes during the financial year elapsed. In terms of research, BRAIN reached important targets in the financial year under review in the area of animal taste buds, and with its BioXtractor laid an important foundation to scale up processes from laboratory dimension to pilot plants. Patent protection for the enzyme Aurase® for wound healing was also expanded, now protecting the development of BRAIN in essential parts of the world. In terms of partnering in the product line, successes were achieved in the financial year under review in the DOLCE partnership, in which the BRAIN Group is developing a new natural sweetener and sweetness enhancer. After two areas had already been partnered in November 2016 ("breakfast cereals" and "snacks"), an international beverages group was brought on board during the further course of the financial year. Furthermore, the free float of the BRAIN share was increased considerably in the financial year under review from 22% as of 30 September 2016 to 49% as of 30 September 2017.

In terms of trends in the financial position and performance, the Management Board is of the view that considerable improvements in revenue and adjusted EBIT as well as the better cash flow and cash positions comprise important successes in the development of the BRAIN Group. Both operating segments contributed to revenue growth and improved their adjusted EBIT in 2016/17. For this reason, the Management Board sees both operating segments as on the right track to profitable growth.

Above and beyond this, for the Management Board the high level of research and development expenses comprise an important indicator of the future potentials of BRAIN. The Group holds a position of cash and cash equivalents of € 39.0 million as of 30 September 2017, and reports a 69% equity ratio. The Management Board thereby believes that important preconditions have been established to outperform and participate long-term in the potentials offered by the bioeconomy's growth markets.

Overall, as a consequence, the Management Board of BRAIN AG assesses 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 account the recommendations listed in the German Corporate Governance Code (DCGK). The following sections present the basic elements of the compensation scheme for the Management and Supervisory board members, explain the structure of the compensation and salaries of individual Management and Supervisory board members, and report the level of compensation paid to Management and Supervisory board members.

## 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, as well as individually agreed pension commitments, expenses of a provident nature, insurance contributions, and other ancillary benefits.

When setting overall compensation and the individual compensation elements, the Supervisory Board took the company's financial position and business prospects into account, as well as its compensation structure. The Supervisory Board 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 account a capped performance-related bonus for 100% target attainment, and for the remaining Management Board members 74% of target compensation taking into account 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 target parameters include both qualitative and quantitative targets such as the adjusted operating result (EBIT) on the basis of IFRS). 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 outperformance of targets. Setting targets and assessing whether and to what extent targets were reached, and whether the bonus is to be reduced or increased, lies at the Supervisory Board's discretion. The Supervisory Board also assesses the Management Board member's personal performance in this context, with its decision including extraordinary positive or negative developments that are not attributable to the Management Board's performance, to thereby grant performance-based variable compensation to the Management Board members.

If the 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 57.14% 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 the performance-based compensation of up to 20 % will be paid out in each case to Mr Goebel, if and to the extent 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 the performance-based compensation is to be reduced or increased, lies at the Supervisory Board's discretion.

## **Share-based compensation**

In the 2016/17 financial year, the following share-based employee compensation existed, in which Management Board members have participated:

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

With the aim of loyalising key individuals (referred to below as "beneficiaries") to the company to secure future growth in the company's stock market valuation, the existing shareholders granted subscription rights to those individuals who have made a significant contribution to the company's value growth and/or will continue to do so. Some of the subscription rights substantiate an entitlement to the delivery of shares in the company (also referred to below as "call options"), and another portion substantiates entitlement to a payment (referred to below as "cash payments") based on the share price on the maturity date. The granting of the subscription rights is connected to the intention to realise this programme as presented in the listing prospectus.

The call options can be exercised until 30 September 2022, and obligate the previous shareholder to make shares available to the beneficiary, or to realise a cash settlement depending on the share price prevailing at the exercise. The exercise price of the call options amounts to 2 euro cents per share. The level of the cash payment is also calculated on the basis of the share price then prevailing, less 2 euro cents. To calculate the value, on the grant date the management made the assessment that the call options are exercised in the 2016/17 financial year. Exercise of the call options was not tied to any conditions. To grant the cash payments, the beneficiary must be employed continuously and permanently at the company until at least 8 August 2017<sup>12</sup>, although at maximum until the disposal of the shares by the granting parties.

The cash payments (number: Dr Jürgen Eck: 29,702; Frank Goebel: 4,583; Dr Holger Zinke: 25,134) were realised in full in the financial year under review.

<sup>10</sup> The previous shareholders are defined as those shareholders that were the owners of BRAIN AG before the IPO.

<sup>11</sup> The intention to realise the programme is referred to in Section 15.7 "Intended Post IPO Framework Agreement" of the listing prospectus

<sup>12</sup> This corresponds to an 18-month period following the IPO.

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

TABLE 04.9 OVERVIEW CALL OPTIONS

Number of stock options	Dr Jürgen Eck	Frank Goebel	Dr Holger Zinke (former Management Board member)
Outstanding as of 30 September 2016 <sup>13</sup>	68,355	10,548	57,840
Granted in the financial year	0	0	0
Expired in the financial year	0	0	0
Forfeited in the financial year	0	0	0
Exercised in the financial year	65,358	10,085	57,840
Outstanding as of 30.09.2017	2,997	463	0
Exercisable as of 30.09.2017	2,997	463	0

The exercised call options were exercised at an average share price of € 17.46 per unit. The exercise price for the exercised and still outstanding stock options amounts to € 0.02 per stock option. The outstanding stock options can be exercised until 30 September 2022.

### Stock option programme (AOP)

In the 2015/16 financial year, stock options were granted for the first time in the context of Management Board contracts. As of the contractual grant date, the granting of the stock options was tied to the successful implementation of the IPO. As part of exercise, one option entitled to the purchase of one share in the company at the so-called exercise price. The exercise price referred in this context to the respective share price as of the contractual grant date. Along with the share price performance target (performance condition), the exercising of options was 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 could be exercised at the earliest at the end of four years after the grant date (waiting period). The exercise period amounted to four years after the end of the four-year waiting period. The remaining stock options expired in the financial year elapsed. The company's Supervisory Board has decided not to continue the programme in this form.

<sup>13</sup> The number of call options outstanding as of 30 September 2016 was adapted to the options actually issued on the grant date.

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

TABLE 04.10 GRANTED, EXPIRED, FORFEITED AND EXERCISED STOCK OPTIONS

Exercisable as of 30.09.2017	0
Outstanding as of 30.09.2017	0
Exercised in the financial year	0
Forfeited in the financial year	25,000
Expired in the financial year	0
Granted in the financial year	0
Outstanding as of 30 September 2016	25,000
Number of stock options	Dr Georg Kellinghusen

The expense of € 100 thousand recognised as of 30 September 2016 was released in the financial year under review and included as a negative expense under personnel expenses under the item "Share-based payment".

### **Matching Stock Programme**

The Matching Stock Programme that was described in the previous year was again not utilised, not finally defined, and was formally ended in the financial year under review. For this reason, in the financial year no expense was recognised for the Matching Stock Programme.

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

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

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

### Other ancillary benefits

The company grants the two Management Board members who have stepped down, Mr Marks and Dr Kellinghusen, various other incidental benefits by reimbursing travel costs for journeys home, assuming accommodation costs, and providing an allowance for removal costs. In terms of type, preconditions and level, these incidental benefits are subject to the regulations agreed individually with the respective Management Board members. Such agreements did not exist with the Management Board members in office at BRAIN AG as of 30 September 2017.

### **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 good grounds 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 on the basis of 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 whose compliance the company has committed a monthly compensation payment equivalent in each case to 50% of the monthly fixed basic compensation paid. A post-contractual competitive restraint for a 12-month period was agreed with Mr Goebel, for compliance with which the company paid 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 instance of early discontinuation of his employment.

### Future structure of the compensation scheme

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

### **Management Board compensation level**

For the 2016/17 financial year, the Management Board received total compensation of € 762 thousand, as calculated on the basis of the German Commercial Code (HGB). The corresponding for the previous year stood at € 813 thousand.

The compensation granted for the 2016/17 financial year on the basis of commercial law regulations is summarised in the following overview.

TABLE 04.11 COMPENSATION GRANTED FOR THE 2015/16 FINANCIAL YEAR ON THE BASIS OF HGB

€ thousand	Dr Jürgen Eck	Drs Eric Marks	Dr Georg Kellinghusen	Frank Goebel	Total
Performance-based components					
Fixed salary	240	18	104	193	554
Other payments	2	2	11	23	38
Total	242	20	115	215	592
Performance-based components without long-term incentive effect					
Bonus	80		60	30	170
Total compensation	322	20	175	245	762

Drs Marks was paid an amount of up to  $\in$  205 thousand for a post-contractual competitive restraint and for his early departure from the company as of 31 October 2016. He was also granted compensation payments of  $\in$  9 thousand for the post-contractual competitive restraint for the period 1 October 2017 to 31 October 2017.

The present value of the overall obligation from pension commitments calculated pursuant to International Financial Reporting Standards (IFRS) amounted to  $\[ \]$  2,731 thousand as of the reporting date (previous year:  $\[ \]$  2,734 thousand), of which  $\[ \]$  867 thousand for Dr Jürgen Eck (previous year:  $\[ \]$  802 thousand).

The pension value (present value of the overall obligation) according to the accounting regulations of the German Commercial Code (HGB) amounted to € 2,334 thousand (previous year: € 2,053 thousand), of which € 767 thousand for Dr Jürgen Eck (previous year: € 651 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 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 overviews show which benefit contributions were granted to the members of the Management Board of BRAIN AG for 2016/17 and for the previous year. Some of these contributions did not yet entail any payments, however. For this reason, the amount of funds accruing to Management Board members is presented separately.

TABLE 04.12 MANAGEMENT BOARD COMPENSATION

	Dr Jürgen Eck, CEO since 09.05.2000						
	Received		Granted				
€ thousand	2016/17	2015/16	2016/17	2015/16	2016/17 (max.)	2016/17 (min.)	
Fixed compensation	240	240	240	240	240	240	
Ancillary benefits	0	0	0	0	0	0	
Total	240	240	240	240	240	240	
Variable compensation (one-year)	80	56	80	80	160	0	
Share-based payment of third parties <sup>14</sup>	1,504	0	1,504	0	N/A	N/A	
Total	1,824	296	1,824	320	400	240	
Pension expense	66	110	67	110	67	67	
Total compensation	1,890	406	1,891	430	467	307	

Dr Geora Kellinahusen, CFO	Period of office started: 01.01.2016.	Period of office ended: 09.03,2017

	Received			Granted			
€ thousand	2016/17	2015/16	2016/17	2015/16	2016/17 (max.)	2016/17 (min.)	
Fixed compensation	104	158	104	158	104.25	104.25	
Ancillary benefits	0	19	0	19	0	0	
Total	104	177	104	177	104	104	
Variable compensation (one-year)	60	0	60	45	120	0	
Share-based payment of third parties	0	0	0	0	0	0	
Total	164	177	164	222	224	104	
Pension expense	11	0	11	0	11	11	
Total compensation	175	177	175	222	235	115	

147

<sup>14</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".

Eric Marks, COO<sup>15</sup> Period of office started: 01.11.2015, Period of office ended: 31.10.2016

	Recei	Received Granted			ted		
€ thousand	2016/17	2015/16	2016/17	2015/16	2016/17 (max.)	2016/17 (min.)	
Fixed compensation	18	193	18	193	18	18	
Ancillary benefits	0	23	0	23	0	0	
Total	18	216	18	216	18	18	
Variable compensation (one-year)	0	0	0	55	0	0	
Share-based payment of third parties	0	0	0	0	0	0	
Total	18	216	18	271	18	18	
Pension expense	2	0	2	0	2	2	
Total compensation	20	216	20	271	20	20	

Frank Goebel, CFO since 01.11.2016

	Receiv	ved Granted			ted		
€ thousand	2016/17	2015/16	2016/17	2015/16	2016/17 (max.)	2016/17 (min.)	
Fixed compensation	193	0	193	0	193	193	
Ancillary benefits	0	0	0	0	7	7	
Total	193	0	193	0	200	200	
Variable compensation (one-year)	0	0	30	0	60	0	
Share-based payment of third parties <sup>16</sup>	244	0	244	0	N/A	N/A	
Total	437	0	467	0	260	200	
Pension expense	23	0	23	0	23	23	
Total compensation	460	0	490	0	283	223	

### **Supervisory Board compensation**

Pursuant to the company's bylaws, the Supervisory Board members receive annual compensation of  $\in$  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  $\in$  15,000. All Supervisory Board members receive a meeting fee of  $\in$  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, whose costs the company bears.

<sup>15</sup> Mr Eric Marks stepped down from the Management Board with effect as of 31 October 2016. In November 2016, he received a one-off payment of € 100 thousand. In the financial year under review, he also received € 105 thousand for a post-contractual competitive restraint. In October 2017, he received the final payment of € 9 thousand.

<sup>16</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".

The following table shows the cash compensation of the Supervisory Board for the 2016/17 financial year:

TABLE 04.13 SUPERVISORY BOARD COMPENSATION

€ thousand							
Supervisory Board members	Fixed compensation	Allowance for special functions	Meeting fees	Total compensation			
Dr Ludger Müller	30	16	9	55			
Dr Holger Zinke <sup>17</sup>	10	0	1	11			
Siegfried L. Drueker <sup>17</sup>	7	6	4	17			
Dr Georg Kellinghusen <sup>18</sup>	8	6	4	19			
Christian Koerfgen	15	0	7	22			
Prof. Dr Klaus- Peter Koller	15	0	6	21			
Dr Matthias Kromayer <sup>17</sup>	7	0	3	10			
Dr Martin B. Jager <sup>18</sup>	13	0	5	18			
Dr Anna C. Eichhorn <sup>18</sup>	8	0	4	12			
Total	113	28	43	185			

17 until 09.03.2017

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

### Shares held by the Management and Supervisory boards

As of 30.09.2017, the Management Board members held 754,466 ordinary shares of BRAIN AG and the Supervisory Board members held 2,581 ordinary shares of BRAIN AG.

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

### **Directors' Dealings**

In the 2016/17 and 2015/16 financial years, the company was notified of the following transactions by individuals with management responsibilities pursuant to Section 15a of the German Securities Trading Act (WpHG).

TABLE 04.14 DIRECTORS' DEALINGS

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

## Events after the reporting date

Since the 30 September 2017 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 expectation of a positive business trend in the financial year under review was met. Although revenue reported considerable growth, the negative change in inventories led to lower than forecast growth in total operating performance.

Significant growth in terms of revenue was delivered, however. The expected marked improvement in adjusted EBIT in the 2016/17 financial year was achieved. For the 2017/18 financial year, the Management Board anticipates another positive trend in business, with a marked increase in total operating performance and an equally significantly better, although continued negative, adjusted operating result (adjusted EBIT). Given a clear uptrend in both operating segments, a further improved positive operating result (adjusted EBIT) is anticipated for the BioIndustrial segment, and a continued negative adjusted operating result for the BioScience segment. The anticipated considerable growth in total operating performance is expected for both operating segments.

The budgeted marked increase in total operating performance in the previous year comprised both the BioScience segment and the BioIndustrial segment. Last year's segment revenue prognoses were also fulfilled. Due to the negative change in inventories, the total operating performance growth was realised in the BioScience segment, but not in the BioIndustrial segment. The improvement in the adjusted operating result (adjusted EBIT) is largely attributable to the BioScience segment. Corresponding earnings contributions are also anticipated, in particular, from expanding the DOLCE alliance through involving further partners.

The milestones and option drawings expected in the previous year were achieved (12 in the financial year under review; previous year: 11). A similar number of achievements is anticipated for the following year. The slight planned increase in research and development expenses was fulfilled, accompanied by an improvement in the adjusted operating result (adjusted EBIT). 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 2017/18 develop positively as presented in the section entitled "Macroeconomic and sector-related conditions", potential projects are not discontinued to a significant extent, and new co-operation partners can be acquired for new projects.

### Report on risks and opportunities

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

### 1 Risk management at BRAIN AG

### Introduction

Identifying opportunities and avoiding risks comprise the determinants of any corporate business strategy. BRAIN AG 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 opportunities, in consideration of the risks entailed. The systematic handling of risks and opportunities forms part of corporate activity and is a management steering element. BRAIN AG forms part of a fast-growing industry characterised by constant change and progress, consequently entailing a significant focus on weighing opportunities against risks. For BRAIN it is crucial that opportunities be identified and managed to success, to thereby sustainably improve competitiveness and secure it long-term, as well as to ascertain and minimise risks. BRAIN AG has established instruments and processes so that risks are identified early and measures are implemented to realise opportunities in entrepreneurial activities without delay. Balanced risk and opportunities management forms part of all planning processes within BRAIN AG and its subsidiaries.

### 2 Report on risks and opportunities

### **Risk Management System (RMS)**

### **Characteristics of the RMS**

The RMS that is presented focuses on business risks, and not also 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.

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

Risks are also presented applying the net presentation method. In other words, risks are presented so that they continue to be monitored following implementation of countermeasures.

The focus in this context is on significant risks, and on risks that might jeopardise the company as a going concern.

The aim of the RMS of BRAIN AG is not only to comply with statutory regulations but also to support internal management and business security. Overall, suitable risk awareness should be created Group-wide to ensure responsible handling of risks and counterstrategies.

The RMS serves solely to ascertain risks within BRAIN. Opportunities are weighed and considered on the basis of 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 in its existing form was re-implemented in the 2015/16 financial year and further developed during the financial year under review. The further developed RMS integrated experience from the previous year in identifying and managing risks. A new reporting structure was established during the financial year elapsed to include the identification of any potential changes to the risk structure on a quarterly basis, to augment the existing full semi-annual surveys. 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 2017 reporting date, and was prepared shortly before the reporting date from a survey in the corporate areas.

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

### **Risk evaluation**

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

TABLE 04.15 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 04.16 DEGREE OF IMPACT

Impact core	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 thou- sand
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 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 04.17 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. Specific countermeasures can be instigated at short notice in this manner 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 disclosed. 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 fully report business transactions within the Group in accordance with respective applicable accounting regulations. The system comprises fundamental rules and procedures, as well as a clear functional separation through the two sets of eyes principle. Especially when preparing separate financial statements, reconciliation to IFRS, as well as consolidation and related standard measurement and reporting, controls exist in the form of the two sets of eyes principle. The clear separation between preparation and internal review enables deviations and errors to be identified, and ensures that information is complete.

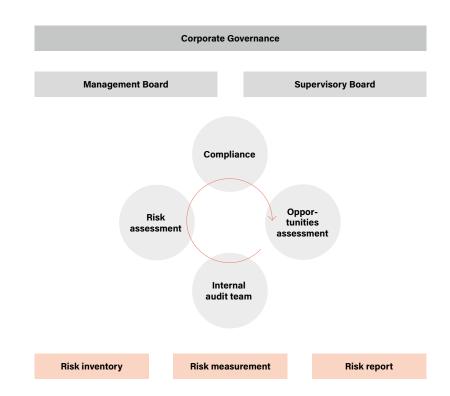
The accounting-related appraisal and recording of business transactions is implemented by the respective Group companies where such transactions occur, as a matter of principle. An exception from this principle is where BRAIN AG appraises and records business transactions for its subsidiaries Mekon Science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

Business transactions within the Group are appraised in accounting terms on the basis of 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 realised by the Group accounting function of BRAIN AG with the support of external service providers. The independent auditor appointed by the AGM audits the separate annual and consolidated financial statements. Significant risks for the financial accounting process are monitored and evaluated on the basis of the risk classes specified below and applying their individual risk classification. 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 for approval. At least one Supervisory Board member is an independent financial expert in the meaning of Section 100 (5) of the German Stock Corporation Act (AktG). The Supervisory Board's Audit Committee monitors the financial accounting process and auditing of financial statements.

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

FIGURE 04.5 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 initiate R&D projects.

Given the 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.

All of this could lead to BRAIN achieving lower growth long-term or continuing to report negative results.

The assessed risk level has decreased compared with the previous year, as individual projects were successfully further developed during the financial year under review. For some projects, this was also published in several press reports, and relates to both of the operating segments of BRAIN, BioScience and BioIndustrial. Despite this, this characteristic is still gauged as a "medium risk".

### Risks from research and development

BRAIN is a technology company, and innovations form an important part of the BRAIN strategy. Research projects can always 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 already shown that wherever a particular path might not be realisable, other solutions can generally be found. As far as the proprietary development projects of BRAIN are concerned, the company endeavours to keep research pipeline risks low long-term with a continuous stage-gate and portfolio management process.

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

The resultant risk in cooperation businesses would at maximum entail default on an outstanding milestone payment, a budget overrun, or the abandoning of an individual project. Such risk is to be largely avoided or minimised through the aforementioned evaluation.

Here, too, overall risk has diminished year-on-year, however, as the research targets were realised.

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

### Material damage concerning the BioArchive or research results

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

An insurance concept also exists to cover most of the potential costs to remedy potential losses, however. The physical measures as well as the insurance concept undergo constant review and are continuously updated to reduce the risk of 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 externally impacting circumstances. New emergency electrical supplies were commissioned during the financial year under review to provide power during a prolonged electricity outage. 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, the risk exists here of also being liable for such products. As the product range differs widely, the related risk is also to be appraised differently. BRAIN could become exposed to product liability cases for defective products in the cosmetics area, as well as when delivering enzymes.

The risk is categorised as a "medium risk" and relates to the BioIndustrial segment.

### **Financial risks**

Financial risks are examined regularly. The Group has internal guidelines to identify, investigate and evaluate financial risks at an early stage. Ongoing comparison with planning is facilitated through quarterly written reports and verbal querying of managers. Depending on the level of differences entailed, the members of the Management Board of BRAIN AG have sufficient time to engage countermeasures. A new standard Group reporting tool was additionally introduced for the Group in the financial year under review, unifying the querying of relevant information.

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

Given unfavourable future trends, financial risks to be categorised as "medium risk" might entail impairment losses on the acquired goodwill and other intangible assets of AnalytiCon Discovery GmbH and Monteil Cosmetics International GmbH. And impairment of € 146 thousand was identified in relation to the goodwill of Monteil Cosmetics International GmbH in the financial year under review. Further information on this topic can be found in the notes to the consolidated financial statements.

This concerns both operating segments, BioScience and BioIndustrial.

BRAIN holds € 39.0 million of cash and cash equivalents as of 30 September 2017.

### Legal risks

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

The risk always exists that legislation is amended in the next years, whether in relation to fiscal, capital market or other legal regulations. The probability that legislation changes in an area is high. The effects on business results cannot be estimated, although they would affect the entire industry.

### Intellectual property risks

BRAIN is a research company whose strategy is based on a solid intellectual property foundation. The probability of becoming involved in patents litigation is low, but would presumably affect the results of BRAIN. Quantification is not possible, as no specific patent lawsuits are pending at present.

The main risk in this context would be a company demanding freedom to operate. As issued patents become ever more closely intermeshed internationally as intellectual property assets, it is becoming increasingly difficult to find all relevant patents in corresponding patents researches. Here the risk exists of patents not being found under certain circumstances, with the potential risk that patents might be infringed. This risk relates mainly to the BioScience segment and was categorised as a "medium risk".

### General legal risks

Due to the increasing industrialisation and internationalisation of the business of BRAIN, the risk is also increasing of litigation occurring with an international corporate group. The Management Board currently appraises the probability that contractual risks will lead to the occurrence of litigation as low. A lawsuit would exert a negative effect on results. Quantification is not possible, as no specific patent lawsuits are pending at present.

Due to greater activities within the EU, Germany and the German regions in the area of regulating companies, competition and compliance, the risk has risen at BRAIN AG, as also at other companies, of being restricted through corresponding legislation. The Management Board of BRAIN AG endeavours to take the enhanced regulation into account through regular training and instruction of staff, such as in the compliance area.

All generally legal risks are categorised as "medium risk" and relate to both operating segments, BioScience and BioIndustrial.

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

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

This "medium risk" concerns both operating segments, BioScience and BioIndustrial.

### Other risks

### Personnel

BRAIN has very well trained personnel overall, which constantly accrues further know-how through the operating activities.

The loss of knowledge bearers in key positions represents a "medium risk" for BRAIN.

To keep the staff turnover rate low, an incentivisation programme has also been established so that BRAIN can compete successfully for personnel in the Rhine Main Neckar conurbation region and avoid the loss of staff.

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

### **Environment**

At any company operating in the biotechnology or chemical sectors, the residual risk exists that damage to the environment occurs. Such risk is manageable at BRAIN, as staff are trained continuously, the volumes of materials deployed and processed are very manageable, and BRAIN has instituted organisational measures to avoid accidents and product spillages. Furthermore, BRAIN works together very closely with all relevant authorities and proactively addresses all environmental topics. This also concerns compliance with regulations relating to handling genetically modified objects ("GMOs").

This risk relates to both segments and is to be categorised overall as a "medium risk".

TABLE 04.18 PRESENTATION OF THE GREATEST SHORT- AND MEDIUM-TERM RISKS AT BRAIN

	D 11 10	0 1 1
Risks	Resultant 2-year estimate of impact	Segment mainly affected
Business-related risks		
Growth risk	medium	BioScience and BioIndustrial
Risk with R&D projects	medium	BioScience
Risk of loss of bioarchive	medium	BioScience
Product liability risk	medium	BioIndustrial
Financial risks		
Inventory devaluation	medium	BioScience and BioIndustrial
Legal risks		
IP risks	medium	BioScience
General legal risks	medium	BioScience and BioIndustrial
Risks from acquiring companies or parts of c	ompanies	
Acquisition risk	medium	BioScience and BioIndustrial
Financing risks at subsidiaries	medium	BioIndustrial
Goodwill impairment	medium	BioIndustrial
Other risks		
Personnel	medium	BioScience and BioIndustrial
Environment	medium	BioScience and BioIndustrial

BRAIN evaluated a total of 45 risks. Of these risks, 21 risks are to be categorised as "medium risks", which are aggregated in the above-listed 12 risk classes (BioScience and BioIndustrial). A total of 24 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>19</sup> are either not deployed, or deployed only to an extent that is insignificant to assess the Group's position or prospective development.

<sup>19</sup> Defined as either firm or option transactions structured as purchases, exchanges or otherwise that are to be satisfied after a time delay, and whose value is derived from the price or measurement of a reference value, especially the following: currencies, interest rates, securities, commodity prices and indices relating to such reference values, as well as other financial indices; financial assets are not deployed as risk management instruments. The Group's loans serve to finance Group activities and avoid liquidity risks.

### Report on opportunities

### Opportunities from research and development

### **BioScience segment**

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

Some significant examples include:

### Founding of the DOLCE programme

BRAIN, AnalytiCon Discovery and Roquette signed an agreement to form a strategic partnership to accelerate the development of a new generation of natural sweeteners. The DOLCE partnership aims to develop innovative natural sweetness enhancers and sweeteners.

The R&D performance of BRAIN was further validated with the gaining of a further DOLCE partner in the financial year under review, thereby boosting the likelihood of adding further members. Overall, the success of DOLCE creates further opportunities to commercialise the patented BRAIN technology of "Human Taste Cells" (HDC) as well as the utilisation of the BioArchive.

Further studies showing the effect of excessive sugar consumption on society were published during the financial year review, raising pressure on legislators and industry to promote and use more sugar substitutes, which BRAIN is researching in the DOLCE project. The market volume for innovations to reduce sugar is thereby growing continuously, and research activities in this area are also constantly expanding. BRAIN is a cooperation partner to globally leading food manufacturing groups.

### **Extracting metals from waste materials**

An international research team involving BRAIN AG has succeeded in extracting metals at a high percentage rate from waste materials and ores with the help of microorganisms in a bioleaching procedure. The bacteria utilised in the bioleaching process first convert insoluble ore minerals into water-soluble salts in an extraction process.

A demonstration plant that was completed during the financial year under review, the BRAIN BioXtractor, offers related high-performance and secure biological process solutions to extract precious metals from byproduct and waste flows as well as primary resources. After delivery, the plant was prepared for assessment by companies interested in a test phase to jointly develop and market or license the technology.

The opportunities deriving from this project are varied, and BRAIN is currently evaluating suitable business models with various potential cooperation partners.

### Increasing internationalisation

During the financial year elapsed, BRAIN significantly advanced the internationalisation of its business and also expanded initial promising contacts. It became clear that the research and development of BRAIN is encountering significant interest in an international comparison.

The objective is to realise and expand this major opportunity in partnerships over the coming years.

### Opportunities generated by IP

### **BioScience segment**

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

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

### BRAIN AG expands patent protection for Aurase® enzyme to treat chronic wounds

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 to treat skin and scars, as well as for the fast-growing market to treat chronic wounds. The Aurase® development forms part of the portfolio of the BRAIN BioIndustrial operating segment.

BRAIN is currently evaluating specific applications for Aurase® and is conducting discussions relating to various marketing options with industrial partners, including a potential spinoff with leading partners in this area.

The annual sales volume for the wound healing market that BRAIN can potentially address is estimated by experts at more than € 100 million for Europe alone. BRAIN aims to participate in this with products that are based on Aurase®.

### **Business-related opportunities**

### **BioIndustrial segment**

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

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

The following information reflects circumstances on the 30.09.2017 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 potentially deriving from agreements between shareholders.

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

MP Beteiligungs-GmbH, Kaiserslautern, holds a 35% interest in the company's share capital as of 30 September 2017. As of 30 September 2017, no further shareholders existed with interests of more than 10% in the voting rights.

### Dependent companies report

Pursuant to Section 312 (3) of the German Stock Corporation Act (AktG), the Management Board of BRAIN AG states that, in the case of legal transactions listed in the report on relationships with affiliates for the period from 9 March 2017 until 30 September 2017, the company received appropriate consideration for each legal transaction according to the circumstances known to it at the time when the legal transaction was implemented. During the reporting period, no other measures existed at the instigation or in the interests of the controlling entity, or an entity affiliated with it.

### Holders of shares with special rights (No. 4)

No shares exist at BRAIN AG with special rights endowing control powers.

### Voting rights control of employees who are shareholders (No. 5)

No voting rights controls for employees who are shareholders exist for the instance of control rights that are not to be exercised directly.

### Rules concerning the appointment and recall from office of Management Board members (No. 6)

Pursuant to Section 84 of the German Stock Corporation Act (AktG) and the bylaws of BRAIN AG, the Supervisory Board appoints the members of the Management Board. Pursuant to Section 7 of the bylaws of BRAIN AG, the Management Board consists of one or several individuals. The Supervisory Board determines the number of Management Board members. It can appoint a Management Board Chair (CEO) and a Deputy Management Board Chair, as well as deputy Management Board members. If the Management Board consists of several members, Management Board resolutions are passed with a simple majority of votes. If the Supervisory Board has appointed a Management Board Chair, and if the Management Board consists of three members, the vote of the Management Board Chair decides given an equal number of votes.

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

Bylaw amendments require an AGM resolution. AGM resolutions require a simple majority of votes, unless the law stipulates a greater majority.

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

BRAIN AG has the following authorised and conditional capital:

### **Authorised capital**

The Authorised Capital of € 2,862,909 existing as of 30 September 2016 (Authorised Capital 2015/1) was cancelled by AGM resolution on 9 March 2017.

With a resolution of the AGM on 9 March 2017, authorised capital of € 8,207,174 was created (Authorised Capital 2017/I). Authorised Capital 2017/I was entered in the commercial register on 20 March 2017. The Management Board is authorised, with Supervisory Board assent, to increase the company's share capital once or on several occasions until 8 March 2022, albeit by up to a maximum of nominal € 8,207,174 through issuing up to 8,207,174 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 already listed on the date when the issue price is finally determined, and the total number shares issued in this manner under exclusion of subscription rights does not exceed 10 % of the share capital.

Under first-time partial utilisation of Authorised Capital 2017/I, the Management Board, with Supervisory Board consent of 7 September 2017, issued new shares against cash capital contributions in an amount of € 1,641,434 on 7 September 2017. Authorised capital of € 6,565,740 consequently existed on the 30 September 2017 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 authorisation of the Management Board by way of AGM resolution passed on 8 July 2015. The conditional capital increase is to be implemented through issuing up to 5,090,328 new ordinary registered shares only to the extent that the holders of convertible bonds and/or bonds with warrants utilise their conversion rights or warrant rights, or the holders of convertible bonds that are obligated to convert satisfy their obligation to convert, and to the extent that other forms of satisfaction are not deployed to service the bonds. An increase in the share capital from Conditional Capital 2015/I had not been implemented as of the 30 September 2017 reporting date.

Conditional Capital 2015/II serves exclusively to service subscription rights arising from stock options that are granted – pursuant to the AGM resolution dated 8 July 2015 as part of a stock option plan comprising up to 1,272,581 stock options that carry subscription rights to shares of BRAIN AG with a term of up to eight years – to the members of the company's Management Board, members of affiliated companies' management boards, as well as managers and other company employees in senior positions. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilise them, and the company does not grant 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 2017 reporting date.

### Stock options

An AGM resolution dated 8 July 2015 authorised the Management Board, with Supervisory Board approval, to issue as part of a stock option plan until 30 September 2020 up to 1,272,581 stock options with subscription rights to shares of BRAIN AG with a term of up to eight years, with the condition that each stock option grant the right to subscribe for one share, and according to further provisions. As far as issuing shares to members of the Management Board of BRAIN AG is concerned, this authorisation is valid for the Supervisory Board alone. No stock options had yet been issued as of the 30 September 2017 reporting date. 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 authorised the Management Board pursuant to Section 71 (1) No. 8 of the German Stock Corporation Act (AktG), to purchase treasury shares for any permissible purpose in the context of statutory restrictions and according to more detailed provisions. This authorisation is valid from the date on which the authorisation resolution becomes effective until 7 July 2020, and is restricted to a total proportion of 10 % of the share capital existing on the date when the resolution is passed, or, if this amount is less, as of the date when the authorisation is exercised. The resolution was entered in the commercial

register on 1 October 2015. As in the previous year, in the 2016/17 financial year BRAIN made no utilisation of this authorisation to purchase treasury shares.

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

The company has not entered into any arrangements in the meaning of Section 315 (4) Nos. 8 and 9 of the German Commercial Code (HGB).

### Corporate governance statement of conformity pursuant to Section 289a of the German Commercial Code (HGB)

The corporate governance statement of conformity of BRAIN AG pursuant to Section 289a of the German Commercial Code (HGB) is published on the website at www.brain-biotech.de/en/investor-relations/corporate-governance.

### 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.

Zwingenberg, 13 December 2017

Dr Jürgen Eck

Management Board Chairman (CEO)

Frank Goebel

Godl

Management Board member

# Consolidated financial statements

05	Financial statements	169
	Consolidated statement of changes in equity	
	Notes	176
		0.45
06	Further information	245

TABLE 05.1 CONSOLIDATED BALANCE SHEET AS OF 30 SEPTEMBER 2017

€ thousand	Note	30.09.2017	30.09.2016
Non-current assets		3010312017	0010012010
Intangible assets	[12]	7,087	7,747
Property, plant, and equipment	[13]	7,590	7,095
Equity-accounted investments	[14]	166	168
Available-for-sale financial assets		0	0
Other non-current assets	[18]	103	158
Deferred tax liabilities	[10]	0	342
		14,947	15,511
Current assets			
Inventories	[15]	7,244	7,130
Trade receivables	[16]	6,472	5,683
Other current assets	[18]	592	491
Current tax assets	[10]	1	37
Other financial assets	[17]	295	10,400
Cash and cash equivalent	[19]	38,954	8,261
		53,557	32,001
ASSETS		68,504	47,512
Equity	[20]	10.050	40.444
Subscribed capital		18,056	16,414
Capital reserves		77,950	49,369
Retained earnings		-47,736	-38,129
Other reserves		-1,090	-974
Maria and all and all and a	_	47,180	26,680
Non-controlling interests  Total equity		47,362	246
Total equity		47,362	26,926
Non-current liabilities			
Deferred tax liabilities	[10]	1,144	1,259
Provisions for post-employment benefits for employees	[5]	1,280	1,445
Financial liabilities	[21]	8,181	6,241
Other liabilities	[22]	1,827	1,128
Deferred income	[23]	286	100
	_	12,717	10,173
Current liabilities	[0.4]	417	000
Other provisions	[24]	417	868
Current tax liabilities	[04]	580	252
Financial liabilities	[21]	1,514	3,449
Prepayments received	[25]	269	211
Trade payables	[26]	2,433	2,862
Other liabilities	[22]	2,705	2,364
Deferred income	[23]	507	408
		8,425	10,413

### TABLE 05.2 CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE PERIOD 1 OCTOBER 2016 – 30 SEPTEMBER 2017

€ thousand	Note	FY 2016/17 01.10.2016 - 30.09.2017	FY 2015/16 01.10.2015 - 30.09.2016
Revenue	[1]	24,105	22,790
Research and development grant revenue	[2]	2,310	2,249
Change in inventories of unfinished and finished goods and work in progress		-143	377
Other income	[3]	660	724
Total operating performance		26,932	26,139
Cost of materials	[4]		
Cost of raw materials, consumables and supplies, and purchased merchandise		-8,605	-9,050
Cost of purchased services		-2,611	-2,748
		-11,217	-11,797
Personnel expenses	[5]		•
Wages and salaries		-11,912	-12,160
Share-based employee compensation		-2,252	-3,957
Social security and post-employment benefit costs		-2,361	-2,128
	_	-16,524	-18,245
Depreciation and amortisation	[6]	-1,678	-1,448
Other expenses	[7]	-6,887	-8,460
Operating result (EBIT)		-9,374	-13,812
Share of profit or loss from equity-accounted investments	[14]	-2	168
Finance income	[8]	291	265
Finance costs	[9]	-313	-1,049
Net financial result		- 23	-616
Pretax loss for the reporting period		-9,398	-14,427
Income tax expense/income	[10]		
a) Current tax expense		-404	-286
b) Deferred tax income		131	-225
		-273	-511
Net loss for the reporting period		-9,671	-14,938
of which attributable to non-controlling interests		-64	-248
of which attributable to shareholders of BRAIN AG		-9,607	-14,690
Earnings per share	[11]		
		-0.58	-0.97
Earnings per share, basic (undiluted), (in €)			
Earnings per share, basic (undiluted), (in €)  Number of shares taken as basis		16,486,301	15,129,097
		16,486,301 -0.58	15,129,097 -0.97

€ thousand	Note	FY 2016/17 01.10.2016 - 30.09.2017	FY 2015/16 01.10.2015 - 30.09.2016
Net loss for the reporting period		-9,671	-14,938
of which attributable to non-controlling interests		-64	-248
of which attributable to shareholders of BRAIN AG		-9,607	-14,690
Other comprehensive income:*  Net gain or loss from remeasuring post-employment benefit obligations  Deferred tax liabilities	[5]	241 -357	-361 105
Other comprehensive, net		-116	-256
Consolidated total comprehensive income (loss)		-9,786	-15,194
of which attributable to non-controlling interests		-64	-248
of which attributable to shareholders of BRAIN AG		-9,722	-14,946

<sup>\*</sup> Items that will not be reclassified subsequently to profit or loss

16,414

1,641

18,056

49,369

26,329

2,252

77,950

### TABLE 05.3 CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE 2016/17 FINANCIAL YEAR

Interests of shareholders of BRAIN AG Note (20) interests Subscribed Capital Retained Other € thousand Total reserves Total Total capital reserves earnings Balance at 30 September 2015 / -719 5,451 12,726 16,883 -23,439 304 5,755 01 Oktober 2015\* Total comprehensive income (loss) -14,690 -256 -14,946 -248 -15,194 Cash capital increase through 189 189 189 issuing new shares Contributions to free capital 1,811 1,811 1,811 reserve as part of converting shareholder loans Capital increase through issuing 3,500 26,718 30,218 30,218 new shares Transfers due to employee share 3,957 3,957 3,957 scheme 0 0 190 Addition of non-controlling inter-190 ests as part of rendering contributions to the capital reserves of fully consolidated Group companies

-38,129

-9,607

-47,736

-974

-116

-1,090

26,680

-9,722

27,971

2,252

47,180

Noncontrolling

246

-64

182

26,926

-9,786

27,971

2,252

47,362

Balance at 30 September 2016 /

Total comprehensive income (loss)

Capital increase through issuing

Transfers due to employee share

Balance at 30 September 2017

01 Oktober 2016

new shares

scheme

<sup>\*</sup> Previous year's presentation adapted for better overview.

TABLE 05.4 CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE PERIOD 1 OCTOBER 2016 – 30 SEPTEMBER 2017

	FY 2016/17 01.10.2016 -	FY 2015/16 01.10.2015 -
€ thousand  Not profit (/loop) for the poriod offer to:	30.09.2017	30.09.2016
Net profit (/loss) for the period, after tax		-14,938
Depreciation and amortisation		1,448
Deferred tax expense  Conversion of deferred income into revenue.	-131	215
Conversion of deferred income into revenue	-952	-2,202
Income from release of provisions and liabilities		-73
Share of profit or loss from equity-accounted investments  Change in not possion provisions recognised in profit or loss.		- 168
Change in net pension provisions recognised in profit or loss	77	70
Other non-cash expenses/income	2,697	6,233
Losses on disposals of intangible assets and property, plant and equipment	3 - 3 -	2
Gross cash flow		-9,414
Change in trade receivables	-820	-1,774
Change in inventories	-106	-845
Change in tax assets and liabilities	364	151
Change in other assets and financial assets	105	151
Change in trade payables	-429	-243
Change in prepayments	194	-71
Change in provisions and other liabilities	304	1,069
Additions from deferred income	1,000	2,293
Cash flows from operating activities	-5,757	-8,683
		<u> </u>
Payments to acquire companies (less cash and cash equivalents acquired)	-152	-341
Payments to acquire intangible assets	-1,078	-889
Payments to acquire property, plant and equipment	13	-9
Net proceeds from other non-current assets	0	-10,000
Payments to acquire financial assets	10,000	0
Proceeds from disposal of property, plant and equipment	8	12
Cash flows from investing activities	8,791	-11,227
Proceeds from borrowings	485	2,014
Repayments of borrowings	-840	-7,488
Proceeds from shareholders' cash capital increases		189
Non-controlling interests' contributions to fully consolidated Group companies' capital reserves		48
Contributions to equity less related capital raising costs	27,971	30,229
Cash flows from financing activities	27,659	24,992
Net change in cash and cash equivalents	30,693	5,081
Cash and cash equivalents at start of financial year	8,261	3,180
Cash and cash equivalents at end of financial year	38,954	8,261
Cash and cash equivalents at end of infancial year	30,334	0,201
Cash flows from operating activities include:		
Interest paid	-242	-410
Interest received	6	10
Income taxes paid	-62	-173

### Notes

### I. General Information

### General information about the company

B·R·A·I·N Biotechnology Research and Information Network Aktiengesellschaft (also referred to below as "BRAIN AG", "BRAIN" or the "Company") is registered in the commercial register of the Darmstadt District Court under commercial sheet register number 24758. The registered offices of the company are located at Darmstädter Strasse 34 – 36 in 64673 Zwingenberg, Germany.

BRAIN AG is a technology company active in the field of industrial ("white") biotechnology. As a partner for manufacturers in a range of sectors, including the chemical and consumer goods industries, it develops novel biological ingredients, especially enzymes, biocatalysts and bioactive natural compounds. 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 Analyti-Con Discovery GmbH in Potsdam, the latter with a focus on natural substances. Special production know-how and market access is offered by further subsidiaries, including for enzyme products by WeissBioTech GmbH, Ascheberg. Markets for cosmetics ingredients are addressed through L. A. Schmitt, 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 licence agreements in R&D cooperation programs, for example – hitherto untapped, high-performing enzymes, microbial producer organisms or natural substances derived from complex biological systems, to transform them into industrially usable applications. The targets in terms of 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 its industrially scaled product business focusing on cosmetic and enzyme products.

### General basis of financial accounting

BRAIN AG has been listed on the stock market since 9 February 2016 and has consequently had a capital market orientation at the latest as from this date. When preparing the consolidated financial statements, the regulations of Section 315a (1) of the German Commercial Code (HGB) are applicable as a consequence. The consolidated financial statements prepared by the parent company BRAIN AG for the year ended 30 September 2017 (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 the period from 1 October 2016 to 30 September 2017. 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.

As the result of a resolution dated 8 December 2017, this set of consolidated financial statements of BRAIN AG was approved by the Management Board for submission to the Supervisory Board. The review and approval by the Supervisory Board is to occur as of 13 December 2017.

### New accounting regulations applied

The Group has applied certain standards and amendments for the first time that are to be applied to financial years beginning on or after 1 October 2016. The Group has not voluntarily applied any other standards, interpretations or amendments, which, although published, are not yet effective.

Amendment to IAS 16 and IAS 38: Clarification of Acceptable Methods of Depreciation and Amortisation: The amendments specify the principle included in IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets that sales revenue should reflect business operations (to which an asset belongs) and not the consumption of the economic benefit of an asset. As a consequence, a sales-based method cannot be applied to depreciate property, plant and equipment, but only – and this only in very limited cases – to amortise intangible assets. These amendments are to be applied prospectively, and have no effect on the Group, as it does not apply any sales-based method to depreciate or amortise its non-current assets.

### Annual improvements: IFRS 2012 - 2014: Various annual improvements to IFRS.

These amended accounting methods have no significant effects on the presentation of financial position and performance, earnings per share or disclosures in the notes to the consolidated financial statements.

Above and beyond this, the following new accounting regulations currently have no relevance for the consolidated financial statements of BRAIN AG:

- Amendment to IFRS 11 Accounting for Acquisitions of Interests in Joint Operations
- Amendment to IAS 27: Equity Method in Separate Financial Statements
- Amendment to IAS 16 and IAS 41 Bearer Plants
- Amendments to IFRS 10, IFRS 12 and IAS 28 Investment Entities Applying the Consolidation Exception

Reliefs arising from transition regulations were not utilised.

### Accounting regulations published but not yet applied

The following accounting regulations that have been published and are potentially relevant, but which do not yet require mandatory application, have not been applied early on a voluntary basis:

**Updated version of IFRS 9, "Financial Instruments"** (To be applied to financial years commencing on or after 1 January 2018. First-time application is to occur retrospectively, as a matter of principle. Various simplification options are granted nevertheless. Early, voluntary application of the regulations is permitted.)

IFRS 9 concerns the clarification, recognition and measurement of financial assets and financial liabilities. The complete version of IFRS 9 was published in July 2014, and replaces the regulations of IAS 39 "Financial Instruments: Recognition and Measurement", which concerns the classification and measurement of financial instruments, IFRS 9 retains the mixed measurement model with simplifications, and creates three measurement categories for financial assets: amortised cost, at fair value directly to equity/OCI, and at fair value through profit or loss. The categorisation is based on the company's business model and the characteristics of the contractual cash flows of the financial asset. Investments in equity instruments must always be measured at fair value through profit or loss, as a matter of principle. Here, the irrevocable option to report fair value changes in other comprehensive income exists solely at the start. A new impairment model based on expected losses that replaces the IAS 39 model based on occurred losses also exists now. The categorisation and measurement of financial liabilities has not changed in general. The only exception relates to liabilities designated as at fair value through profit or loss, for which changes to the reporting entity's own credit risk are to be recognised in other comprehensive income. IFRS 9 simplifies the regulations to measure hedge effectiveness, generally dispensing with the quantitative effectiveness test. An economic connection between the hedged underlying transaction and the hedging instrument is required. The hedge relationship must also correspond to the hedge relationship that management actually utilises for risk management purposes. Contemporaneous documentation is still required, although it differs from the documentation prepared currently according to IAS 39. The Management Board of BRAIN has not yet specified further when the detailed analysis will start. Due to the highly complex nature of some contracts, no statement can be made concerning the potential effects on the financial position and performance.

### IFRS 15 - "Revenue from Contracts with Customers" 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 recognised if the customer attains control over the agreed goods and services, and can draw benefits from them. Revenue is to be measured at the amount of consideration that the company expects to receive. The new standard includes a five-step scheme to calculate revenue to be recognised:

- Step 1: Identify the contract(s) with the customer
- Step 2: Identify the separate performance obligations in the contract
- Step 3: Determine the transaction price
- Step 4: Allocate the transaction price to the individual performance obligations
- Step 5: Recognise revenue at the level of the allocated proportional transaction price as soon as the agreed performance is rendered, or the customer has achieved control of the goods or services.

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

BRAIN AG does not plan to apply IFRS 15 early. No analysis of effects has yet been performed as the financial year of BRAIN AG differs from the calendar year. An analysis of the effects in the current financial year that was planned last year was postponed and is now planned for the 2017/18 financial year. No indications of potential effects are as yet available as of 30 September 2017 due to the high complexity of cooperation agreements in the BioScience segment. After initial appraisals, the analysis will focus mainly on steps 2 and 4, as here the degree of complexity will be the greatest. An analysis has also not yet been conducted in the BioIndustrial segment. No significant modifications compared with previous accounting practice are anticipated, however, due to a focus on business connected with the supply principle.

### 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 recognised on the lessee's balance sheet. For leases with a term of up to one year and leases with low value and/or subordinate significance for business operations (low-value leases), an option exists to apply the recognition and reporting regulations of IFRS.

For all leases, the lessee recognises a lease liability on its balance sheet for the obligation to render lease payments in the future. At the same time, the lessee capitalises a right-of-use to the underlying asset corresponding, as a matter of principle, to the present value of the future lease payments, less directly attributable costs. During the term of the lease agreement, the lease liability is carried forward applying a financial mathematical method similar to IAS 17 regulations (Leases) for financing leases, while the right-of-use is amortised, which generally leads to higher expenses at the start of a lease term.

The new regulations are mainly to be applied to the contract portfolio, whereby with some reliefs the reconciliation is to be transferred either fully retrospectively, or as a cumulative effect within equity at the start of the financial year of first-time application, without restating the previous year's figures.

IFRS 16 also includes a number of further regulations on reporting and in relation to disclosures to be made in the notes to the financial statements, as well as on sale-and-leaseback transactions.

The BRAIN Group does not plan to apply IFRS 16 early. A specific analysis of effects has also not yet been conducted. Irrespective of any still 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 of minor importance.

Applying IFRS 16 will consequently change the accounting treatment of existing and future operating leases compared with currently valid standards. The capitalisation of rights-of-use for assets and the recognition of operating lease liabilities as liabilities will lead to an increase in total assets and total liabilities overall, presumably to a level in a low single-digit

amount in millions of euros. Including taking depreciation into account, application will also exert a positive effect on the operating result (EBIT), as lease payments are no longer recognised as other operating expenses. In the net financial result, the contracts' financing components are recognised as finance expenses, with this item reducing correspondingly.

**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.

Amendment to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses: (To be applied to financial years commencing on or after 1 January 2017. Early, voluntary application of the regulations is permitted.)

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.)

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

### Presentation of the financial statements

The income statement is expanded to include other comprehensive income items recognised in equity, to the extent they do not derive from transactions with owners. The income statement is structured according to the nature of expense method. Since the 2015/16 financial year, the Management Board has defined so-called "adjustments" up to the level of EBIT in relation to certain matters. From the 16/17 financial year, these will no longer be presented in the statement of comprehensive income, but instead in a separate reconciliation in the section entitled "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 obtains control of the acquiree.

The consideration transferred for an acquisition is calculated at the acquisition-date fair value of the assets acquired, equity instruments issued, and liabilities incurred or assumed. It also includes the fair values of those recognised assets or liabilities resulting from a contingent consideration arrangement.

Any contingent considerations are measured at fair value at the acquisition date. Subsequent changes in the fair value of contingent consideration classified as an asset or a liability are measured in accordance with IAS 39, with any resulting gain or loss recognised in profit or loss. Contingent consideration classified as equity is not remeasured and its subsequent settlement is recognised in equity.

Identifiable assets and liabilities as well as deferred taxes are recognised at fair value. For each corporate acquisition, the Group decides on an individual basis whether non-controlling interests in the acquired company are to be recognised at fair value, or based on the proportional interest in the acquiree's net assets.

Acquisition-related costs are expensed when they are incurred.

Goodwill is recognised as the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the acquisition-date fair value of any previously held equity interest in the acquiree, over the fair value of the net assets. If the consideration transferred is less than the fair value of the net assets of the acquired subsidiary, the resultant difference is recognised directly in profit or loss.

On the basis of written put options, 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 this case, a financial liability according to IAS 32.23 is to be recognised. BRAIN AG applies the anticipated acquisition method for this case. Subsequently, accounting occurs always and independently of the specific structure of the options assuming that a (constructive) acquisition of the non-controlling interest by the controlling shareholder has already occurred. No non-controlling interests are reported for shares included in the option. The liability is recognised at fair value with changes recognised through profit or loss.

Transactions with non-controlling interests without loss of control are recognised as transactions with the Group's owners acting in their capacity as owners. The difference between the fair value of the performance paid and the acquired interest in the carrying amount of the subsidiary's net assets arising from the acquisition of a non-controlling interest is recognised in equity. Gains and losses arising from the disposal of non-controlling interests are also recognised in equity.

Intragroup profits and losses, revenues, income and expenses, as well as receivables and payables between companies included in the scope of consolidation are eliminated.

The income tax effects of consolidation entries are reflected through recognising deferred taxes.

### **Consolidation scope**

All subsidiaries are included in the consolidated financial statements of BRAIN AG. Subsidiaries are companies that BRAIN 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 2017, unchanged compared with the previous year: The interest in the equity of AnalytiCon Discovery GmbH and of the subsidiary AnalytiCon Discovery LLC increased by 0.3% in the financial year under review thanks to the exercising of a put option by a non-controlling shareholder.

Name and domicile of the company	30.09.2017	30.09.2016
AnalytiCon Discovery GmbH, Potsdam, Germany	59.0 %¹	58.7 % <sup>1</sup>
AnalytiCon Discovery LLC, Rockville MD, USA	59.0 %¹	58.7 % <sup>1</sup>
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 % <sup>2</sup>	50.6 % <sup>2</sup>
WeissBioTech France S.A.R.L., Chanteloup-en-Brie, France	50.6 % <sup>2</sup>	50.6 % <sup>2</sup>

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

<sup>2</sup> Included by way of full consolidation applying the anticipated purchase method.

## **Equity-accounted investments**

Equity-accounted investments are associates over whose financial and business policy decisions BRAIN AG can exercise significant influence. Significant influence is presumed to exist if BRAIN AG directly or indirectly holds a minimum of 20 % and a maximum of 50 % of the voting rights.

Enzymicals AG, Greifswald, was included as an equity-accounted investment in the consolidated financial statements for the period ended 30 September 2017. This company's calendar year-end reporting date differs from the reporting date of BRAIN AG. A 24.095 % share of the voting rights (prior year: 24.095 %) is attributable to BRAIN AG.

Under the equity method, the investment is initially recognised at cost as 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 recognised unless a legal or constructive payment obligation exists. Any goodwill recognised is reported in the carrying amount of the associate. Unrealised intercompany profits or losses resulting from transactions between BRAIN AG and the associate are eliminated proportionately in the same way as consolidation adjustments, if they are material.

If objective evidence of impairment exists, the carrying amount of the equity-accounted investment is compared with its recoverable amount in the course of the impairment test. If the carrying amount exceeds the recoverable amount, an impairment loss is recognised in the amount of the difference. If the reasons for an impairment loss recognised in previous periods no longer apply, the impairment loss is reversed through profit or loss.

# 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 performed 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 can also be applied in this context, among

- 3 Research and development grant
- 4 Changes in inventories of finished goods
- and work in progress

  5 The Management Board has defined adjustments since the 2015/16 financial year. For more information on this topic, please refer to the notes in the section entitled "Presentation of the financial statements".

	BioScience		BioIndustrial	
€ thousand	16/17	15/16	16/17	15/16
Revenue generated with other segments	11	18	45	12
Revenue generated with external customers	10,647	9,778	13,458	13,012
Total revenue	10,658	9,795	13,503	13,024
R&D grant revenue <sup>3</sup> [external business partners]	2,234	2,212	76	36
Changes in inventories <sup>4</sup>	59	114	-201	263
Other income	281	272	483	546
Total operating performance	13,232	12,394	13,860	13,869
Cost of materials	-3,642	-3,710	-7,633	-8,212
Personnel expenses	-13,893	-15,676	-2,631	-2,569
of which from employee share scheme for AnalytiCon Discovery GmbH	-625	-1,423	0	0
of which from a Post IPO Frame- work Agreement for key personnel of BRAIN AG	-2,352	-3,857	0	0
Depreciation and amortisation	-998	-940	-680	-508
Other expenses	-4,236	-5,593	-2,639	-2,980
of which: IPO expenses	0	-974	0	0
Operating result (EBIT)	-9,538	-13,526	276	-398
Adjusted EBIT <sup>5</sup>	-6,561	-7,271	276	-398
Finance income				
Result from equity-accounted investments				
Finance costs of which:				
Impairment AfS securities				
Other finance costs				
Result before taxes				

other information. If the carrying amount exceeds the recoverable amount, impairment losses are applied to the assets to write them down to their recoverable amount.

The consolidated financial statements have been prepared on the assumption that the company constitutes a going concern.

## 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.

	Group		Consolidation		Sum segments	
15/16	16/17	15/16	16/17	15/16	16/17	
0	0	-30	-56	30	56	
22,790	24,105	0	0	22,790	24,105	
22,790	24,105	-30	-56	22,820	24,161	
2,249	2,310	0	0	2,249	2,310	
377	-143	0	0	377	-143	
724	661	-95	-103	818	763	
26,139	26,932	-124	-159	26,263	27,091	
-11,797	-11,217	124	58	-11,922	-11,276	
-18,245	-16,524	0	0	-18,245	-16,524	
-1,423	-625	0	0	-1,423	-625	
-3,857	-2,352	0	0	-3,857	-2,352	
-1,448	-1,678	0	0	-1,448	-1,678	
-8,460	-6,887	112	-12	-8,573	-6,875	_
-974	0	0	0	-974	0	
-13,812	-9,374	112	-112	-13,294	-9,262	
-7,557	-6,397	112	-112	-7,670	-6,285	
265	291					
168	-2					
-1,049	-313					_
0	0					
-1,049	-313					
-14,427	-9,398					

Assumptions and estimates relate in particular to:

- evaluating the capitalisation of development expenditures (no development costs were capitalised during the financial year under review, and none were capitalised in the previous year);
- the non-capitalisation of deferred taxes relating to tax loss carryforwards;
- measuring the useful life of intangible assets;
- the recoverability of recognised goodwill;
- measuring and subsequent measuring of the amount of contingent purchase price obligations in a business combination;
- measuring liabilities arising from put options that have been written, applying the anticipated acquisition method;
- measuring share-based payment schemes and the necessity to simulate future price trends.
   The key assumptions and inputs for the estimates made by management are explained in the disclosures on the respective line items. The resultant amounts may differ from the actual amounts.

#### Adjustments to results

The Group's results of operations in the 2016/17 financial year were characterised by effects from non-cash share-based compensation paid by shareholders of BRAIN AG, from an employee share scheme relating to AnalytiCon Discovery GmbH. In addition, the previous year was affected by costs incurred as part of the IPO in February 2016. The Management Board manages the company based on adjusted operating results, as the Management Board is of the view that these provide a more meaningful management metric. The following overview presents a reconciliation of the reported operating result (EBIT) with the adjusted operating result (EBIT), excluding such effects and expenses.

€ thousand	2016/17	2015/16
Operating result (EBIT), including:	-9,374	-13,812
Expense for share-based employee compensation at BRAIN AG	-2,352	-3,857
Expense for share-based employee compensation at AnalytiCon Discovery GmbH	-625	-1,423
IPO costs	0	-974
Adjusted operating result (EBIT)	-6,397	-7,557

#### 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 realised in accordance with the internal control and reporting systems (the "management approach"). The segment information is prepared applying the same accounting standards as described in the notes to the consolidated financial statements.

The business activities of BRAIN are demarcated according to the operating segments "BioScience" and "BioIndustrial". Segmentation is according to the criterion of the existence of an industrial scale of products. At Management Board level, the operating segments' business

performance is measured 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 segment profitability is measured based on the adjusted operating result (adjusted EBIT<sup>6</sup>). Revenue and cost structures are regularly reviewed on a consolidated basis at the level of the research and development companies (BioScience) on the one hand, and the industrial business (BioIndustrial) on the other. The Management Board performs and approves planning at this level. Both areas have a different strategic orientation and require different marketing and business development strategies.

The "BioScience" segment includes mainly the research and development business with industrial partners, and the company's own research and development. The marketing of the company's own products and developments with external partners also forms part of this operating segment.

The "BioIndustrial" segment mainly comprises its industrially scaled product business focusing on cosmetic and enzyme products.

Adjustments are generally allocated to the segments based on a percentage key, unless the Management Board regards an asymmetric allocation to the segments as more appropriate in the given circumstances. The expenses defined as adjustments in the current and previous financial year were incurred by BRAIN AG and its owners (expenses from the IPO [only in the previous year] and from a Post-IPO Framework Agreement), as well as AnalytiCon Discovery GmbH (expenses from an employee share programme). These expenses were allocated exclusively to the BioScience segment as a consequence.

Sales revenues generated between the segments are realised on standard market terms. Total operating performance generated with external customers is reported to the Management Board 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 the previous pages 184/185 presents the segment results.

Revenue derived from the following revenue sources:

€ thousand	2016/17	2015/16
Collaborative Business <sup>7</sup>	10,647	9,778
BioScience	10,647	9,778
Enzymes & Bio-based Products	8,673	8,530
Cosmetics	4,784	4,482
BioIndustrial	13,458	13,012
Group total	24,105	22,790

<sup>6</sup> The Management Board has defined adjustments since the 2015/16 financial year. For more information on this topic, please refer to the notes in the section entitled "Presentation of the financial statements." 7 Also includes rendering of services and product deliveries in the meaning of IAS 18.

The following table presents revenue by geographic region:

€ thousand	2016/17	2015/16
Germany	7,452	7,245
Abroad	16,653	15,545
of which USA	3,733	2,948
of which France	5,037	5,154

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.

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	30.09.2017	30.09.2016
Intangible assets	7,087	7,747
Property, plant, and equipment	7,590	7,095
Total	14,678	14,842
of which France	167	200
of which USA	13	14
of which Germany	14,498	14,628

No relationships exist with individual customers whose revenue is to be categorised as significant in comparison with consolidated revenue.

### **Currency translation**

Cash and cash equivalents, and receivables and liabilities, denominated in foreign currencies are translated at the closing rate. Currency translation differences are recognised in profit or loss. No material amounts denominated in foreign currencies exist. Transactions denominated in foreign currencies are reported applying the currency rate on the date of the respective transaction. The risk assessment of currency exchange rate differences that are recognised through profit or loss occurs on a net basis. The net results from translation differences are immaterial in total.

The euro is the functional currency of all foreign activities in the Group. Currency effects from translating items in the financial statements of foreign subsidiaries included within the Group into the euro reporting currency do not arise in this context.

## **Revenue recognition**

BRAIN recognises revenue if the amount of revenue can be measured reliably, if it is sufficiently likely that the Group will derive economic benefits, and if specific criteria for each type of activity of the Group are fulfilled.

## Sale of goods/products

Revenues from product sales are recognised when the significant risks and opportunities have transferred to the customer. The place of performance can be defined, inter alia, both at the factory and at the customer.

### **Rendering of services**

Revenues from rendering services arise mainly from research and development partner-ships, and are generated predominantly in the BioScience segment. Related one-off payments (mostly to be rendered by customers when agreements are concluded) are analysed on the date of receipt as to whether they relate to one-off payments for pre-contractual services. If the payment has a temporal relation (e.g. for the utilisation of technology developed by BRAIN over a given contractual term), the revenue is deferred and subsequently recognised over the period of agreed research and development programs. Payments for pre-contractual services are recognised immediately as revenue. R&D revenues are also recognised in the period in which the underlying services are rendered. This generally occurs according to the degree of completion of the transaction. For the purposes of simplification, however, the Group applies straight-line recognition of revenue according to IAS 18.25, as the actual rendering of work occurs approximately evenly over the contractual duration.

### **Royalties**

Revenues from royalties (licence agreements) are recognised in the period in which they accrue according to the commercial content of the underlying contract.

### Research and development grant revenue

Research and development (R&D) grant revenue is recognised in the period in which the underlying expenditures are incurred.

### Intangible assets

Purchased intangible assets are recognised at cost and amortised straight-line over their economic useful life. Cost comprises directly attributable costs. The useful lives and depreciation methods are reviewed each year and modified if necessary. The useful lives applied by the Group are as follows:

	Useful life in years
Genetic resources	2-8
Software and industrial property rights	2 - 15
Acquired customer relationships	1-8
Acquired technology	10

### **Research and development**

Research costs are recognised as expenses in the period in which they are incurred. In accordance with IAS 38.53 and IAS 38.57, development expenditures are capitalised if the following criteria are met:

- It is technically feasible for the entity to complete the intangible asset so that it will be available for use or sale.
- The entity intends to complete the intangible asset and use or sell it.
- The entity is able to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits 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 measure reliably the expenditure attributable to the intangible asset during its development.

Not all of these criteria were met in the financial year, so that all expenditure connected with research and development activities was recognised as expenses as incurred. This is especially applicable as – for all of the Group's product and process development – research and development run alternately, and a demarcation in the research and development phase is consequently 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 are recognised if no further 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 recognised in profit or loss in the period in which the asset is derecognised.

Depreciation charges are based largely on the following useful lives:

	Useful life in years
Buildings and outdoor facilities	10 - 50
Vehicle fleet	3-6
Laboratory equipment, operating and office equipment	3 - 15

In the case of assets that are manufactured or otherwise made ready for their intended use or sale over a protracted period of time ("qualifying assets"), borrowing costs are capitalised if they can be attributed directly. No qualifying assets existed in either the reporting period or the prior-year period.

#### Impairment tests

Goodwill and other intangible assets with an indefinite or indeterminable useful life are tested at least once a year for impairment. Intangible assets and items of property, plant, and equipment with finite or indeterminable useful lives are only tested for impairment if indications exist that the asset has become impaired. An impairment loss is recognised in profit or loss in the consolidated statement of comprehensive income if the asset's recoverable amount, in other words, the higher of its fair value less costs of disposal and its value-in-use, is less than its carrying amount. 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 recognised in prior periods no longer applies or the amount of the impairment has decreased. If this is the case, the asset's recoverable amount is remeasured, and the impairment loss is reversed accordingly (except in the case of goodwill).

The starting point for estimating the recoverable amount of the relevant cash-generating unit for the impairment tests as of 30 September 2017, is its value-in-use, calculated as the present value of the future net cash flows expected to be generated from the CGU. The estimate is based on the current planning of the company concerned for a detailed planning period of five years. Where an extension of the planning horizon is required, it is included in the measurement and noted separately. The last planning year is generally also applied for cash flows beyond the planning period and modified considering further assumptions for the perpetual return. 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 utilised to calculate values-in-use for the cash-generating units. The values allocated to the significant assumptions generally accord with external information sources in this context.

Significant goodwill existed at the following cash-generating units (CGUs) on the reporting date:

	30.09.2017		30.09.	.2016
Cash-generating unit	Goodwill € thousand	Pre-tax cost of capital (WACC) <sup>8</sup>	Goodwill in € thousand	Pre-tax cost of capital (WACC) <sup>8</sup>
Monteil cosmetic products	1,962	9.58%	2,108	8.85%
Natural products chemistry	699	14.06%	699	12.20 %

The cash-generating unit "Monteil Cosmetic Products" comprises the goodwill from the acquisition of Monteil Cosmetics International GmbH, and is attributable to the BioIndustrial segment. The cash-generating unit "Natural Products Chemistry" comprises the goodwill from the acquisition of AnalytiCon Discovery GmbH and its subsidiary AnalytiCon Discovery LLC, and is attributable to the BioScience segment.

<sup>8</sup> Weighted average total cost of capital rate before tax

### **Monteil Cosmetic Products**

The "Monteil Cosmetic Products" unit achieved significant operating successes in the 2016/17 financial year, leading to an improvement in its total comprehensive result from € –784 thousand in the previous year to € –202 thousand in the financial year under review. The margin improvements forecast in the previous year and improved selling terms were implemented in full in the year under review, and even over-fulfilled. The targets on the sales side could not be reached, however, leading to an adjustment to the planning for the purposes of the IAS 36 impairment test. As part of this, a reduction of the planned sales growth was also applied, as the management was of the opinion that a decreased growth expectation was to be assumed for the purposes of IAS 36. It was assumed that the margin improvements implemented in the financial year under review improved further during the planning period, with margins approaching those of the peer group. A year-on-year lower EBITDA margin was imputed in the perpetual return, however, despite considerable improvements in results and the EBITDA margin during the financial year elapsed. An alignment and approximation to the peer group was applied in the calculation of expected EBITDA margins, however, with planning lying below, or partly at, the peer group companies' minimum EBITDA margins. 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 5-year planning. For this reason, an impairment loss of € 146 thousand was applied as a consequence of the impairment test on 30 September 2017, and reported under amortisation, depreciation and impairment losses. These impairment losses are attributable to the BioIndustrial segment.

An additional impairment loss of € 461 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 € 411 thousand.

### **Natural Products Chemistry**

Including thanks to the positive market feedback and the successful trend over the past financial years, the "Natural Products Chemistry" unit in its planning continues 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 reflecting 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 5-year planning. No impairment was determined in the impairment test on 30 September 2017.

The cash generating unit's capital costs are calculated as the weighted average of its equity and debt costs. The capital structure, and equity and debt costs, are based on peer companies from the same sector, and derive from available capital market information.

An impairment loss of € 13 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 € 107 thousand.

The Management Board assumes that the sensitivities calculated suitably and sufficiently reflect the potential deviations from plan in each case.

Goodwill also includes minor goodwill from the acquisition of the WeissBioTech Group (WeissBioTech GmbH and WeissBioTech France S.A.R.L.) in an amount of € 11 thousand.

#### **Inventories**

Raw materials, consumables, and supplies, as well as unfinished goods and services, are measured at cost. In this context, essentially the weighted average cost method is applied at the lower of cost or market value. In addition to direct costs, production costs include appropriate portions of materials and production overheads. Borrowing costs are not capitalised. Write-downs to the lower net realisable value are applied if required.

#### **Financial instruments**

Financial instruments are allocated 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.

BRAIN AG holds financial instruments only in the categories "assets measured at fair value through profit or loss" (FVTPL), "loans and receivables" (LaR), "available-for-sale financial assets" (AfS) and "other financial liabilities" (OL).

Financial assets and liabilities are generally recognised at the time when BRAIN becomes a party to the contract. Initial recognition is at fair value. With the exception of financial assets and liabilities measured at fair value through profit or loss, directly attributable transaction costs are included in the carrying amount on initial recognition. Purchases and sales of financial assets are recognised on the settlement date.

Financial assets are derecognised if the rights to payments from the financial asset have expired or transferred, and the Group has substantially transferred all of the risks and opportunities connected with ownership of the assets. A financial liability is derecognised if the underlying obligation is settled or extinguished.

Loans and receivables (LaR) originated by BRAIN as well as other financial liabilities (OL) are measured at amortised cost applying the effective interest method. These relate in particular to trade receivables and trade payables, other receivables and assets, cash and cash equivalents, liabilities from silent partnerships, loan liabilities and other liabilities.

Financial assets and liabilities are offset only if a right exists to offset the recognised amounts and the entity intends to settle on a net basis.

At the end of each reporting period, the company assesses the carrying amounts of financial assets that are not measured at fair value through profit or loss to establish whether indications of substantial impairment exist. Objective evidence that an asset is impaired includes: evidence of significant financial difficulty on the part of a major customer or a group of customers, default or delinquency in interest or principal payments, the probability of insolvency or some other financial reorganisation, and observable data indicating that a measurable decrease has occurred in the estimated future cash flows, such as adverse changes in the payment status of the borrower or economic conditions that correlate with defaults.

#### Receivables/other assets

Trade receivables and other assets are generally measured at their principal amounts. Specific valuation allowances are recognised and recorded in a separate allowance account to reflect risks and impairments.

Factored receivables are treated according to the general regulations on derecognition of financial assets and, depending upon the assessment of the transfer of the risks and opportunities, are recorded as a disposal, or remain on the Group balance sheet.

### **Government grants**

Monetary grants and other support payments for research and development projects are reported separately in the statement of comprehensive income as "research and development grant revenue".

According to IAS 20 these government grants are only recognised at fair value if satisfactory confidence exists that the grant conditions are met and that the grants will be paid. Grants are recognised in profit and loss in the reporting period during which the costs related to the respective grants were incurred. Receivables from grants that have not yet been settled are reported as trade receivables, as the underlying research and development activities form a significant element of the range of work and service of the BRAIN Group.

Investment subsidies and grants for assets are not deducted from the costs of acquiring the respective assets, but are instead recognised as deferred income. Such deferred income is recognised as income in line with the depreciation or amortisation of the corresponding assets, and is reported in the statement of comprehensive income under other income.

### **Equity**

To classify financial instruments that are not to be satisfied in BRAIN AG equity instruments as either equity or debt capital, it is decisive 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 realising an exchange in the form of other financial assets in order to settle the obligation.

Interests in subsidiaries are classified as debt if non-controlling interests hold contractual termination rights. In this case, the results allocation for the non-controlling interests is taken into consideration for the subsequent measurement of the financial liabilities, and consequently reported under the net financial result.

Costs directly attributable to the issuance of new shares are shown in equity as a deduction from the income received from the issue. If a reporting date occurs between the date the costs are incurred and the actual performance of the equity transaction, in other words, an inflow of issue proceeds, the deductible transaction costs accruing in the reporting period are initially recognised under assets as prepaid items, and are not offset against equity (capital reserves) until the capital increase is recognised on the balance sheet.

#### **Provisions**

Provisions are recognised for all identifiable present obligations to third parties arising from past events, the settlement of which is expected to result in an outflow of resources and whose amount can be estimated reliably. They are recognised at the expected settlement amount. If the outflow of resources is expected to occur at a time after the year following the reporting period, the obligations are recognised at their present value. Any unwinding of discounted provisions is recorded in finance costs.

#### Occupational pension scheme/employee benefits

The occupational pension scheme at BRAIN includes both defined contribution plans as well as defined benefit plans.

In addition to the statutory pension insurance systems, occupational pensions at BRAIN AG, AnalytiCon Discovery GmbH and WeissBioTech GmbH use direct insurance policies and payments into pension funds and private pension schemes (direct contribution commitment). Pension schemes also exist for Management Board members. These schemes are managed and funded through an occupational pension plan (Unterstützungskasse) (direct benefit commitment) and through direct insurance policies.

Payments for defined contribution pension schemes are expensed under personnel costs if the employees have rendered the work that entitles them to said contributions. Contributions to government pension plans are treated like payments for defined contribution plans. BRAIN has no further payment obligations over and above payment of the contributions.

A defined contribution plan exists in Germany for all employees in the Group companies within the framework of the German statutory pension insurance into which the employer must pay. The amount to be paid is determined according to the currently applicable contribution rate of 9.35% (employer contribution) with regard to the employee compensation subject to compulsory pension insurance. In France, the employer contribution amounts to 8.55% in relation to compensation with mandatory pension up to  $\bigcirc$  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  $\bigcirc$  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 an old-age pension from the age of 65 as well as surviving dependants' and invalidity benefits. To reinsure the pension commitments, the company pays contributions to an external occupational pension plan. In turn, the occupational pension plan has taken out pension liability insurance cover. The claims under the pension liability insurance have been assigned to the occupational pension plan beneficiaries.

A supplementary agreement with the beneficiary foresees a vested claim to post-employment benefits in the case of early withdrawal of the employee. A fixed and vested claim is also agreed for disability and survivors' benefits. In the case of an early withdrawal of the actively employed beneficiary from the employment relationship, ex-post financing requirements for the pension benefits for the retirement provisions of the occupational pension plan exist. The probability of an early withdrawal from employment and, therewith, the occurrence of a post-departure claim is assessed at each reporting date.

The present value of the pension commitment is determined according to the projected unit credit method pursuant to IAS 19. In this context, future benefit obligations are calculated based on actuarial methods. The calculations are based essentially on statistical data related to mortality and disability rates, assumptions about the discount rates as well as expected return on plan assets. The determination of the interest rate and the expected plan assets are based on yields on AA-rating corporate bonds corresponding to the respective term or alternatively yields on respective government bonds. 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 which resulted in particular from the adjustment of actuarial assumptions are recognised 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-on-year percentage change in the total operating performance of the BioScience segment in the respective financial year. The second factor is the change in the adjusted EBIT 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. In the previous year, the prices for the 2016 calendar year from the IPO were relevant (share price between 1 January and 31 December). As a consequence, in this year the prices from 1 January 2017 until 30 September 2017 are relevant. The previous year's average figure was applied for the comparison. The bonus payments for the financial year elapsed are always scheduled to occur in 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 derive from each factor.

A liability was formed as of 30 September 2017 for the bonuses to be paid. Segment information from this set of financial statements was utilised to calculate the level of the obligation. The provision's effect on EBIT was taken into account through applying an iterative calculation.

A liability of  $\in$  778 thousand was formed as of 30 September 2017. The periodic expense for the 2016/17 financial year under review also amounts to  $\in$  1,128 thousand. The difference arises from the fact that, due to the valuation as of the reporting date in the previous year, the positive share price performance in the remainder of the calendar year was not taken into consideration.

### Share-based payment and other long-term employee benefits

In the 2016/17 financial year, the following share-based employee compensation existed:

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

With the aim of loyalising key individuals (referred to below as "beneficiaries") to the company to secure future growth in the company's stock market valuation, the existing shareholders granted subscription rights to those individuals who have made a significant contribution to the company's value growth and/or will continue to do so. Some of the subscription rights substantiate an entitlement to the delivery of shares in the company (also referred to below as "call options"), and another portion substantiates entitlement to a payment (referred to below as "cash payments") based on the share price on the maturity date. The granting of the subscription rights is connected to the intention to realise this programme as presented in the listing prospectus<sup>10</sup>.

The call options can be exercised until 30 September 2022, and obligate the previous shareholder to make shares available to the beneficiary, or to make a cash settlement depending on the share price prevailing at the exercise. The exercise price of the call options amounts to 2 euro cents (€ 0.02) per share. The level of the cash payment is also calculated based on the share price then prevailing, less 2 euro cents (€ 0.02). To calculate the value, on the grant date the management made the assessment that the call options are exercised in the 2016/17 financial year. Exercise of the call options was not tied to any conditions. To grant the cash payments, the beneficiary must be continuously and permanently employed at the company until at least 8 August 2017<sup>11</sup>, although at maximum until the disposal of the shares by the granting parties.

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

	Call options	Subscription rights to cash payments <sup>12</sup>	Total
Outstanding as of 30 September 2016 <sup>13</sup>	268,332	116,599	384,930
Granted in the financial year	0	0	0
Expired in the financial year	0	0	0
Forfeited in the financial year	0	0	0
Exercised in the financial year	264,872	116,599	381,471
Outstanding as of 30.09.2017	3,460	0	3,460
Exercisable as of 30.09.2017	3,460	N/A	3,460

The exercised call options were exercised at an average share price of € 17.46 per unit. The exercise price for the exercised and still outstanding stock options amounts to 2 cents (€ 0.02) per stock option. The outstanding stock options can be exercised until 30 September 2022.

Both the cash payments and the call options are to be recognised in accordance with the regulations of IFRS 2 "Share-based Payment". Both types of grant are to be classified as equity-settled share-based payment transactions.

The fair value of the call options and of the cash payments is generally measured once as of the grant date applying a Monte Carlo simulation and taking into account the conditions on which the subscription rights were granted. The grant date fell on 7 March 2017 and 23 March 2017.

- 9 The previous shareholders are defined as the shareholders that were the owners of BRAIN AG before the IPO.
- 10 The intention to realise the programme is referred to in Section 15.7 "Intended Post IPO Framework Agreement" of the listing prospectus
- 11 This corresponds to an 18-month period following the IPO.
- 12 In the case of subscription rights to cash payments, the beneficiaries have no possibility to exercise. Actions on the part of the previous shareholders determine the due date of the payment.
- 13 The number of call options outstanding as of 30 September 2016 was adapted to the options actually issued on the grant date.

The following parameters were applied as of the measurement date:

Parameter	30.09.2017	30.09.2016
Remaining term (in years)	0.3	0.75 - 6.00
Share price on the measurement date (€)	16.13 bis 16.31	11.70
Exercise price (€)	0.02	0.02
Expected dividend yield (%)	0.00	0.00
Expected volatility (%)	41.40 % to 52.81 %	47.45 % to 50.29 %
Risk-free interest rate (%)	-0.94% to -0.85%	-0.67 % to -0.53 %
Model applied	Monte Carlo	Monte Carlo
Fair value per option (€)	15.79 bis 15.95	11.70 bis 11.76

The volatility applied over the remaining option term reflects historical volatility derived from peer group data and appropriate to the remaining term. The expected volatility applied is based on the assumption that conclusions can be drawn about future trends from historical volatility. The volatility that actually occurs can differ from the assumptions made. The expected dividend yield is based on management estimates as well as market expectations for 2017. The risk-free interest rate is based on German government bond yields with equivalent maturities. Due to the contractual structure, the management has made assumptions about expected exercise dates and payments. The actual exercise dates can differ from the assumptions that have been made.

For BRAIN AG, exercise of the subscription rights entails no effect on its cash position or treasury stock position, as no obligation of any kind exists for the company to deliver shares or cash payments in connection with this programme. As the company receives the consideration in the form of work and similar service, pursuant to IFRS 2, personnel expenses are recognised at BRAIN AG.

#### Stock option programme (AOP)

In the 2015/16 financial year, stock options were granted for the first time in the context of Management Board contracts. As of the contractual grant date, the granting of the stock options was tied to the successful implementation of the IPO. As part of exercise, one option entitled to purchase one share in the company at the so-called exercise price. The exercise price refers in this context to the respective share price as of the contractual grant date. Along with the share price performance target (performance condition), the exercising of options is also conditional upon the respective beneficiary remaining at the company (service condition). Taking fulfilment of both the service and performance conditions into account, the options can be exercised at the earliest at the end of four years after the grant date (waiting period). The exercise period amounts to four years after the end of the four-year waiting period.

Pursuant to IFRS 2, the stock options were classified as equity-settled share-based payment transactions. The stock option programme had not yet been finally defined as of the reporting date, and has also not been planned. As the grant date pursuant to IFRS 2 has not yet occurred as of the reporting date, the options must be remeasured at fair value until the grant

date occurs. The remaining stock options expired in the previous financial year. The company's Supervisory Board has decided not to continue the programme in this form.

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

	Stock options
Outstanding as of 30 September 2016	25,000
Granted in the financial year	0
Expired in the financial year	0
Forfeited in the financial year	25,000
Exercised in the financial year	0
Outstanding as of 30.09.2017	0
Exercisable as of 30.09.2017	0

#### **Matching Stock Programme**

The Matching Stock Programme that was described in the previous year was again not utilised, not finally defined, and was formally ended in the financial year under review. For this reason, in the financial year no expense was recognised for the Matching Stock Programme.

## **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 of the AnalytiCon subgroup, as well as how long employees have spent at the company AnalytiCon Discovery GmbH or the duration of managing directorships. If the potential payments to employees and managing directors (arising from such options according to the Management Board's evaluation of the company's future development and growth) exceed the value of the severance entitlements (recognised as financial liabilities) that derive from the shares' termination rights (non-controlling interests), they are recognised as personnel expenses distributed over the vesting period pursuant to IAS 19 and are added to other liabilities (AnalytiCon Discovery employee share scheme).

#### **Current and deferred taxes**

The expense for the period comprises current and deferred taxes. Taxes are recognised in the income statement unless they relate to items that were recognised directly in equity or in other comprehensive income. In such cases, the taxes are also recognised directly in equity or in other comprehensive income.

The current tax expense is calculated 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 recognises income tax liabilities (if appropriate) based on the amounts expected to be paid to the tax authorities.

Deferred taxes are calculated using the balance sheet liability method. Deferred taxes are recognised in respect of temporary differences between the carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base, as well for differences resulting from consolidation adjustments.

In addition, deferred tax assets are recognised for the future tax benefit that arises from offsetting tax loss carryforwards against future taxable profit, to the extent that it is probable that such assets are expected to be recoverable, based on the company's tax projections.

Deferred tax assets and liabilities are offset if a legally enforceable right of offset exists and they relate to income taxes levied by the 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 of whether an arrangement involves a lease depends on the economic substance of the arrangement at the time it is entered into. The entity must assess whether performance of the arrangement depends on the use of one or more assets, and whether the arrangement conveys a right to use the asset or assets.

Lease payments under operating leases are recognised as expenses in the comprehensive income statement for the period in which they are incurred.

Assets from finance leases are capitalised at the beginning of the term of the lease at the lower of the fair value of the leased property or the present value of the minimum lease payments. A lease liability is recognised as a liability in the same amount under liabilities. Each lease payment is divided into an interest and repayment portion. The net lease obligation is recognised under non-current liabilities. The interest portion of the lease payment is expensed in the income statement, so that a constant interest rate results over the 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 cash-in-hand, credit balances payable on demand, and term deposits with an original maturity of up to three months. All significant investments are denominated in euros and are invested almost exclusively with domestic credit institutions that are members of a deposit protection fund.

## Statement of cash flows

The statement of cash flows is classified into cash flows from operating activities, investing activities and financing activities. Where appropriate, any mixed transactions may be allocated to more than one activity. Overall, income taxes are included in cash flows from operating activities.

Cash flows from operating activities are presented applying the indirect method, under which profit for the period after taxes is adjusted for non-cash results components as well as deferrals of past or future inflows and outflows (including provisions), as well as items of income and expense that are attributable to investing activities.

# IV. Notes to the consolidated statement of comprehensive income

#### 1 Revenue

The Group's revenue consists primarily of revenue from the sale of goods and products amounting to  $\in$  15,501 thousand (previous year:  $\in$  14,428 thousand) and fees from research and development partnerships, including a minor level of royalties, amounting to  $\in$  8,506 thousand (previous year:  $\in$  8,362 thousand). Furthermore, other revenue of  $\in$  97 thousand was also generated in the financial year under review (previous year:  $\in$  0 thousand).

Fees from research and development partnerships comprise one-time 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  $\in$  2,310 thousand (previous year:  $\in$  2,249 thousand) contains non-repayable grants received for specific research and development projects, mainly for project sponsors acting on behalf of the Federal Ministry of Education and Research (BMBF). The BMBF has the right to examine whether the funds granted are being used for the designated purpose.

## 3 Other income

Other income is composed as follows:

€ thousand	2016/17	2015/16
Income from translating foreign currency items	201	253
Benefits in kind and rental income	143	153
Income from release of provisions	73	73
Other out-of-period income	12	26
Income from measuring trade receivables	0	77
Miscellaneous other operating income	232	142
Total	660	724

### 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  $\in$  2,252 thousand (previous year:  $\in$  3,957 thousand) from the allocation to the capital reserves of share-based employee compensation, and  $\in$  625 thousand from the pro rata allocation to liabilities from the employee share scheme of AnalytiCon (previous year:  $\in$  1,423 thousand).

These include € 287 thousand (previous year: € 248 thousand) of expenses for pensions (occupational pension scheme, life insurance and pension insurance association contributions).

The employer contributions to the statutory pension insurance scheme amounted to € 803 thousand in the financial year under review (prior year: € 762 thousand).

Post-employment benefit costs of approximately € 305 thousand and employer contributions to the statutory pension insurance scheme (defined contribution benefit pension plan) of approximately € 820 thousand are expected in the 2017/18 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, are composed as follows:

€ thousand	2016/17	2015/16
Service cost	213	199
Interest cost	26	62
Accounting return on plan assets	-7	-36
Expenses recognised in the operating result	233	225
Remeasurement effects	-241	361
Deferred tax	357	-105
Net effect: other comprehensive income	116	256
Total	349	481

Expenses of € 38 thousand (previous year: € 43 thousand) are also recognised in the statement of comprehensive income from defined contribution commitments to Management Board members as well as Management Board members who have left the company.

The Management Board members' benefit entitlements comprise an old-age pension from the age of 65 as well as surviving dependants' and invalidity benefits, which are paid out through an occupational pension plan (defined benefit plans).

The defined benefit obligation (DBO) reports the following changes:

€ thousand	2016/17	2015/16
Value on 1 October	2,734	2,141
Interest cost	26	62
Service cost	213	199
Pension payments	0	0
Remeasurement due to changes to demographic assumptions	0	0
Actuarial gains and losses from changes in financial assumptions	-247	285
Remeasurement due to experience-based adjustments	5	47
Value on 30 September	2,731	2,734

The obligation was covered by reinsurance. Plan assets report the following changes:

€ thousand	2016/17	2015/16
Value on 1 October	1,289	1,127
Accounting return on plan assets	7	36
Contributions paid	156	155
Pension payments	0	0
Remeasurement effects	-1	-29
Value on 30 September	1,451	1,289

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 recognised on the balance sheet are as follows:

€ thousand	30.09.2017	30.09.2016
Defined benefit obligation	2,731	2,734
Plan assets	-1,451	-1,289
Provision for pension schemes	1,280	1,445
€ thousand	2016/17	2015/16
Value on 1 October	1,445	1,014
Net interest costs	19	26
Service cost	213	199
Pension payments	0	0
Contributions paid	-156	-155
Remeasurement effects	-241	361
Value on 30 September	1,280	1,445

In relation to pension obligations hedged through corresponding reinsurance, the "Richttafeln 2005G, Heubeck-Richttafeln GmbH, Köln 2005" mortality tables were used to measure the pension obligation as of 30 September 2017, as in the previous year.

With the measurement of the obligations from the supplementary agreements, an actuarial interest rate of 2.09% (previous year: 1.34%) 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 23.54 years (previous year: 25.2 years).

The significant assumptions applied in the valuation show the following sensitivities:

- A change of +/-0.25 percentage points would change the obligation scope as of 30
   September 2017 by around € -71 thousand or € +76 thousand.
- A life expectancy increased or reduced by one year would change the obligation scope as
  of 30 September 2016 by around € 31 thousand or € -31 thousand respectively.
- Were active beneficiary Dr Eck to leave the company early (increasing the staff fluctuation rate to 100 %), the obligation would be € 489 thousand higher.

The expected contributions to plan assets in financial year 2017/18 amount to € 156 thousand. No pension payments are expected for the 2017/18 financial year.

## 6 Depreciation, amortisation and impairment

Depreciation, amortisation 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 € 146 thousand of goodwill impairment losses for a cash-generating unit.

### 7 Other expenses

Other expenses are composed as follows:

€ thousand	2016/17	2015/16
Legal and consulting expenses	1,129	2,388
Occupancy costs	1,050	1,057
Advertising and travel expenses	960	955
Distribution, sales and logistics expenses 14	675	850
Costs of financial statements and auditing	467	572
Repair and maintenance expenses	338	331
Currency translation expenses	277	270
Miscellaneous other expenses	1,991	2,039
Other expenses, total	6,887	8,460

<sup>14</sup> For better overview, the items "Distribution, sales and logistics expenses" (6 575 thousand in the previous year) and "Selling and administrative expenses" (6 275 thousand in the previous year) were aggregated within one item from the year under review as their contents are very similar.

# 8 Finance income

Finance income is composed as follows:

€ thousand	2016/17	2015/16
Income from subsequent measurement of financial liabilities	280	245
Interest income from loans to equity-accounted investments	6	7
Miscellaneous finance income	5	13
Finance income, total	291	265

### 9 Finance costs

Finance costs are composed as follows:

€ thousand	2016/17	2015/16
Payments for silent partnerships	138	181
Payments for loans	134	156
Factoring fees	31	29
Interest costs for finance leases	9	7
Expenses from the subsequent measurement of financial liabilities for the acquisition of non-controlling interests	0	573
Miscellaneous finance costs	1	103
Finance costs, total	313	1,049

### 10 Current and deferred taxes

Deferred taxes are measured using the tax rates expected to apply in the period when the asset is realised, or the liability is settled. For all German entities included in the Group, this is 15.825% for corporate income tax, including the solidarity surcharge (previous year: 15.825%). The trade tax rate for domestic Group companies and the composite tax rate are shown below:

Trade tax rate	2016/17	2015/16
BRAIN AG	13.30 %	13.30 %
BRAIN Capital GmbH	13.30 %	13.30 %
AnalytiCon Discovery GmbH	15.93 %	15.75 %
Mekon Science Networks GmbH	11.55 %	9.80 %
Monteil Cosmetics International GmbH	15.40 %	15.40 %
L. A. Schmitt GmbH	11.20 %	11.20 %
WeissBioTech GmbH	15.02 %	15.02%

Composite tax rate	2016/17	2015/16
BRAIN AG	29.13 %	29.13 %
BRAIN Capital GmbH	29.13 %	29.13 %
AnalytiCon Discovery GmbH	31.75 %	31.58 %
AnalytiCon Discovery LLC <sup>15</sup>	23.90%	23.90 %
Mekon Science Networks GmbH	27.38 %	25.63 %
Monteil Cosmetics International GmbH	31.23 %	31.23 %
L. A. Schmitt GmbH	27.03 %	27.03 %
WeissBioTech GmbH	30.84%	30.84%
WeissBioTech France S.A.R.L.	33.33 %	33.33 %

<sup>15</sup> Federal corporation tax rate (15% for taxable earnings of up to \$ 50,000) plus individual state corporation tax (Maryland: 8.25%)

Deferred tax assets and liabilities and their changes in the financial year are as follows:

	30.09.2017 30.09.201		30.09.2017 30.09.2016	
€ thousand	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	0	1,007	0	1,170
Tax loss carryfor- wards/carrybacks	10	0	13	0
Property, plant, and equipment	45	166	43	177
Inventories	0	37	0	2
Trade receivables	0	73	0	83
Pension commit- ments	66	0	421	0
Financial liabilities	0	0	8	0
Provisions and liabilities	21	4	26	1
Deferred income	0	0	5	0
Total	143	1,287	516	1,433
Offset	-143	-143	-174	-174
Total	0	1,144	342	1,259
€ thousand				2016/17
Net deferred tax liabili (1 October 2016)	ties at start of financia	ıl year		917
Addition of deferred taxes from profit/loss from revaluing obligations from post-employment employee benefits				358
Change in temporary differences between carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base (recognised in profit or loss)		133		
Deferred tax expense from the use, and due to amortisation, of tax loss carryforwards			-3	
Deferred tax income re comprehensive incom		ent of	131	131
Net deferred tax liab (30 September 2017)		icial year		1,144

The differences between the expected income tax income based on the IFRS loss before taxes for the period and composite tax rate of BRAIN AG of 29.125% (previous year: 29.125%) and the income tax expense reported in the consolidated statement of comprehensive income are shown in the following table:

€ thousand	2016/17	2015/16
Consolidated net profit/loss for the period before taxes	-9,398	-14,427
Expected tax income	-2,737	-4,202
Different tax rates applicable to consolidated subsidiaries	5	-7
Effects of changes in tax rates	3	12
Permanent differences from consolidation adjustments	202	471
Permanent differences from subsequent measurement of financial assets and liabilities	-23	0
Permanent differences from equity-settled share-based compensation	656	1,123
Non-deductible expenses/add-backs	38	43
Utilisation of previous years' tax loss carryforwards	3	-40
Amortisation of previous years' capitalised tax loss carryforwards	0	37
Non-capitalised tax loss carryforwards	2,136	3,068
Out-of-period taxes and other differences	-9	6
Reported current or deferred income tax income (-)/expense (+)	273	511

The following table shows the maturity of the deferred taxes recognised at the end of the reporting period. Deferred taxes are classified as current if the entity expects to realise the asset or settle the liability within twelve months after the reporting period.

€ thousand	2016/17	2015/16
Current deferred tax assets	28	40
Non-current deferred tax assets	115	475
Current deferred tax liabilities	291	274
Non-current deferred tax liabilities	996	1,159
Net current deferred tax assets	-263	-234
Net non-current deferred tax assets	-881	-683

Based on the detailed planning horizon of three financial years modelled in the consolidated entities' tax projections, no deferred tax assets were recognised for tax loss carryforwards with an (in principle) unlimited carryforward period resulting from financial year 2016/17 and prior financial years amounting to & 41,564 thousand (corporation tax; previous year: & 34,376 thousand) and & 41,527 thousand (trade tax; previous year: & 34,440 thousand). The potential tax benefits that have therefore not been recognised amount to & 12,160 thousand (prior year: & 10,063 thousand). Capitalisation occurs insofar as temporary difference assets

exceed existing tax-effective temporary difference liabilities for the detailed planning horizon, and for the potential loss carryback of a subsidiary of € 10 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 € -9,606,712 as reported in the consolidated income statement (previous year: € -14,689,820).

Earnings per share are calculating 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 2016/17 amounted to 16,486,301 no-par value shares (previous year: 15,129,097 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
FY 2015/16			
Net carrying amount at start of financial year	2,818	5,217	8,035
Additions	0	354	354
Disposals	0	0	0
Depreciation – additions	0	642	642
Net carrying amount at end of financial year 30.09.2016	2,818	4,929	7,747
Cost	2,825	6,721	9,546
Cumulative depreciation	8	1,791	1,799
Net carrying amount	2,818	4,930	7,747
FY 2016/17  Net carrying amount at start of financial year	2,818	4,930	7,747
Additions			
	0	152	152
	0 0	152 -87	152 -87
Disposals Depreciation – additions	<del></del>		
Disposals	0	-87	-87
Disposals  Depreciation – additions  Net carrying amount at end of	0 146	-87 666	-87 812
Disposals  Depreciation – additions  Net carrying amount at end of financial year 30.09.2017	0 146 <b>2,671</b>	-87 666 <b>4,416</b>	-87 812 <b>7,087</b>

The goodwill reported as of 30 September 2017 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, and the acquisition of the WeissBioTech Group in the 2014/15 financial year. The addition of amortisation arises from the amortisation of the goodwill of Monteil Cosmetics International GmbH in the 2016/17 financial year. Further information is presented in the section "Impairment tests".

The intangible assets of key significance for the consolidated financial statements comprise the technologies calculated as part of the acquisition-related purchase price allocation arising from the acquisition of AnalytiCon Discovery GmbH (carrying amount of the technology as of 30 September 2017: € 1,514 thousand (previous year: € 1,757 thousand); remaining amortisation period as of 30 September 2017: 6 years), and from the acquisition of WeissBioTech GmbH (carrying amount as of 30 September 2017: € 1,604 thousand (previous year: € 1,868 thousand); remaining amortisation period as of 30 September 2017: 6 years.

In accordance with the accounting policies presented above, no development costs were capitalised in the 2016/17 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 € 8,068 thousand (previous year: € 5,848 thousand) are mainly reported in the statement of comprehensive income under the items "personnel expenses", "cost of materials" and "other expenses", as well as in amortisation charges.

### 13 Property, plant, and equipment

Investments in property, plant, and equipment in financial year 2016/17 were attributable primarily to the technical expansion of the research, development, and manufacturing infrastructure. The following table shows the composition and changes:

€ thousand	Land and buildings	Operating and office Total property, pla equipment and equipment		
FY 2015/16				
Net carrying amount at start of financial year	4,682	2,195	6,878	
Additions	0	989	989	
Reclassifications / transfers	0	49	49	
Disposals	0	-216	-216	
Depreciation – additions	195	611	806	
Depreciation - disposals	0	-201	-201	
Net carrying amount at end of financial year 30.09.2016	4,488	2,607	7,095	
Cost	6,511	6,809	13,320	
Cumulative depreciation	2,023	4,202	6,225	
Net carrying amount	4,488	2,607	7,095	
€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment	
FY 2016/17				
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	
Net carrying amount at end of financial year 30.09.2017	4,294	3,296	7,590	
Cost	6,522	8,003	14,525	
Cumulative depreciation	2,228	4,707	6,935	
Net carrying amount	4,294	3,296	7,590	

The net carrying amount of operating and office equipment includes € 596 thousand of assets acquired through finance leasing (previous year: € 217 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

The carrying amount of the interest in the associated company Enzymicals AG, Greifswald<sup>16</sup>, reports the following changes:

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Cost in 2009/10 financial year	252
Share of profit or loss after taxes in 2009/10	-18
Carrying amount at 30 September 2010	233
Share of profit or loss after taxes in 2010/11	-47
Carrying amount at 30 September 2011	186
Cost in 2011/12 financial year	50
Share of profit or loss after taxes in 2011/12	-44
Carrying amount at 30 September 2012	192
Share of profit or loss after taxes in 2012/13	-22
Carrying amount at 30 September 2013	170
Share of profit or loss after taxes in 2013/14	-31
Impairment losses	-139
Carrying amount at 30 September 2014	0
Share of profit or loss after taxes in 2014/15	0
Carrying amount at 30 September 2015	0
Share of profit or loss after taxes in 2015/16	38
Reversal of impairment losses	130
Carrying amount at 30 September 2016	168
Share of profit or loss after taxes in 2016/17	-2
Carrying amount at 30 September 2017	166

The interest held by BRAIN AG continued to amount to 24.095% in the 2016/17 financial year. No publicly listed market prices exist for the shares of Enzymicals AG. This participating interest is allocated to the BioScience segment. No losses were recognised in the financial year under review (previous year: € 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>16</sup> financial year = calendar year; the difference arises from the historical difference between the financial year of BRAIN AG and the calendar year

€ thousand	10/2016 - 09/2017	10/2015 - 09/2016			
Revenue	915	1,082			
Total comprehensive income or loss	-11	157			
Share of profit or loss after taxes	-2	38			
€ thousand	30.09.2017	30.09.2016			
Non-current assets	237	183			
Current assets	241	453			
Non-current liabilities	33	0			
Current liabilities	445	613			
Equity	0	22			
Interest in equity	0	6			

The difference between the recognised valuation of the participating interests and the proportional equity attributable to BRAIN AG of € 166 thousand reflects goodwill.

### 15 Inventories

Inventories are composed as follows:

€ thousand	30.09.2017	30.09.2016
Finished goods	3,725	3,814
Raw materials, consumables and supplies	2,545	2,334
Work in progress	919	975
Prepayments on inventories	54	8
Total	7,244	7,130

The carrying amount of inventories that were assigned as security for the financial liabilities of a subsidiary was  $\in$  0 thousand at the end of the reporting period (previous year:  $\in$  564 thousand).

Increases in inventory of  $\in$  211 thousand based on stocktaking were recognised in relation to raw materials, consumables and supplies.

In the case of inventories,  $\in$  0 thousand of value impairments were applied to finished goods (previous year:  $\in$  234 thousand). Reversals of value impairments of  $\in$  8 thousand were applied (previous year:  $\in$  2 thousand)

### 16 Trade receivables

Of which:

Trade receivables are composed as follows:

€ thousand	30.09.2017	30.09.2016
Trade receivables	3,954	2,769
Receivables from research and development grant revenue	2,268	2,139
Receivables from contingent premium payments	250	775
Total	6,472	5,683

The presented carrying amounts of receivables correspond to the fair values.

The recognised amount also includes trade receivables transferred as part of recourse factoring. Such receivables are not derecognised, however, as the collection risk remains with BRAIN. The carrying amount of these receivables stands at € 319 thousand (previous year: € 349 thousand). A financial liability due to the factor exists in the same amount.

Trade receivables have a maturity of up to one year. Specific valuation allowances of € 47 thousand (previous year: € 22 thousand) and global valuation allowances of € 38 thousand (previous year: € 30 thousand) were recognised for receivables as of the 30 September 2017 reporting date. These are recorded in a separate allowance account. Global valuation allowances are recognised to reflect the risk of unexpected financial difficulties at customers.

€ thousand	Trade receivables	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		
30.09.2017	6,556	5,491	527	226	47	266	85	6,472
30.09.2016	5,735	5,309	246	38	1	141	52	5,683

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 € 1,065 thousand (previous year: € 426 thousand) most accurately represent the maximum default risk. The Group has no lien on these receivables, except for those receivables where the general business conditions provide for retention of title. The carrying amount of the impaired receivables as of the reporting date is € 65 thousand (previous year: € 3 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	2016/17
Carrying amount at start of period	52
Net effect of addition and reversals	32
Carrying amount at end of period	84
€ thousand	2015/16
Carrying amount at start of period	37
Net effect of addition and reversals	15
Carrying amount at end of period	52

Direct impairment losses of €1 thousand (previous year: €20 thousand) were incurred in the 2016/17 financial year for the full derecognition of trade receivables that had not already been expensed in previous years. No impairment losses were reversed in relation to impaired receivables.

#### 17 Other financial assets

Financial assets are composed as follows:

€ thousand	30.09.2017	30.09.2016
Loans extended up to one year	209	196
Deposits with a term up to one year	73	66
Term deposits with an original term of more than three months	0	10,000
Miscellaneous other financial assets	13	138
Total	295	10,400

#### 18 Other non-current and current assets

Other non-current assets are composed as follows:

€ thousand	30.09.2017	30.09.2016
Expenses deferred for a period of more than one year	70	82
Deposits	17	35
Loans extended	16	41
	103	158

Other current assets are composed as follows:

€ thousand	30.09.2017	30.09.2016
VAT receivables due from the tax authorities	162	227
Expenditures relating to the following year	251	208
Miscellaneous other current assets	179	56
	592	491

All current assets have a remaining term of up to one year. The portfolio of other assets was neither overdue nor impaired as of the reporting date. Default risk is regarded as low, as in the previous year.

#### 19 Cash and cash equivalents/statement of cash flows

Cash and cash equivalents are invested 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	10/2016 - 09/2017	10/2015 - 09/2016
Expenses		
Personnel expenses from share-based compensation and employee share schemes	2,977	5,380
Losses on receivables/change in value allowances for receivables	33	36
Administration costs for non-controlling interests	30	25
Net finance costs from subsequent measurement of financial liabilities	0	591
Impairment losses on inventories	0	234
Miscellaneous	34	222
Total	3,074	6,488
Income		
Net finance income from subsequent measurement of financial and other liabilities	280	254
Write-ups to inventories	8	2
Miscellaneous	90	0
Total	378	256
Net cash expenses/income	2,696	6,232

#### 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 € 18,055,782.00 and is divided into 18,055,782.00 ordinary shares, to each of which a proportional amount of the share capital of € 1.00 is attributable. The shares are fully paid-in registered shares. The shares are listed in the Prime Standard stock market segment of the Frankfurt Stock Exchange. In the 2016/17 financial year, the share capital of BRAIN AG increased by € 1,641,434 from € 16,414,348.00 to € 18,055,782.00, as a consequence of the capital increase under partial utilisation of Authorised Capital 2017/I on 15 September 2017 (date of entry in the commercial register).

#### **Authorised capital**

The Authorised Capital of € 2,862,909 existing as of 30 September 2016 (Authorised Capital 2015/I) was cancelled by AGM resolution on 9 March 2017.

With a resolution of the AGM on 9 March 2017, authorised capital of € 8,207,174 was created (Authorised Capital 2017/I). Authorised Capital 2017/I was entered in the commercial register on 20 March 2017. The Management Board is authorised, with Supervisory Board assent, to increase the company's share capital once or on several occasions until 8 March 2022, albeit by up to a maximum of nominal € 8,207,174 through issuing up to 8,207,174 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 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 percent of the share capital.

Under first-time partial utilisation of Authorised Capital 2017/I, the Management Board, with Supervisory Board consent of 7 September 2017, issued new shares against cash capital contributions in an amount of € 1,641,434 on 7 September 2017. Authorised capital of € 6,565,740 consequently existed on the 30 September 2017 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 authorisation of the Management Board by way of AGM resolution passed on 8 July 2015. The conditional capital increase is to be implemented through issuing up to 5,090,328 new ordinary registered shares only to the extent that the holders of convertible bonds and/or bonds with warrants utilise their conversion rights or warrant rights, or the holders of convertible bonds that are obligated to convert satisfy their obligation to convert, and to the extent that other forms of satisfaction are

not deployed to service the bonds. An increase in the share capital from Conditional Capital 2015/I had not been implemented as of the 30 September 2017 reporting date.

Conditional Capital 2015/II serves exclusively to service subscription rights arising from stock options that are granted – pursuant to the AGM resolution dated 8 July 2015 as part of a stock option plan comprising up to 1,272,581 stock options that carry subscription rights to shares of BRAIN AG with a term of up to eight years – to the members of the company's Management Board, members of affiliated companies' management boards, as well as managers and other company employees in senior positions. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilise them, and the company does not grant 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 2017 reporting date.

#### Stock options

An AGM resolution dated 8 July 2015 authorised the Management Board, with Supervisory Board approval, to issue as part of a stock option plan until 30 September 2020 up to 1,272,581 stock options with subscription rights to shares of BRAIN AG with a term of up to eight years, with the condition that each stock option grant the right to subscribe for one share, and according to further provisions. As far as issuing shares to members of the Management Board of BRAIN is concerned, this authorisation is valid for the Supervisory Board alone. No stock options had yet been issued as of the 30 September 2017 reporting date. The AGM conditionally increased the share capital by € 1,272,581 to hedge and service the stock options (Conditional Capital 2015/II).

#### **Capital reserves**

The capital reserves contain the share premium from issuing shares, net of transaction costs after taxes, the amount of other additional payments that owners contribute to equity as well as the expenses from share-based compensation. For more information about share-based compensation, please refer to the remarks in Section "Share-based payment and other long-term employee benefits". In the financial year under review, the company received the  $\[Emathbb{c}\]$  26,394,259 premium from issuing new shares as part of the capital increase on 14 September 2017. After deducting capital issue costs of  $\[Emathbb{c}\]$  64,833, this amount was transferred to the capital reserves pursuant to Section 272 (2) No. 1 of the German Commercial Code (HGB). Capital reserves also include  $\[Emathbb{c}\]$  2,670,420 of other additional capital contributions to equity from share-holders pursuant Section 272 (2) No. 4 of the German Commercial Code (HGB). This includes a partial amount of  $\[Emathbb{c}\]$  1,811,470 of a subordinated shareholder loan that was contributed to the equity of BRAIN AG by way of an agreement dated 13 November 2015. This capital contribution was realised at nominal value.

#### Other reserves

Other reserves include the gains/losses from remeasuring obligations deriving from post-employment benefits for employees

#### **Retained earnings**

Retained earnings in the 2016/17 financial year reduced mainly to reflect profit or loss attributable to shareholders of BRAIN AG.

#### The following table shows the non-controlling interests:

€ thousand	Monteil Cosmetics International GmbH
Financial year	2016/17
Interest in net assets not held by BRAIN AG	31.67 %
Increase in interest in net assets not held by BRAIN AG	0
Attributable share of profit or loss for the period	-64
Carrying amount of interest at end of financial year	182

#### Plan assets report the following changes:

€ thousand	30.09.2017	30.09.2016
Value at start of financial year	246	305
Attributable share of profit or loss for the period	-64	-248
Debt/equity swap - non-controlling interests	0	95
Transfer to capital reserves by non-controlling interests	0	94
Value at end of financial year	182	246

No changes to the shares occurred in the 2016/17 financial year, apart from the attribution of proportional net results for the year.

In the 2015/16 financial year, BRAIN AG added € 410 thousand to capital reserves and non-controlling interests added € 189 thousand, of which € 95 thousand occurred at nominal value through converting a loan. The non-controlling interests receive no allocation of the results that are recognised directly in equity.

The following section presents summarised financial information for subsidiaries with non-controlling interests of significance to the Group.

	Monteil Cosmetics International GmbH		
Summarised balance sheet data € thousand	30.09.2017	30.09.2016	
Non-current assets	2,046	2,191	
Current assets	1,680	2,105	
Non-current liabilities	475	449	
Current liabilities	699	948	
Net assets	2,552	2,900	
	Monteil Cosmetics Interna	ational GmbH	
Summarised statement of comprehensive income € thousand	2016/17	2015/16	
Revenue	2,612	2,663	
Result before taxes	-202	-747	
Result after taxes	-202	-784	
Total comprehensive income or loss	-202	-784	
Result attributable to non-controlling interests	-64	-248	
Dividends paid to non-controlling interests	0	0	
	Monteil Cosmetics Interna	ational GmbH	
Summarised statement of cash flows € thousand	2016/17	2015/16	
Gross cash flow	-216	-560	
Cash flow from operating activities	-321	0	
Cash flow from investing activities	-44	-41	
Cash flow from financing activities	249	263	

BRAIN AG is not subject to any restrictions limiting its access to the subsidiaries' assets, to utilise such assets, or to satisfy the subsidiaries' liabilities.

#### 21 Financial liabilities

The financial liabilities are composed as follows:

€ thousand	30.09.2017	30.09.2016
Loans	2,810	3,166
Liabilities from put option rights for the acquisition of non-controlling interests	2,114	2,193
Severance claims from existing termination rights of non-controlling interests	2,423	2,319
Contributions by silent partners	1,500	1,500
Factoring liabilities	319	323
Finance lease liabilities	516	186
Other	12	4
Total	9,694	9,690

As of the 30 September 2017 reporting date, contributions by silent partners include a € 1,500 thousand (previous year: € 1,500 thousand) contribution by Hessen Kapital I, Wiesbaden. Of the contribution by Hessen Kapital I GmbH, 20% is repayable on 30 June 2022, a further 20% on 30 June 2023 and 60% on 30 June 2024. As of 30 September 2016, the silent partnership was categorised as current due to the termination right existing as of the reporting date. This right of termination no longer existed as of 30 September 2017. For this reason, the silent partnership was again reported as a non-current financial liability.

The company pays fixed remuneration equivalent to nominal 9.0 % p.a. on the contribution of Hessen Kapital I GmbH and a profit participation equivalent to the ratio between the nominal level of the silent partnership and the nominal level of the equity of BRAIN AG, albeit to a maximum of 2.5 % of the contribution and not more than 50 % of the profit for the year.

BRAIN AG is entitled to call the silent partner contributions by MBG H and Hessen Kapital I GmbH prior to the agreed dates; due to the negative consequences this would have for the company (prepayment penalties), this option effectively has no economic value for the company, however. The silent partnerships do not participate in any losses. No obligation exists to provide additional funding.

Land charges exist with compulsory enforcement clauses on land owned by BRAIN AG with a notional value of  $\in$  3.5 million (previous year:  $\in$  3.5 million). All land charges serve to secure bank borrowings, which amounted to  $\in$  833 thousand at the end of the reporting period (previous year:  $\in$  1,333 thousand). The land charges rank behind an unassigned land charge in favour of the owner amounting to  $\in$  500 thousand (previous year:  $\in$  500 thousand).

In the case of the L.A. Schmitt GmbH subsidiary, the financial liabilities ( $\in$  118 thousand as of 30 September 2017;  $\in$  158 thousand as of 30 September 2016) are secured by land charges on its business property amounting to  $\in$  400 thousand (previous year:  $\in$  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  $\in$  4,004 thousand ( $\in$  4,947 thousand as of 30 September 2016).

The nominal interest rate on the fixed interest loans amounts to between 1.95% (previous year: 1.95%) and 6.00% (previous year: 6.01%) p.a. The Group has no significant variable interest liabilities.

The factoring liability derives from the carrying amount of the receivables transferred to the factor ( $\in$  354 thousand; previous year:  $\in$  359 thousand) less a surety retention ( $\in$  35 thousand; previous year:  $\in$  36 thousand).

The following table shows the nominal amounts due at the financial liabilities' terms:

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
Total	1,490 6,998		1,427
30.09.2016 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners	0	0	1,500
Liabilities from put option rights for the acquisition of non-controlling interests	0	2,300	0
Finance leasing	59	126	0
Factoring liabilities	323	0	0
Severance claims from existing termination rights of non-controlling interests	773	1,546	0
Loans	792	2,348	
Other			0
	1	0	3

The contractually agreed due dates for principal and interest payments, and for profit-related payments, are shown in the following overview.

30.09.2017 € thousand	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Principal repayments	1,487	1,436	3,336	1,806	432	411	967	42
Interest payments	220	170	158	231	137	106	63	1
Profit-related pay- ments	38	38	38	38	37	28	20	0
Total excluding profit-related payments	1,707	1,606	3,493	2,038	569	517	1,030	43
Total including profit-related payments	1,744	1,643	3,531	2,075	605	545	1,050	43
30.09.2016 € thousand	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Principal repayments	1,950	1,629	3,618	271	753	351	300	900
Interest payments	271	225	190	180	175	163	101	61
Profit-related pay- ments	38	38	38	38	38	37	28	20
Total excluding profit-related payments	2,221	1,854	3,808	451	928	515	401	961
Total including profit-related payments	2,259	1,892	3,845	488	966	551	429	981

A debtor warrant has been agreed for one loan of the subsidiary AnalytiCon Discovery GmbH, which includes a payment to the lender in the instance that 75% of the company's shares are sold. The amount of the loan receivable that would be triggered in this instance depends on the company's total valuation, and varies between € 142 thousand and € 710 thousand depending on the company value that is calculated. The debtor warrant expires on 31 December 2018. Given the current valuations, a payment from the debtor warrant is unlikely. This debtor warrant has consequently been recognised at a valuation of € 0 (previous year: € 0).

#### 22 Other liabilities

Non-current other liabilities mainly comprise the share of obligations arising from the employee share scheme at AnalytiCon Discovery GmbH ( $\in$  1,827 thousand; previous year:  $\in$  1,125 thousand) with a remaining term of more than one year.

Current other liabilities are composed as follows:

€ thousand	2016/17	2015/16
Wage and salary liabilities	1,426	640
Accrued vacation pay	551	684
Wage and church tax, social security	348	204
Supervisory Board compensation	143	134
Special payments to subsidiaries' managements and employees	114	102
VAT	40	55
Customer bonuses	15	35
Current portion from obligations arising from employee share scheme at AnalytiCon Discovery GmbH	_	366
Miscellaneous other liabilities	68	144
Total current other liabilities	2,705	2,364

#### 23 Deferred income

Deferred income is composed as follows:

€ thousand	2016/17	2015/16
Grants and subsidies		
of which with a term up to one year	0	29
Deferred revenue from one-time fees		
of which with a term up to one year	507	379
of which with a term of more than one year	286	100
Total deferred income	793	508

#### 24 Provisions

This item relates mainly to estimated expenses for the preparation auditing of the financial statements and consulting expenses. Utilisation is anticipated mainly within the following financial year.

The following table provides an overview of related changes:

€ thousand	30.09.2016	Utilisation	Release	Addition	30.09.2017
Archiving costs	29	-1	0	1	29
Costs for financial statements, auditing and consulting	341	-486	-6	462	311
Decommissioning and dismantling	52	0	0	4	56
Corporate performance bonus of BRAIN AG	424	-424	0	0	0
Other	22	-22	0	21	21
Total	868	-933	-6	488	417

The obligation deriving from the Corporate Performance Bonus for staff of BRAIN AG has been classified as a liability as of 30 September 2017 and consequently not as a provision, as the amount of the obligation is definite, by contrast with the previous year's reporting date. Please also refer to the section "Share-based payment and other long-term employee benefits".

#### 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 recognised financial instruments based on their IAS 39 measurement categories. To improve the presentation of the financial instruments relevant to the company in terms of their comparable measurement uncertainties and risks, cash and cash equivalents are presented separately from the other financial instruments in the "loans and receivables" category in the following.

The following abbreviations are used for the measurement categories:

Abbreviation	IAS 39 mea	IAS 39 measurement categories			
AfS	Available for Sale	Available-for-sale financial assets			
LaR	Loans and Receivables	Loans and receivables			
FVTPL	Fair Value Through Profit or Loss	Financial assets measured at fair value through profit or loss			
LVTPL	Financial Liabilities at Fair Value Through Profit or Loss	Financial liabilities measured at fair value through profit or loss			
OL	Other Liabilities	Financial liabilities measured at (amortised) cost			

In the reporting period presented, no financial assets or liabilities existed in the "held for trading" (HfT) category.

No reclassifications of financial assets or liabilities occurred in the 2016/17 financial year or in the previous year.

Financial assets and liabilities are as follows on a summarised basis:

Category	Category	Carrying amount			Fair valu	е
€ thousand	IAS 39	30.09.17 (30.09.16)	Amortised cost	Cost IAS 17	Fair value through profit or loss	30.09.17 (30.09.16)
Assets						
Trade receivables	LaR	6,472 (5,683)	6,472 (5,683)			
Other current and non-current assets	LaR	56 (96)	56 (96)			56 (96)
Other financial assets	LaR	295 (10,400)	295 (10,400)			
Cash and cash equivalents	LaR	38,954 (8,261)	38,954 (8,261)			
Total		45,777 (24,439)	45,777 (24,439)			56 (96)
Liabilities						
Trade payables	OL	2,433 (2,862)	2,433 (2,862)			
Financial liabilities	OL	7,271 (7,367)	6,755 (7,181)	516 (186)		7,271 (7,924)
Other liabilities	OL	81 (175)	81 (175)			
Total		9,785 (10,404)	9,269 (10,218)	516 (186)	0 (0)	7,327 (7,924)

Furthermore, available-for-sale financial assets in the form of an equity investment exists with a carrying amount of € 1 as of 30 September 2017 (previous year: € 1).

Intangible assets and property, plant, and equipment, tax assets (current, deferred and other), inventories, and the prepaid expenses included in other assets, and prepayments for items of property, plant, and equipment, do not fall within the scope of IFRS 7.

Share-based employee payment obligations (including the employee share scheme for AnalytiCon), tax liabilities, and social security liabilities are not classified as financial liabilities. Tax liabilities, prepayments received, and deferred income also do not fall within the scope of IFRS 7.

Cash and cash equivalents, other current assets, trade receivables, and trade payables mainly have short remaining terms. As a result, their carrying amounts at the end of the reporting period approximate their fair values. Non-current financial assets comprise deposits and loans extended whose rate of interest mainly corresponds to current market interest-rate levels.

Liabilities to banks and other lenders, as well as to silent partners, reported in current and non-current financial liabilities, are measured at amortised cost. The fair values of financial liabilities are determined by discounting, applying current discount rates that match the maturity and risk of the liabilities. The 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 (LVPL) at the end of the reporting period amounted to  $\in$  0 thousand (previous year:  $\in$  0 thousand). This concerns an earnout regulation connected with the acquisition of WeissBioTech GmbH relating to the subsidiary's distributable profit for the financial year. In this context, expectations related to business development and discounting were undertaken in accordance with the probable maturity applying the discounted cash flow method with an actuarial interest rate of 2.0 %. A change to the expected distributable profit for the financial year of +10 % in every year of the regulation would increase financial liabilities by  $\in$  0 (previous year:  $\in$  0 thousand).

The contractual undiscounted cash outflows of financial liabilities within the scope of IFRS 7 are shown in the following table:

30.09.2017 € thousand	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25
Silent partnerships (without profit- sharing)	135	135	135	135	428	401	961	0
Liabilities to lenders	1,066	517	204	987	73	71	69	43
Finance lease liabilities	176	105	91	75	59	45	0	0
Liabilities from factoring	319	0	0	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	0	0	2,218	0	0	0	0	0
Other liabilities	81	0	0	0	0	0	0	0
Trade payables	2,433	0	0	0	0	0	0	0
Total	4,210	758	2,648	1,197	561	517	1,030	43
30.09.2016 € thousand	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24
Silent partnerships (without profit- sharing)	135	135	135	135	135	428	401	961
Liabilities to lenders	874	887	561	291	785	84	0	0
Finance lease liabilities	64	57	37	24	8	0	0	0
Liabilities from factoring	333	0	0	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	0	0	2,300	0	0	0	0	0
Other liabilities	175	0	0	0	0	0	0	0
Trade payables	2,861	0	0	0	0	0	0	0
Total	4,442	1,079	3,033	450	928	512	401	961

The following table shows the net gains or losses on financial instruments by measurement category:

€ thousand 2016/17 (2015/16)	From interest and dividends	From subsequent fair value measurement / impairment	From disposals	Net gains/losses
Loans and receivables	9 (166)	-32 (-52)	-1 (-19)	-24 (95)
Financial liabilities measured at (amor- tised) cost	-272 (-283)	25 (12)	0 (0)	-247 (-272)
Finance leasing	-9 (-7)	0 0	0	-9 (-7)
Financial liabilities measured at fair value through profit or loss	0 (0)	0 (234)	0 (0)	0 (234)
Total	-272 (-124)	-7 (193)	-1 (-19)	-280 (50)

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 € 281 thousand (previous year: € 476 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. Among other things, this system is based on rigorous supervision of business transactions, comprehensive exchange of information with the employees responsible, and regular – mostly quarterly – analyses of key performance indicators for the business.

The risk management system was implemented to be able to identify adverse developments at an early stage and launch countermeasures as quickly as possible.

With regard to the financial instruments the Group deploys, the objective of the risk management function at BRAIN is to minimise the risk exposure deriving from financial instruments. The company does not enter into derivative financial instruments without a corresponding underlying basis transaction. In both the reporting period and the prior-year period, liquid funds were invested with domestic financial institutions that are members of a German deposit protection fund.

The financial instruments that are recognised on the balance sheet can generate the following risks for the Group, as a matter of principle:

#### Credit risk

Credit risk describes the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Credit risk comprises both 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 German deposit protection fund.

#### **Currency risk**

In addition, BRAIN is exposed to foreign currency risks. Income of € 201 thousand from currency differences (previous year: € 253 thousand) is offset by € 277 thousand of expenses from currency differences (previous year: € 270 thousand), so the resultant effects in both the 2016/17 and 2015/16 financial years largely offset each other. No hedging measures are considered as foreign currency positions are generally of minor significance within the BRAIN Group. A sensitivity analysis of currency risk in accordance with IFRS 7 is of subordinate importance and consequently not relevant for the financial statements.

#### 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.

If the market rate of interest for investments were to rise by up to 100 basis points, a one-year investment of the liquid funds and short-term deposits as of 30 September 2017 amounting to  $\leqslant$  38,954 thousand (previous year:  $\leqslant$  18,261 thousand) would increase results by up to  $\leqslant$  390 thousand (previous year:  $\leqslant$  183 thousand).

Negative rates of interest cannot be excluded. Significant effects on the company's financial position or performance are not anticipated. Risk for significant cash positions is countered through investing them in short-term deposits.

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%).

Floating-rate interest liabilities mainly comprise € 319 thousand (previous year: € 323 thousand) of factoring liabilities. Floating-rate interest liabilities are subject to the risk of an increase in market interest rates. If market rates were to rise (decline) by a notional 1 percentage point compared with the rate prevailing at the end of the reporting period, the interest expense would increase (decrease) by € 3 thousand (previous year: € 3 thousand).

#### Capital management / liquidity risk

The capital management function of BRAIN AG pursues the objective of financing the company's planned growth and of securing corresponding resources for short-term financing requirements. The company consequently sets a minimum 50% target equity ratio. This was exceeded in the financial year under review due to the IPO, and supported by the capital increase in September 2017. The equity ratio stands at 69% as of 30 September 2017 (previous year: 57%). The capital under management includes all current and non-current liability items as well as equity components. Financial terminology as presented in the financial accounts is also utilised for debt and equity management purposes.

BRAIN AG and its subsidiaries are not subject to any capital adequacy requirements above and beyond those in the German Stock Corporation Act (AktG) and the German Limited Liability Company Act (GmbHG).

Financial liabilities of a subsidiary amounting to € 118 thousand (nominal value as of 30 September 2017) are subject to a covenant providing for a minimum equity ratio of 30 % of the subsidiary's total assets. This subsidiary's equity ratio amounted to more than 30 % as of 30 September 2017. The subsidiary's contractual clause concerning a minimum equity ratio of 30 % was also met in the prior financial year. This clause comprised financial liabilities with a nominal value of € 158 thousand as of 30 September 2016.

The liquid funds of BRAIN AG are cash deposited on current bank accounts and fixed term deposits in euros with a term of not more than twelve months to ensure a high level of liquidity at all times.

#### **Market risk**

The available-for-sale financial assets are exposed to the risk of changes in values. The available-for-sale financial assets of BRAIN AG are not listed on active markets. A 10 % increase (decrease) of value would have increased (decreased) Group profit or loss for the period by  $\in$  0 (previous year:  $\in$  0).

A more detailed listing of opportunities and risks is also presented in the Group management report of BRAIN AG.

#### VII. Other information

#### Auditor's fees

The fees paid to or accrued for the auditors of BRAIN AG engaged for the financial year in question comprise the following items:

€ thousand	2016/17	2015/16
Audit	114	656
of which for the previous year 17	0	252
Other certification services	0	200
	114	856

#### **Related party disclosures**

The Management Board and Supervisory Board of BRAIN AG comprise 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

Dr Georg Kellinghusen, Munich, CFO (until 9 March 2017)

Diplom-Kaufmann

Drs Henricus Marks, Oud-Zuilen, COO (until 31 October 2016)

**Business Economist** 

**Frank Goebel,** Kelkheim, Management Board member (from 1 November 2016), CFO (from 9 March 2017)

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.

<sup>17</sup> The higher auditing fees in the previous year arise mainly from greater requirements made of the consolidated financial statements and reporting due to the planned stock market listing.

Management Board compensation in the year under review amounted to:

€ thousand	2016/17	2015/16
Fixed compensation <sup>18</sup>	554	591
Cost of pensions and surviving dependants' and disability benefits arising from defined contribution commitments	38	43
Cost of pensions and surviving dependants' and disability benefits arising from defined benefit commitments <sup>19</sup>	103	110
Performance-related remuneration <sup>18</sup>	110	180
Termination benefits	205	150
Share-based compensation	680	910
	1,690	1,984

Pension provisions of  $\in$  979 thousand (previous year:  $\in$  1,144 thousand) have been formed for former Management Board members. The service cost recognised for this purpose amounts to  $\in$  90 thousand (previous year:  $\in$  89 thousand).

The Management Board members are members of the following supervisory boards or comparable supervisory bodies:

#### Dr Jürgen Eck

Supervisory Board member, Enzymicals AG, Greifswald

#### Frank Goebel

none

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, Chairman

Independent Consultant

Dr Holger Zinke, Heppenheim, Deputy Chairman (until 9 March 2017)

Managing Director, GI Management GmbH

Siegfried L. Drueker, Bad Homburg (until 9 March 2017)

Managing Director, Drueker GmbH & Co. KG

Dr Matthias Kromayer, Munich (until 9 March 2017)

Management Board member, MIG Verwaltungs AG

Christian Koerfgen, Bad Soden am Taunus

"Leader Selection" Partner

<sup>18</sup> Short-term employee benefits
19 Stated amount includes only service costs. (See also section (5) Personnel

#### Prof. Dr Klaus-Peter Koller, Bad Soden am Taunus

Independent Management Consultant

Dr Anna C. Eichhorn, Frankfurt am Main (from 9 March 2017)

Management Board Chairwoman (CEO) humatrix AG

Dr Martin B. Jager, St. Wendel, Deputy Chairman (from 9 March 2017)

Managing Director at Herbstreith & Fox KG

Dr Georg Kellinghusen, Munich (from 9 March 2017)

Independent Consultant

The **Audit Committee** of the company's Supervisory Board included the following members in the financial year under review:

Siegfried L. Drueker, Bad Homburg, Chair (until 9 March 2017)

Managing Director, Drueker GmbH & Co. KG

Dr Ludger Müller, Kaiserslautern

Independent Consultant

Dr Matthias Kromayer, Munich (until 9 March 2017)

Management Board member, MIG Verwaltungs AG

Dr Georg Kellinghusen, Munich, Chair (from 9 March 2017)

Independent consultant

Dr Martin B. Jager, St. Wendel, Deputy Chair (from 9 March 2017)

Managing Director at Herbstreith & Fox KG

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 Matthias Kromayer, Munich (until 9 March 2017)

Management Board member, MIG Verwaltungs AG

Christian Koerfgen, Bad Soden am Taunus

"Leader Selection" Partner

Dr Martin B. Jager, St. Wendel, Deputy Chair (from 9 March 2017)

Managing Director at Herbstreith & Fox KG

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, Pfungstadt (from 9 March 2017)

Management Board Chairwoman (CEO) humatrix AG

#### Prof. Dr Klaus-Peter Koller, Bad Soden am Taunus

Independent Management Consultant

#### Dr Matthias Kromayer, Munich (until 9 March 2017)

Management Board member, MIG Verwaltungs AG

#### Dr Holger Zinke, Heppenheim (until 9 March 2017)

Managing Director, GI Management GmbH

The Supervisory Board members are members of the following supervisory boards or comparable supervisory bodies:

#### Dr Ludger Müller

Technical University of Kaiserslautern (University Council Chairman)

#### Siegfried L. Drueker (until 9 March 2017)

Georgsmarienhütte Holding GmbH (Chairman)

Georgsmarienhütte GmbH

#### Dr Anna C. Eichhorn

Frankfurter Innovationszentrum Biotechnologie (Supervisory Board member)

#### Dr Martin B. Jager

none

#### Dr Georg Kellinghusen

WIV AG, Burg Layen (Supervisory Board member)

Neue Wirtschaftsbriefe GmbH & Co., Herne (Advisory Board member)

Deutsche Bank AG, Frankfurt (Regional Advisory Board member, Bavaria)

#### Christian Koerfgen, Bad Soden am Taunus

Putsch GmbH & Co. KG, Kaiserslautern (Advisory Board member)

#### Dr Matthias Kromayer (until 9 March 2017)

Amsilk GmbH, Martinsried (Deputy Chairman of the Advisory Board)

Biocrates AG, Innsbruck (Deputy Chairman)

Cerbomed GmbH, Erlangen (Advisory Board Chairman)

Immatics GmbH, Tübingen (Advisory Board member)

Nexigen GmbH, Cologne (Advisory Board Chairman)

#### Dr Holger Zinke (until 9 March 2017)

Technical University of Darmstadt, Deputy Chairman of the University Council Mannheim University of Applied Sciences, University Council member

The compensation of the Supervisory Board in the year under review was composed as follows:

€ thousand	2016/17	2015/16
Fixed compensation <sup>20</sup>	141	132
of which allowance for special functions	29	19
Attendance fees <sup>20</sup>	43	54
Total compensation	184	186

The Supervisory Board indirectly holds 2,581 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 2016/17 and 2015/16 financial years, the following supplies or purchases of goods and services existed between the members of the governing bodies (Management and Supervisory board members) and their related parties and associated companies of the BRAIN Group and entities with significant influence over BRAIN AG.

In the 2016/17 and 2015/16 financial years, rental relationships existed between BRAIN AG and the Deputy Supervisory Board Chairman of BRAIN AG, Dr Zinke, or companies that he controls. The generally indefinite rental contracts can be cancelled with a six-month notice period as of the guarter-end. The rental relationships were discontinued as of 30 September 2017.

In the 2016/17 financial year, BRAIN AG purchased € 68 thousand (previous year: € 68 thousand) of rental services from Dr Zinke, plus incidental costs of € 20 thousand (previous year: € 10 thousand). Also in the 2016/17 financial year, companies controlled by Dr Zinke purchased € 17 thousand (previous year: € 14 thousand) of rental services from BRAIN AG. The rental services were based on an average rental cost of € 7 plus incidental costs per square metre of office space, of which the by far predominant proportion comprised office premises.

Enzymicals AG is an associate company pursuant to IAS 28.2 and consequently to be categorised as a related party pursuant to IAS 24.9. As of the reporting date, BRAIN AG was owed € 104 thousand (previous year: € 102 thousand) of loan and interest receivables by Enzymicals AG. The interest income for this 6.0 % loan amounted to € 6 thousand in the 2016/17 financial year (previous year: € 7 thousand). As far as the term is concerned, please refer to the following section "Contingent liabilities and other financial obligations".

No receivables were due from directors of BRAIN AG or individuals related to these directors as of 30 September 2017. As of the 30 September 2017 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: € 143 thousand (previous year: € 134 thousand); Payments to the Management Board: € 119 thousand (previous year: € 330 thousand); Deferrals for outstanding vacation (Management Board): € 38 thousand (previous year: € 17 thousand);

No other obligations exist in relation to the key management personnel of BRAIN AG.

#### Contingencies and other financial commitments

No contingent liabilities to third parties existed at the end of the reporting period.

Other financial commitments (operating leases) relate inter alia to telecommunication systems whose contract terms are extended automatically by one year unless terminated, technical storage systems, 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 8.3 years. The minimum rent payments and lease payments have the following terms:

€ thousand	30.09.2017	30.09.2016
Remaining term of up to 1 year	332	428
Remaining term between 1 and 5 years	1,051	1,057
Remaining term of more than 5 years	1,108	1,108
	2,491	2,593

The total amount of rent and lease payments expensed in the financial year under review amounts to € 402 thousand (previous year: € 459 thousand).

As of the 30 September 2017 balance sheet date, obligations of  $\in$  33 thousand (previous year:  $\in$  47 thousand) exist from contracts entered into due to third-party work conducted in the research and development contract area.

As at the end of the previous financial year, as of 30 September 2017 no obligations exist arising from investment projects that have been commenced.

Contingent purchase price obligations exist for intangible assets that depend on the achievement of specific future revenue using these intangible assets up to a maximum amount of € 160 thousand (previous year: € 160 thousand).

As part of a lending facility with a term until 31 December 2017 that is not fully utilised, Enzymicals AG was granted the right to draw down a further € 40 thousand of short-term loans from BRAIN AG.

The Management Board is not aware of other facts or circumstances that could lead to material additional financial commitments.

#### **Employees**

The number of employees reports the following changes:

	2016/17	2015/16
Total employees, of whom	212	204
Salaried employees	199	191
Industrial employees	13	13

The BRAIN Group also employs grant recipients (8, previous year: 7), temporary help staff (13, previous year: 10), trainees (6, previous year: 3).

#### 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 2017 reporting date, no significant events and developments of particular importance for the company's financial position and performance have occurred.

Zwingenberg, 13 December 2017

Dr Jürgen Eck

Management Board Chairman (CEO)

**Frank Goebel** 

Low

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 2017, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the fiscal year from 1 October 2016 to 30 September 2017, 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 2016 to 30 September 2017.

In our opinion, on the basis of the knowledge obtained in the audit and examination,

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. 315a (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets and liabilities and financial position of the Group as at 30 September 2017 and of its financial performance for the fiscal year from 1 October 2016 to 30 September 2017 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.

Pursuant to Sec. 322 (3) Sentence 1 HGB we declare that our audit and our examination have 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 audit opinion on the

consolidated financial statements and opinion 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 2016 to 30 September 2017. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

Below, we describe what we consider to be the key audit matters:

#### 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 complex valuation model. Moreover, the forecasts that the executive directors are required to make regarding estimated future net cash flows are subject to judgment. The inputs used in the calculation are also partly based on estimated market expectations.

#### **Audit approach**

We obtained an understanding of the valuation process. We also involved valuation specialists in the audit in order to examine the mathematical calculation and assess the valuation model and the calculation inputs used.

We tested the executive directors' forecasts regarding the estimated future net cash flows for plausibility by comparing the plan approved by the Management Board for consistency with information from the management accounts and the forecast market development. 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 mathe-

matical accuracy and compared the inputs 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.

Moreover, we compared the disclosures in the notes to the financial statements with the assumptions made and checked whether they were appropriately presented.

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 tests" of the notes to the consolidated financial statements.

# 2. Share-based payment and other long-term employee benefits

## Reasons why the matter was determined to be a key audit matter

Share-based payment and other long-term employee benefits are recognised in the consolidated financial statements of BRAIN AG. These include, but are not limited to, the Post IPO Framework Agreement for key employees of BRAIN AG and the employee share scheme of AnalytiCon Discovery GmbH, Potsdam. The share-based payment plans and other long-term employee benefits are governed by complex contractual arrangements. Moreover, the valuation of the plans is based on complex calculations, most of which are subject to judgment. The inputs used in the valuation are also based on the Management Board's forecasts regarding market expectations and future business performance.

#### **Audit approach**

We obtained an understanding of the plans using the related agreements in order to assess whether they were accounted for in accordance with the pertinent accounting provisions. We also analysed the design and operation of the calculation models and tested their key inputs for plausibility using market data. We checked the calculations for mathematical accuracy. We involved specialists in the course of the audit to assess the underlying contracts, the valuation model and the valuation inputs used. Moreover, we compared the disclosures in the notes to the financial statements with the assumptions made and checked whether they were appropriately presented.

Our audit procedures did not lead to any reservations relating to the accounting for share-based payment plans and other long-term employee benefits.

#### **Reference to related disclosures**

With regard to the recognition and valuation of share-based payment plans and other long-term employee benefits, we refer to the disclosures in the section entitled "Share-based payments and other long-term employee benefits" of the notes to the consolidated financial statements.

#### 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 in the EU and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB and for the preparation of the consolidated financial statements that, in compliance with these requirements, give a true and fair view of the assets and liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have considered 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 the business. They also have the responsibilities – where applicable – for disclosing matters related to the continuance of the business. 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, is in accordance 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 determined 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 of the Group management report.

#### Auditor's responsibilities for the audit of the consolidated financial statements and 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 is, in all material respects, consistent with the consolidated financial statements and the knowledge obtained in the audit, and complies with the German legal requirements and appropriately presents the opportunities and risks of future development, and to issue an auditor's report that includes our opinions on the consolidated financial statements and 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 aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and Group management report.

Throughout the audit and the examination, we exercise professional judgment and maintain professional skepticism.

#### 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 and examination procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk that material misstatements are not detected is higher for fraud than for error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the examination of the Group management report in order to design audit and examination procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit 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 the business. 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 the business.
- 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 that comply with IFRSs as adopted in the EU and the additional requirements of German commercial law pursuant to Sec. 315a (1) HGB give a true and fair view of the assets and liabilities, financial position and financial performance of the Group.
- Obtain sufficient appropriate audit evidence regarding the financial information of the businesses 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 opinions.
- Evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with [German] law and the view of the Company's position it provides.
- We perform examination procedures on the prospective information presented by the executive directors in the Group management report. On the basis of sufficient appropriate 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 discuss with those charged with governance, among other matters, the planned scope and timing of the audit and the examination and significant audit and examination findings, including any significant deficiencies in internal control that we identify during our audit and examination.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and discuss with them all relationships and other matters that may reasonably be thought to bear on our independence, and the related safeguards applied.

From the matters discussed 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 audit 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 9 March 2017 and were engaged by the Supervisory Board to audit the consolidated financial statements as at 30 September 2017 on 4 September 2017. We

have been the group auditor of B.R.A.I.N. Biotechnology Research and Information Network AG since fiscal year 2016/2017.

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 2017

Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft

GrathwolHällmeyerWirtschaftsprüferWirtschaftsprüfer[German Public Auditor][German Public Auditor]

# Further information

# **Glossary**



#### Aurase®

New enzymatic active ingredient developed by BRAIN for the biotherapeutic treatment of open wounds

# B

#### **B2B** market

Business-to-Business: type of market where goods and services are delivered and rendered by businesses to businesses

#### **BaFin**

German Federal Financial Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht)

#### **Bauhaus**

Founded in Weimar in 1919 by Walter Gropius as an interdisciplinary university of design with an international focus, that aimed to achieve perfect unity between the arts, crafts and architecture. BRAIN's headquarters are located in a listed Bauhaus building that was revitalised with meticulous attention to detail.

#### **Bioactive natural compounds**

Bioactive natural compounds are used to develop products for the food, cosmetics and chemical industries

#### **Bioactive substances**

Substances that have an influence on living organisms, tissues and cells

#### **BioArchive**

BRAIN's 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 business segments

#### **Biologisation of industry**

Use of biological processes in an industrial setting with the aim of creating a more sustainable economy (bioeconomy)

#### **BioScience**

Cooperation business set up with globally operating industrial partners; one of BRAIN's business segments

#### **Biotechnology**

Application-oriented sub-sector of biology that includes insights 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

#### **Bookbuilding**

Building a book of offers of investors interested in buying a share within a set price range and period (subscription period)

#### **Bulk enzymes markets**

Volume-driven mass markets for enzymes sold in large volumes. Besides these there is high-margin business with speciality 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)



#### CAGE

Compound annual growth rate

#### Cash flow

Inflow (positive cash flow) or outflow (negative cash flow) of liquid assets (cash and cash equivalents) during a period

#### CEO

Chief Executive Officer

#### **CFO**

Chief Financial Officer

#### 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

Goods that are consumed or used by consumers (end consumers)

#### Corporate governance

Legal and effective regulatory frame-

work for the responsible management and controlling of a company



#### D&0

Directors and officers: Members of the Management and Supervisory Boards, as well as directors, company officers and senior employees

#### **Designated Sponsor**

Financial service provider that provides binding price limits for the purchase and sale of securities (quotes) in electronic trading, thereby insuring their marketability

#### DCGK (German Corporate-Governance Code

Main statutory regulations concerning corporate governance and internationally recognised standards of good and responsible corporate management

#### DNA

Deoxyribonucleic acid: biomolecule that carries genetic information (genes)

#### DOLCE

Strategic partnership initiated by BRAIN for the development of natural sweeteners and sweet taste enhancers



#### EBI1

Earnings before interest and tax

#### **EBITDA**

Earnings before interest, tax, depreciation and amortisation

#### **Enzymes**

Effective catalysts for biochemical reactions

#### **Equity ratio**

Equity in relation to total assets

#### ΕU

European Union



#### Financial year

Period for which a company's annual financial statements have to be prepared. Does not necessarily coincide with the calendar year.

BRAIN's financial year begins on 1 October and ends on 30 September.

#### Free float

Proportion of a company's shares that are available to trade freely on the market



#### **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 extraction of metals such as gold, silver and copper in the mining industry, for example using microorganisms

#### Greenshoe

Clause in underwriting agreement where the issuer authorises a banking syndicate to distribute additional shares in the event of exceptional public demand



#### Habitat

The natural environment of an organism

#### **HGB**

German Commercial Code

#### Horizon 2020

EU Framework Programme 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



#### 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 chemical 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 issuing securities (e.g. shares as part of an IPO)

#### Liabilities

Non-current liabilities plus current liabilities

#### Listing prospectus Securities prospectus

Precondition for admission of securities to a public offering; includes information about the issuer, the securities, the risks and the offering

#### Lock-up period

Period following an IPO when insiders agree not to sell shares to protect the share price from falling



#### M & A

Mergers & Acquisitions: mergers and acquisitions of companies or parts of companies

#### **Market capitalisation**

The market valuation of the entirety of a listed company's equity. Calculated by multiplying the number of the company's shares outstanding by its current share price

#### Metagenome

All the genomic information present in 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.

#### Nature's toolbox

Natural biological diversity; BRAIN has captured and characterised parts of this in its own BioArchive and made it available for industrial purposes.

#### **Non-current assets**

Property, plant and equipment plus investment property, goodwill, intangible assets and financial assets

### P

#### **Peptides**

Usually linear, sometimes annular chain of molecules composed of two or more amino acids

#### **Performance microorganisms**

Biotechnologically developed microbial cell factories

#### **PerillicActive**

BRAIN development programme for natural active ingredients based on fermented oil from the peel of oranges or other citrus fruits

#### **Prime Standard**

Stock exchange segment of the Frankfurt Stock Exchange organised under private law and regulated by statute, entailing the highest transparency standards and also comprising the precondition for inclusion in the DAX, MDAX, TecDAX and SDAX indices

## R

#### R&D

Research & development

# S

#### **Speciality chemicals**

Specific chemical products with a broad range of activities that a large number of other industrial sectors depend on

#### SRI

Socially Responsible Investment, or Sustainable and Responsible Investment

#### Stage-gate process

Standardised process model for developing product innovations with the aim of assuring process quality

#### Strategic alliance

Agreement between companies to cooperate in particular business activities with the aim of leveraging synergies and achieving competitive advantages

# T

#### **Total operating performance**

Revenue plus change in inventories of finished goods and work in progress and other income, including income from R&D grants



#### **Urban mining**

Extraction of valuable substances from secondary streams and waste streams to keep them in value chains in the long term



#### Volatility

Degree of variation over a given period of the prices of securities, commodities, interest rates or investment fund shares



#### **WKN**

German Securities Identification Number (Wertpapier-Kennnummer): six-digit alphanumeric code to clearly identify a security



#### ZeroCarb FP

Zero Carbon Footprint: 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 is to research and develop microorganisms to convert carbonrich secondary and waste streams into valuable industrial substances.

# **Graphs and Tables**

01			Figure 04.2	Adjusted operating result (adjusted EBIT)	130
Compo	unu managamant	23	Table 04.3	Segment share of total operating performance	
Compa	ny management	23	Table 04.4	BioScience segment	132
	Over developed Company is a map Depend as a still as		Table 04.5	BioIndustrial Segment	133
Table 01.1	Overview of Supervisory Board meetings	00	Table 04.6	Extract from the balance sheet	134
	in the 2015/16 financial year	28	Figure 04.3	Balance sheet structure	13
			Table 04.7	Extract from the cash flow statement	13
$\Omega$			Figure 04.4	Presentation of the cash flow statement	137
02			Table 04.8	Number of employees	138
The co	mpany	51	Compens	sation report	140
			Table 04.9	Overview call options	143
Figure 02.1	BioEconomy – outgrowing chemical industrie	es 54	Table 04.10	Granted, expired, forfeited and exercised	
Figure 02.2	Our objective: participating			stock options	144
	in the bioeconomy's success	56	Table 04.11	Compensation granted for the 2015/16	
Figure 02.3	The Segments	58		financial year on the basis of HGB	146
Figure 02.4	From the BioArchive to the B2B market	60	Table 04.12	Management Board compensation	14
Figure 02.5	New Product Development	64	Table 04.13	Supervisory Board compensation	149
Figure 02.6	BRAIN share price performance (indexed)	78	Table 04.14	Directors' Dealings	149
Table 02.1	Key share data	78			
Figure 02.7	Shareholder structure	79	Report o	n risks and opportunities	152
			Table 04.15	Likelihood of occurring within	
$\alpha$				the next two years	153
03			Table 04.16	Degree of impact	154
00			Table 04.17	Risk score	154
Corpor	ate governance report	93	Figure 04.5	Risk management system	156
			Table 04.18	Presentation of the greatest short-	
Table 03.1	Composition of the Management Board	99		and medium-term risks at BRAIN	16
Table 03.2	Supervisory Board members	102			
$\Omega A$			05		
U4			Financi	al statements	169
Group	management report	123			
-	•		Table 05.1	Consolidated balance sheet	17
Economi	c and Business Report	128	Table 05.2	Consolidated statement of	
Table 04.1	Extract from the statement of			comprehensive income	172
	comprehensive income	128	Table 05.3	Consolidated statement of	
Figure 04.1	Composition of total operating performance	129		changes in equity	174
Table 04.2	Reconciliation of the reported operating resu	ılt	Table 05.4	Consolidated statement of cash flows	175
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130

(adjusted EBIT)

# Photo credits, online version and orders

Photo series:

#### Quayola

pages 03-17

Quayola is a visual artist based in London whose work explores the borderlines between art and reality, and examines how technology changes the way we see the world. His work has been exhibited at numerous renowned museums, institutions and art festivals.

#### quayola.com

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#### **David Lemm**

pages 39, 50, 81, 92, 115, 126

David Lemm is a multi-disciplinary artist based in Edinburgh. His multidisciplinary approach spans various techniques and processes, including printmaking, mixed media and moving image. He has been engaged in a broad range of projects through residencies, educational programmes, and commissions, and in recent years has held solo exhibitions.

davidlemm.co.uk

Portrait photographs:

#### Anja Jahn

pages 23, 27, 34 - 36

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#### Luise Böttcher,

pages 42 – 47, 70, 75, 84 – 89, 114 – 119 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.

All other images:

BRAIN archives, page 70: Thomas Ott

You can download BRAIN's financial publications as PDFs at:

www.brain-biotech.de/en/investorrelations/financial-publications

This report is also available in German.

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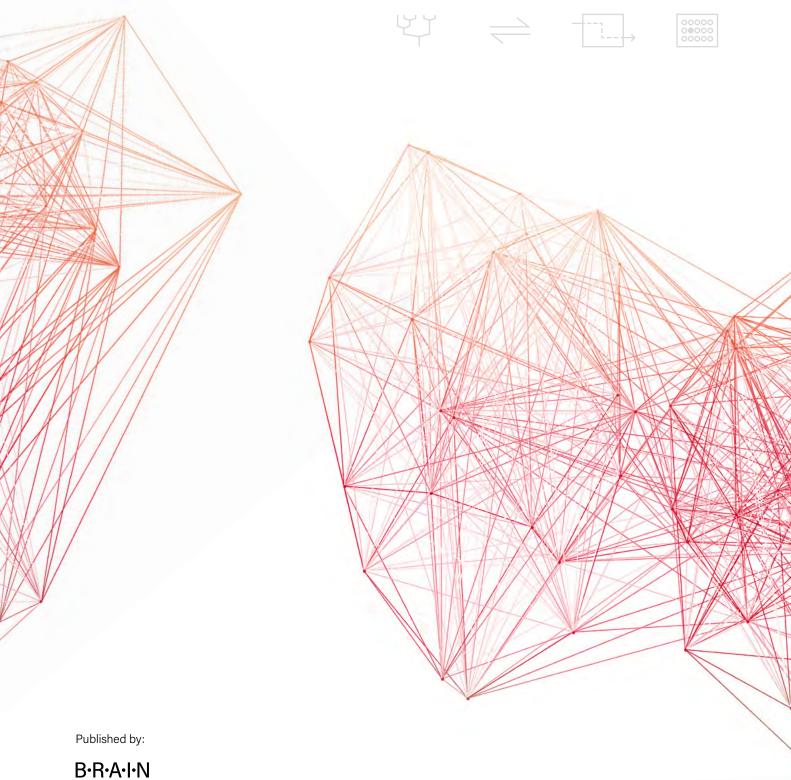
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# Financial calendar

28 February 2018	Publication of the quarterly report for the period ending 31 December 2017 (3M)
08 March 2018	Annual General Meeting, Zwingenberg
30 May 2018	Publication of the interim report for the period ending 31 March 2018 (6M)
31 August 2018	Publication of the quarterly report for the period ending 30 June 2018 (9M)

#### Disclaimer

This report might contain certain forward-looking statements that are based on current assumptions and forecasts made by the management of the BRAIN Group and other currently available information. Various known and unknown risks and uncertainties as well as other factors can cause the company's actual results, financial position, development or performance to diverge significantly from the estimates provided here. BRAIN AG does not intend and assumes no obligation of any kind to update such forward-looking statements and adapt them to future events or developments. The report can include information that does not form part of accounting regulations. Such information is to be regarded as a supplement to, but not a substitute for, information prepared according to IFRS. Due to rounding, it is possible that some figures in this and other documents do not add up precisely to the stated sum, and that stated percentages do not reflect the absolute figures to which they relate. This document is a translation of a document prepared originally in German. Where differences occur, preference shall be given to the original German version.



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