Pioneering Bioproducts

Group management report and Consolidated financial statements (from the Annual Report 2018/19)

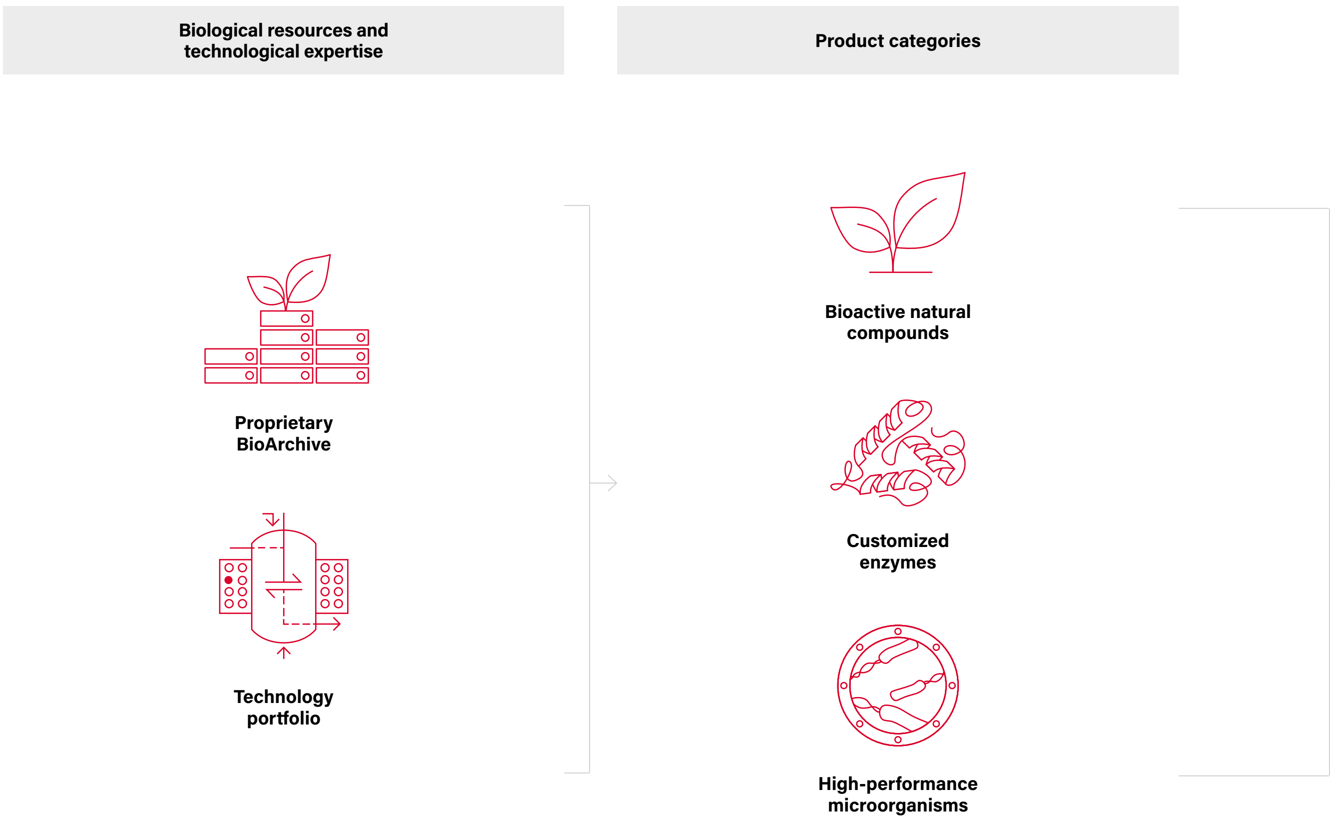
B·R·A·I·N

BRAIN Group financial highlights

in € million	2018/19	2017/18	2016/17
Consolidated income statement data:			
Revenue	**38.6**	**27.1**	**24.1**
Total operating performance	41.2	30.5	26.9
EBITDA	–2.5	–6.6	–7.7
Adjusted EBITDA	**–2.1**	**–5.3**	**–4.7**
Net loss for the reporting period	–10.5	–8.1	–9.7
Consolidated balance sheet data:			
Total equity	17.1	28.4	47.4
Equity ratio (in %)	**25.8 %**	**38.2 %**	**69 %**
Total assets	66.1	74.5	68.5
Consolidated cash flow data:			
Cash flows from operating activities	**–3.4**	**–5.4**	**–5.8**
Cash flows from investing activities	–6.7	–12.6	8.8
Cash flows from financing activities	–0.3	4.7	27.7

→ Consolidated financial statements, page 49

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

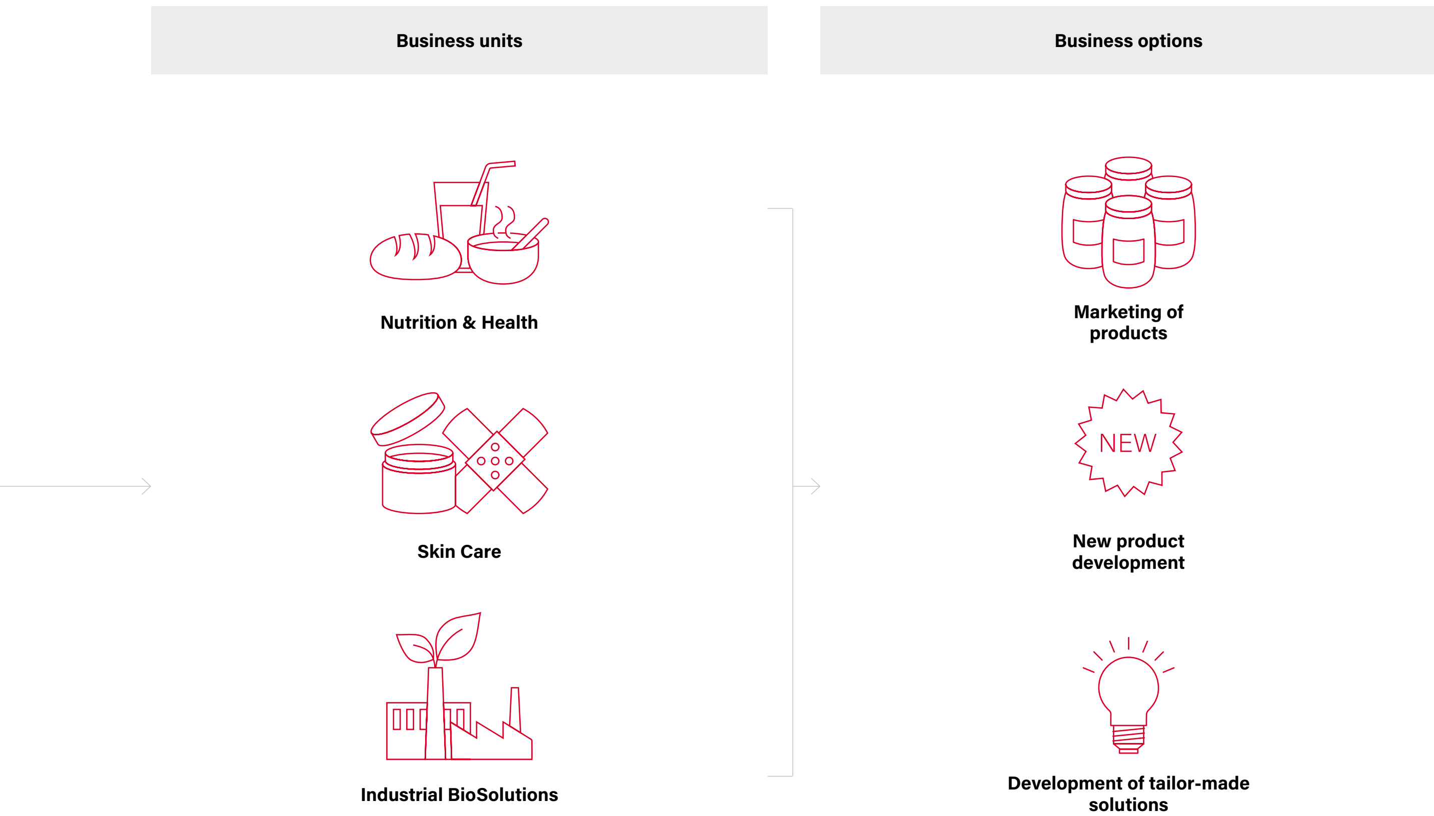


BRAIN at a glance

BRAIN is a pioneer in industrial biotechnology and a central player in the biobased economy. Thanks to powerfully combining the company's own BioArchive with its first-class biotechnology portfolio, BRAIN develops and markets bioactive natural products, tailor-made enzymes and high-performance microorganisms for its three business units of Nutrition & Health, Skin Care and Industrial BioSolutions. These products are then distributed and commercialized through product sales, propriety product developments and alliances with industrial partners.

THE BRAIN GROUP

B·R·A·I·N
AnalytiCon discovery
BIOCATALYSTS
WeissBioTech
L.A. SCHMITT
B·R·A·I·N LLC
SolasCure



„BRAIN is a leading bioeconomy company thanks to its combination of strong research and efficient product development. With our innovative offering of biobased ingredients and processes, we make a significant contribution to more sustainable consumer products and industrial processes.“

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

* until 31.12.2019

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Basis of the Group

→ BRAIN identifies untapped bioactive natural compounds, enzymes and high-performance microorganisms derived from complex biological systems in order to transform them into industrially usable applications.
→ As an industrial biotechnology company, BRAIN has set itself the target of outperforming the growth potential offered by the bioeconomy sector.

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

Group business model

The BRAIN Group operates with its key technologies in the area of industrial, so-called "white", biotechnology. White biotechnology deploys biotechnology methods through transferring biological and biochemical knowledge to industrial products and production processes. BRAIN identifies hitherto untapped bioactive natural compounds, enzymes and high-performance microorganisms derived from complex biological systems in order 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.

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

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

Targets and strategies

As an industrial biotechnology company, BRAIN has set itself the target of outperforming the growth potential offered by the bioeconomy sector. The company aims for sustainable, earnings-oriented growth based on the two pillars of its business model, BioScience and BioIndustrial. Targeted acquisitions in selected industries within BRAIN's areas of expertise are also to contribute to the greatest possible leveraging of the bioeconomy's growth potential. No such acquisitions were realized during the past financial year. Rather, the interest in Monteil Cosmetics International GmbH, Düsseldorf, was divested as part of focusing on B2B business.

Management system

Starting this financial year, BRAIN's financial control parameters are revenue and, as previously, adjusted EBITDA[1]. In the company's view, revenue appropriately reflects the Group's overall financial performance during the respective reporting period. In the past, total operating performance was utilized for control purposes. Due to the lower dependency and reduction of the financial significance of grants, the Management Board has decided to focus in future on revenue as a control parameter. Adjusted EBITDA appears to better reflect the Group's sustainable earnings than EBITDA, as it excludes exceptional items. Adjusted EBITDA is calculated by eliminating expenses from the share-based payments of BRAIN AG, employee participation programs at one subsidiary, and acquisition and integration costs from the BRAIN Group's expansion.

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

Research and development

The biotechnological research and development of innovative biotechnology processes and products form BRAIN's core expertise, as well as the foundation of Group business activities. From as early as 1999, BRAIN was one of the first biotech companies to apply proprietary metagenome technologies to develop production organisms, enzyme products and genetic libraries. BRAIN's portfolio today consists of various patented special technologies. These include the "Human Taste Cell Technology (HTC)" developed and patented by BRAIN. Such technology is based on human tongue cells, and is utilized in order 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.

BRAIN's proprietary BioArchive includes around 53,000 comprehensively characterized microorganisms, numerous isolated natural substances, various chassis microorganism strains to develop production organisms, as well as extensive genetic libraries encompassing many new enzymes and metabolic pathways. The subsidiary AnalytiCon Discovery GmbH possesses

1 Earnings before interest, tax, depreciation and amortization

a unique collection of pure natural materials and semisynthetic substances based on natural material building blocks, among other assets. These collections that are aggregated within the BioArchive are being expanded constantly, enabling the identification of hitherto uncharacterized enzymes and natural substances, and new access to biodiversity that has not proved cultivatable to date.

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

Expenses for research and development amounted to € 7.8 million in the 2018/19 financial year, compared with € 7.6 million in the 2017/18 financial year. This corresponds to 20 % of revenue in the 2018/19 financial year, after 28 % in the previous financial year. Investments in research and development in the 2018/19 financial year mainly include expenses to develop various products (such as new sweeteners and processes to extract biological metal from waste and byproduct flows) at the sites in Zwingenberg and Potsdam. Research and development expenses include € 2.4 million of third-party services (previous year: € 1.4 million).

Economic and business report

→ Revenue generated by the BRAIN Group rose to € 38.6 million in the 2018/19 financial year, representing an increase of 42.5 % compared with the previous year (€ 27.1 million).

→ International sales increased by 49.2 % from € 19.7 million to € 29.4 million thanks to the internationalization strategy.

1 Macroeconomic and sector-related conditions

Within a difficult global economic environment accompanied by an increase in risks to economic growth[2], overall conditions for industrial biotechnology continued to be positive in the 2018/19 financial year.

Markets for biotechnology products and processes frequently differ in their trends from those for conventional products within the same application areas. Such markets often exhibit a significantly greater growth dynamic.[3]

While R&D expenditure in the therapies and diagnostics sector is high in absolute terms, industrial biotechnology recorded the highest percentage growth rate.[4] Along with substituting petrochemical-based products, sector research and development activities focus on biological solutions for sugar and salt substitutes.

2 Business progress

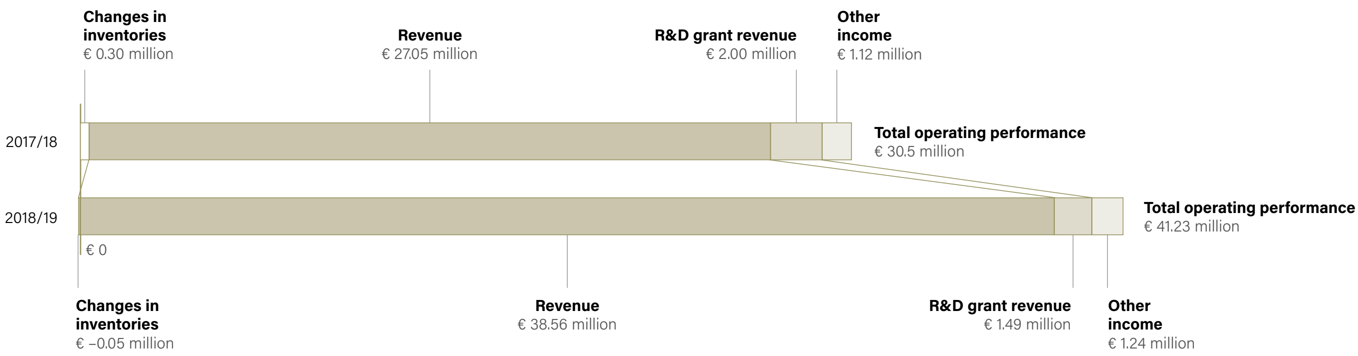
Due to IAS 8 adjustments, some of the amounts presented differ from the amounts in the consolidated financial statements for the 2017/18 financial year. The section "IAS 8 corrections" in the notes to the consolidated financial statements provides further information on this topic.

TABLE 04.1 **EXTRACT FROM THE STATEMENT OF COMPREHENSIVE INCOME**

€ thousand	2018/19	2017/18
Revenue	**38,560**	**27,051**
Research and development grant revenue	1,486	2,000
Changes in inventories	–54	296
Other income	1,238	1,122
Total operating performance	**41,231**	**30,469**
EBITDA	**–2,470**	**–6,553**
Adjusted EBITDA	**–2,141**	**–5,277**
EBIT	**–7,172**	**–9,565**
Net financial result	–3,314	1,198
Pretax loss for the reporting period	–10,486	–8,367
Net loss for the reporting period	–10,495	–8,141
Earnings per share (in €)	–0.58	–0.44

2 See: International Monetary Fund (IMF): World Economic Outlook, October 2019.
3 According to a survey conducted by publishing and specialist information provider BIOCOM, industrial biotechnology companies participating in the survey reported sales growth of almost 16 % in 2017.
4 According to the aforementioned BIOCOM survey, R&D expenditure in the new therapies and diagnostics sector grew by 0.7 %, while spending on industrial biotechnology increased by 6.3 %.

FIGURE 04.1 **COMPOSITION OF TOTAL OPERATING PERFORMANCE**



Revenue generated by the BRAIN Group rose to € 38.6 million in the 2018/19 financial year, representing an increase of 42.5 % compared with the previous year (€ 27.1 million). Although this growth was partly influenced by the acquisition realized in the previous year, around half was based on organic growth. Organic growth derived both from a stronger product business in the BioIndustrial segment and from the expansion of project business in the BioScience segment.

At € 1.5 million, revenues from research and development grants were approximately € 0.5 million lower than in the previous year (€ 2.0 million), which is attributable to the scheduled expiry of two funding alliances.

Changes in inventories (€ –0.1 million) were lower than in the previous year (€ 0.3 million). In the BioScience segment, the change in inventories decreased by 67.9 % from € 0.1 million in the previous year to € 39 thousand. The change in inventories in the BioIndustrial segment reduced from € 0.2 million in the previous year to € –0.1 million. The decline in inventories in both segments is attributable to active measures undertaken to reduce inventories as well as to accrual effects. Other income also rose to € 1.2 million (previous year: € 1.1 million). This is mainly due to the fact that income from the reversal of provisions fell, while at the same time insurance compensation more than offset this decline.

At € 41.2 million, the total operating performance deriving from the aforementioned developments was 35.3 % up on the previous year (€ 30.5 million). Due to the aforementioned effects, it rose at a slower rate than revenue. Overall, the growth in revenue and total operating performance was thereby in line with our forecast (see also the detailed forecast report in this Group management report). Both segments contributed to the pleasing growth. Revenue generated by the BioScience segment increased by 46.7 % from € 8.3 million to € 12.2 million. The BioIndustrial segment grew by 40.7 % to € 26.4 million and thereby also contributed to the positive overall trend.

The focus of revenue was again on Germany (around 23 %, previous year: c. 27 % of total revenue), France (c. 13 %, previous year: c. 15 %), the USA (c. 19 %, previous year: c. 18 %) and the UK (c. 11 %, previous year: c. 6 %). Sales in Germany rose to € 9.1 million (previous year: € 7.4 million). International sales increased by 49.2 % from € 19.7 million to € 29.4 million thanks to the internationalization strategy.

3 Results of operations

In the past financial year, adjusted EBITDA improved from € –5.3 million in the previous year to € –2.1 million. This occurred thanks to the aforementioned revenue growth in both segments and various measures to improve margins. As a consequence, Group profitability as measured by adjusted EBITDA was considerably better in the 2018/19 financial year compared with the previous year.

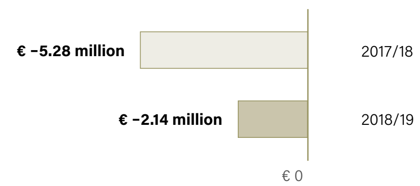
As in the previous year, EBITDA was influenced by various non-operating effects, for which adjustments have been applied. These include acquisition and integration costs and expenses for share-based compensation schemes and an employee share scheme. The expenses for which adjustments were to be made reduced significantly compared to the previous year.

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

TABLE 04.2 **RECONCILIATION OF REPORTED EBITDA TO ADJUSTED EBITDA**

€ thousand	2018/19	2017/18
EBITDA, including:	**–2,470**	**–6,553**
Personnel expenses from the employee share scheme at AnalytiCon Discovery GmbH, Potsdam	–35	–191
Personnel expenses from share-based payment components	–266	–41
Other operating expenses related to M&A transactions and the integration of acquired businesses	–27	–1,045
Adjusted EBITDA	**–2,141**	**–5,277**

FIGURE 04.2 **ADJUSTED EBITDA**



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

In line with the higher revenue, the cost of materials also rose by 24.6 % from € 14.0 million to € 17.4 million. However, the cost of materials ratio in relation to revenue reduced from 51.6 % in the previous year to 45.1 %. The cost of materials ratio improved across the entire BRAIN Group thanks to the revenue growth, as well as the disproportionately low increase in the cost of materials and the focus on higher-margin business. External services procured by the BRAIN Group increased by 36.3 % to € 3.1 million, as various projects are in later phases of development and approval, and BRAIN does not perform some of this work itself. Third-party services were purchased mainly from universities, companies with production expertise, and other technology firms.

Personnel expenses also increased in absolute terms by 18.3 % from € 14.9 million to € 17.6 million as a result of the acquisition last year. This was mainly due to the acquisition of Biocatalysts, higher wages and salaries, and the share-based compensation of the BRAIN Group. However, the personnel expense ratio decreased significantly from 55.0 % to 45.7 %.

At € 8.7 million (previous year: € 8.2 million), other expenses were slightly higher than in the previous year, although in relation to revenue they reduced from 30.2 % in the previous year to 22.5 %.

Thanks to the below-average increase in expenses, unadjusted EBITDA improved considerably from € –6.6 million to € –2.5 million.

EBIT also improved from € –9.6 million to € –7.2 million, albeit not by as much as EBITDA. This reflected the higher level of impairment losses in connection with the disposal of the shares in Monteil Cosmetics International GmbH and the increase in the level of amortization of hidden reserves deriving from the acquisition of the Biocatalysts Group.

The financial result decreased from € 1.2 million to € –3.3 million as a result of subsequent valuation effects from financial liabilities, which were negative this year compared to a positive effect in the previous year. In addition, effects from the fair value measurement of forward exchange transactions and a negative result from equity accounted investments also contributed to a lower net financial result.

As a consequence, the pretax result deteriorated from € –8.4 million to € –10.5 million.

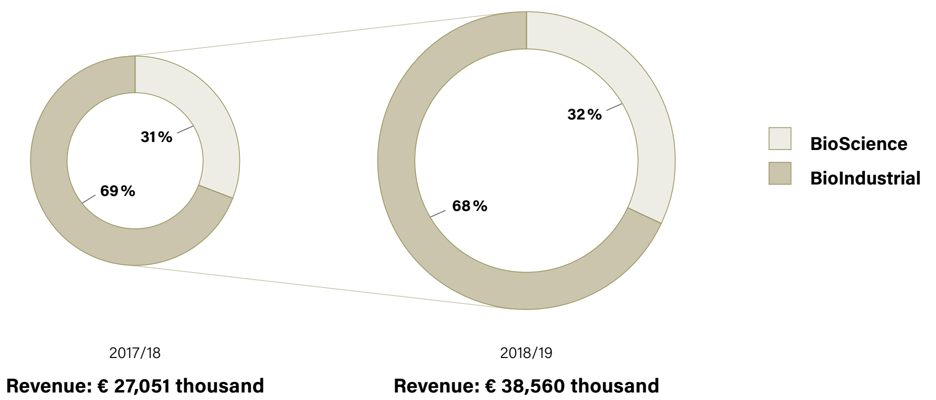
Taking tax expenses into account, earnings after taxes amounted to € –10.5 million (previous year: € 8.1 million). Of this amount, € –10.5 million is attributable to the shareholders of BRAIN AG.

The operating segments report the following results:

TABLE 04.3 **SEGMENT SHARE OF REVENUE**

	2018/19	2017/18
BioScience	32 %	31 %
BioIndustrial	68 %	69 %

FIGURE 04.3 **SEGMENT SHARE OF REVENUE**



BioScience segment

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

TABLE 04.4 **BIOSCIENCE SEGMENT**

€ thousand	2018/19	2017/18
Revenue	**12,192**	**8,312**
Research and development grant revenue	1,201	1,831
Changes in inventories	39	123
Other income	537	822
Total operating performance	**13,969**	**11,087**
Cost of materials	–4,205	–3,443
Personnel expenses	–11,359	–10,481
Other expenses	–3,574	–4,520
EBITDA	**–5,168**	**–7,357**
Adjusted EBITDA	**–4,905**	**–6,209**
Depreciation, amortization and impairment	–1,187	–1,128
EBIT	**–6,356**	**–8,485**

In the BioScience segment, revenue reported a significant increase of 46.7 % from € 8.3 million to € 12.2 million. Revenues from research and development grants reduced from € 1.8 million in the previous year to € 1.2 million due to the scheduled expiry of two funding alliances. Nevertheless, this segment also recorded a year-on-year increase in total operating performance from € 11.1 million to € 14.0 million, reflecting organic growth thanks to the expansion of the project business. In the 2018/19 financial year, further cooperation partners were acquired and existing relationships with cooperation partners were further expanded.

Adjusted EBITDA for the segment improved to € –4.9 million compared with € –6.2 million in the previous year. This is mainly attributable to higher revenue and improvements in the segment's expense ratios.

BioIndustrial segment

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

TABLE 04.5 **BIOINDUSTRIAL SEGMENT**

€ thousand	2018/19	2017/18
Revenue	**26,411**	**18,767**
Research and development grant revenue	285	169
Changes in inventories	–93	173
Other income	757	319
Total operating performance	**27,360**	**19,428**
Cost of materials	–13,220	–10,545
Personnel expenses	–6,256	–4,403
Other expenses	–5,146	–3,670
EBITDA	**2,739**	**811**
Adjusted EBITDA	**2,805**	**939**
Depreciation, amortization and impairment	–3,515	–1,884
EBIT	**–776**	**–1,073**

Revenue in the BioIndustrial segment increased from € 18.8 million to € 26.4 million. The significant increase of the segment by 40.7 % is mainly due to revenue generated in the enzymes area, which was supported by organic growth as well as by the previous year's acquisition.

The segment's total operating performance also reported a considerable rise, in line with revenue growth, from € 19.4 million in the previous year to € 27.4 million. This corresponds to an increase of 40.8 % compared to the previous year.

The segment's adjusted EBITDA grew from € 0.9 million to € 2.8 million, underlining the importance of the industrially scaled segment, which operates profitably. The improvement in EBITDA is due to the significant increase in revenues and improvements in expense ratios.

4 Financial position

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

5 Net assets and capital structure

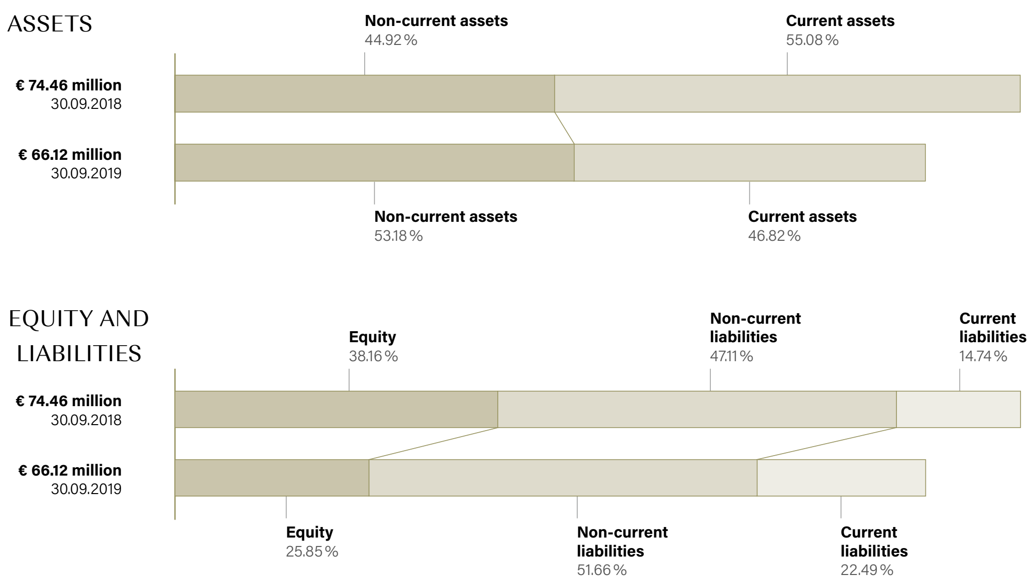
TABLE 04.6 EXTRACT FROM THE BALANCE SHEET

€ thousand	30.09.2019	30.09.2018
Non-current assets		
Intangible assets	15,794	19,075
Property, plant, and equipment	17,144	12,042
Other non-current assets	2,228	2,331
	35,167	**33,448**
Current assets		
Other current assets	15,583	15,217
Other financial assets	213	260
Cash and cash equivalents	15,160	25,539
	30,957	**41,016**
ASSETS	**66,123**	**74,464**
Equity	**17,091**	**28,412**
Non-current liabilities		
Non-current financial liabilities	24,775	25,353
Other non-current liabilities	9,385	9,725
	34,160	**35,078**
Current liabilities		
Current financial liabilities	3,603	2,442
Other current liabilities	11,270	8,531
	14,873	**10,973**
EQUITY AND LIABILITIES	**66,123**	**74,464**

The changes in the net asset position and capital structure in the 2018/19 financial year mainly reflect operating effects, the net loss incurred for the year, as well as subsequent valuation effects in relation to financial liabilities.

Non-current assets increased by € 1.7 million as a consequence of the investment in new production capacities in the UK for the production of enzymes and the amortization of goodwill from the disposal of Monteil Cosmetics International GmbH in the past financial year. In addition, amortization of hidden reserves deriving from the acquisition of fully consolidated companies reduced non-current assets.

FIGURE 04.4 **BALANCE SHEET STRUCTURE**



Current assets decreased from € 41.0 million to € 31.0 million. This was due, in particular, to the reduction in cash and cash equivalents from € 25.5 million to € 15.2 million, with current assets remaining virtually unchanged at the same time.

Equity decreased from € 28.4 million to € 17.1 million, mainly reflecting the loss incurred at the total comprehensive income level. The equity ratio stood at 25.8 % as of the end of the financial year (previous year: 38.2 %).

As of the 30 September 2019 reporting date, the company reports authorized capital of € 9,027,891 and conditional capital of € 5,090,328 (conditional capital to satisfy warrant and conversion rights when issuing bonds with warrants and/or convertible bonds), as well as an amount of € 1,805,578 (conditional capital to satisfy option rights from issuing stock options).

Non-current liabilities decreased by € 0.9 million to € 34.2 million as at 30 September 2019 due to the more advanced maturity of liabilities.

Current liabilities increased from € 11.0 million to € 14.9 million, with the € 1.1 million change being attributable mainly to the rise in deferred income reflecting the pro rata revenue recognition from the license agreement with SolasCure Ltd., Cardiff, UK, an increase in financial liabilities in the amount of € 1.2 million due to the investments in production plants in the UK, and a rise in trade payables of € 1.6 million due to invoices outstanding.

The financial liabilities are predominantly denominated in euros and pounds sterling. In addition to silent partnerships, the interest-bearing financial liabilities mainly consist of loans from financial institutions with a fixed interest rate and a nominal interest rate of between 1.15 % and 6.10 % as well as liabilities for the potential acquisition of company shares from the exercise of put options. Of the interest-bearing loans, € 1.2 million have a remaining term of up to one year, € 3.3 million a remaining term of more than one year, and € 1.5 million a remaining term of up to five years.

The debt-to-equity ratio rose from 61.8 % in the previous year to 74.2 % as at 30 September 2019 as part of the aforementioned parameters. Total assets decreased from € 74.5 million as at 30 September 2018 to € 66.1 million as at 30 September 2019.

Investments

In addition to the aforementioned investments in the expansion of production capacities, the focus of capital expenditure in the financial year under review, as in the previous year, was on expanding and further strengthening technological expertise, as well as BRAIN's development pipeline. Accordingly, capital expenditure concentrated on property, plant and equipment at € 6.6 million, compared with € 1.3 million in the previous year. As at the balance sheet date, investment obligations of € 1.4 million existed for the expansion of production capacities. The investment obligations can be financed from the respective subsidiary's cash and cash equivalents, as well as bank loans.

Liquidity

TABLE 04.7 **EXTRACT FROM THE CASH FLOW STATEMENT**

€ thousand	2018/19	2017/18
Gross cash flow	–6,257	–9,020
Cash flow from operating activities	–3,380	–5,418
Cash flow from investing activities	–6,743	–12,620
Cash flow from financing activities	–276	4,659
Net change in cash and cash equivalents	–10,400	–13,379

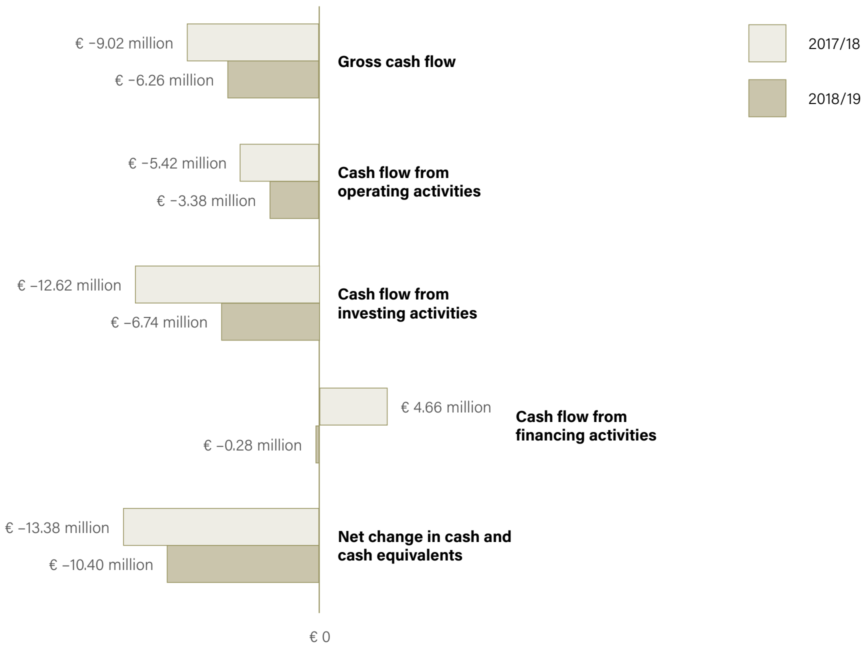
The gross cash flow of the BRAIN Group amounted to € –6.3 million in the 2018/2019 financial year compared with € –9.0 million in the previous year. By contrast, cash flow from operating activities rose from € –5.4 million to € –3.4 million in the financial year under review.

Cash flow from investing activities in the financial year under review amounts to € –6.7 million compared with € –12.6 million in the previous year when including the acquisition of shares, or € –2.2 million excluding the acquisition of shares, and mainly reflects the additions to property, plant and equipment. This mainly relates to investments in a production site for the manufacture of specialty enzymes in the UK. Further information on this topic is presented in the "Investments" section of this management report.

Cash flow from financing activities amounted to € 4.7 million in the previous year, and included € 3.0 million in loans from the silent partnership of Hessen Kapital II GmbH, Wiesbaden, and € 2.5 million from a credit facility secured by property, plant and equipment. In the financial year under review, cash flow from financing activities amounted to € –0.3 million and derived primarily from the net repayment of financial liabilities.

The individual cash flows led to a reduction in cash and cash equivalents of € –10.4 million compared with € –13.4 million in the previous year.

FIGURE 04.5 **PRESENTATION OF THE CASH FLOW STATEMENT**



Cash and cash equivalents of € 15.2 million as at 30 September 2019, were offset by current financial liabilities of € 3.6 million and non-current financial liabilities of € 24.8 million, with the majority of non-current financial liabilities relating to potential payments from the exercise of put options. Undrawn credit lines of € 0.1 million also existed. After 30 September 2019, contracts were also concluded for further credit facilities with a volume of up to € 7.0 million. Further information on this topic is presented in the section "Events after the reporting date".

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

Non-financial performance indicators

In the 2018/19 financial year, a total of seven milestones were achieved and seven exclusivity options were exercised (previous year: eight). The milestones reached and exclusivity options drawn relate to different cooperation partners.

6 Employees

As a growth-oriented technology company, BRAIN ascribes special significance to recruiting and developing highly qualified staff. From an early stage in the company's history, 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**

	2018/19	2017/18
Total employees, of which	**281**	**247**
Salaried employees	256	230
Industrial employees	25	17

The BRAIN Group also employs grant recipients (4, previous year: 6), temporary help staff (12, previous year: 11), trainees (7, previous year: 6).

In research and development functions (174 staff; previous year: 167), besides natural sciences, the company also aims especially for a high proportion of staff from engineering sciences as well as with operational laboratory training.

7 Overall statement on business progress

The bioeconomy megatrend – as the foundation of a sustainable economic system – as well as demand for natural biological solutions, such as healthier food and more sustainable industrial processes, continues unabated, and in some market sectors has even become stronger. BRAIN achieved some important successes in addressing such markets during the past financial year. In terms of research, BRAIN reached important objectives in the areas of green & urban mining as well as wound care during the financial year under review. Thanks to the pleasing growth, the Management Board also takes a very positive view of the strategy of focusing on the specialty enzymes business. The divestiture of the loss-making interest in Monteil Cosmetics International GmbH and the associated goodwill impairment charge as well as various valuation effects burdened the past financial year's net result, which fell compared to the previous year. The disposal of the loss-making investment will relieve the BRAIN Group financially and in terms of capacities, and allow it to concentrate fully on further expanding its product-scalable B2B business.

A positive picture also emerges from the trend in our financial position and performance. In addition to the significant growth in revenue and total operating performance, the Group achieved considerably better adjusted EBITDA thanks to cost improvements.

We continued to push ahead with measures to strengthen our business activities with the aim of achieving sustainable and profitable growth.

Above and beyond this, for the Management Board the continued high level of investments in research and development represents an important indicator and basis for BRAIN's future potentials. The Group holds a position of cash and cash equivalents of € 15.2 million as at 30 September 2019 and reports a 25.8 % equity ratio. A loan facility concluded after the balance sheet date gives the Management Board greater scope in its management of the Group. Further information on this topic is presented in the section "Events after the reporting date". In the Management Board's assessment, the pre-requisites continue to exist to participate to an above-average extent in bioeconomy growth markets long-term, including taking the diminished level of cash and cash equivalents as well as the lower equity ratio into consideration.

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

Compensation report

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

1 Management Board compensation

Compensation scheme

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

When setting overall compensation and the individual compensation elements, the Supervisory Board has taken into consideration the company's financial position and business prospects, as well as its compensation structure. For the individual Management Board members, the Supervisory Board has differentiated according to function, areas of responsibility, qualification and personal performance. Where such data and information was available, information about compensation at other companies within the same sector, or competing with the company, 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 77 % of target compensation taking into consideration a capped performance-related bonus for 100 % target attainment, and for the remaining Management Board members 76 % of target compensation taking into consideration a capped performance-related bonus for 100 % target attainment.

Performance-based bonus

The performance-based bonus is variable cash compensation relating to a specific financial year that is granted if the Management Board member reaches predetermined targets in the respective financial year (performance targets include parameters including both qualitative and quantitative targets such as the adjusted firs EBITDA). The annual bonus level is contractually arranged for each Management Board member for the duration of their service contract. If targets are missed by a significant margin, the Supervisory Board can reduce or completely refuse the bonus, as well as increase it to double its amount given significant 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 29.63 % of basic fixed compensation, and for the remaining Management Board members an amount equivalent to 32.00 % 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 59.26 % of basic fixed compensation, and for the remaining Management Board members a maximum of 64.00 % of basic fixed compensation.

Share-based compensation

For information on share-based compensation, please refer to the relevant section in the notes to the consolidated financial statements.

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

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

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

Discontinued employment commitments

A post-contractual competitive restraint for a 24-month period has been agreed with Dr. Jürgen Eck, for compliance with which the company has committed a monthly compensation payment equivalent in each case to 50 % of the monthly fixed basic compensation paid. A post-contractual competitive restraint for a 12-month period was agreed with Mr. Bender and Mr. Roedder, for compliance with which the company has committed to pay to him a monthly waiting allowance equivalent to half the average of the monthly compensation payments granted to him during the last 24 months preceding the end of the employment contract.

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

Future structure of the compensation scheme

Apart from the stock option program, the compensation scheme as presented corresponds to many years' practice from the period before the IPO on 9 February 2016. In the 2017/18 financial year, the Supervisory Board established the stock option program in order to ensure long-term incentives for the Management Board members. At present, the Supervisory Board does not plan any changes to the structure of the compensation scheme.

Management Board compensation level

For the 2018/19 financial year, the Management Board was granted total compensation of € 1,041 thousand, as calculated based on the German Commercial Code (HGB). The corresponding figure for the previous year stood at € 513 thousand.

The compensation granted for the 2018/19 financial year based on commercial law regulations is summarized in the following overview.

TABLE 04.9 **MANAGEMENT BOARD COMPENSATION BASED ON COMMERCIAL LAW REGULATIONS**

€ thousand	Dr. Jürgen Eck	Frank Goebel[5]	Manfred Bender	Ludger Roedder	Total
Performance-based components					
Fixed salary	270	53	208	188	718
Other payments	2	6	42	37	87
Total	**272**	**59**	**250**	**225**	**806**
Performance-based components without long-term incentive effect					
Bonus	**80**	**8**	**67**	**80**	**235**
Total compensation	**352**	**66**	**317**	**305**	**1,041**

The present value of the overall obligation from pension commitments calculated pursuant to International Financial Reporting Standards (IFRS) amounted to € 7,035 thousand as of the reporting date (previous year: € 5,402 thousand), of which € 3,459 thousand for Dr. Jürgen Eck (previous year: € 2,582 thousand).

The pension value (present value of the overall obligation) according to the accounting regulations of the German Commercial Code (HGB) amounted to € 4,574 thousand (previous year: € 3,989 thousand), of which € 2,142 thousand for Dr. Jürgen Eck (previous year: € 1,848 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 consists of monetary compensation elements, pension awards, other awards, especially in the event of termination of activity, fringe benefits of all kinds and benefits by third parties which were promised granted in the financial year with regard to Management Board work. By way of divergence from the regulations of the German Commercial Code (HGB), the annual service cost for pension commitments also forms part of overall compensation.

Section 4.2.5 (3) of the Code specifies which compensation components are to be disclosed for each Management Board member. The following overview shows which benefit contributions were granted to the members of the Management Board of BRAIN AG for 2018/19 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.

5 Management Board member until 31 December 2018.

TABLE 04.10 **MANAGEMENT BOARD COMPENSATION**

Dr. Jürgen Eck, CEO since 09.05.2000

	Received		Granted			
€ thousand	2018/19	2017/18	2018/19	2017/18	2018/19 (max.)	2018/19 (min.)
Fixed compensation	270	240	270	240	270	270
Ancillary benefits	0	0	0	0	0	0
Total	**270**	**240**	**270**	**240**	**270**	**270**
Variable compensation (one-year)	80	27	80	80	160	0
Share-based compensation (ESOP)	0	0	80	15	80	80
Total	**350**	**267**	**430**	**335**	**510**	**350**
Pension expense	38	36	38	36	38	38
Total compensation	**388**	**303**	**468**	**371**	**548**	**388**

Manfred Bender, CFO since 01.12.2018

	Received		Granted			
€ thousand	2018/19	2017/18	2018/19	2017/18	2018/19 (max.)	2018/19 (min.)
Fixed compensation	208	0	208	0	208	208
Ancillary benefits	0	0	0	0	0	0
Total	**208**	**0**	**208**	**0**	**208**	**208**
Variable compensation (one-year)	0	0	67	0	133	0
Share-based compensation (ESOP)	0	0	22	0	22	22
Total	**208**	**0**	**297**	**0**	**363**	**230**
Pension expense	42	0	42	0	42	42
Total compensation	**250**	**0**	**338**	**0**	**405**	**272**

Ludger Roedder, CBO since 01.01.2019

	Received		Granted			
€ thousand	2018/19	2017/18	2018/19	2017/18	2018/19 (max.)	2018/19 (min.)
Fixed compensation	188	0	188	0	188	188
Ancillary benefits	0	0	0	0	0	0
Total	**188**	**0**	**188**	**0**	**188**	**188**
Variable compensation (one-year)	0	0	80	0	160	0
Share-based compensation (ESOP)	0	0	22	0	22	22
Total	**188**	**0**	**289**	**0**	**369**	**209**
Pension expense	37	0	37	0	37	37
Total compensation	**225**	**0**	**327**	**0**	**407**	**247**

Frank Goebel, CFO until 31.12.2018

	Received		Granted			
€ thousand	2018/19	2017/18	2018/19	2017/18	2018/19 (max.)	2018/19 (min.)
Fixed compensation	53	210	53	210	53	53
Ancillary benefits	0	0	0	0	0	0
Total	**53**	**210**	**53**	**210**	**53**	**53**
Variable compensation (one-year)	38	10	8	30	8	8
Share-based compensation (ESOP)	0	0	0	0	0	0
Total	**90**	**220**	**60**	**240**	**61**	**61**
Pension expense	6	25	6	25	6	6
Total compensation	**96**	**245**	**66**	**265**	**67**	**67**

Supervisory Board compensation

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

The following table shows the cash compensation of the Supervisory Board for the 2018/19 financial year:

TABLE 04.11 **CASH COMPENSATION OF THE SUPERVISORY BOARD**

€ thousand

Supervisory Board members	Fixed compensation	Allowance for special functions	Meeting fees	Total compensation
Dr. Georg Kellinghusen	23	23	24	71
Dr. Ludger Müller[6]	13	7	10	30
Dr. Martin B. Jager	23	15	23	61
Dr. Michael Majerus[7]	8	8	11	27
Prof. Dr. Bernhard Hauer[7]	8	0	6	14
Dr. Anna C. Eichhorn	15	15	11	41
Dr. Rainer Marquart	15	0	11	26
Christian Körfgen[6]	7	0	4	11
Total	**113**	**68**	**98**	**279**

Until he stepped down from his position in March 2019, Supervisory Board Chairman Dr. Ludger Müller waived his entitlement to remuneration as Nomination Committee chair. This waiver applies as long as he is also Supervisory Board Chairman and Personnel Committee chair and until revoked.

6 Until 7 March 2019.
7 From 7 March 2019.

Shares held Management and Supervisory boards

As at 30 September 2019, the Management Board members held 759,166 ordinary shares of BRAIN AG and the Supervisory Board members held 23,581 ordinary shares of BRAIN AG.

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

Directors' dealings

In the 2018/19 financial year, the company was notified of the following transactions by persons with managerial responsibilities pursuant to Article 19 Regulation (EU) No. 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (MAR):[8]

TABLE 04.12 **DIRECTORS' DEALINGS**

Name	Date	Number	Average price	Total volume
Dr. Georg Kellinghusen	13.03.2019	+ 10,000	€ 10.77	€ 107,725
Manfred Bender	14.03.2019	+ 5,000	€ 10.96	€ 54,801

8 The details of the transactions can be viewed on the BRAIN AG website.

Events after the reporting date

Change at the top of the Management Board – Adriaan Moelker takes over from Dr. Jürgen Eck

On 2 December 2019, BRAIN AG announced that Management Board Chairman (Chief Executive Officer) Dr. Jürgen Eck would step down from his position on the Management Board with effect from 31 December 2019, and would leave the company by mutual agreement. Dr. Eck will continue to be available to BRAIN as a consultant and will advise it especially on new product development lines. With this announcement, the company also notified that Mr. Adriaan (Aryan) Moelker is to be appointed to the Management Board with effect from 1 February 2020 and is to be appointed the future Chairman of the Management Board (CEO). A specific financial impact on the company's financial position and performance cannot be gauged. However, the Management Board assumes that Mr. Moelker's expertise will make an important contribution to the industrial scaling of the product development lines.

Conclusion of a long-term loan facility

On 11 December 2019, the company concluded a loan facility that gives the Management Board greater flexibility in investing in the company's own development projects. Under this loan agreement, BRAIN AG can draw down an amount of up to € 7.0 million over a period of up to 3.5 years.

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, as well as in the context of its own research and development.

The original expectation of a positive business trend during the financial year under review, including a significant increase in revenue and a continued negative, albeit better, adjusted EBITDA, was fulfilled in the past financial year. Both revenue and adjusted EBITDA improved significantly.

For the 2019/20 financial year, the Management Board anticipates a positive business trend, with a significant increase in organic revenue[9] and an equally significantly better, albeit continued negative, adjusted EBITDA at Group level. Given a clear uptrend in both operating segments, an improved, positive EBITDA is expected for the BioIndustrial segment, and a continued negative adjusted EBITDA for the BioScience segment. The anticipated considerable growth in revenue is expected for both operating segments. This forecast improvement already reflects the fact that Monteil Cosmetics International GmbH, which has been divested, will no longer contribute to Group revenue. Monteil Cosmetics International GmbH accounted for € 1.6 million of revenue in the 2018/19 financial year. As a consequence, the growth reported in the statement of comprehensive income will be lower than the organic growth actually achieved.

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

As in the previous year, these forecasts are based on the assumption that macroeconomic and sector-related conditions for industrial biotechnology in 2019/20 develop positively as described in the section entitled "Macroeconomic and sector-related conditions", that potential projects are not discontinued to a significant extent, and that new cooperation partners can be acquired for new projects.

9 Due to the reduced dependence on grants, the Management Board of BRAIN AG has decided to apply revenue as a control parameter from the coming financial year.

Report on risks and opportunities

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

1 Risk management at BRAIN AG

Introduction

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

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

2 Report on risks and opportunities

Risk Management System (RMS)

Characteristics of the RMS

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

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

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

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

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

The RMS, which undergoes constant further development, has integrated previous years' experience in its identification and management of risks. The effects of the risks as presented in the following risk and opportunities report are reported as annual risks. The evaluation of the presented risks relates to the 30 September 2019 reporting date, and was prepared from a survey in the divisions shortly before the reporting date.

Apart from the transactions presented in the section entitled "Financing of option liabilities", no relevant changes occurred after the balance sheet date that might have necessitated a modified presentation of the Group risk position.

Risk identification

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

Risk evaluation

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

TABLE 04.13 **LIKELIHOOD OF OCCURRING WITHIN THE NEXT TWO YEARS**

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

TABLE 04.14 **DEGREE OF IMPACT**

Impact score	Note	EBITDA 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 thousand
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 BRAIN's forecast EBITDA.

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

TABLE 04.15 **RISK SCORE**

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

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

"High" risk class (risk measure above 40 points)
Risks within this class exhibit, for example, a high likelihood of occurrence combined with a major impact on the Group.

"Medium" risk class (risk measure between 11 and 40 points)
Risks within this class exhibit, for example, a low likelihood of occurrence combined with a major impact, or a high likelihood of occurrence in combination with a low impact, on the Group.

"Low" risk class (risk measure below 11 points)
Risks within this class exhibit, for example, a low likelihood of occurrence combined with a minor impact on the Group.

Risk management and monitoring

BRAIN deploys various measures to manage risks.

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

Further information about specific risk strategies applied is presented in Section 2, "Assessment of opportunities and risks in overall presentation".

Identified risks are regularly reviewed and discussed at BRAIN. In this way, specific countermeasures can be implemented at short notice if required.

Reporting

The Management Board is informed on a half-yearly basis 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 unexpectedly arise or are discovered. The Supervisory Board is informed by the Management Board where required.

Accounting-related internal control system

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

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

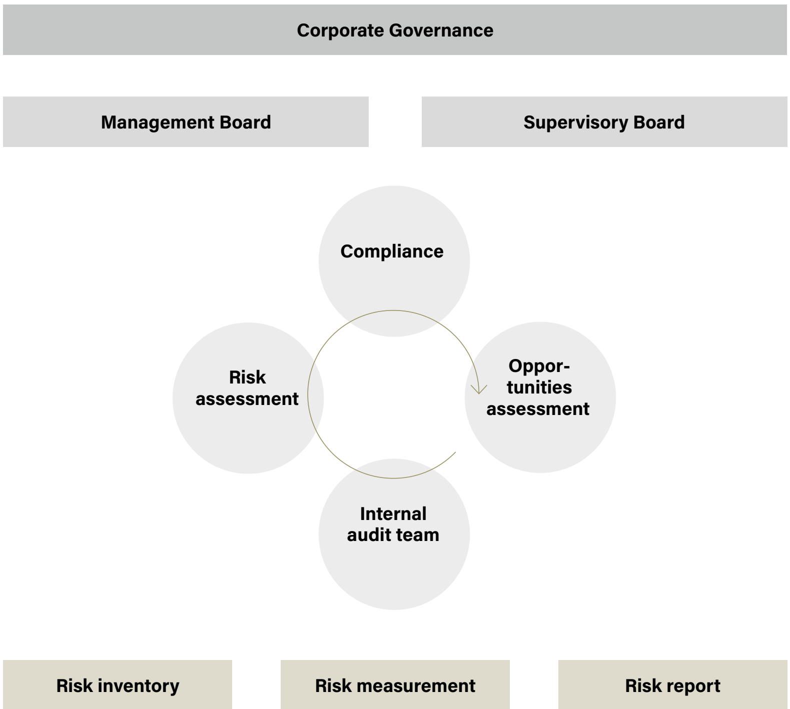
Business transactions within the Group are appraised in accounting terms based on standard Group accounting guidelines. The head of finance of BRAIN AG with the support of external service providers converts financial statements prepared according to commercial-law accounting standards to IFRS financial reporting standards (quarterly), and prepares the separate annual financial statements of BRAIN AG as well as the consolidated financial statements. The independent auditor appointed by the AGM audits both the separate and the consolidated annual financial statements. Significant risks for the financial accounting process are monitored and evaluated based on the risk classes specified below, and applying their individual risk classification. Requisite controls are defined and subsequently implemented.

The separate annual financial statements and the consolidated financial statements of BRAIN AG are submitted to the Supervisory Board of BRAIN AG for approval. At least one Supervisory Board member is an independent financial expert in the meaning of Section

100 (5) of the German Stock Corporation Act (AktG). The Supervisory Board's Audit Committee monitors the financial accounting process and the auditing of financial statements.

The accounting-related internal control system ensures that the financial accounting process complies with German commercial-law (HGB) regulations and International Financial Reporting Standards (IFRS).

FIGURE 04.6 **RISK MANAGEMENT SYSTEM**



3 Assessment of opportunities and risks in overall presentation

Business-related risks

Growth risk

Given BRAIN's planned growth and need to hold resources ready for expansion, risks exist in relation to a lower growth rate, and consequently potential negative effects on the operating result. The risk exists of being unable to find sufficient customers or cooperation partners. Macroeconomic trends or relationships with existing customers could deteriorate, and the markets that are to be served might diminish in terms of volume or attractiveness. This could lead to BRAIN achieving lower growth long-term or to reduced earnings. In addition, the risk exists that costs are higher than budgeted, or that developments require more time. As a consequence, BRAIN's growth could be delayed and positive operating results might not be achieved until later than planned.

Compared to the previous year, the risk is considered to be lower due to the positive business performance in the 2018/19 financial year and on the basis of the expected business trend. This risk concerns both of BRAIN's operating segments, BioScience and BioIndustrial. This characteristic is gauged as a "medium risk", as in the previous year.

Risks from research and development

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

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

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

Overall, this risk has decreased slightly compared to the previous year, as a high level of innovation was again demonstrated in the financial year under review, and various projects have progressed very successfully. In addition, various new projects with various international partners were completed. As in the previous year, a "medium risk" exists here that especially relates to the BioScience segment. Indirectly, the BioIndustrial segment is affected to the extent that the products developed in the BioScience segment are generally to be sold via companies in the BioIndustrial segment.

Material damage to the BioArchive or research results

The Group's bioarchives, which are physically available mainly at BRAIN AG and at AnalytiCon Discovery GmbH, comprise a significant asset. Physical loss of the archives is minimized through numerous measures. A redundant setup exists at various locations, as well as a security concept, and staff are trained in archive handling and management.

An insurance concept also exists to cover most of the potential costs to remedy potential losses, however. The physical measures as well as the insurance concept undergo constant review and are continuously updated to reduce the risk to BRAIN even further.

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

It remains the case that individual research results could also be destroyed by external circumstances. However, these are sufficiently covered by various measures such as emergency power supplies. Various measures to safeguard the BioArchive continued to be implemented during the past financial year. As in the previous year, a "medium risk" nevertheless exists overall, especially in relation to the BioScience segment. However, the risk has reduced slightly compared with the previous year.

Product liability

In its BioIndustrial area, BRAIN supplies products directly to customers. Accordingly, the risk also exists of being liable for such products. As the product range differs widely, the related risk is also to be appraised differently. In the area of cosmetics, as well as when delivering enzymes, defective products could entail liability cases for BRAIN's results. This risk is continuously monitored by internal and external partners. To date, no significant product liability cases have occurred.

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

Financial risks

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

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

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

This concerns both operating segments, BioScience and BioIndustrial. This risk is gauged as a "medium risk", as in the previous year.

Goodwill impairment/valuation of investments

This financial risk relates to both segments. Given unfavorable future trends, financial risks to be categorized as "medium risk" might entail impairment losses on acquired goodwill and other intangible assets. An impairment of € 1.8 million was identified in relation to the goodwill of Monteil Cosmetics International GmbH, Oestrich-Winkel, Germany, in the financial year under review. This impairment arose in connection with the divestiture of this majority interest. Compared to the previous year, the risk of further impairment has decreased slightly, as the risk of impairment in relation to Monteil Cosmetics International GmbH was the highest. In the case of other cash-generating units, the sensitivities exhibit a lower risk of potential impairment. Further information on this topic is presented in the section entitled "Impairment tests" in the notes to the consolidated financial statements.

Financing of option liabilities

As at 30 September 2019, BRAIN holds € 15.2 million of cash. The risk exists that liquidity would be significantly affected if put options were to be exercised by the non-controlling interests of the newly acquired Biocatalysts Group. This would necessitate the initiation of liquidity assurance measures, such as in the form of capital increases. Based on the incentive provided to the non-controlling interests by rising EBITDA multiples, the earlier exercise of the option rights would be financially unfeasible, and is consequently considered particularly unlikely in the two-year observation period. Furthermore, BRAIN has a loan facility of € 7.0 million, which was not granted until after 30 September 2019. This loan facility gives the Group additional flexibility in relation to various projects and investment options. As in the previous year, this risk is consequently categorized overall as a "medium risk" and relates to the BioScience segment.

Legal risks

BRAIN generally endeavors to avoid legal risks, and 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 coming years (e.g. in fiscal, capital market or other legal regulations). The likelihood that legislation in an area changes is high. The effects on business results cannot be estimated, although they would affect the entire industry. This would also then affect compliance rules that would need to be newly prepared.

IP risks

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

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

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

General legal risks

Due to the increasing industrialization and internationalization of BRAIN's business, the risk of litigation with an international corporate group is also increasing. BRAIN currently appraises the probability that contractual risks will lead to litigation as low. A lawsuit would exert a negative effect on results. Quantification cannot be estimated at present as no significant litigation exists.

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

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

Risks from acquiring and integrating companies and parts of companies

Due to last year's acquisition of the Biocatalysts Group, opportunities and risks from the acquired company's business operations transferred to BRAIN. The integration of the Biocatalysts Group into the BRAIN Group proved to be very successful. The product portfolio forms a good fit with that of WeissBioTech, Ascheberg, enabling extensive synergy effects to be leveraged in interaction with the research of BRAIN AG. The Biocatalysts Group complements BRAIN with its own product development and marketing expertise. In terms of finance, integration into the Group's reporting systems also progressed well. At present, the company is not aware of any further potential risks from the transaction, above and beyond the business risks associated with the operations of the Biocatalysts Group, and the financial risks in connection with the option obligations to existing non-controlling interests (put obligation). This risk, which is now categorized as "low risk", continues to affect both segments.

Due to the Group's expansion, an analysis was also conducted as to whether a possible withdrawal of the United Kingdom from the EU (hereinafter referred to as "Brexit") would exert an impact on BRAIN's risk position. This assessment has not changed significantly compared to the previous year, as the uncertainties remain unchanged.

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

The company also analyzed the extent to which foreign currency transactions could become subject to risk due to a potentially weaker pound sterling. In general, it is to be noted that potential disadvantages emanating from a weaker pound sterling cannot be ruled out completely. Compared to the previous year's reporting date, the exchange rate has changed to only an insignificant extent to date.

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

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

Other risks

Personnel

Overall, BRAIN has very well-trained personnel who constantly accrue further expertise in the context of the company's operating activities. Recent years' trends show that some positions can be filled only at great expense due to a lack of skilled staff, especially qualified scientists, engineers and laboratory staff. In some instances, we note that competitors have significantly higher salary structures. This creates the risk that qualified staff might defect to competitors if financial and non-financial incentives were to prove inadequate. A bonus program for BRAIN AG staff was set as early as the 2015/16 financial year in order to provide incentive payments. This program is subject to annual approval by the Management Board.

The risk of loss of key knowledge holders is unchanged compared with the previous year, and continues to represent a "medium risk" for BRAIN. This risk concerns both operating segments, although mainly the BioScience segment.

Environment

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

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

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

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

BRAIN evaluated a total of 48 risks. Of these risks, 27 risks are to be categorized as “medium risks”, and are aggregated in the 12 risk classes listed above (BioScience and BioIndustrial). A total of 21 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[10] are either not deployed, or deployed only to an extent that is insignificant in order to assess the Group's position or prospective development. For further information, please refer to the "Risk management" section in the notes to the consolidated financial statements.

Report on opportunities

Opportunities arising from research and development

BioScience segment

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

Some significant examples include:

Woundcare

Chronic wounds place a heavy burden on health systems in all industrialized nations due to the long duration of treatment. This effect will continue to increase in the coming decades as in line with demographic trends. As part of a self-financed research project, BRAIN has discovered an enzyme with which fly maggots as parasites liquefy the wound coating of chronic wounds in the context of maggot therapy, and has developed a related biotechnology production process. The cleaning of chronic wounds is the first step in therapy, and is often responsible for the extended treatment time. The project was spun off within SolasCure Ltd. and, together with the external investor involvement, is to transfer to clinical trials. BRAIN has the opportunity to participate in the project's success by providing the active ingredient as well as through an appreciation in the company's value.

Green & urban Mining

Although e-waste contains increasingly less metal, it is accumulating in ever larger quantities. At the same time, previous bulk buyers such as China have imposed import bans and, as part of "Fridays for Future", the call for sustainable resource utilization is becoming louder and louder. With EU funding support, BRAIN has expanded its demonstration plant for biobased metal extraction in Zwingenberg, the BioXtractor, to include a biocompatible physical processing plant. With this, BRAIN intends to further expand its business potential in the green & urban mining area. The new plant concept will also make it possible to treat waste streams with a low precious metal content in a sustainable and cost-effective manner. BRAIN is thereby partially creating new markets and can leverage significant potentials if successful.

Probiotic products

In the dietary supplements area, probiotics represent the category offering the highest growth prospects. The requirements that the market makes of products are about to change. Changing consumer preferences (e.g. no capsules to swallow) are increasing the demands made in relation to technical stability, while the selection of candidates will become increasingly

10 Defined as purchase transactions, exchange transactions or otherwise endowed fixed or option transactions that are to be settled with a time delay and whose value is derived from the price or measure of an underlying asset, especially relating to the following underlying assets: foreign exchange, interest rates, securities, commodity prices and indices related to these underlying assets as well as other financial indices. Financial assets are not deployed as risk management instruments. The Group's loans serve to finance Group activities and avoid liquidity risks.

less based on traditional experience and to a greater extent based on knowledge concerning the molecular mode of action. Likewise, greater requirements in terms of safety verification are to be expected from the regulatory side. These developments offer BRAIN numerous opportunities to position itself as an enabler in an attractive growth market on the basis of its established capacity in the microbial performance area.

Fermented food

Fermented foods are more than just another "superfood" trend. They rightly form a focus for health-conscious consumers, as they score points in many areas: no need for preservatives, upgrading/digestibility of plant-based staple foods, discovery of ever new health-promoting ingredients and a virtually unlimited wealth of new taste experiences. Thanks to its biological and technological resources, BRAIN can perfectly meet market demand for new, safe and functionally characterized starter cultures. The BRAIN Group has the opportunity to act as both an innovator and a manufacturing company, and not only participate in an attractive market (volume predicted for 2025: US$ 1.3 billion), but also develop completely new product categories.

Business-related opportunities

BioIndustrial segment

Through its forward integration in the BioIndustrial area, which was intensified in the previous year, BRAIN has enhanced its opportunity to participate in the value chain in the direction of the customer. The significant growth in the past financial year has shown that this strategy is paying off. BRAIN has the opportunity to continue along this path and significantly improve its revenues and results. This represents a consistent step from being a research company to becoming an industrial company. Integration offers the company the possibility to act not only as an innovator but also as a manufacturing firm.

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

The following information reflects the circumstances as at the 30 September 2019 reporting date.

Composition of subscribed share capital (No. 1)

The share capital of BRAIN AG amounts to € 18,055,782 on the reporting date. The share capital is divided into 18,055,782 ordinary shares, to each of which a proportional amount of the share capital of € 1.00 is attributable. The shares are fully paid-in registered shares. The company holds no treasury shares on the reporting date.

Restrictions affecting voting rights or transfer of shares (No. 2)

The company's Management Board is not aware of any restrictions affecting voting rights or the transfer of shares, including those potentially deriving from agreements between shareholders.

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

MP Beteiligungs-GmbH, Kaiserslautern, holds an approximately 38 % interest in the company's share capital as at 30 September 2019. As at 30 September 2019, no further shareholders existed with interests of more than 10 % in the voting rights.

Holders of shares with special rights (No. 4)

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

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

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

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

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

Rules concerning amendments to the bylaws (No. 6)

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

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

BRAIN AG has the following authorized and conditional capital:

Authorized capital

With an AGM resolution on 8 March 2018, authorized capital of € 9,027,891 was created (Authorized Capital 2018/I). Authorized Capital 2018/I was entered in the commercial register on 23 March 2018. The Management Board was authorized, with Supervisory Board assent, to increase the company's share capital in the period until 7 March 2023, once or on several occasions, albeit by a maximum of up to a nominal amount of € 9,027,891 through issuing up to 9,027,891 new ordinary registered shares against cash or non-cash capital contributions, whereby shareholders' statutory subscription rights can be wholly or 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 % of the share capital.

Accordingly, authorized capital of € 9,027,891 was reported as at the 30 September 2019 reporting date.

Conditional capital

Pursuant to Section 5 (3), (4) and (5) 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 € 123,000 through issuing up to 123,000 new ordinary registered shares (Conditional Capital 2015/II), and through issuing up to 1,682,578 new ordinary registered shares (Conditional Capital 2019/I).

Conditional Capital 2015/I serves exclusively to grant shares to the holders of bonds with warrants and convertible bonds that the company issues based on the authorization of the Management Board by way of AGM resolution passed on 8 July 2015. The conditional capital increase is to be implemented through issuing up to 5,090,328 new ordinary registered shares only to the extent that the holders of convertible bonds and/or bonds with warrants utilize their conversion rights or warrant rights, or the holders of convertible bonds that are obligated to convert satisfy their obligation to convert, and to the extent that other forms of satisfaction are not deployed to service the bonds. An increase in the share capital from Conditional Capital 2015/I had not been implemented as at the 30 September 2019 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 123,000 stock options that carry subscription rights to shares of BRAIN AG with a term of up to eight years – to the members of the company's Management Board, members of affiliated companies' management boards, as well as managers and other company employees in senior positions. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilize them, and the company does not grant treasury shares or cash settlement to satisfy these subscription rights. An increase in the share capital from Conditional Capital 2015/II had not been implemented as at the 30 September 2019 reporting date. At the Annual General Meeting on 7 March 2019, Conditional Capital 2015/II was reduced from originally € 1,272,581 to € 123,000, as this capital was to remain exclusively for hedging stock options already issued. The authorization to issue further stock options from Conditional Capital 2015/II was revoked at the same Annual General Meeting and replaced by a new authorization (see following section).

By resolution of the Annual General Meeting on 7 March 2019, the share capital was conditionally increased by € 1,682,578 through the issue of up to 1,682,578 new no-par-value registered shares (Conditional Capital 2019/I). The conditional capital serves exclusively to service subscription rights from stock options granted to members of the company's Management Board and other senior company executives. The Management Board is authorized, with the approval of the Supervisory Board, to determine the further details of the implementation of the conditional capital increase. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilize them, and the company does not grant treasury shares or cash settlement to satisfy these subscription rights. An increase in the share capital from Conditional Capital 2019/I had not been implemented as at the 30 September 2019 reporting date.

Stock options

An AGM resolution dated 7 March 2019 authorized the Management Board, with Supervisory Board approval, to issue as part of a stock option plan until 12 March 2027 up to 1,682,578 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 grants the right to subscribe for one share according to further provisions. As far as issuing shares to members of the Management Board of BRAIN AG is concerned, this authorization is valid for the Supervisory Board alone. The AGM conditionally increased the share capital by € 1,682,578 to hedge and service the stock options (Conditional Capital 2019/I).

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 HGB.

Corporate governance statement of conformity pursuant to Section 289 f and Section 315 d of the German Commercial Code (HGB)

The corporate governance statement of conformity of BRAIN AG pursuant to Section 289 f and Section 315 d of the German Commercial Code (HGB) is published on the website at www.brain-biotech.com/investors/corporate-governance.

Zwingenberg, 20 December 2019

Dr. Jürgen Eck
CEO

Manfred Bender
CFO

Ludger Roedder
Management Board member

Responsibility statement

We hereby declare that, to the best of our knowledge, the consolidated financial statements convey a true and fair view of the Group's financial position and performance in accordance with applicable accounting principles, the progress of business including the business results and the Group's position are presented in the Group management report so as to convey a true and fair view, and the significant opportunities and risks pertaining to the Group's prospective development are described.

02

Consolidated financial statements

TABLE 05.1 **CONSOLIDATED BALANCE SHEET AS OF 30 SEPTEMBER 2019**

€ thousand	Note	30.09.2019	30.09.2018 adjusted*
Non-current assets			
Intangible assets	[12]	15,794	19,075
Property, plant, and equipment	[13]	17,144	12,042
Equity-accounted investments	[14]	1,438	1,984
Other non-current assets	[18]	791	347
		35,167	**33,448**
Current assets			
Inventories	[15]	8,032	8,037
Trade receivables	[16]	6,388	6,451
Other current assets	[18]	1,154	672
Current tax assets	[10]	10	57
Other financial assets	[17]	213	260
Cash and cash equivalents	[19]	15,160	25,539
		30,957	**41,016**
ASSETS		**66,123**	**74,464**
Equity	**[20]**		
Subscribed capital		18,056	18,056
Capital reserves		64,806	64,606
Retained earnings		–70,648	–59,133
Other reserves		20	–1
		12,234	**23,528**
Non-controlling interests		4,857	4,884
Total equity		**17,091**	**28,412**
Non-current liabilities			
Deferred tax	[10]	2,593	2,887
Provisions for post-employment benefits for employees	[5]	4,563	3,622
Financial liabilities	[21]	24,775	25,353
Other liabilities	[22]	764	1,355
Deferred income	[23]	1,466	1,862
		34,160	**35,078**
Current liabilities			
Provisions	[24]	381	512
Tax liabilities	[10]	784	618
Financial liabilities	[21]	3,603	2,442
Prepayments received	[25]	170	41
Trade payables	[26]	4,428	2,872
Other liabilities	[22]	2,919	3,017
Deferred income	[23]	2,588	1,471
		14,873	**10,973**
EQUITY AND LIABILITIES		**66,123**	**74,464**

* Figures partly adjusted. See the section "IAS corrections" in the notes to the consolidated financial statements.

TABLE 05.2 **CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE PERIOD 1 OCTOBER 2018 – 30 SEPTEMBER 2019**

€ thousand	Note	FY 2018/19 01.10.2018 – 30.09.2019	FY 2017/18 01.10.2017 – 30.09.2018 adjusted*
Revenue	[1]	38,560	27,051
Research and development grant revenue	[2]	1,486	2,000
Change in inventories of unfinished and finished goods and work in progress		–54	296
Other income	[3]	1,238	1,122
Total operating performance		**41,231**	**30,469**
Cost of materials	**[4]**		
Cost of raw materials, consumables and supplies, and purchased merchandise		–14,317	–11,700
Cost of purchased services		–3,075	–2,256
		–17,393	**–13,956**
Personnel expenses	**[5]**		
Wages and salaries		–14,544	–12,421
Share-based employee compensation		–266	–41
Social security and post-employment benefit costs		–2,804	–2,422
		–17,615	**–14,884**
Other expenses	[7]	–8,694	–8,182
EBITDA		**–2,470**	**–6,553**
Depreciation, amortization and impairment	[6]	–4,702	–3,012
Operating result (EBIT)		**–7,172**	**–9,565**
Share of profit or loss from equity-accounted investments	[14]	–1,788	–77
Finance income	[8]	940	1,662
Finance costs	[9]	–2,466	–387
Net financial result		**–3,314**	**1,198**
Pretax loss for the reporting period		**–10,486**	**–8,367**
Income tax expense/income	**[10]**		
a) Current tax expense		–319	–179
b) Deferred tax expense/income		310	406
		–9	227
Net loss for the reporting period		**–10,495**	**–8,141**
of which attributable to non-controlling interests		–19	–223
of which attributable to the shareholders of BRAIN AG		–10,476	–7,917
Earnings per share	**[11]**		
Earnings per share, basic undiluted (in €)		–0.58	–0.44
Number of shares taken as basis		18,055,782	18,055,782
Earnings per share, diluted (in €)		–0.58	–0.44
Number of shares taken as basis		18,055,782	18,055,782

* Figures partly adjusted. See the section "IAS corrections" in the notes to the consolidated financial statements.

€ thousand	Note	FY 2018/19 01.10.2018 – 30.09.2019	FY 2017/18 01.10.2017 – 30.09.2018 adjusted*
Net loss for the reporting period		**–10,495**	**–8,141**
of which attributable to non-controlling interests		–19	–223
of which attributable to the shareholders of BRAIN AG		–10,476	–7,917
Other comprehensive income:			
Net gain or loss from revaluing obligations from post-employment employee benefits**	[5]	–990	–100
Deferred tax**		0	0
Differences from the translation of foreign-currency financing instruments		132	118
Differences from the translation of foreign operations		–135	–163
Other comprehensive income, net		–993	–145
Consolidated total comprehensive income (loss)		**–11,488**	**–8,286**
of which attributable to non-controlling interests		–43	–268
of which attributable to the shareholders of BRAIN AG		–11,445	–8,018

* Figures partly adjusted. See the section "IAS corrections" in the notes to the consolidated financial statements.
** Items that will not be subsequently reclassified to profit or loss.

TABLE 05.3 **CONSOLIDATED STATEMENT OF CHANGES IN EQUITY FOR THE 2018/19 FINANCIAL YEAR**

Note (20)	Interests of shareholders of BRAIN AG						Non-controlling interests	
	Subscribed capital	Capital reserves	Retained earnings adjusted*	Other reserves		Total	Total	Total
€ thousand				Pension plans	Currency translation			
Balance at 30 September 2017	**18,056**	**77,950**	**–47,736**	**–1,090**	**0**	**47,180**	**182**	**47,362**
IAS 8 adjustment	0	0	–3,380	1,090	0	–2,291	0	–2,290
Balance at 1 October 2017	**18,056**	**77,950**	**–51,116**	**0**	**0**	**44,890**	**182**	**45,072**
Net loss for the reporting period	*0*	*0*	*–7,917*	*0*	*0*	*–7,917*	*–224*	*–8,141*
Other comprehensive income	*0*	*0*	*–101*	*0*	*–1*	*–102*	*–44*	*–145*
Total comprehensive income (loss)	0	0	–8,018	0	–1	–8,019	–268	–8,286
Addition of non-controlling interests as part of the acquisition of fully consolidated Group companies	0	0	0	0	0	0	4,970	4,970
Addition of liability from put/call agreement relating to the acquisition of non-controlling interests in fully consolidated Group companies	0	–13,384	0	0	0	–13,384	0	–13,384
Transfers due to employee share scheme	0	41	0	0	0	41	0	41
Balance at 30 September 2018	**18,056**	**64,606**	**–59,133**	**0**	**–1**	**23,528**	**4,884**	**28,412**
Effects from first-time application of IFRS 9	0	0	–34	0	0	–34	0	–34
Balance at 1 October 2018	**18,056**	**64,606**	**–59,167**	**0**	**–1**	**23,494**	**4,884**	**28,378**
Net loss for the reporting period	*0*	*0*	*–10,476*	*0*	*21*	*–10,455*	*–40*	*–10,495*
Other comprehensive income	*0*	*0*	*–990*	*0*	*0*	*–990*	*–3*	*–993*
Total comprehensive income (loss)	0	0	–11,466	0	21	–11,445	–43	–11,488
Effects from the disposal of fully consolidated Group companies	0	0	–15	0	0	–15	15	0
Transfers due to employee share scheme	0	200	0	0	0	200	0	200
Balance at 30 September 2019	**18,056**	**64,806**	**–70,648**	**0**	**20**	**12,234**	**4,857**	**17,091**

* Figures partly adjusted. See the section "IAS corrections" in the notes to the consolidated financial statements.

TABLE 05.4 **CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE PERIOD 1 OCTOBER 2018 – 30 SEPTEMBER 2019**

€ thousand	FY 2018/19 01.10.2018 – 30.09.2019	FY 2017/18 01.10.2017 – 30.09.2018 adjusted*
Net profit (/loss) for the period, after tax	–10,495	–8,141
Depreciation, amortization and impairment	4,702	3,012
Deferred tax expense	–310	–406
Conversion of deferred income into revenue	–3,152	–2,321
Income from release of provisions and liabilities	–156	–334
Share of profit or loss from equity-accounted investments	1,788	77
Change in net pension provisions recognised in profit or loss	–49	–48
Other non-cash expenses and income	1,419	–861
Losses on disposals of intangible assets and property, plant and equipment	–3	2
Gross cash flow	**–6,257**	**–9,020**
Change in trade receivables	–243	1,349
Change in inventories	–874	239
Change in tax assets and liabilities	237	–519
Change in other assets and financial assets	–552	422
Change in trade payables	1,686	–90
Change in prepayments	172	7
Change in provisions and other liabilities	–623	–526
Additions from deferred income	3,073	2,721
Cash flows from operating activities	**–3,380**	**–5,418**
Net cash outflows for acquisitions of companies (less cash and cash equivalents acquired)	0	–10,483
Net cash inflows from disposals of companies (less cash and cash equivalents divested)	–69	0
Payments to acquire intangible assets	–21	–74
Payments to acquire property, plant and equipment	–6,616	–1,268
Net cash flows relating to other non-current assets	–46	–245
Investments in equity-accounted shareholdings	0	–560
Proceeds from disposal of property, plant and equipment	9	10
Cash flows from investing activities	**–6,743**	**–12,620**
Proceeds from borrowings	1,663	5,551
Repayments of borrowings	–1,945	–893
Proceeds from shareholders' cash capital increases	6	0
Cash flows from financing activities	**–276**	**4,659**
Net change in cash and cash equivalents	**–10,400**	**–13,379**
Cash and cash equivalents at start of financial year	25,539	38,954
Exchange-rate-related change in cash	21	–36
Cash and cash equivalents at end of financial year	**15,160**	**25,539**
Cash flows from operating activities include:		
Interest paid	–430	–323
Interest received	10	26
Income taxes paid	–224	–672
Income taxes received	27	29

* Figures partly adjusted. See the section "IAS corrections" in the notes to the consolidated financial statements.

Notes

I. General Information

General information about the company

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

BRAIN AG is a technology company active in the industrial ("white") biotechnology area. As a partner for manufacturers in a range of sectors, including the chemical and consumer goods industries, it develops novel biological ingredients, especially enzymes, biocatalysts and bioactive natural compounds. Moreover, the BRAIN Group (hereinafter also referred to as "BRAIN", "the Group" or "the BRAIN Group") also identifies and develops its own product candidates. BRAIN has a comprehensive research and development infrastructure at the location of BRAIN AG in Zwingenberg, and at the location of the subsidiary AnalytiCon Discovery GmbH in Potsdam, with the latter focusing on natural compounds. Special production expertise and market access is offered by further subsidiaries, including for enzyme products by WeissBioTech GmbH, Ascheberg, and Biocatalysts Limited, Cardiff, UK. Markets for cosmetic active ingredients are addressed through L.A. Schmitt GmbH, Ludwigstadt, Germany. Moreover, as part of the spin-off SolasCure Ltd. based in Cardiff, UK, an enzyme for wound healing is to be approved for marketing.

Together with strategic partners from the target industry, BRAIN in its BioScience operating segment identifies – including based on exclusive license agreements in R&D cooperation programs, for example – hitherto untapped, high-performance enzymes, microbial producer organisms and natural compounds derived from complex biological systems, in order to transform them into industrial applications. The targets in terms of a "bioeconomy" are to replace conventional chemical-industrial processes with innovative, resource-conserving processes, as well as to establish new processes and products. The BioIndustrial segment mainly consists of its industrially scaled products business which focuses on enzyme and cosmetic products.

General basis of financial accounting

BRAIN AG has been listed on the stock market since 9 February 2016 and is oriented to the capital market. As a consequence, the regulations of Section 315e (1) of the German Commercial Code (HGB) are applicable when preparing the consolidated financial statements. The consolidated financial statements prepared by the parent company BRAIN AG for the year ending 30 September 2019 (the "consolidated financial statements" or "financial statements") were prepared in accordance with International Financial Reporting Standards (IFRS) 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 2018 to 30 September 2019. This period corresponds to the financial year of BRAIN AG. For historical reasons, the annual 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. The amounts in the disclosures in the notes to the consolidated financial statements are presented in thousands of euros unless stated otherwise. Rounding differences can arise due to commercial rounding.

These consolidated financial statements of BRAIN AG were approved by the Management Board for submission to the Supervisory Board on 9 December 2019. The review and approval by the Supervisory Board is to occur as of 20 December 2019.

New accounting regulations applied

For the first time, the Group has applied certain standards and amendments that are to be applied to financial years beginning on or after 1 October 2018. The Group has not voluntarily applied any other standards, interpretations or amendments, which, although published, are not yet effective.

Updated version of IFRS 9 – "Financial Instruments"

IFRS 9 provides regulations for the accounting treatment of financial instruments and replaces IAS 39 Financial Instruments: Recognition and Measurement and all previous versions of IFRS 9. IFRS 9 pursues a new approach for the classification and measurement of financial assets. Accordingly, the classification and measurement of financial assets are determined on the basis of the cash flow characteristics and the business model operated. The classification and measurement rules for financial liabilities have hardly changed as a consequence of IFRS 9. IFRS 9 was introduced at BRAIN AG applying the retrospective method without adjusting the comparative figures for the previous year.

Classification

Financial assets held within a business model, whose objective is to hold assets in order to collect contractual cash flows, are measured at amortized cost. If the business model provides for the recognition of contractual cash flows and the sale of financial assets, such assets are measured at fair value through equity. If neither of the two business models applies, or if the financial assets do not exclusively contain interest and principal payments, the financial assets are measured at fair value through profit or loss.

Investments in equity instruments are 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.

At BRAIN, loans and trade receivables continue to meet the criteria for recognition at amortized cost. Derivatives without a hedging relationship are measured at fair value through profit or loss in accordance with IFRS 9 and the result is reported under "Finance costs".

Measurement

IFRS 9 introduces a new impairment model applicable to all financial assets measured either at amortized cost or at fair value through profit or loss. This model provides for the recognition of expected credit losses at the time of initial recognition. This leads to an increase in risk provisions. For trade receivables, the simplified impairment model of IFRS 9 has been applied, which takes into account an expected credit loss over the lifetime of the respective financial assets. To assess the expected credit risk, receivables are grouped based on the existing credit risk and the respective term structure.

The effect of the new impairment model on trade receivables amounting to € 42 thousand was recognized directly in equity for the first time, so that accumulated impairment losses increased from € 143 thousand as at 30 September 2018 to € 185 thousand as at 1 October 2018.

Abbreviation	IFRS 9 measurement categories	
AC	Amortized cost	Available-for-sale financial assets and liabilities
AC	Amortized cost	Loans and receivables
FVTPL	Fair value through profit and loss	Financial assets and liabilities measured at fair value through profit or loss
FVTOCI	Fair value through other comprehensive income (FVTOCI) for debt	Fair value (market value) changes recognized directly in other comprehensive income (with recycling)
FVTOCI	Fair value through other comprehensive income (FVTOCI) for equity	Fair value (market value) changes recognized directly in other comprehensive income (without recycling)

Reconciliation: IFRS 9 – Classification and Measurement

€ thousand	IAS 39 measurement category	IAS 39 carrying amount 30.09.2018	Reclassifications	Not in IFRS 9 application scope	Measurement adjustments	IFRS 9 measurement category	IFRS 9 carrying amount 01.10.2018
Assets							
Trade receivables	LaR	6,451			–42	AC	6,409
Other current and non-current assets	LaR	252				AC	252
Other financial assets	LaR	301				AC	301
Cash and cash equivalents	LaR	25,539				AC	25,539
Total		32,543	0	0	–42		32,501
Liabilities							
Trade payables	OL	2,872				AC	2,872
Financial liabilities	OL	25,385				AC	25,385
Other liabilities	OL	155				AC	155
Total		28,412	0	0	0		28,412

The regulations governing the classification and measurement of financial liabilities in accordance with IFRS 9 are essentially in line with the previous regulations in IAS 39, so that this does not lead to any changes.

The Group deployed forward exchange contracts in the 2018/19 financial year. These were not designated as hedging instruments on the basis of IFRS 9. If hedges exist, the Group does not apply hedge accounting. For this reason, the new hedge accounting regulations had no significant effects on the financial position and performance of BRAIN AG.

The transition effects resulting from the first-time application led to a reduction of € 42 thousand in retained earnings as at 1 October 2018, excluding deferred tax.

Summary

The following table shows the reconciliation of the original IAS 39 measurement categories and carrying amounts of financial assets and liabilities as at 30 September 2018 to the new IFRS 9 measurement categories and carrying amounts as at 1 October 2018.

Below are presented the effects from the first-time application of IFRS 9 on the reserves as at 30 September 2018 and on the reserves as at 1 October 2018.

Effect on the reserves as at 30 September 2018 / 1 October 2018 in € thousand

Balance at 30 September 2018 (as reported)	**7,699**
Impairment losses applied to trade receivables	–42
IFRS 9 tax effect	8
Balance at 1 October 2018 (after adjustment)	**7,665**

IFRS 15 – "Revenue from Contracts with Customers", including published clarifications

The IFRS 15 regulations and definitions relating to revenue recognition replace the contents of both IAS 18, Revenue, and IAS 11, Construction Contracts, as well as related interpretations. Pursuant to IFRS 15, revenue is to be recognized if the customer attains control over the agreed goods and services, and can draw benefits from them. Revenue is to be measured at the amount of consideration that the company expects to receive. The new standard includes a five-step method to calculate revenue to be recognized:

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

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

BRAIN AG applied the provisions of IFRS 15 for the first time from the financial year beginning on 1 October 2018. The modified retrospective method was selected for the transition to IFRS 15. Under the modified retrospective method, the cumulative adjustment amounts from the first-time adoption are recognized in retained earnings with no effect on profit or loss. Comparative figures and prior-year periods are not adjusted under this transition method. The option for simplified initial application was also utilized, with IFRS 15 being applied solely to contracts that had not yet been fulfilled as at 1 October 2018.

The first-time application of IFRS 15 did not lead to a material need for retrospective adjustments within the Group. The main effects concern the disclosures to be made in the notes to the financial statements. In accordance with the option under IFRS 15.109, contractual liabilities continue to be reported on the balance sheet as deferred income and are disclosed in the notes to the consolidated financial statements. As at 30 September 2019, current contract liabilities under current deferred income amounted to € 727 thousand and non-current contract liabilities under non-current deferred income amounted to € 2,580 thousand. These items are disclosed separately in the section (23) Deferred income.

BioScience

The first-time application of IFRS 15, and the related evaluation of the accounting treatment of research, development and licensing agreements, necessitated several discretionary decisions. The initial analysis was the extent to which such agreements fall within the application scope of IFRS 15. An analysis was subsequently performed in order to establish whether the promises identified result in individual performance obligations and how they are satisfied (at a point in time or over time). In addition, the determination of the transaction price required discretionary decisions and estimates in light of uncertainties typical of the sector, which are associated with future milestone and license payments. These discretionary decisions relate to the valuation of the inclusion of milestone payments in the transaction price. Accordingly, milestones are included in the transaction price if it is highly probable that the milestone will be reached. However, this usually contradicts the concept of milestone payments, which represent a remuneration for certain achievements within a project. One-off prepaid license payments are recognized immediately if the license grants a right-of-use, and the licensed technology is not developed further (static licenses). One-off prepaid license payments are realized over time if and to the extent that the license grants access rights to the technology, and the licensed technology is developed further (dynamic licenses). License income from royalties will continue to be recognized when the relevant products are sold. No changes occurred to the previous accounting treatment of revenue from research and development projects, as BRAIN recognizes revenue in propotion to the service delivered.

The first-time application of IFRS 15 does not have any significant effects on the Group's revenues or net income in relation to existing research, development and license agreements.

BioIndustrial

Under IFRS 15, revenue from product sales is recognized when control over the products transfers to the customer. As previously, this will continue to occur when the product is delivered to the customer.

Due to the generally simply structured contracts and typically short contract terms, the application of IFRS 15 does not have a significant effect on the Group's revenues or results.

Amendment to IFRS 4: Applying IFRS 9 "Financial Instruments" with IFRS 4 "Insurance Contracts":
To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.

Amendments to IFRS 2: "Classification and Measurement of Share-based Payments":
To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.

IFRIC 22: "Foreign Currency Transactions and Advance Consideration":
To be applied to financial years commencing on or after 1 January 2018. Early, voluntary application of the regulations is permitted.

Annual improvements to IFRS, 2014–2016 cycle: Amendments to IFRS 1 "First-time Adoption of International Financial Reporting Standards" and IAS 28 "Investments in Associates and Joint Ventures".

Apart from the aforementioned amendments to accounting policies, the amended accounting policies have no significant effects on the presentation of financial position and performance, earnings per share, or disclosures in the notes to the consolidated financial statements.

Accounting regulations published but not yet applied

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

IFRS 16 – "Leases"

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

On 13 January 2016, the International Accounting Standards Board (IASB) published its new accounting standard on lease accounting (IFRS 16 "Leases"). According to this standard, all leases and accompanying contractual rights and obligations are to be recognized on the lessee's balance sheet. For leases with a term of up to one year and low-value leases, the lessee has the option to apply accounting in accordance with current operating leases. The company intends to utilize this practical expediency.

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

The new regulations are to be applied to the entire contract portfolio, whereby with some expediencies the reconciliation is to be performed either fully retrospectively, or as a cumulative effect within equity at the start of the 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.

In the 2018/19 financial year, BRAIN AG conducted a quantitative and qualitative analysis of the effects of the new IFRS 16 regulations. Based on the information available at the time of preparation of these consolidated financial statements, the main impact is expected to be on the accounting treatment of leased buildings and machinery, as other rental agreements are of subordinate importance.

BRAIN AG will apply the modified retrospective method for first-time application on 1 October 2019. On transition to IFRS 16, payment obligations from previous operating leases are discounted at the corresponding marginal borrowing rates. The interest rates are determined on the basis of the leases' remaining terms. The resultant present values are recognized as lease liabilities. The rights-of-use relating to the leased assets are capitalized in the amount of the lease liabilities, less the amount of prepaid or deferred lease payments. The previous year's figures have not been adjusted.

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

BRAIN AG expects the first-time application of IFRS 16 as at 1 October 2019 to lead to an increase of € 2,800 thousand in lease liabilities and rights-of-use reported under property, plant and equipment, with a fluctuation margin of ± 5 percent. The deviation from the obligations from operating leases reported under "Contingencies and other financial commitments" is mainly due to the lease extension options included in the aforementioned figure (whose exercise is classified as sufficiently certain). For the 2019/20 financial year, we expect an improvement in the operating result (EBITDA) of € 400 thousand, with a fluctuation margin of ± 5 percent.

Amendment to IFRS 9 "Financial Instruments" – Prepayment Features with Negative Compensation:
To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.

IFRIC 23: "Uncertainty over Income Tax Treatments":
To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.

Amendments to IAS 19 "Employee Benefits":
To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.

Amendment to IAS 28 "Investments in Associates and Joint Ventures":
To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.

Annual improvements: IFRS 2015–2017:
To be applied to financial years commencing on or after 1 January 2019. Early, voluntary application of the regulations is permitted.

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

Presentation of the financial statements

The income statement is extended to include other comprehensive income items recognized in equity, to the extent they do not arise from transactions with owners. The income statement is structured according to the nature of expense method. Since the 2015/16 financial year, the Management Board has defined so-called "adjustments" up to the level of EBITDA in relation to certain matters. These are shown in a separate reconciliation statement in the section "Adjustments to results". For definitions, please refer to the information provided on segment reporting. The financial statements are presented in thousands of euros, unless stated otherwise, for ease of readability.

In the statement of comprehensive income and in the presentation of the statement of financial position (balance sheet), individual items are aggregated to provide better overview, and listed and explained in detail in the notes to the financial statements.

IAS 8 corrections

In connection with the announcement of the departure of the Chairman of the Management Board (CEO) and the associated review of the measurement of pension commitments, a retrospective correction was made in accordance with IAS 8.41. In the past, the pension commitments were measured at a level that was too low. In particular, on the basis of actuarial reports, an addition was made until retirement, although the commitments (with the exception of certain survivors' pension claims) to one retiring and one former member of the Management Board had already been vested, irrespective of their length of service. Accordingly (with the exception of certain survivors' pension rights), no more service cost and no more expense for the payment of support fund contributions should have been recognized in the income statement. In addition, the fair value of plan assets (claims from reinsurance policies) is now determined actuarially rather than being carried at asset value as previously done. As part of the correction, the disclosure of remeasurement effects within equity was also modified. These are now recognized in retained earnings rather than in other reserves.

The correction had the following effects:

Consolidated balance sheet	30.09.2018	01.10.2017
Retained earnings	–3,344	–3,380
Other reserves	+1,118	+1,090
Total equity	–2,227	–2,290
Provisions for post-employment benefits for employees	+2,227	+2,290
Total liabilities	+2,227	+2,290

Statement of comprehensive income	01.10.2017– 30.09.2018
Social security and post-employment benefit costs (personnel expenses)	+127
Total EBITDA	+127
Total operating result (EBIT)	+127
Total pretax loss for the reporting period	+127
Deferred tax expense/Income	+8
Total net loss for the reporting period	+135
Other comprehensive income	–72
Consolidated total comprehensive income	+63

The earnings adjustments are exclusively attributable to the shareholders of BRAIN AG; non-controlling shareholders are not affected.

Adjusted and unadjusted earnings per share for the 2017/18 financial year improved by € 0.01 per share.

In the consolidated cash flow statement for the 2017/18 financial year, the net (after tax) result for the reporting period increased by € 135 thousand, the effect of deferred tax expenses decreased by € –8 thousand, and the change in net pension provisions recognized in profit or loss reduced by € –128 thousand. As a consequence, gross cash flow and all other items in the cash flow statement remained unchanged.

The disclosures in the notes to the financial statements relate to the adjusted amounts. This especially applies to the information on pension obligations (section "(5) Personnel expenses") and on Management Board compensation (section "Related party disclosures").

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 subsidiaries' equity on the acquisition date. The acquisition date is the date on which acquirer gains control of the acquiree.

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

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

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

Acquisition-related costs are expensed when they are incurred.

Goodwill is recognized as the excess of the consideration transferred, the amount of any non-controlling interest in the acquiree, and the acquisition-date fair value of any previously held equity interest in the acquiree over the fair value of the net assets. Any negative difference is recognized directly in profit or loss.

On the basis of written put options, non-controlling shareholders of subsidiaries have the right to tender non-controlling interests to BRAIN AG. In other words, BRAIN AG has a contractual obligation upon exercise of its own equity instruments to purchase with delivery of cash. In the first step, a review must be conducted as to whether the arrangement of the put option agreement, taking all other aspects into consideration, substantiates a current power of disposal (hereinafter referred to as "present ownership").

Where present ownership exists, BRAIN AG applies the anticipated purchase method and recognizes a financial liability pursuant to IAS 32.23. In the case of the anticipated acquisition method, accounting occurs always and independently of the specific structure of the options assuming that a (constructive) acquisition of the non-controlling interest by the controlling shareholder has already occurred. No non-controlling interests are reported for shares included in the option. The liability is recognized at fair value with changes recognized through profit or loss.

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

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

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

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

Consolidation scope

All subsidiaries are included in the consolidated financial statements of BRAIN AG. Subsidiaries are companies that BRAIN AG controls. BRAIN AG controls an investee when it has the power of disposal over the company, a risk exposure exists through, or rights to variable returns exist from, its arrangement in the investee, and the Group has the ability to use its power of disposal over the investee in a manner such that the amount of the variable returns of the investee is affected. The consolidation of an investee commences on the date on which the Group obtains control of the company. It ends when the Group loses control of the investee.

In addition to BRAIN AG, the following subsidiaries were included in the consolidated financial statements for the period ended 30 September 2019:

Name and domicile of the company	30.09.2019	30.09.2018
AnalytiCon Discovery GmbH, Potsdam, Germany	99.7 %*	59.0 %*
AnalytiCon Discovery LLC, Rockville MD, USA	99.7 %*,***	59.0 %*,***
BRAIN Capital GmbH, Zwingenberg, Germany	100.0 %	100.0 %
Monteil Cosmetics International GmbH, Düsseldorf, Germany	0 %****	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	75.3 %**	50.6 %**
WeissBioTech France S.A.R.L., Chanteloup-en-Brie, France	75.3 %**,***	50.6 %**,***
BRAIN US LLC, Rockville MD, USA	100.0 %	100.0 %
BRAIN UK II Ltd., Cardiff, UK	100.0 %	100.0 %
BRAIN UK Ltd., Cardiff, UK	72.3 %***	72.3 %***
Biocatalysts Ltd., Cardiff, UK	65.5 %***	65.5 %***
Biocatalysts Inc., Dover, USA	65.5 %***	65.5 %***

* The remaining shares are to be classified as debt capital due to the non-controlling interests' existing termination rights.
** Included by way of full consolidation applying the anticipated acquisition method.
*** Indirect interests.
**** The company was divested on 30 June 2019 and deconsolidated accordingly.

The interests in AnalytiCon Discovery GmbH and AnalytiCon Discovery LLC as well as WeissBioTech GmbH and WeissBioTech France S.A.R.L. increased as a consequence of the exercise of put option rights by former minority shareholders. Financial liabilities and other provisions have already been recognized in the past for both put options. The corresponding figures are presented in the respective disclosures in the notes to the financial statements.

Change in the consolidation scope

Disposal of entire interest in Monteil Cosmetics International GmbH

On 30 June 2019, BRAIN AG concluded an agreement with Wilde Cosmetics GmbH, Oestrich-Winkel, concerning the disposal of the entire 68.3 % interest held by BRAIN AG in the loss-making company Monteil Cosmetics International GmbH. The aim of the divestiture was to relieve the BRAIN Group financially and in terms of capacity so that it can focus fully on the further expansion of its B2B business.

The disposal has led to a goodwill impairment charge of € 1.8 million. The details relating to the impairment are explained in more detail in the chapter Notes to the consolidated statement of comprehensive income in the sections "Impairment tests" and "(12) Intangible assets". Furthermore, the disposal did not have any significant effect on earnings.

The following table shows the assets and liabilities as of the disposal date.

Assets and liabilities as of the disposal date

€ thousand	30.06.2019
Intangible assets	31
Property, plant, and equipment	34
Inventories	770
Cash and cash equivalents	111
Miscellaneous assets	358
Total assets	**1,303**
Provisions	39
Trade payables	123
Financial liabilities[1]	1,054
Other liabilities	137
Total liabilities	**1,352**
Net assets	–48

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.

Under the equity method, the investment is initially recognized at cost and subsequently adjusted to reflect post-acquisition changes in the proportionate interest of BRAIN AG in the investee's net assets. Any share of the investee's losses that exceeds the carrying amount of the investment (where appropriate, including any other long-term interests that form part of the net investment in the investee) is not recognized unless a legal or constructive payment obligation exists. Any goodwill recognized is reported as a component of the value of the interest in the associate. Unrealized intra-group profits or losses arising from transactions between BRAIN AG and the associate are eliminated proportionately in the same way as consolidation adjustments, if they are material.

1 Financial liabilities include a liability to BRAIN AG, which was not previously reported on the consolidated balance sheet as Monteil Cosmetics international GmbH was included in the scope of consolidation.

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

Enzymicals AG, Greifswald, and SolasCure Ltd. were included as equity-accounted investments in the consolidated financial statements for the period ending 30 September 2019. The balance sheet date at the end of a calendar year (Enzymicals AG) or on 30 June (SolasCure Ltd.) differs from the balance sheet date of BRAIN AG. BRAIN AG holds 24.10 % (previous year: 24.10 %) of the voting rights in Enzymicals AG and 45.81 % (previous year: 66.67 % of the economic equity and 46.67 % interest in the voting rights) of SolasCure Ltd., Cardiff.

On 26 June 2019, the management of SolasCure Ltd. issued 273,100,000 new preference shares at GBP 0.01 per preference share. As planned, BRAIN did not participate in this capital increase. The capital increase enabled the company to generate further funds to develop its product Aurase®.

The transaction reduced BRAIN's interest from 66.67 % to 45.81 %. With this capital increase co-shareholders expanded their positions, new investors were acquired, and the management itself was given the opportunity to invest cash funds.

At the BRAIN level, the transaction led to an increase in the value of the investment totaling € 491 thousand, which was recognized under financial income. The 45.81 % interest continues to be recognized as an associate in the consolidated financial statements.

III. Accounting policies

Basis for the preparation of the financial statements

The consolidated financial statements have been prepared on the assumption that the company constitutes a going concern based on historical purchase and manufacturing costs, limited by the measurement of financial assets and financial liabilities at fair value through profit or loss.

Where indications exist of potential value impairment (so-called triggering events), a corresponding review is conducted based on the recoverable amount. As part of such impairment tests, fair values are also taken into consideration to calculate the lower value limit for individual assets. Valuation surveys for land and buildings, among other inputs, can also be applied in this context. If the carrying amount exceeds the recoverable amount, impairment losses are recognized against the assets to write them down to their recoverable amount.

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

Use of assumptions and estimates

In the financial statements, estimates and assumptions have to be made to a certain extent that affect the level and reporting of assets and liabilities, expenses and income, and contingent liabilities. All estimates and assumptions are continuously reassessed and are based on historical experience and other factors, including expectations of future events that are believed to be appropriate under the given circumstances.

Assumptions and estimates relate in particular to:

- evaluating the capitalization of development expenditures (no development costs were capitalizing the financial year under review, and none were capitalized in the previous year);
- the non-capitalization of deferred taxes relating to tax loss carryforwards;
- measuring the useful life of intangible assets;
- the recoverability of recognized goodwill;
- measuring liabilities arising from put options that have been written, applying the anticipated acquisition method;
- the valuation of put options for the acquisition of non-controlling interests;
- measuring share-based payment schemes and the necessity to simulate future price trends;
- the determination of the transaction price and the point of of revenue recognition according to IFRS 15;
- the determination of the amount of impairment of trade receivables in accordance with IFRS 9.

The key assumptions and inputs for the estimates made by management are explained in the disclosures on the respective line items. The resulting amounts may differ from the actual amounts.

Adjustments to earnings

The following table shows the reconciliation of reported EBITDA to adjusted EBITDA excluding the aforementioned effects and expenses as presented in the table.

€ thousand	2018/19	2017/18
EBITDA, including:	**–2,470**	**–6,553**
Personnel expenses from the employee share scheme at AnalytiCon Discovery GmbH	–35	–191
Personnel expenses from share-based payment components	–266	–41
Other operating expenses related to M&A transactions and the integration of acquired businesses	–27	–1,045
Adjusted EBITDA	***–2,141***	***–5,277***

Segment reporting

The Management Board, as the chief operating decision maker, assesses opportunities and risks and allocates the operating segments' resources. The segmentation as well as the selection of the indicators presented is realized in accordance with the internal control and reporting systems (the "management approach"). The segment information is prepared applying the same accounting standards as described in the notes to the consolidated financial statements.

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 business activities at BRAIN are defined according to the operating segments "BioScience" and "BioIndustrial". Segmentation is according to the criterion of the existence of an industrial scale of products. At Management Board level, the individual segments' business performance is measured on the basis of revenue, and their profitability is measured based on adjusted EBITDA. In the previous year, total operating performance (defined as the sum of revenue, income and changes in inventories) was still the central control parameter and measure of the segments' business performance. Due to the diminishing dependence on grants, the Management Board has decided to focus on revenue growth rather than on total operating performance growth in the future. The Management Board performs and approves planning at this level. Both areas have a different strategic orientation and require different marketing and business development strategies.

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

The BioIndustrial segment mainly consists of its industrially scaled products business which focuses on enzyme and cosmetic products.

The allocation of adjustments to the segments is generally made in the segment in which the costs to be adjusted were incurred. Personnel expenses from an employee share scheme at AnalytiCon Discovery GmbH and other operating expenses in connection with the integration of acquired companies were exclusively attributable to the BioScience segment in the financial year under review. Personnel expenses for share-based compensation components related to both the BioScience and BioIndustrial segments and were adjusted accordingly in both segments.

Sales revenues generated between the segments are realized on standard market terms. Total operating performance generated with external customers is reported to the Management Board based on figures as applied in the income statement.

2 Research and development grant revenue
3 Changes in inventories of finished goods and work in progress

The following table provides an overview of related changes:

	BioScience		BioIndustrial	
€ thousand	18/19	17/18	18/19	17/18
Revenue generated with other segments	10	12	33	16
Revenue generated with external customers	12,182	8,300	26,378	18,751
Total revenue	**12,192**	**8,312**	**26,411**	**18,767**
R&D grant revenue[2]	1,201	1,831	285	169
Changes in inventories[3]	39	123	–93	173
Other income	537	822	757	319
Total operating performance	**13,969**	**11,087**	**27,360**	**19,428**
Cost of materials	–4,205	–3,443	–13,220	–10,545
Personnel expenses	–11,359	–10,481	–6,256	–4,403
(of which from the employee share scheme at AnalytiCon Discovery GmbH)	35	191	0	0
(of which from share-based payments)	200	41	66	0
Other expenses	–3,574	–4,520	–5,146	–3,670
(of which acquisition and integration costs)	27	917	0	128
EBITDA	**–5,168**	**–7,357**	**2,739**	**811**
Adjusted EBITDA	**–4,905**	**–6,209**	**2,805**	**939**
Depreciation and amortization	–1,187	–1,128	–3,515	–1,884
EBIT	**–6,356**	**–8,485**	**–776**	**–1,073**
Finance income				
Result from equity-accounted investments				
Finance costs				
Result before taxes				

Sum segments		Consolidation		Group	
18/19	17/18	18/19	17/18	18/19	17/18
43	28	−43	−28	0	0
38,560	27,051	0	0	38,560	27,051
38,603	**27,079**	**−43**	**−28**	**38,560**	**27,051**
1,486	2,000	0	0	1,486	2,000
−54	296	0	0	−54	296
1,293	1,141	−55	−19	1,238	1,122
41,330	**30,515**	**−98**	**−47**	**41,231**	**30,469**
−17,425	−13,988	32	32	−17,393	−13,956
−17,615	−14,884	0	0	−17,615	−14,884
35	191	0	0	35	191
266	41	0	0	266	41
−8,720	−8,190	26	8	−8,694	−8,182
27	1,045	0	0	27	1,045
−2,429	**−6,547**	**−40**	**−6**	**−2,470**	**−6,553**
−2,100	**−5,270**	**−40**	**−6**	**−2,141**	**−5,277**
−4,702	−3,012	0	0	−4,702	−3,012
−7,131	**−9,559**	**−40**	**−6**	**−7,172**	**−9,565**
				940	1,662
				−1,788	−77
				−2,466	−387
				−10,486	**−8,367**

Revenue derived from the following revenue sources:

€ thousand	2018/19	2017/18
Collaborative Business	12,182	8,300
BioScience	**12,182**	**8,300**
Enzymes & Biobased Products	22,358	14,399
Cosmetics	4,020	4,352
BioIndustrial	**26,378**	**18,751**
Group total	**38,560**	**27,051**

The following table presents revenue by geographic region:

€ thousand	2018/19	2017/18
Germany	9,119	7,351
Abroad	29,442	19,700
of which: USA	7,576	4,847
of which: France	4,867	4,117
of which: United Kingdom	4,393	1,598

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	30.09.2019	30.09.2018
Intangible assets	15,794	19,075
Property, plant, and equipment	17,144	12,042
Total	**32,938**	**31,117**
of which UK	21,117	16,359
of which Germany	10,786	13,582
of which USA	962	1,065
of which France	73	111

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

Currency translation

Translation of foreign currency transactions

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

Translation of foreign Group companies' financial statements

In the case of foreign Group companies, the functional currency is the respective local currency, as the companies operate independently in financial, business and organizational terms. The foreign companies' assets and liabilities are translated into euros at the closing rate on the reporting date. Income and expenses are translated into euros at the average exchange rates for the year. Equity components are translated at historical exchange rates on the respective acquisition dates from the Group's perspective. The translation difference compared with the closing rates is recognized directly in equity under "Other reserves".

The exchange rates against the euro report the following changes:

Rate/€ 1		Closing rate		Average rate	
Currency	Country	2018/19	2017/18	2018/19	2017/18
GBP	United Kingdom	1.1224	1.1228	1.1315	1.1305
USD	USA	0.9088	0.8618	0.8865	0.8458

Revenue recognition

The revenue reported in the consolidated income statement relate to revenue from contracts with customers in accordance with IFRS 15. The BRAIN Group recognizes revenue in accordance with the IFRS 15 transfer of control approach.

Revenue is measured on the basis of the consideration specified in the contract with a customer, taking into account variable consideration such as cash discounts, volume-related rebates and other contractual price reductions. The variable consideration is estimated based on the most probable amount. However, variable consideration is only taken into consideration if it is highly probable that a significant reversal in revenue will not arise once the uncertainty associated with the variable consideration no longer exists. In addition, the determination of the transaction price required discretionary decisions and estimates in light of uncertainties typical of the sector, which are associated with future milestone and license payments. These discretionary decisions relate to the valuation of the inclusion of milestone payments in the transaction price. Accordingly, milestones are included in the transaction price only if it is highly probable that the milestone will be reached.

Revenue is recognized when control, in other words, the possibility of deriving benefit from the service rendered and of determining its further use, is transferred. This can occur either at a specific time or over a period of time. Revenue is recognized over a period of time if one of the following criteria is met:

- Upon fulfilment by the company, the customer receives the benefit of the service rendered and utilizes it at the same time.
- With its work, the company produces or improves an asset over which the customer has control during the production or improvement.
- With its work, the company generates an asset that cannot be used by the company for other purposes; in doing so, the company has a claim for payment for the services rendered to date and can also expect the contract to be fulfilled as agreed.

If the performance obligation is not fulfilled over a period of time, it is fulfilled at a given point in time. The following factors are considered in order to determine the point in time at on which control is transferred:

- the Group currently has the right to receive payment for the asset;
- the customer has legal ownership of the asset;
- the company has transferred the asset physically (in other words, ownership of the asset);
- the significant risks and rewards entailed in ownership of the asset lie with the customer; and
- the customer has accepted the asset.

Sale of goods/products

Revenue from the sale of products is recognized when control of a promised product is transferred in accordance with Incoterms agreed with customers. This is usually when the delivery has reached the customer.

Rendering of services

Revenues from rendering services arise mainly from research and development partnerships, and are generated predominantly in the BioScience segment. Related one-off payments (mostly to be paid by customers when agreements are concluded) are analyzed on the date of receipt as to whether they relate to one-off payments for pre-contractual services that transfer to the customer and that are distinct. To the extent that these relate to payments for distinct pre-contractual services, revenue is recognized immediately. R&D revenues are also recognized in the period in which the underlying services are rendered. This is generally to be recognized in accordance with the progress of the transfer of the R&D services by applying the cost-to-cost method, as well as the milestones achieved as at the balance sheet date. The cost-to-cost method is best suited for measuring progress, as the R&D services' product is realized on the basis of the employees it deploys.

Royalties and License Fees

Revenues from royalties (license agreements) are recognized in the period in which they accrue according to the terms of the underlying contract. As a matter of principle, utilization-based fees are first recognized when the customer realizes the corresponding sales. In the case of licenses, a distinction must be made as to whether the customer acquires with the license a right-of-use (revenue recognition on the basis of a given point in time) or a right-of-access (revenue recognition over a period of time). One-off prepaid license payments are recognized immediately (revenue recognition based on a given point in time) if the license grants a right-of-use, and the licensed technology is not developed further (static licenses). One-off prepaid license payments are realized over time (revenue recognition over a period of time) if and to the extent that the license grants access rights to the technology, and the licensed technology is developed further (dynamic licenses).

Financing components are separated from the actual performance if the financing component is classified as material. If the period between the time when BRAIN transfers the promised goods or services to the customer and the time when the customer pays for those goods or services is one year or less, no financing component is taken into account. Contractual liabilities are reported as deferred income rather than separately on the balance sheet. Separate disclosure is made in the section (23) Deferred income.

Intangible assets

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

	Useful life in years
Genetic resources	2–8
Software and industrial property rights	2–15
Customer relationships acquired as part of a corporate acquisition	8–11
Technology acquired as part of a corporate acquisition	10–12

Research and development

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

- It is technically feasible for the entity to complete the intangible asset so that it will be available for use or sale.
- The entity intends to complete the intangible asset and use or sell it.
- The entity is able to use or sell the intangible asset.
- How the intangible asset will generate probable future economic benefits can be demonstrated. Inter alia, the entity can substantiate the existence of a market for the output of the intangible asset or the intangible asset itself or, if it is to be used internally, the intangible asset's utility.

- The availability of adequate technical, financial and other resources to complete development, and use or sell the intangible asset.
- The entity is able to reliably measure the expenditure attributable to the intangible asset during its development.

Not all of these criteria were met in the financial year, so that all expenditure connected with research and development activities was recognized as expenses as incurred. This is especially applicable as – for all of the Group's product and process development – research and development run alternately and a distinction between the research and development phases is thus rarely possible.

Property, plant, and equipment

Items of property, plant and equipment are measured at cost and depreciated to reflect any wear and tear. The straight-line depreciation method is applied.

The depreciation period is based on the asset's expected useful economic life. Impairment losses and depreciation charges are recognized if no further, or fewer, economic benefits are expected from the asset's continued use or sale. Gains or losses on the disposal of items of property, plant, and equipment are calculated by comparing the net disposal proceeds with the asset's carrying amount and recognized in profit or loss in the period in which the asset is derecognized.

Depreciation charges are based mainly on the following useful lives:

	Useful life in years
Buildings and outdoor facilities	10–50
Vehicle fleet	3–6
Laboratory equipment, operating and office equipment	1–15

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

Impairment tests

Goodwill and other intangible assets with an indefinite or indeterminable useful life are tested at least once a year for impairment. Intangible assets and items of property, plant, and equipment with finite or indeterminable useful lives are only tested for impairment if indications exist that the asset has become impaired. An impairment loss is recognized in profit or loss in the consolidated statement of comprehensive income if the asset's recoverable amount, in other words, the higher of its fair value less costs of disposal and its value-in-use, is less than its carrying amount. The recoverable amount is generally determined individually for each asset. If this is not possible, it is determined based on a group of assets representing a cash-generating unit (CGU). An assessment is made at least once a year as to whether any indication exists that the reason for an impairment loss recognized in prior periods no longer applies or the amount of the impairment has decreased. If this is the case, the asset's recoverable amount is remeasured, and the impairment loss is reversed accordingly (except in the case of goodwill).

The starting point for estimating the recoverable amount of the relevant cash-generating unit for the impairment tests as at 30 September 2019 is its value-in-use, calculated as the present value of the future net cash flows expected to be generated from the CGU. The estimate is based on the current five-year planning of the relevant company. The last planning year is generally also applied for cash flows beyond the planning period and modified considering further assumptions for the perpetual return, to the extent that specific related indications exist. These plans are based on Management Board estimates about future trends that are described further in the description of the individual cash-generating units. Past data and expected market performance are utilized to calculate values-in-use for the cash-generating units. The values allocated to the significant assumptions are generally in line with external information sources in this context.

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

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

	30.09.2019		30.09.2018	
Cash-generating unit	Goodwill € thousand	Pre-tax cost of capital (WACC)[4]	Goodwill in € thousand	Pre-tax cost of capital (WACC)[4]
Biocatalysts	3,878	8.95 %	3,878	9.80 %
Natural Products Chemistry	699	9.32 %	699	12.49 %
Monteil Cosmetic Products	0	N/A	1,777	8.33 %

The "Monteil Cosmetic Products" CGU consisted of the goodwill from the acquisition of Monteil Cosmetics International GmbH, and until its divestiture in June 2019 was attributable to the BioIndustrial segment. The "Natural Products Chemistry" CGU consists of the goodwill from the acquisition of AnalytiCon Discovery GmbH and its subsidiary AnalytiCon Discovery LLC, and is attributable to the BioScience segment. The "Biocatalysts" CGU consists of the goodwill from the acquisition of Biocatalysts Ltd., including its subsidiary Biocatalysts Inc., and is attributable to the BioIndustrial segment.

Monteil Cosmetic Products

On 3 June 2019, the assets and liabilities of Monteil Cosmetics International GmbH were classified as "held for sale" in accordance with IFRS 5 by resolution of the Management Board. Immediately before the disposal group was first classified as "held for sale", the carrying amounts of all assets and liabilities of the disposal group were impairment tested as per IAS 36 in accordance with IFRS 5.18 in conjunction with IAS 36.12 (f).

The intention to sell was taken into account when determining the value-in-use as part of the impairment test, as immediately prior to reclassification this represents the material basis of

4 Weighted average total cost of capital rate before tax

the management's reasonable and justifiable assumptions regarding the economic conditions that will prevail during the remaining useful life of the assets of the future disposal group.

In this situation, the value-in-use will largely approximate the fair value less costs of disposal, as the value-in-use of an asset held for disposal consists mainly of the net disposal proceeds, and the future cash flows from the continued use of the asset until its disposal are likely to be insignificant (IAS 36.21, in this meaning also IFRS 5.BC32).

In order to determine the fair value less costs of disposal of the disposal group, reference was made to the sale contract with the buyer, and consequently to Level 2 input factors in accordance with IFRS 13. In addition to the purchase price actually paid, the fair value of the disposal group depends to a large extent on a loan receivable from Monteil that was restructured as part of the disposal of the investment. As part of the divestiture, this loan was partly linked to the achievement of certain sales revenue targets in the years 2021 to 2025. A degree of discretion exists in determining the probability of achieving these sales revenue targets. In order to determine the probabilities, recourse was made to Monteil's historical sales revenue growth and existing corporate plans. To this extent, the input factors are to be allocated to Level 3 in accordance with IFRS 3. The revenue-dependent part of the loan was valued at € 148 thousand; the maximum repayment amount is consequently € 300 thousand

As a consequence of the impairment test as at 30 June 2019, an impairment loss of around € 1.9 million was recognized, of which € 1.8 million is attributable to goodwill and € 0.1 million to other assets. These impairment losses were attributable to the BioIndustrial segment.

Natural Products Chemistry

Thanks to positive market feedback and its successful performance in recent 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 that reflects growth rates derived from current market information (financial year under review and previous year: 1.00 %). A value-in-use applying discounted cash flows was calculated based on five-year planning. No impairment was determined in the impairment test on 30 September 2019.

An increase in the weighted average cost of capital by 1.0 percentage points or a reduction in the EBITDA margin in the perpetual return by 2.0 percentage points would have also led to no impairment.

Biocatalysts

For the Biocatalysts unit acquired in the previous financial year, an IAS 36 impairment test was performed again as at 30 September 2019. Planning is based on a significant rise in sales revenues and successive margin improvements. As planned, these considerable growth increments would be in line with the significant increases in recent years as well as in the 2018/19 financial year. Continued strong growth is to be achieved by further expanding business relationships with both existing and new customers. Furthermore, an even stronger focus on customer-specific enzymes is planned, which should contribute to a further improvement in revenue as well as to a margin improvement. Net cash flows beyond the detailed planning phase were modelled on a terminal growth rate that reflects growth rates derived from current market information (financial year under review: 1.00 %, previous year: 1.00 %). A value-in-use applying discounted cash flows was calculated based on five-year planning. No impairment was determined in the impairment test on 30 September 2019.

An increase in the weighted average cost of capital by 1.0 percentage points or a reduction in the EBITDA margin in the perpetual return by 2.0 percentage points would also have led to no impairment.

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

Goodwill also includes a minor extent of goodwill from the acquisition of the WeissBioTech Group (WeissBioTech GmbH and WeissBioTech France S.A.R.L.) amounting to € 11 thousand.

Inventories

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

Financial instruments

Financial instruments refer to all contractual relationships that result in a financial asset for one party and a financial liability or equity instrument for the other party. Financial instruments include both non-derivative and derivative financial instruments.

Financial instruments are classified into three categories on initial recognition:
- At amortized cost (AC)
- At fair value through equity (through reserves) (FVTOCI)
- At fair value through profit or loss (FVTPL)

When financial assets are measured at fair value, income and expenses can be recognized either in full in the profit or loss for the period (FVTPL) or in other comprehensive income (FVTOCI), with or without subsequent reclassification to the income statement.

The classification is determined when the financial asset is first recognized, in other words, when BRAIN becomes a party to the contractual arrangements for the instrument.

A debt instrument that meets the following two conditions is measured at amortized cost:
- Business model condition: The objective of the BRAIN Group's business model is to hold the financial assets in order to collect the contractual cash flows.
- Cash flow condition: The financial asset's contractual terms generate cash flows on specified dates that are solely repayments of principal and interest on the unpaid portion of the principal.

A debt instrument that meets the following two conditions is measured at fair value changes recognized in other comprehensive income and subsequent reclassification to the income statement:
- Business model condition: The objective of the BRAIN Group's business model is achieved by both collecting the contractual cash flows from financial assets and by disposing of financial assets.

- Cash flow condition: The contractual terms of the financial asset lead to cash flows on specified dates that are solely repayments of principal and interest on the unpaid portion of the principal.

All other debt instruments are measured at fair value with value changes recognized in profit or loss for the period (FVTPL). All equity instruments held are recognized at fair value on the balance sheet. Value changes are recognized in the result for the period. If an equity instrument is not held for trading, BRAIN may make an irrevocable decision upon initial recognition to measure it at fair value, with value changes recognized in other comprehensive income. Subsequent reclassification to the income statement is excluded in this case.

A receivable is derecognized from the balance sheet when the Group loses the right to receive or the power of disposal over the contractual rights arising from the receivable, or when these expire.

In accordance with the transitional provisions of IFRS 9, the classification of financial instruments in the comparative period is based on the provisions of IAS 39.

Impairment of financial assets

Impairment losses on debt instruments held by the company that are not to be measured at fair value through profit or loss are based on the premise that expected losses must be recognized. These are recorded at the following amounts:

- the “expected 12-month loss” (present value of expected payment defaults resulting from possible default events within the next 12 months after the reporting date); or
- the total loss expected over the remaining term of the instrument (present value of expected payment defaults arising from all possible default events over the financial instrument’s remaining term).

For trade receivables with and without a significant financing component, contract assets and leasing receivables, the need for impairment is always determined on the basis of the losses expected over the entire term. For all other instruments, impairments are only determined on the basis of the losses expected over the entire term if the credit risk has increased significantly since initial recognition. The assessment as to whether the risk of default has increased significantly is based on an increase in the probability of default since the date of acquisition. Macroeconomic forecasts (such as GDP) are also taken into consideration in this analysis. This did not lead to any further significant effects, thereby dispensing with the need to adjust an impairment loss.

Otherwise, the impairment losses are determined solely on the basis of the expected losses that would result from a loss event occurring within 12 months of the reporting date. In this case, loss events that may occur later than 12 months after the balance sheet date are consequently not taken into consideration.

A financial asset has objective evidence of impairment if one or more events have occurred that have a significant effect on the cash flows that the financial asset is expected to generate in the future. This includes observable data that has become known about subsequent events:

- significant financial difficulties on the part of the issuer or debtor;
- a breach of contract such as default or delay in interest or principal payments;
- concessions that the lender makes to the borrower for financial or contractual reasons relating to the borrower's financial difficulties, but would not otherwise grant;
- an increased probability that the borrower will enter bankruptcy or other reorganization proceedings;
- the disappearance of an active market for this financial asset due to financial difficulties;
- the purchase or issue of a financial asset with a high discount reflecting the credit losses incurred.

A value adjustment table is applied for trade receivables, which determines the losses expected over the remaining term as a flat-rate percentage depending on the length of the overdue period. Forward-looking macroeconomic information is not taken into consideration in this context, as the Group believes that this does not have any significant impact on the losses expected over the remaining term. Irrecoverable receivables are written off at the time when the Group becomes aware that the receivable will probably be uncollectible. In accordance with the transitional provisions of IFRS 9, the impairment of financial assets in the comparative period is based on the provisions of IAS 39.

Government grants

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

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

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

Equity

To classify financial instruments that are not to be settled in BRAIN AG equity instruments as either equity or debt capital, it is essential to assess whether a payment obligation exists for BRAIN AG. A financial liability always exists if BRAIN AG is not entitled to avoid rendering liquid assets or realizing an exchange in the form of other financial assets in order to settle the obligation.

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

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

Provisions

Provisions are recognized for all identifiable present obligations to third parties arising from past events, whose settlement is expected to result in an outflow of resources and whose amount can be reliably estimated. They are recognized at the expected settlement amount. If the outflow of resources is expected to occur at a date after the year following the reporting period, the obligations are recognized at their present value. In the case of a lower level of discounting, the interest effects are recorded in finance costs.

Occupational pension scheme/employee benefits

The occupational pension scheme at BRAIN includes both defined contribution plans as well as defined benefit plans.

In addition to the statutory pension insurance systems, occupational pensions at BRAIN AG, AnalytiCon Discovery GmbH and WeissBioTech GmbH utilize direct insurance policies and payments into pension funds and private pension schemes (direct contribution commitment). Pension schemes also exist for members of the Management Board of BRAIN AG. 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 expenses if the employees have rendered the work entitling them to said contributions. Contributions to government pension plans are treated in the same way as payments for defined contribution plans. BRAIN has no further payment obligations over and above payment of the contributions.

A defined contribution plan exists in Germany for all employees in the Group companies within the framework of the German statutory pension insurance into which the employer must pay. The amount to be paid is determined according to the current applicable contribution rate of 9.35 % (employer contribution) with regard to the employee compensation subject to compulsory pension insurance. In France, the employer contribution amounts to 8.55 % in relation to compensation with mandatory pension up to € 3,218, and 1.85 % in relation to the total salary. In the USA, the employer contribution to social security is 6.2 % in relation to annual employee compensation of € 127,200. In addition, BRAIN offers a company pension scheme in the form of deferred compensation without topping-up contributions by the employer.

A defined benefit plan exists for one active Management Board member and one former Management Board member in the form of benefit commitments by the company. The benefit entitlements consist of an old-age pension from the age of 65 as well as surviving dependents' and invalidity benefits. To reinsure pension commitments, the company pays contributions to an external occupational pension plan. In turn, the occupational pension plan has taken out pension liability insurance cover. The claims under the pension liability insurance have been assigned to the occupational pension plan beneficiaries.

A supplementary agreement with the beneficiary foresees a vested claim to post-employment benefits and disability benefits if the employee retires or resigns early. A rising entitlement based on length of service is agreed for the surviving dependents' benefit.

The pension obligation is measured applying actuarial methods in accordance with IAS 19. The calculations are essentially based on statistical data relating to mortality and disability rates, assumptions about the discount rates as well as expected return on plan assets. The determination of the interest rate and the expected plan assets are based on yields on AA-rated corporate bonds corresponding to the respective term, or alternatively, yields on respective government bonds. As part of accounting, the fair value of plan assets is deducted from the present value of the benefit obligation for pensions. The valuation of the benefit obligation for pensions and the plan assets is undertaken annually by means of actuarial reports as at the reporting date.

Revaluations that resulted in particular from the adjustment of actuarial assumptions are recognized directly in equity (retained earnings) via other comprehensive income without affecting the operating result.

"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. All employees of BRAIN AG with separate target agreements are not entitled to this program.

The first factor is the year-to-year percentage change in the total operating performance of the BioScience segment in the respective financial year. The second factor is the change in the adjusted EBITDA of the BioScience segment. A change in these factors of one million is defined as 10 %. The third factor is the change in the weighted average share price over the financial year. The bonus payments for the financial year elapsed are always scheduled to occur in the January of the subsequent year, as the audited segment information is available on that date. The payout range is fixed at between 0 and 30 % of the basic salary paid to an employee. Only 10 percentage points may result from each factor.

A liability was formed as at 30 September 2019 for the bonuses to be paid. Segment information from this set of financial statements was utilized to calculate the level of the obligation.

The provision's effect on adjusted EBITDA was taken into account through applying an iterative calculation.

A liability of € 198 thousand was formed as at 30 September 2019. The periodic expense for the 2018/19 financial year also amounts to € 198 thousand.

Share-based payment and other long-term employee benefits

In the 2018/19 financial year, the following share-based employee compensation existed:

Employee Stock Ownership Program (ESOP)

In order to provide incentives and to retain managers and employees of BRAIN AG long-term, an employee stock ownership program (ESOP 2017/18, also referred to in brief as ESOP 2017) for the 2017/18 financial year came into effect on 8 June 2018, and an employee stock ownership program (ESOP 2018/19, or ESOP 2018) for the 2018/19 financial year came into effect on 12 March 2019. Both ESOP programs are open to Management Board members, managers and employees of BRAIN AG.

The ESOP 2017/18 stock option program is based on the AGM resolution of 8 July 2015 to set up a stock option program and to create conditional capital 2015/II. The ESOP 2018/19 stock option program is based on the AGM resolution of 12 March 2019 to set up a stock option program and create conditional capital 2019/I.

As part of exercise, one option entitles to the purchase of one share in the company at the so-called exercise price. The exercise price corresponds to the average of the share price 10 trading days prior to the contractual grant date, which in this case falls on 8 June 2018 (ESOP 2017) and 12 March 2019 (ESOP 2018). The exercise price of the options is € 20.67 (ESOP 2017) and € 10.64 (ESOP 2018) per share. Along with the share price performance target (performance condition), the exercising of options is also conditional upon the respective beneficiary remaining at the company (service condition). Taking fulfilment of both the service and performance conditions into account, the options can be exercised at the earliest at the end of four years after the grant date (waiting period). The exercise period amounts to four years after the end of the four-year waiting period. From the ESOP 2018/19 onwards, a cap amount is also applied to the Management Board members' options, which limits the options' maximum value. In the ESOP 2017/18, such a cap amount was only provided for Management Board members.

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

	Options for managers and employees	Options for Management Board members
Outstanding as at 30.09.2018	**63,000**	**60,000**
Granted in the financial year	134,600	180,000
Expired in the financial year	0	0
Forfeited in the financial year	0	0
Exercised in the financial year	0	0
Outstanding as at 30.09.2019	**197,600**	**240,000**
Exercisable as at 30.09.2019	0	0

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

The volatility applied over the remaining option term reflects historical volatility derived from peer group data and appropriate to the remaining term. The expected volatility applied is based on the assumption that conclusions can be drawn from historical volatility about future trends. For the ESOP 2018/19, the grant date fell on 12 March 2019.

The following parameters were applied as at the measurement date:

Parameter	Options for Management Board members, managers and employees (ESOP 2018/19)
Measurement date	12.03.2019
Remaining term (in years)	8
Share price on the measurement date (€)	10.36
Exercise price (€)	10.64
Expected dividend yield (%)	0.0
Expected volatility (%)	43.01 %
Risk-free interest rate (%)	–0.46 %
Model applied	Monte Carlo
Value cap per option (€)	30.0
Fair value per option (€)	3.61

The volatility applied over the remaining option term reflects historical volatility derived from peer group data, and appropriate to the remaining term. The expected volatility applied is based on the assumption that conclusions can be drawn from historical volatility about future trends. The volatility that actually occurs can differ from the assumptions made. The expected dividend yield is based on management estimates as well as market expectations. The risk-free interest rate is based on German government bond yields with congruent maturities. Due to the contractual structure, the management has made assumptions about expected exercise dates and payments. The actual exercise dates can differ from the assumptions that have been made.

For BRAIN AG, exercise of the subscription rights entails no effect on its cash position or treasury stock position, as no obligation of any kind exists for the company to deliver shares or cash payments in connection with this program. As the company receives the consideration in the form of work and similar service, pursuant to IFRS 2 an amount of € 200 thousand (previous year: € 41 thousand) for these share-based payment schemes is recognized at BRAIN AG.

Growth equity program at Biocatalysts Ltd.

A share-based compensation scheme was established to incentivize and retain managers at Biocatalysts, which was acquired last year, in which managers at local company level participate. In the past financial year, the managers acquired 50,197 shares at a nominal price of GBP 0.1, in other words, at a total amount of GBP 5,020. The shares carry neither voting rights nor profit participation rights. At the same time, a put option agreement was concluded, which enables the beneficiaries to sell the shares back to the company on the basis of the financial statements as at 30 September 2022. Management may also demand the exercise of the put option on the basis of the financial statements as at 30 September 2022 or, in the event of poor business performance, refrain from or postpone such exercise. The amount paid out is calculated on the basis of the growth in the company's value based on a predefined EBITDA multiple and on the achievement of the budgeted figures for the 2021/22 financial year. The options were valued at € 17.07 per option as at 30 September 2019. The resulting personnel expenses are distributed over the vesting period until 30 September 2022. As this represents cash-settled share-based payment, a revaluation is performed on each balance sheet date on the basis of the company's current planning. An expense of € 66 thousand for the period was recognized in the financial year under review and a corresponding provision was formed.

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. In accordance with the contractual terms, employees and managers can exercise the put options until February 2020. In the past financial year, almost all option holders exercised their put options and transferred their shares to BRAIN AG. As a result, the interest held in AnalytiCon Discovery GmbH increased from 59.0 % to 99.7 %. The remuneration for the transferred shares will be paid in two further tranches, after the first has been paid in the past year. The financial liabilities resulting from this situation amount to € 1,658 thousand (previous year: € 2,411 thousand). Other liabilities decreased from € 2,055 thousand in the previous year to € 1,414 thousand as at 30 September 2019. The reduction in liabilities derives from the payment of one of the three tranches in the past financial year.

Current and deferred taxes

The expense for the period consists of current and deferred taxes. Taxes are recognized in the income statement unless they relate to items that were recognized directly in equity or in other comprehensive income. In such cases, the taxes are also recognized directly in equity or in other comprehensive income.

The current tax expense is calculated applying the tax rates that have been enacted as at the reporting date (or are soon to be enacted) in the countries in which the company and its subsidiaries are active and generate taxable income. The Management Board regularly reviews tax returns, in particular with regard to matters for which differing interpretations are possible, and recognizes income tax liabilities (if appropriate) based on the amounts expected to be paid to the tax authorities.

Deferred taxes are calculated using the balance sheet liability method. Deferred taxes are recognized in respect of temporary differences between the carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base, as well for differences resulting from consolidation adjustments.

In addition, deferred tax assets are recognized for the future tax benefit that arises from offsetting tax loss carryforwards against future taxable profit, to the extent that it is probable that such assets are expected to be recoverable, based on the company's tax projections.

Deferred tax assets and liabilities are offset if a legally enforceable right of offset exists and they relate to income taxes levied by same tax authority on the same taxable entity or the taxable entities intend to settle net.

Deferred tax assets or liabilities are reported as non-current assets or liabilities irrespective of the balance sheet classification by maturity.

Leases

The assessment whether an arrangement involves a lease depends on the economic substance of the arrangement at the time it is entered into. The entity must assess whether performance of the arrangement depends on the use of one or more assets, and whether the arrangement conveys a right to use the asset or assets.

Lease payments under operating leases are recognized as expenses in the comprehensive income statement for the period in which they are incurred.

Assets from finance leases are capitalized at the beginning of the term of the lease at the lower of the fair value of the leased property or the present value of the minimum lease payments. A lease liability is recognized as a liability in the same amount under liabilities. Each lease payment is divided into an interest and repayment portion. The net lease obligation is recognized under non-current liabilities. The interest portion of the lease payment is expensed in the income statement, so that a constant interest rate results over the lease term. The tangible assets acquired under a finance lease are depreciated over the shorter of the following two periods: the useful life of the asset or the term of the lease.

Cash and cash equivalents

Cash and cash equivalents consist of cash in hand, credit balances payable on demand, and term deposits with an original maturity of up to three months.

Statement of cash flows

The statement of cash flows is classified into cash flows from operating activities, investing activities and financing activities. Where appropriate, any mixed transactions may be allocated to more than one activity. Overall, income taxes are included in cash flows from operating activities.

Cash flows from operating activities are presented applying the indirect method, under which profit for the period after taxes is adjusted for non-cash results components as well as deferrals of past or future inflows and outflows (including provisions), as well as items of income and expense that are attributable to investing activities.

IV. Notes to the consolidated statement of comprehensive income

1 Revenue

The Group's revenue consists primarily of revenue from the sale of goods and products amounting to € 27,893 thousand (previous year: € 20,627 thousand), fees from research and development partnerships of € 8,982 (previous year: € 6,077 thousand) and royalties of € 1,956 thousand (previous year: € 539 thousand). Furthermore, other revenue of € 74 thousand was also generated in the financial year under review (previous year: € 111 thousand).

Fees from research and development partnerships consist of one-off fees, ongoing research and development fees, and performance-related fees from milestones and project success points.

The composition of revenue by segments and regions is presented in the section Segment reporting.

2 Research and development grant revenue

R&D grant revenue amounting to € 1,486 thousand (previous year: € 2,000 thousand) consists of non-repayable grants received for specific research and development projects, mainly for projects sponsors acting on behalf of the Federal Ministry of Education and Research (BMBF). The BMBF has the right to examine whether the funds granted are being used for the designated purpose.

3 Other income

Other income consists of:

€ thousand	2018/19	2017/18
Income from release of liabilities and provisions	156	334
Income from translating foreign currency items	108	204
Benefits in kind and rental income	133	139
Other out-of-period income	13	26
Insurance compensation	525	3
Miscellaneous other operating income	302	415
Total	**1,238**	**1,122**

Insurance compensation increased significantly due to an insured transport loss and an insured financial loss.

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 € 200 thousand (previous year: € 41 thousand) from an allocation to the capital reserves of share-based employee compensation at BRAIN AG, and € 35 thousand from the pro rata allocation to liabilities from the employee share scheme of AnalytiCon (previous year: € 191 thousand). In addition, provisions of € 66 thousand were formed for the share-based payment program at Biocatalysts, with a corresponding personnel expense being recognized.

These include € 416 thousand (previous year: € 281 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 € 1,065 thousand in the financial year under review (prior year: € 950 thousand).

Post-employment benefit costs of approximately € 450 thousand and employer contributions to the statutory pension insurance scheme (defined contribution benefit pension plan) of approximately € 1,049 thousand are expected in the 2019/20 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, consist of the following:

€ thousand	2018/19	2017/18
Service cost	38	36
Interest cost from the DBO/pension obligation	106	107
Return on plan assets	–35	–33
Expenses recognized in the operating result	**109**	**110**
Remeasurement effects	990	100
Net effect: other comprehensive income	**990**	**100**
Total expenses	**1,099**	**210**

Expenses of € 85 thousand (previous year: € 25 thousand) are also recognized in the statement of comprehensive income from defined contribution commitments to Management Board members as well as Management Board members who have left the company.

The Management Board members' benefit entitlements consist of a retirement pension from the age of 65 as well as surviving dependents' and invalidity benefits, some of which are paid out some of through an occupational pension plan (defined benefit plans).

The defined benefit obligation (DBO) reports the following changes:

€ thousand	2018/19	2017/18
Value on 1 October	**5,402**	**5,128**
Interest cost	106	107
Service cost	38	36
Remeasurement due to changes to demographic assumptions	18	0
Actuarial gains (-) and losses (+) from changes in financial assumptions	1,526	147
Remeasurement due to experience-based adjustments	18	16
Value on 30 September	**7,035**	**5,402**

The obligation was covered by reinsurance. Plan assets report the following changes:

€ thousand	2018/19	2017/18
Value on 1 October	**1,780**	**1,558**
Return on plan assets	35	33
Contributions paid	158	158
Remeasurement effects	500	31
Value on 30 September	**2,473**	**1,780**

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 for this reason is also calculated actuarially.

After offsetting the obligation with the assigned plan assets, the amounts recognized on the balance sheet are as follows:

€ thousand	30.09.2019	30.09.2018
Defined benefit obligation	7,035	5,402
Plan assets	–2,473	–1,780
Provision for pension schemes	**4,563**	**3,622**

€ thousand	2018/19	2017/18
Value on 1 October	**3,622**	**3,570**
Net interest costs	71	75
Service cost	38	35
Contributions paid	–158	–158
Remeasurement effects	990	100
Value on 30 September	**4,563**	**3,622**

In relation to pension obligations hedged through corresponding reinsurance, the "Richttafeln 2018G, Heubeck-Richttafeln GmbH, Köln 2018" mortality tables were utilized for the first time to measure the pension obligation as at 30 September 2019.

When measuring the pension obligation, an actuarial interest rate of 0.92 % (previous year: 1.97 %) and a pension trend of 1.00 % was applied. The cashflow-weighted duration of the payment obligation scope amounts to 24.3 years (previous year: 23.6 years).

The significant valuation assumptions show the following sensitivities with regard to changes in the defined benefit obligation:

€ thousand	30.09.2019	30.09.2018
Change in interest rates +0.25 %	–408	–301
Change in interest rates –0.25 %	441	324
Increase in pension trend p. a. +0.25 %	294	208
Life expectancy +1 year	278	191
Life expectancy –1 year	–278	–191

The expected contributions to plan assets in financial year 2019/20 amount to € 158 thousand. No pension payments are expected for the 2019/20 financial year.

6 Depreciation, amortization and impairment

Depreciation, amortization and impairment charges are presented in the statements of changes in intangible assets and property, plant and equipment in the notes to the balance sheet. Such charges include € 1,777 thousand of goodwill impairment losses for a cash-generating unit (previous year: € 184 thousand).

7 Other expenses

Other expenses consist of the following:

€ thousand	2018/19	2017/18
Advertising and travel expenses	1,402	1,028
Occupancy costs	1,223	1,077
Distribution, sales and logistics expenses	927	900
Legal and consulting expenses	596	1,563
Loss on receivables	564	299
Repair and maintenance expenses	463	385
Office and business supplies	423	356
Costs of financial statements and auditing	369	294
Insurance	368	260
Services	301	347
Supervisory Board compensation	284	200
Currency translation expenses	115	58
Miscellaneous other expenses	1,658	1,414
Other expenses, total	**8,694**	**8,182**

Miscellaneous other expenses include, among other minor items, costs such as stock exchange taxes, vehicle leasing costs and training costs.

8 Finance income

Finance income consists of the following:

€ thousand	2018/19	2017/18
Income from subsequent measurement of financial liabilities	435	1,633
Income from dilution of interests held in equity-accounted investments	491	0
Interest income from loans to equity-accounted investments	7	6
Miscellaneous finance income	7	22
Finance income, total	**940**	**1,662**

Income from the subsequent measurement of financial liabilities derives mainly from the change in measurement of put option rights relating to non-controlling interests in a company accounted for applying the anticipated acquisition method (WeissBioTech GmbH).

9 Finance costs

Finance costs consist of the following:

€ thousand	2018/19	2017/18
Payments for silent partnerships	285	184
Payments for loans	211	149
Interest costs for finance leases	17	15
Expenses from the subsequent measurement of financial liabilities for the potential acquisition of non-controlling interests (put options)	1,286	38
Expenses from the (subsequent) measurement of financial derivatives	494	0
Miscellaneous finance costs	173	1
Finance costs, total	**2,466**	**387**

10 Current and deferred taxes

Deferred taxes are measured using the tax rates expected to apply in the period when the asset is realized, or the liability is settled. For all German entities included in the Group, this is 15.825 % for corporate income tax, including the solidarity surcharge (previous year: 15.825 %). The trade tax rate for domestic Group companies and the combined tax rate are shown below:

Trade tax rate	2018/19	2017/18
BRAIN AG	13.30 %	13.30 %
BRAIN Capital GmbH	13.30 %	13.30 %
AnalytiCon Discovery GmbH	15.93 %	15.93 %
Mekon Science Networks GmbH	11.55 %	11.55 %
Monteil Cosmetics International GmbH	15.40 %	15.40 %
L. A. Schmitt GmbH	11.76 %	11.20 %
WeissBioTech GmbH	14.60 %	15.02 %

Combined tax rate	2018/19	2017/18
BRAIN AG	29.13 %	29.13 %
BRAIN Capital GmbH	29.13 %	29.13 %
BRAIN US LLC	23.90 %	23.90 %
AnalytiCon Discovery GmbH	31.75 %	31.75 %
AnalytiCon Discovery LLC	23.90 %	23.90 %
Mekon Science Networks GmbH	27.63 %	27.63 %
Monteil Cosmetics International GmbH	31.23 %	31.23 %
L. A. Schmitt GmbH	27.59 %	27.03 %
Biocatalysts Ltd.	19.00 %	19.00 %
Biocatalysts Inc.	21.00 %	21.00 %
WeissBioTech GmbH	30.42 %	30.84 %
WeissBioTech France S.A.R.L.	33.33 %	33.33 %

Of the tax assets of € 10 thousand (previous year: € 57 thousand), € 8 thousand (previous year: € 47 thousand) relate to corporation tax and the solidarity surcharge, and € 2 thousand (previous year: € 10 thousand) relate to trade tax. Of the tax liabilities of € 784 thousand (previous year: € 618 thousand), € 83 thousand (previous year: € 0 thousand) relate to corporation tax and the solidarity surcharge, and € 701 thousand (previous year: € 618 thousand) relate to trade tax.

Deferred tax assets and liabilities and their changes in the financial year are as follows:

	30.09.2019		30.09.2018	
€ thousand	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	0	2,367	0	2,709
Tax loss carryforwards/carrybacks	0	0	24	0
Property, plant, and equipment	50	244	47	336
Inventories	0	27	0	10
Trade receivables	1	74	0	73
Pension commitments	50	0	59	0
Provisions and liabilities	17	3	19	3
Deferred income	4	0	95	0
Total	**122**	**2,715**	**245**	**3,132**
Offset	**–122**	**–122**	**–245**	**–245**
Total	**0**	**2,593**	**0**	**2,887**

€ thousand		2018/19
Net deferred tax liabilities at start of financial year (1 October 2018)		2,887
Additions to deferred tax assets/liabilities due to changes in the scope of consolidation		0
Additions/disposals of deferred taxes from the first-time application of IFRS 9 and other additions/disposals (via revenue reserves)		16
Change in deferred taxes due to exchange rate differences		1
Change in deferred taxes from profit/loss from revaluing obligations from post-employment employee benefits		0
Change in temporary differences between carrying amounts of assets and liabilities in the IFRS balance sheet and their tax base (recognized in profit or loss)	310	
Deferred tax expense from the use, and due to amortization, of tax loss carryforwards	0	
Deferred tax income from capitalizing tax loss carryforwards and tax carrybacks	0	
Deferred tax income reported in the statement of comprehensive income	310	–310
Net deferred tax liabilities at end of financial year (30 September 2019)		**2,593**

The differences between the expected income tax income based on the IFRS loss before taxes for the period and combined tax rate of BRAIN AG of 29.125 % (previous year: 29.125 %) and the income tax expense reported in the consolidated statement of comprehensive income are shown in the following table:

€ thousand	2018/19	2017/18
Consolidated net profit/loss for the period before taxes	**–10,486**	**–8,367**
Expected tax income	–3,054	–2,437
Different tax rates applicable to consolidated subsidiaries	–11	0
Goodwill impairment	518	49
Permanent differences from consolidation adjustments	718	109
Permanent differences from subsequent measurement of financial assets and liabilities	–127	–354
Permanent differences from equity-settled share-based compensation	58	12
Non-deductible expenses/add-backs	2	44
Utilization of previous years' tax loss carryforwards	–9	10
Non-capitalized tax loss carryforwards	2,050	2,385
Other permanent differences	73	–45
Out-of-period taxes and other differences	–209	0
Reported current or deferred income tax income (–)/ expense (+)	**9**	**–227**

The following table shows the maturity of the deferred taxes recognized at the end of the reporting period. Deferred taxes are classified as current if the entity expects to realize the asset or settle the liability within twelve months after the reporting period.

€ thousand	2018/19	2017/18
Current deferred tax assets	18	46
Non-current deferred tax assets	104	199
Current deferred tax liabilities	464	445
Non-current deferred tax liabilities	2,251	2,687
Net current deferred tax assets	–446	–399
Net non-current deferred tax assets	–2,147	–2,488

Based on the detailed planning horizon of three financial years modelled in the consolidated entities' tax projections, no deferred tax assets were recognized for tax loss carryforwards with an (in principle) unlimited carryforward period resulting from financial year 2018/19 and prior financial years amounting to € 52,361 thousand (corporation tax; previous year: € 49,556 thousand) and € 52,390 thousand (trade tax; previous year: € 49,560 thousand). The potential tax benefits that have consequently not been recognized amount to € 15,243 thousand (prior year: € 14,501 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 € –11,488,200 as reported in the consolidated income statement (previous year: € –8,285,667).

Earnings per share are calculated by dividing the loss accruing to the shareholders of BRAIN AG for the period by the average number of shares of BRAIN AG issued in the financial year. The average number of shares in financial year 2018/19 amounted to 18,055,782 no-par value shares (previous year: 18,055,782 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 2018/19 Cost Balance at 1 October 2018	**6,703**	**16,221**	**22,923**
Additions	0	26	26
Disposals	–2,115	–161	–2,276
Currency translation	–1	–3	–4
Balance at 30 September 2019	**4,586**	**16,083**	**20,669**
Amortization and impairment Balance at 1 October 2018	338	3,510	3,848
Amortization and impairment for the financial year	1,777	1,501	3,278
Disposals	–2,115	–130	–2,245
Currency translation	0	–7	–7
Balance at 30 September 2019	**0**	**4,875**	**4,875**
Net carrying amount **Balance at 30 September 2019**	**4,586**	**11,208**	**15,794**
Balance at 30 September 2018	6,365	12,711	19,075

€ thousand	Goodwill	Other intangible assets	Total intangible assets
FY 2017/18 Cost Balance at 1 October 2017	**2,825**	**6,786**	**9,611**
Change in the scope of consolidation	3,913	9,935	13,848
Additions	0	102	102
Disposals	0	–518	–518
Currency translation	–35	–84	–119
Balance at 30 September 2018	**6,703**	**16,221**	**22,924**
Amortization and impairment Balance at 1 October 2017	154	2,370	2,524
Amortization and impairment for the financial year	184	1,659	1,843
Disposals	0	–516	–516
Currency translation	0	–3	–3
Balance at 30 September 2018	**338**	**3,510**	**3,848**
Net carrying amount **Balance at 30 September 2018**	**6,365**	**12,711**	**19,076**
Balance at 30 September 2017	2,671	4,416	7,087

The goodwill reported as at 30 September 2019 arises from the acquisition of the AnalytiCon Group (AnalytiCon Discovery GmbH, AnalytiCon Discovery LLC) in the 2013/14 financial year, the acquisition of the WeissBioTech Group in the 2014/15 financial year, and the acquisition of the Biocatalysts Group (Biocatalysts Ltd., Biocatalysts Inc.) in the 2017/18 financial year. The goodwill impairment arises from the write-down of the goodwill of Monteil Cosmetics International GmbH. Further information is presented in the section "Impairment tests".

The intangible assets that are material to the consolidated financial statements consist of the intangible assets identified as part of the purchase price allocation, as shown in the following table.

€ thousand	30.09.2019	30.09.2018	Remaining useful life[5] as at 30.09.2019
Technology of AnalytiCon Discovery GmbH	1,030	1,272	4
Technology of WeissBioTech GmbH	1,077	1,341	4
Technology of Biocatalysts Ltd.	3,990	4,375	11
Customer relationships of the Biocatalysts Group	4,085	4,518	10

In accordance with the accounting policies presented above, no development costs were capitalized in the 2018/19 financial year or in the previous year, as it is not possible to distinguish between the research and development phases due to the alternating process, and consequently not all of the criteria specified in IAS 38 were met.

Research and development expenses of € 7,820 thousand (previous year: € 7,577 thousand) are reported in the statement of comprehensive income mainly under the items "personnel expenses", "cost of materials" and "other expenses", as well as in amortization charges.

13 Property, plant, and equipment

Investments in property, plant and equipment in the financial year 2018/19 were attributable primarily to the technical expansion of research, development, and manufacturing infrastructure. The following table shows the composition and changes:

€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment
FY 2018/19 Cost Balance at 1 October 2018	**9,268**	**10,692**	**19,960**
Change in the scope of consolidation			
Additions	0	6,563	6,563
Disposals	–11	–529	–540
Currency translation	–1	–1	–2
Balance at 30 September 2019	**9,256**	**16,726**	**25,982**

5 Remaining useful life in years

€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment
Depreciation and impairment Balance at 1 October 2018	2,447	5,471	7,918
Depreciation and impairment for the financial year	255	1,169	1,424
Disposals	–11	–490	–501
Currency translation	0	–3	–3
Balance at 30 September 2019	**2,690**	**6,148**	**8,838**
Net carrying amount **Balance at 30 September 2019**	**6,566**	**10,578**	**17,144**
Balance at 30 September 2018	6,821	5,221	12,042

€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment
FY 2017/18 Cost Balance at 1 October 2017	**6,522**	**8,003**	**14,525**
Change in the scope of consolidation	1,483	2,674	4,157
Additions	732	784	1,516
Reclassifications / transfers	553	–553	0
Disposals	0	–196	–196
Currency translation	–22	–20	–42
Balance at 30 September 2018	**9,268**	**10,692**	**19,960**

€ thousand	Land and buildings	Operating and office equipment	Total property, plant and equipment
Depreciation and impairment Balance at 1 October 2017	2,228	4,707	6,935
Depreciation and impairment for the financial year	219	949	1,168
Disposals	0	–184	–184
Currency translation	0	–1	–1
Balance at 30 September 2018	**2,447**	**5,471**	**7,918**
Net carrying amount **Balance at 30 September 2018**	**6,821**	**5,221**	**12,042**
Balance at 30 September 2017	4,294	3,296	7,590

The net carrying amount of operating and office equipment includes € 944 thousand of assets acquired through finance leasing (previous year: € 694 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 22 "Financial liabilities".

14 Equity-accounted investments

Enzymicals AG

The carrying amount of the interest in the associated company Enzymicals AG,[6] reports the following changes:

€ thousand	
Carrying amount at 30.09.2017	166
Share of profit or loss after taxes in 2017/18	18
Carrying amount at 30.09.2018	184
Share of profit or loss after taxes in 2018/19	8
Carrying amount at 30.09.2019	**191**

The interest held by BRAIN AG continued to amount to 24.095 % in the 2018/19 financial year. No publicly listed market prices exist for the shares of Enzymicals AG. This participating interest is allocated to the BioScience segment. No losses were recognized in the financial year under review (previous year: € 0 thousand).

The following tables show the aggregated results and balance sheet data of Enzymicals AG and the amounts of profit or loss for the period and equity attributable to BRAIN AG in line with its interest (24.095 %). The figures for Enzymicals AG were calculated based on the accounting principles of the German Commercial Code (HGB), as the Management Board is of the opinion that no material valuation differences exist in relation to IFRS.

€ thousand	2018/19	2017/18
Revenue	1,432	1,322
Total comprehensive income	32	73
Share of profit after taxes	8	18

€ thousand	30.09.2019	30.09.2018
Non-current assets	350	341
Current assets	575	326
Non-current liabilities	144	33
Current liabilities	662	561
Equity	104	73
Interest in equity	25	18

The difference between the recognized valuation of the participating interest and the proportional equity attributable to BRAIN AG of € 166 thousand reflects goodwill.

6 Financial year = calendar year; the difference arises from the historical difference between the financial year of BRAIN AG and the calendar year.

SolasCure Ltd.

The carrying amount of the interest in the associated company SolasCure Ltd. reports the following changes:

€ thousand	
Carrying amount at 30.09.2017	0
Addition of participating interest	4,479
Share of profit or loss after taxes in 2017/18	–94
Elimination of unrealized results of intra-group transactions	–2,585
Carrying amount at 30.09.2018	**1,800**

€ thousand	
Gain from share dilution (deemed disposal)	491
Share of profit or loss after taxes in 2018/19	–1,795
Reversal of elimination of unrealized results of intra-group transactions	762
Currency translation	–11
Carrying amount at 30.09.2019	**1,247**

In the 2018/19 financial year, the interest held by BRAIN AG amounted to 66.67 %, (from 1 July 2019: 45.81 %) with a 46.67 % voting rights interest (from 1 July 2019: 45.81 %). No publicly listed market prices are available for the shares of SolasCure Ltd. This participating interest is allocated to the BioScience segment. No losses were recognized in the financial year under review (previous year: € 0 thousand).

The following tables show the aggregated results and balance sheet data of SolasCure Ltd., and the amounts of profit or loss for the period and equity attributable to BRAIN AG in line with its interest (66.67 %, from 1 July 2019: 45.81 %). The disclosures reflect the financial statements of SolasCure Ltd. prepared in accordance with IFRS as adopted by the European Union.

€ thousand	2018/19	21.08.2018 – 30.09.2018
Revenue	0	0
Total comprehensive income or loss	–3,168	–141
Share of profit after taxes	–1,795	–94

€ thousand	30.09.2019	30.09.2018
Non-current assets	3,928	3,930
Current assets	3,036	2,325
Non-current liabilities	90	0
Current liabilities	867	58
Equity	6,007	6,197
Interest in equity	2,752	4,131

In addition to the remaining elimination of unrealized results of intra-group transactions, the difference between the amount recognized for the participating interest and the proportionate equity attributable to BRAIN AG is attributable to goodwill of € 254 thousand.

15 Inventories

Inventories consist of the following:

€ thousand	30.09.2019	30.09.2018
Finished goods	4,523	4,740
Raw materials, consumables and supplies	2,790	2,288
Work in progress	613	1,005
Prepayments on inventories	106	5
Total	**8,032**	**8,037**

Increases in inventory of € 502 thousand were recognized in relation to raw materials, consumables and supplies (previous year: decreases in inventory of € 257 thousand).

Inventories included impairment losses on raw materials and supplies of € 107 thousand (prior year: € 51 thousand), and work in progress and finished goods of € 0 thousand (prior year: € 141 thousand). Reversals of impairment losses of € 0 thousand were applied (previous year: € 0 thousand).

16 Trade receivables

Trade receivables consist of the following:

€ thousand	30.09.2019	30.09.2018
Trade receivables	5,597	5,485
Receivables from research and development grant revenue	541	716
Receivables from contingent premium payments	250	250
Total	**6,388**	**6,451**

The presented carrying amounts of receivables correspond to the fair values.

Trade receivables generally have a term of up to one year. Credit default rates in a range of 0.5 % – 10 % were applied in order to calculate the total lifetime ECL. Total lifetime ECLs of € 63 thousand (previous year: € 0 thousand) and specific valuation allowances of € 215 thousand (previous year: € 103 thousand) were recognized for receivables as at the 30 September 2019 reporting date. These are recorded in a separate allowance account.

The following table shows the term structure of current financial receivables in the 2018/19 financial year in accordance with IFRS 9.

€ thousand	Trade receivables	of which: not overdue as at the balance sheet date	of which: overdue in the following reporting periods				Total lifetime ECL	Carrying amount
			Up to 30 days	Between 30 and 60 days	Between 60 and 90 days	More than 90 days		
30.09.2019	5,660	4,300	1,010	134	30	185	63	5,597

Further information on impairments and the credit and market risks pertaining to trade receivables is provided in the section " VI. Financial instruments/risks from financial instruments". With regard to the effects of the first-time application of IFRS 9 on the classification and measurement of financial assets, reference is made to remarks contained in the section "New accounting regulations applied".

The following table shows the term structure of current financial receivables in the 2017/18 financial year in accordance with IAS 39.

€ thousand	Trade receivables	of which: neither overdue nor impaired at the end of the reporting period	of which: overdue in the following reporting periods				Impairment losses	Carrying amount
			Up to 30 days	Between 30 and 60 days	Between 60 and 90 days	More than 90 days		
30.09.2018	6,594	5,482	602	123	19	368	143	6,451

The following table shows the changes in impairment losses:

€ thousand	2018/19
IAS 39 carrying amount at start of period	143
IFRS 9 adjustment	42
Status a valuation adjustment on 01.10.2018 as per IFRS 9	185
Disposal due to change in consolidation scope	–32
Net effect of addition and reversals	100
Carrying amount at end of period	**253**

€ thousand	2017/18
Carrying amount at start of period	84
Net effect of addition and reversals	59
Carrying amount at end of period	**143**

Trade receivables in the total amount of € 2 thousand were derecognized through profit or loss in the 2018/19 financial year (previous year: € 299 thousand), having not been already been expensed in previous years. No impairment losses were reversed in relation to impaired receivables.

17 Other financial assets

Financial assets consist of the following:

€ thousand	30.09.2019	30.09.2018
Loans extended up to one year	149	153
Deposits with a term up to one year	63	53
Cash in transit	0	41
Miscellaneous other financial assets	0	54
Total	**213**	**301**

18 Other non-current and current assets

Other non-current assets consist of the following:

€ thousand	30.09.2019	30.09.2018
Expenses deferred for a period of more than one year	216	251
Loans extended	558	80
Deposits	17	16
Total	**791**	**347**

The loans granted increased due to the disposal of Monteil Cosmetics International GmbH, as the borrower was included in the scope of consolidation in the previous year and the receivable was therefore eliminated in the context of debt consolidation.

Other current assets consist of the following:

€ thousand	30.09.2019	30.09.2018
Receivables from insurance compensation	397	0
Expenditures relating to the following year	391	344
VAT receivables due from the tax authorities	157	77
Miscellaneous other current assets	209	251
Total	**1,154**	**672**

All current assets have a remaining term of up to one year. The portfolio of other assets was neither overdue nor impaired as at the reporting date. Default risk is regarded as low, as in the previous year.

19 Cash and cash equivalents / statement of cash flows

Cash and cash equivalents are held mainly at German banks that are members of a deposit protection fund.

In the statement of cash flows, other non-cash expenses and income include the following items:

€ thousand	2018/19	2017/18
Expenses		
Personnel expenses from share-based compensation and employee share schemes	236	231
Impairment losses on non-current financial assets	149	0
Losses on receivables/change in value allowances for receivables	11	361
Net finance costs from subsequent measurement of financial liabilities	1,852	38
Impairment losses on inventories	107	192
Miscellaneous	65	20
Total	**2,420**	**842**
Income		
Reduction in value allowances for receivables	24	0
Net finance income from subsequent measurement of financial and other liabilities	435	1,632
Currency translation differences	0	65
Income from dilution of interests held in equity-accounted investments	491	0
Miscellaneous	51	6
Total	**1,001**	**1,703**
Net cash expenses/Income	**1,419**	**–861**

20 Equity

Changes to the equity capital position are shown in the consolidated statement of changes in equity.

Subscribed capital

The subscribed share capital amounts to € 18,055,782 (previous year: € 18,055,782) and is divided into 18,055,782 ordinary shares (previous year: 18,055,782), to each of which a proportional amount of the share capital of € 1.00 is attributable. The shares are fully paid-in registered shares. The shares are listed in the Prime Standard stock market segment of the Frankfurt Stock Exchange.

Authorized capital

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

Accordingly, authorized capital of € 9,027,891 was recorded on the 30 September 2019 reporting date.

Conditional capital

Pursuant to Section 5 (3), (4) and (5) 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 € 123,000 through issuing up to 123,000 new ordinary registered shares (Conditional Capital 2015/II), and through issuing up to 1,682,578 new ordinary registered shares (Conditional Capital 2019/I).

Conditional Capital 2015/I serves exclusively to grant shares to the holders of bonds with warrants and convertible bonds that the company issues based on the authorization of the Management Board by way of AGM resolution passed on 8 July 2015. The conditional capital increase is to be implemented through issuing up to 5,090,328 new ordinary registered shares only to the extent that the holders of convertible bonds and/or bonds with warrants utilize their conversion rights or warrant rights, or the holders of convertible bonds that are obligated to convert satisfy their obligation to convert, and to the extent that other forms of satisfaction are not deployed to service the bonds. An increase in the share capital from Conditional Capital 2015/I had not been implemented as at the 30 September 2019 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 123,000 stock options that carry subscription rights to shares of BRAIN AG with a term of up to eight years – to the members of the company's Management Board, members of affiliated companies' management boards, as well as managers and other company employees in senior positions. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilize them, and the company does not grant treasury shares or cash settlement to satisfy these subscription rights. An increase in the share capital from Conditional Capital 2015/II had not been implemented as at the 30 September 2019 reporting date. At the Annual General Meeting on 7 March 2019, Conditional Capital 2015/II was reduced from originally € 1,272,581 to € 123,000, as this capital was to remain exclusively for hedging stock options already issued. The authorization to issue further stock options from Conditional Capital 2015/II was revoked at the same Annual General Meeting and replaced by a new authorization (see following section).

By resolution of the Annual General Meeting on 7 March 2019, the share capital was conditionally increased by € 1,682,578 through the issue of up to 1,682,578 new no-par-value registered shares (Conditional Capital 2019/I). The conditional capital serves exclusively to service subscription rights from stock options granted to members of the company's Management Board and other senior company managers. The Management Board is authorized, with the approval of the Supervisory Board, to determine the further details of the implementation of the conditional capital increase. The conditional capital increase is to be implemented only to the extent that the holders of issued subscription rights utilize them, and the company does not grant treasury shares or cash settlement to satisfy these subscription rights. An increase in the share capital from Conditional Capital 2019/I had not been implemented as at the 30 September 2019 reporting date.

Stock options

An AGM resolution dated 7 March 2019 authorized the Management Board, with Supervisory Board approval, to issue as part of a stock option plan until 12 March 2027 up to 1,682,578 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 authorization is valid for the Supervisory Board alone. The AGM conditionally increased the share capital by € 1,682,578 to hedge and service the stock options (Conditional Capital 2019/I).

Capital reserves

The capital reserves contain the share premium from the issuance of shares, net of transaction costs after taxes, as well as the expenses from granting stock options. For more information about share-based compensation, please refer to the remarks in Section "Share-based payment and other long-term employee benefits". Capital reserves as per German commercial law are published in the separate financial statements for BRAIN AG prepared according to German Commercial Code (HGB) accounting policies.

Other reserves

Currency translation differences are recognized in other reserves.

Retained earnings

Retained earnings in the 2018/19 financial year reduced mainly to reflect profit or loss attributable to shareholders of BRAIN AG.

The following table shows the non-controlling interests during the 2018/19 financial year:

€ thousand	Interest in net assets not held by BRAIN AG	Increase/decrease in interest in net assets not held by BRAIN AG	Attributable share of total comprehensive income	Carrying amount of interest at end of financial year
Monteil Cosmetics International GmbH[7]	31.67 % (0 %)	15	–73	0
Biocatalysts Ltd.[8]	34.45 %	0	42	4,898
BRAIN UK Ltd.	27.69 %	0	–11	–41
Total		**15**	**–42**	**4,857**

The previous year's non-controlling interests are shown in the table:

€ thousand	Interest in net assets not held by BRAIN AG	Increase in interest in net assets not held by BRAIN AG	Attributable share of total comprehensive income	Carrying amount of interest at end of financial year
Monteil Cosmetics International GmbH	31.67 %	0	–124	58
Biocatalysts Ltd.[8]	34.45 %	4,970	–114	4,856
BRAIN UK Ltd.	27.69 %	0	–30	–30
Gesamt		**4,970**	**–268**	**4,884**

The changes in the non-controlling interests are as follows:

Monteil Cosmetics International GmbH

€ thousand	30.09.2019	30.09.2018
Value at start of financial year	58	182
Attributable share of profit or loss for the period	–73	–124
Disposal (deconsolidation)	15	0
Value at end of financial year	0	58

Biocatalysts Ltd.[9]

€ thousand	30.09.2019	30.09.2018
Value at start of financial year	4,856	0
Addition as part of the acquisition of the Biocatalysts Group	0	4,970
Attributable share of profit or loss for the period	65	–70
Share of results recognized directly in equity (currency differences)	–23	–44
Value at end of financial year	4,898	4,856

7 The company was deconsolidated as at 30 June 2019 due to the divestiture of the interest held by BRAIN.
8 Including the subsidiary Biocatalysts Inc. and taking into consideration the amortization of disclosed hidden reserves.
9 Including the subsidiary Biocatalysts Inc. and taking into consideration the amortization of disclosed hidden reserves.

BRAIN UK Ltd.

€ thousand	30.09.2019	30.09.2018
Value at start of financial year	–30	0
Attributable share of profit or loss for the period	–11	–30
Value at end of financial year	–41	–30

The following section presents summarized financial information for subsidiaries with non-controlling interests of significance to the Group.

	Monteil Cosmetics International GmbH	
Summarized statement of comprehensive income € thousand	01.10.2018 – 30.06.2019	2017/18
Revenue	1,582	2,630
Result before taxes	–232	–392
Result after taxes	–232	–392
Total comprehensive income or loss	–232	–392
Result attributable to non-controlling interests	–73	–124
Dividends paid to non-controlling interests	0	0

	Monteil Cosmetics International GmbH	
Summarized statement of cash flows € thousand	01.10.2018 – 30.06.2019	2017/18
Gross cash flow	–128	–223
Cash flow from operating activities	15	–72
Cash flow from investing activities	–11	–28
Cash flow from financing activities	–19	51

	BRAIN UK Ltd./Biocatalysts Ltd.[10]	
Summarized balance sheet data € thousand	30.09.2019	30.09.2018
Non-current assets	20,446	15,634
of which proportionate goodwill from the acquisition by BRAIN	*3,876*	*3,878*
of which hidden reserves less deferred tax from the acquisition by BRAIN	*6,379*	*7,025*
Current assets	4,717	6,439
Non-current liabilities	2,923	1,965
Current liabilities	4,139	2,158
Net assets	**18,101**	**17,950**

10 Including the Biocatalysts Inc. subsidiary. The financial data are presented on an aggregated basis as BRAIN UK Ltd. does not conduct any business activities of its own in addition to its function as an intermediate holding company.

Summarized statement of comprehensive income € thousand	BRAIN UK Ltd./Biocatalysts Ltd.[10] 2018/19	2017/18
Revenue	13,668	6,563
Result before taxes	–5	–278
Result after taxes	152	–223
of which the result from the amortization of hidden reserves less deferred tax from the acquisition by BRAIN	*–649*	*–756*
Total comprehensive income or loss	80	–387
Result attributable to non-controlling interests	31	–144
Dividends paid to non-controlling interests	0	0

Summarized statement of cash flows € thousand	BRAIN UK Ltd./Biocatalysts Ltd.[10] 2018/19	2017/18
Gross cash flow	1,711	749
Cash flow from operating activities	1,717	1,682
Cash flow from investing activities	–5,906	–823
Cash flow from financing activities	1,388	–45

Apart from legal restrictions, BRAIN AG is not subject to any restrictions limiting its access to the subsidiaries' assets, to utilize such assets or to settle the subsidiaries' liabilities.

10 Including the Biocatalysts Inc. subsidiary. The financial data are presented on an aggregated basis as BRAIN UK Ltd. does not conduct any business activities of its own in addition to its function as an intermediate holding company.

21 Financial liabilities

The financial liabilities consist of the following:

€ thousand	30.09.2019	30.09.2018
Loans	5,988	6,474
Liabilities from put option rights for the potential acquisition of non-controlling interests	14,373	13,754
Non-controlling shareholders' put option rights (for the most part exercised)	1,658	0
Severance claims from existing termination rights of non-controlling interests[11]	0	2,411
Contributions by silent partners	4,500	4,500
Finance lease liabilities	1,351	649
Derivatives	494	0
Other	14	8
Total	**28,378**	**27,795**

As at the 30 September 2019 reporting date, contributions by silent partners include a € 1,500 thousand (previous year: € 1,500 thousand) contribution by Hessen Kapital I, Wiesbaden, and a € 3,000 thousand (previous year: € 3,000 thousand) contribution by Hessen Kapital II GmbH. Of the contribution by Hessen Kapital I GmbH, 20 % is repayable on 30 June 2022, a further 20 % on 30 June 2023 and 60 % on 30 June 2024. Of the contribution by Hessen Kapital II GmbH, 20 % is repayable on 31 March 2026, a further 20 % on 31 March 2027 and 60 % on 31 March 2028.

The company pays fixed remuneration equivalent to nominal 7.0 % p. a. (previous year: 7.00 %) on the contribution of Hessen Kapital I GmbH and a profit participation equivalent to the ratio between the nominal level of the silent partnership and the nominal level of the equity of BRAIN AG, albeit to a maximum of 2.5 % of the contribution and not more than 50 % of the profit for the year. The company pays fixed remuneration equivalent to nominal 6.0 % p. a.

The company pays fixed remuneration equivalent to nominal 6.0 % p. a. (previous year: 6.0 %) on the contribution of Hessen Kapital II GmbH and a profit participation equivalent to the ratio between the nominal level of the silent partnership and the nominal level of the equity of BRAIN AG, albeit to a maximum of 1.5 % of the contribution and not more than 50 % of the profit for the year.

BRAIN AG is entitled to call the silent partner contributions rendered by Hessen Kapital I GmbH and Hessen Kapital II GmbH before the agreed dates; due to the negative consequences this would have for the company (prepayment penalties), however effectively this option has no economic value for the company. The silent partnerships do not participate in any losses. No obligation exists to provide additional funding.

Land charges exist with compulsory enforcement clauses on land owned by BRAIN AG with a notional value of € 2.5 million (previous year: € 2.5 million). All land charges serve to secure bank borrowings, which amounted to € 2,375 thousand at the end of the reporting period (previous year: € 2,833 thousand). The land charges rank behind an unassigned land charge in favor of the owner amounting to € 0.5 thousand (previous year: € 0.5 thousand).

11 See the section "Share-based payment and other long-term employee benefits" for further information.

At the Biocatalysts Ltd. subsidiary, € 1,982 thousand of financial liabilities are secured by € 2,765 thousand of land charges on operating property.

In the case of the L.A. Schmitt GmbH subsidiary, the financial liabilities (€ 35 thousand as at 30 September 2019; € 77 thousand as at 30 September 2018) are secured by land charges on its business property amounting to € 400 thousand (previous year: € 400 thousand).

Other than standard retention of title from individual contracts, no other liabilities are secured by liens or similar rights. The carrying amount of the collateral furnished at the end of the reporting period stood at € 6,269 thousand (€ 6,576 thousand as at 30 September 2018).

The nominal interest rate on the fixed interest loans lies between 1.15 % (previous year: 1.15 %) and 6.10 % (previous year: 6.10 %) p. a. The Group has no significant variable interest liabilities.

The following table shows the nominal amounts due at the financial liabilities' terms:

30.09.2019 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners	0	1,500	3,000
Liabilities from put option rights for the acquisition of non-controlling interests	307	0	14,706
Finance leasing	742	610	0
Non-controlling interests' compensation entitlements	850	839	0
Financial derivatives	494	0	0
Loans	1,220	3,309	1,459
Other	6	8	0
	3,618	**6,265**	**19,164**

30.09.2018 € thousand	Remaining term up to 1 year	Remaining term 1 – 5 years	Remaining term more than 5 years
Contributions by silent partners	0	600	3,900
Liabilities from put option rights for the acquisition of non-controlling interests	914	0	14,548
Finance leasing	158	464	27
Severance claims from existing termination rights of non-controlling interests	7	2,521	0
Loans	1,378	3,314	1,782
Other	0	8	0
	2,457	**6,907**	**20,256**

The contractually agreed due dates for principal and interest payments and for profit-related payments are shown in the following overview:

30.09.2019 € thousand	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29 ff.
Principal repayments	3,618	2,551	1,220	1,068	16,133	132	736	1,791	1,800	0
Interest payments	423	426	359	315	272	218	197	149	54	0
Profit-related payments	83	83	82	73	65	45	41	32	14	0
Total excluding profit-related payments	4,042	2,977	1,578	1,383	16,404	351	933	1,940	1,854	0
Total including profit-related payments	4,412	3,059	1,660	1,456	16,470	396	973	1,971	1,868	0

30.09.2018 € thousand	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29 ff.
Principal repayments	2,457	1,715	2,329	1,859	1,004	16,078	232	836	796	1,914	399
Interest payments	413	381	429	348	316	273	217	191	148	69	47
Profit-related payments	83	83	83	82	73	65	45	41	32	14	0
Total excluding profit- related payments	2,870	2,096	2,758	2,207	1,320	16,351	449	1,028	943	1,984	446
Total including profit-related payments	2,952	2,178	2,840	2,289	1,393	16,417	494	1,068	975	1,997	446

The following table shows the change in financial liabilities analyzed by cash and non-cash changes:

€ thousand	Loans	Liabilities for the acquisition of non-controlling interests	Non-controlling interests' compensation entitlements	Contributions by silent partners	Derivatives	Finance lease liabilities	Other	Total
Balance at 30.09.2018	**6,474**	**13,754**	**2,411**	**4,500**	**0**	**649**	**8**	**27,795**
Cash inflow/ outflow from financing activities	–375	–160	–840	0	0	687	6	**–682**
Subsequent measurement	0	793	87	0	494	0	0	**1,374**
Change in the scope of consolidation	–111	0	0	0	0	0	0	**–111**
Currency translation	0	–13	0	0	0	0	0	**–13**
Additions to finance leases	0	0	0	0	0	0	0	**0**
Other changes/ offsetting	0	0	0	0	0	15	0	**15**
Balance at 30.09.2019	**5,988**	**14,373**	**1,658**	**4,500**	**494**	**1,351**	**14**	**28,377**

22 Other liabilities

Non-current other liabilities mainly consist of the share of liabilities arising from put option rights exercised in connection with the employee share scheme at AnalytiCon Discovery GmbH (€ 698 thousand; previous year: € 1,355 thousand) with a remaining term of more than one year.

Current other liabilities consist of the following:

€ thousand	2018/19	2017/18
Wage and salary liabilities	819	849
Current share of liabilities from put option rights in connection with the employee share scheme at AnalytiCon Discovery GmbH (for the most past exercised)	716	700
Accrued vacation pay	429	447
Wage and church tax, social security	304	307
Supervisory Board compensation	279	200
Special payments to subsidiaries' managements and employees	121	128
VAT	30	112
Customer bonuses	0	20
Miscellaneous other liabilities	221	255
Total current other liabilities	**2,919**	**3,017**

23 Deferred income

Deferred income consists of current deferred income of € 2,588 thousand (compared with € 1,310 thousand in the previous year) and non-current deferred income of € 1,466 thousand (compared with € 1,353 thousand in the previous year).

Deferred income partly includes prepayments received from customers for service obligations not yet performed as at the balance sheet date. A contribution of € 3,137 thousand is attributable to benefit obligations that have not yet been fulfilled. In essence, it is expected that this amount can be recognized in revenue within one year. Financing components in the case of deferred income are always separated from the actual performance if the potential financing component is classified as material. Current deferred income of € 960 thousand as at 1 October 2018 was fully recognized in revenue in the 2018/19 financial year. Deferred income of € 1,372 thousand arises from transactions with SolasCure Ltd..

24 Provisions

This item relates mainly to estimated expenses for the preparation auditing of the financial statements and consulting expenses. Utilization is anticipated mainly within the following financial year.

The following table provides an overview of related changes:

€ thousand	30.09.2018	Utilization	Release	Disposals from changes in the scope of consolidation	Addition	Currency differences	30.09.2019
Archiving costs	30	0	0	–5	0	0	24
Costs for financial statements, auditing and consulting	299	–253	0	–14	263	0	294
Decommissioning and dismantling	60	0	0	0	2	0	63
Other	124	–105	0	–20	0	1	0
Total	**512**	**–358**	**0**	**–39**	**265**	**1**	**381**

25 Prepayments received

Prepayments received are primarily research and development services and future supplies and have a maturity of up to one year. The total amount of € 170 thousand is attributable to current benefit obligations not yet rendered.

26 Trade payables

Trade payables have a term of up to one year.

VI. Financial instruments/risks from financial instruments

The following overview presents recognized financial instruments based on their IFRS 9 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 in the following.

The following abbreviations are used for the measurement categories:

Abbreviation	IFRS 9 measurement categories	
AC	Amortized cost	Available-for-sale financial assets and liabilities
AC	Amortized cost	Loans and receivables
FVTPL	Fair value through profit and loss	Financial assets and liabilities measured at fair value through profit or loss
FVTOCI	Fair value through other comprehensive income (FVTOCI) for debt	Fair value (market value) changes recognized directly in other comprehensive income (with recycling)
FVTOCI	Fair value through other comprehensive income (FVTOCI) for equity	Fair value (market value) changes recognized directly in other comprehensive income (without recycling)

Financial assets and liabilities are as follows on a summarized basis:

Category	Category	Carrying amount	Fair value			
€ thousand	IFRS 9	30.09.2019 (30.09.2018)	Amortized cost	Cost IFRS 17	Fair value through profit or loss	30.09.2019 (30.09.2018)
Assets						
Trade receivables	AC	6,388 (6,451)	6,388 (6,451)			
Other current and non-current assets	AC	666 (252)	666 (252)			666 (252)
Other financial assets	AC	213 (301)	213 (301)			
Cash and cash equivalents	AC	15,160 (25,539)	15,160 (25,539)			
Total		22,427 (32,543)	22,427 (32,543)			666 (252)

Category	Category	Carrying amount	Fair value			
€ thousand	IFRS 9	30.09.2019 (30.09.2018)	Amortized cost	Cost IFRS 17	Fair value through profit or loss	30.09.2019 (30.09.2018)
Liabilities						
Trade payables	AC	4,428 (2,872)	4,428 (2,872)			
Financial liabilities	AC	26,225 (25,385)	24,874 (24,736)	1,351 (649)		26,225 (25,385)
Financial liabilities	FVTPL	494 (0)			494 (0)	494 (0)
Other liabilities	AC	107 (155)	107 (155)			
Total		31,255 (28,412)	29,409 (27,763)	1,351 (649)	494 (0)	26,720 (25,385)

No financial instruments exist that are to be classified in the FVOCI category.

Intangible assets, property, plant, and equipment, tax assets (current, deferred and other), inventories, the prepaid expenses included in other assets, and prepayments for items of property, plant and equipment, do not fall within the scope of IFRS 7.

Share-based employee payment obligations (including the employee share scheme for AnalytiCon), tax liabilities, and social security liabilities are not classified as financial liabilities. Tax liabilities, prepayments received, and deferred income also do not fall within the scope of IFRS 7.

Cash and cash equivalents, other current assets, trade receivables, and trade payables mainly have short terms remaining. As a consequence, their carrying amounts at the end of the reporting period approximate their fair values. Non-current financial assets consist of deposits and loans extended whose rates of interest mainly correspond to current market interest-rate levels.

Liabilities to banks and other lenders, as well as to silent partners, reported in current and non-current financial liabilities, are measured at amortized cost. The fair values of financial liabilities are determined by discounting, applying current discount rates that match the maturity and risk of the liabilities. The fair values mainly correspond to the carrying amounts due to refinancing measures during the course of the year at market interest rates. The terms are presented in detail in Section 21 "Financial liabilities".

The carrying amounts of the financial instruments measured at fair value are classified as follows in accordance with the IFRS fair value hierarchy: listed prices in an active market (Level 1), valuation techniques based on observable inputs (Level 2), and valuation techniques based on unobservable inputs (Level 3).

No reclassifications between the different hierarchy levels were implemented.

The carrying amount of Level 3 financial liabilities (FVTPL) at the end of the reporting period amounted to € 494 thousand (previous year: € 0 thousand). These are forward exchange transactions with various terms.

The contractual undiscounted cash outflows of financial liabilities within the scope of IFRS 7 are shown in the following table:

30.09.2019 € thousand	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29 ff.
Silent partnerships (without profit-sharing)	285	285	580	559	1,127	180	762	726	1,854	0
Liabilities to lenders	1,330	1,598	781	679	548	171	171	1,214	0	0
Finance lease liabilities	742	243	201	142	24	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	0	0	0	0	14,706	0	0	0	0	0
Forward exchange transactions	494	0	0	0	0	0	0	0	0	0
Other liabilities	107	0	0	0	0	0	0	0	0	0
Trade payables	4,428	0	0	0	0	0	0	0	0	0
Total	**7,386**	**2,126**	**1,561**	**1,380**	**16,404**	**351**	**933**	**1,940**	**1, 854**	**0**

30.09.2018 € thousand	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26	26/27	27/28	28/29 ff.
Silent partnerships (without profit-sharing)	285	285	285	580	559	1,127	180	762	726	1,854	0
Liabilities to lenders	1,490	811	1,499	682	670	649	269	266	217	130	446
Finance lease liabilities	174	157	135	106	92	27	0	0	0	0	0
Liabilities from acquiring interests in fully consolidated companies	914	0	0	0	0	14,548	0	0	0	0	0
Other liabilities	155	0	0	0	0	0	0	0	0	0	0
Trade payables	2,872	0	0	0	0	0	0	0	0	0	0
Total	**5,890**	**1,252**	**1,919**	**1,368**	**1,320**	**16,351**	**449**	**1,028**	**943**	**1,984**	**446**

The following table shows the net gains or losses on financial instruments by measurement category:

€ thousand 2018/19 (2017/18)	From interest and dividends	From subsequent fair value measurement/ impairment	From currency translation	From disposals	Net gains/losses
Loans and receivables	6 (28)	–259 (–92)	0 (0)	–2 (–269)	–255 (–333)
Financial liabilities measured at (amortized) cost	–163 (–333)	1,228 (0)	0 (13)	435 (0)	1,500 (–320)
Finance leasing	–17 (–15)	0 (0)	0 (0)	0 (0)	–17 (–15)
Financial liabilities measured at fair value through profit or loss	0 (0)	494 (1,627)	0 (118)	0 (0)	494 (1,745)
Total	**–174** **(–320)**	**1,463** **(–1,535)**	**0** **(131)**	**433** **(–269)**	**1,722** **(1,077)**

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 € 180 thousand (previous year: € 348 thousand).

Risk management / risks from financial instruments

The Group's business activities expose it to various financial risks: credit risk, currency risk, interest rate risk, market risk and liquidity risk.

The Management Board has implemented a risk management system to identify and avoid risks. This system is based inter alia on rigorous supervision of business transactions, comprehensive exchange of information with the employees responsible, and regular – mostly quarterly – analyses of key performance indicators for the business.

The risk management system was implemented to be able to identify adverse developments at an early stage and launch countermeasures as quickly as possible.

With regard to the financial instruments the Group deploys, the objective of the risk management function at BRAIN is to minimize the risk exposure arising from financial instruments. The company does not enter into derivative financial instruments without a corresponding underlying basis transaction. In both the reporting period and the prior-year period, liquid funds were mainly invested with financial institutions in Germany and the UK that are members of a deposit protection fund.

The financial instruments that are recognized on the balance sheet can as a matter of principle generate the following risks for the Group:

Credit risk

Credit risk describes the risk that one party to a financial instrument will cause a financial loss for the other party by failing to discharge an obligation. Credit risk consists of both counterparty credit risk and the risk of a deterioration in credit quality, along with cluster risk. The maximum exposure to counterparty credit risk is equal to the carrying amounts of the financial instruments at the end of the reporting period. The counterparty credit risk relevant to the Group's operating activities is represented by the risk that business partners will fail to discharge their payment obligations. Risk concentration is not identifiable in the customer receivables area of the BioScience segment insofar as the claims exist in relation to a group of customers exhibiting above-average creditworthiness. Receivables in the BioIndustrial area exist in relation to many different contractual partners. The credit quality of the contracting parties is assessed to mitigate the counterparty credit risk exposure of customer receivables. The factors assessed include financial position, past experience and other factors. The corresponding financial transactions are mostly entered into only with counterparties with excellent credit ratings. Liquid funds are invested mainly in accounts with domestic financial institutions that are members of a deposit protection fund.

Currency risk

In addition, BRAIN is exposed to foreign currency risks. Income of € 108 thousand from currency differences (previous year: € 204 thousand) is offset by € 115 thousand of expenses from currency differences (previous year: € 58 thousand), so the resultant effects in both the 2018/19 and 2017/18 financial years largely offset each other, with only a small net expense remaining (previous year: net income). In the past financial year, BRAIN entered into minimal exchange transactions to hedge the operating business in the UK in the local currency due to the currency risks arising from Brexit. These were not categorized as a hedging instrument on the basis of IFRS 9. Foreign currency positions are generally of minor importance within the BRAIN Group. Apart from the risks set out in the section entitled "Valuation risks connected with foreign currency put option agreements", an IFRS 7 sensitivity analysis is not relevant for the financial statements due to the related subordinate importance.

Interest rate risk

Interest rate risk describes the risk of fluctuations in the value of a financial instrument because of changes in market interest rates. The largest portion of the loan has a fixed-interest period matching its maturity. The Management Board consequently believes that it is not exposed to material direct interest rate risk.

The risk exposures of the loans that match their maturities are limited to the risk that BRAIN cannot benefit from any potentially lower lending rates that may be obtained during the terms of the deposits and loans.

Negative rates of interest cannot be excluded. Significant effects on the company's financial position or performance are not anticipated. Risk for significant cash positions is countered through investing them in short-term deposits.

The Group benefited to only a limited extent from lower market borrowing rates due to the high proportion of fixed interest arrangements for its financial liabilities (> 95%; previous year: > 95%).

Further interest rate risks are detailed in the section "Valuation risks connected with foreign currency put option agreements".

Capital management / liquidity risk

The capital management function of BRAIN AG pursues the objective of financing the company's planned growth and of securing corresponding resources for short-term financing requirements. The company consequently sets a minimum 50 % target equity ratio. This was exceeded due to the IPO and supported by the capital increase in September 2017. The equity ratio amounted to 26 % as at 30 September 2019 (previous year: 38 %), and consequently below the target figure. The capital under management includes all current and non-current liability items as well as equity components. Financial terminology as presented in the financial statements is also utilized for debt and equity management purposes.

BRAIN AG and its subsidiaries are not subject to any capital adequacy requirements above and beyond those in the German Stock Corporation Act (AktG) and the German Limited Liability Company Act (GmbHG). On 11 December 2019, a master loan agreement with a volume of € 7.0 million was concluded. Further information is provided in the section "Events after the reporting date".

Valuation risks connected with foreign currency put option agreements

Due to a put option agreement with non-controlling interests in a subsidiary in the UK, which was acquired in the previous year, various valuation risks arise which are presented below. Significant inputs for inclusion in the Group include the relevant EBITDA included in the calculation, the relevant discounting rate as well as the relevant translation exchange rate for the translation into euros.

The actual obligation depends on the relevant EBITDA on the exercise date. Given a 10 % higher relevant EBITDA on the imputed exercise date of the put option rights, a € 1,454 thousand higher liability would arise as at 30 September 2019. Given a 10 % lower relevant EBITDA on the imputed exercise date of the put option rights, a € 1,454 thousand lower liability would arise as at 30 September 2019. Accordingly, the change was reported in profit or loss in the statement of comprehensive income.

Furthermore, the respective interest rate exerts a significant influence on the fair value recognized on the balance sheet. Given a one percentage point lower relevant interest rate on the imputed exercise date of the put option rights, a € 497 thousand higher liability would arise as at 30 September 2019. Given a one percentage point higher relevant interest rate on the imputed exercise date of the put option rights, a € 476 thousand lower liability would arise as at 30 September 2019. Accordingly, the change was reported in profit or loss in the statement of comprehensive income.

Furthermore, the respective exchange rate exerts a significant influence on the fair value recognized on the consolidated balance sheet. Given a 5 % stronger (weaker) pound sterling in relation to the euro, the liability would be € 703 thousand higher (lower). Accordingly, the change was carried directly to equity under other comprehensive income.

A 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 the BRAIN Group engaged for the financial year in question consist of the following items:

€ thousand	2018/19	2017/18
Audit services	151	183
Other certification services	0	107
Tax advisory services	0	4
	151	**293**

Related party disclosures

The Management Board and Supervisory Board of BRAIN AG consist of the key management of the BRAIN Group.
The company's Management Board consisted of the following members in the financial year under review:

Dr. Jürgen Eck, Bensheim, CEO (Chairman)
Diploma Biologist

Frank Goebel, Kelkheim, CFO (until 31 December 2018)
Diplom-Kaufmann

Manfred Bender, Heuchelheim, CFO (from 1 December 2018)
Diploma in Business Administration

Ludger Roedder, Alsbach-Hähnlein, CBO (from 1 January 2019)
Master of Business Administration (MBA)

The Management Board members are entitled to represent the company either jointly or individually with a company officer. If only one Management Board Member has been appointed, this Management Board member is entitled to represent the company alone.

Management Board compensation in the year under review amounted to:

€ thousand	2018/19	2017/18
Fixed compensation	718	450
Cost of pensions and surviving dependents' and disability benefits arising from defined contribution commitments	87	27
Cost of pensions and surviving dependents' and disability benefits arising from defined benefit commitments[12]	38	36
Performance-related remuneration[13]	118	37
Termination benefits	98	0
Share-based compensation	124	15
	1,183	**565**

Pension provisions of € 2,168 thousand (previous year: € 1,782 thousand) have been formed for former Management Board members.

The Management Board members are members of the following supervisory boards or comparable supervisory bodies:

Dr. Jürgen Eck, Bensheim (Chairman, CEO)
Enzymicals AG, Greifswald (Supervisory Board member)
BRAIN UK II Ltd., Cardiff, UK (Director)
BRAIN UK Ltd., Cardiff, UK (Director)
BRAIN US LLC, Rockville, MD, USA (Director until 1 April 2019)
Biocatalysts Ltd., Cardiff, UK (Director)

Manfred Bender, Heuchelheim
Schunk GmbH, Gießen (Supervisory Board Chairman)
Volksbank Heuchelheim eG, Heuchelheim (Supervisory Board member)

Ludger Roedder
BRAIN US LLC, Rockville, MD, USA (Director)
SolasCure Ltd., Cardiff, UK (Director)

The Management Board directly holds 759,166 shares as at the reporting date.

The company's Supervisory Board included the following members in the financial year under review:

Dr. Ludger Müller, Kaiserslautern (Chair until 7 March 2019)
Independent consultant

Dr. Georg Kellinghusen, Munich (Chair from 7 March 2019)
Independent consultant

12 Stated amount includes only service costs (see also section (5) Personnel expenses).
13 Short-term employee benefits

Dr. Martin B. Jager, Enkenbach-Alsenborn (Deputy Chair)
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

Dr. Anna C. Eichhorn, Frankfurt am Main
CEO, humatrix AG, Pfungstadt

Christian Koerfgen, Bad Soden am Taunus (until 7 March 2019)
"Leader Selection" Partner

Prof. Dr. Bernhard Hauer, Fussgönheim (from 7 March 2019)
University Professor

Dr. Michael Majerus, Ottobrunn (from 7 March 2019)
Management Board member (CFO & interim CEO) SGL Carbon SE, Wiesbaden

Dr. Rainer Marquart, Bensheim
Consultant

The **Audit Committee** of the company's Supervisory Board included the following members in the financial year under review:

Dr. Georg Kellinghusen, Munich (Chair until 7 March 2019)
Independent consultant

Dr. Michael Majerus, Ottobrunn (Chair from 7 March 2019)
Board of Directors (CFO & interim CEO) SGL Carbon SE, Wiesbaden

Dr. Martin B. Jager, Enkenbach-Alsenborn (until 7 March 2019)
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

Dr. Ludger Müller, Kaiserslautern (until 7 March 2019)
Independent consultant

Dr. Rainer Marquart, Bensheim (from 7 March 2019)
Consultant

The **Personnel Committee** of the company's Supervisory Board included the following members in the financial year under review:

Dr. Ludger Müller, Kaiserslautern (Chair until 7 March 2019)
Independent consultant

Dr. Georg Kellinghusen, Munich (Chair from 7 March 2019)
Independent consultant

Dr. Martin B. Jager, Enkenbach-Alsenborn
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

Christian Koerfgen, Bad Soden am Taunus (from 7 March 2019)
"Leader Selection" Partner

Dr. Michael Majerus, Ottobrunn (from 7 March 2019)
Management Board member (CFO & interim CEO) SGL Carbon SE, Wiesbaden

The **Nomination Committee** of the company's Supervisory Board included the following members in the financial year under review:

Dr. Ludger Müller, Kaiserslautern (Chair until 7 March 2019)
Independent consultant

Dr. Georg Kellinghusen, Munich (Chair from 7 March 2019)
Independent consultant

Dr. Anna C. Eichhorn, Frankfurt am Main
CEO, humatrix AG, Pfungstadt

The **M&A Committee** of the company's Supervisory Board included the following members in the financial year under review:

Dr. Martin B. Jager, Enkenbach-Alsenborn (Chair)
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

Dr. Georg Kellinghusen, Munich
Independent consultant

Dr. Ludger Müller, Kaiserslautern (until 7 March 2019)
Independent consultant

Dr. Rainer Marquart, Bensheim (from 7 March 2019)
Consultant

The **Innovation Committee** of the company's Supervisory Board included the following members in the financial year under review:

Dr. Anna C. Eichhorn, Frankfurt am Main (Chair)
CEO, humatrix AG, Pfungstadt

Dr. Martin B. Jager, Enkenbach-Alsenborn
Managing Partner InnoVest Nutrition GmbH, Kaiserslautern

Dr. Rainer Marquart, Bensheim (until 7 March 2019)
Consultant

Prof. Dr. Bernhard Hauer, Fussgönheim (from 7 March 2019)
University Professor

The Supervisory Board members are members of the following **supervisory boards or comparable supervisory bodies**:

Dr. Georg Kellinghusen, Munich (Chair from 7 March 2019)
Advyce GmbH, Munich (Advisory Board member)
Neue Wirtschaftsbriefe GmbH & Co. KG, Herne (Advisory Board member)
Deutsche Bank AG, Frankfurt a. M. (Regional Advisory Board member, Bavaria)

Dr. Martin B. Jager, Enkenbach-Alsenborn, (Deputy Chair)
EIT Food iVZW, Belgium, Supervisory Board member

Dr. Anna C. Eichhorn, Frankfurt am Main
Frankfurt Biotechnology Innovation Center, Frankfurt am Main
(Supervisory Board member)

Dr. Michael Majerus, Ottobrunn (from 7 March 2019)
SGL CARBON LLC, Charlotte, USA (Supervisory Board member)
Non-executive director on the Management Board of Deutsches Aktieninstitut e.V., Frankfurt am Main

Prof. Dr. Bernhard Hauer, Fussgönheim (from 7 March 2019)
None

Dr. Rainer Marquart, Bensheim
FLYTXT B.V., Nieuwegein, Netherlands (member of the Board of Directors)
Leverton GmbH, Berlin (Advisory Board Chairman)
Onefootball GmbH, Berlin (Advisory Board member)
The Ark Pte. Ltd., Singapore (member of the Board of Directors)

The compensation of the Supervisory Board in the year under review was as follows:

€ thousand	2018/19	2017/18
Fixed compensation[14]	181	159
of which allowance for special functions	68	46
Attendance fees[14]	98	41
Total compensation	**279**	**200**

The Supervisory Board indirectly holds 23,581 shares in the company as at the reporting date. Further information is presented in the compensation report in the Group management report.

14 Short-term employee benefits

Other relationships with related parties

In the 2018/19 and 2017/18 financial years, the following supplies or purchases of goods and services occurred between the members of the governing bodies (Management and Supervisory board members) and their related parties and associated companies of the BRAIN Group and entities with significant influence over BRAIN AG.

Enzymicals AG is an associated company pursuant to IAS 28.2 and is therefore categorized as a related party pursuant to IAS 24.9. As at the reporting date, BRAIN AG was owed € 104 thousand (previous year: € 104 thousand) of loan and interest receivables by Enzymicals AG. The interest income for this 6.0 % loan amounted to € 6 thousand in the 2018/19 financial year (previous year: € 6 thousand). As far as the term is concerned, please refer to the following section "Contingencies and other financial obligations".

SolasCure Ltd. is an associated company pursuant to IAS 28.2 and is therefore categorized as a related party pursuant to IAS 24.9. A license agreement was concluded with SolasCure Ltd. in the 2017/18 financial year as part of the investment, for which BRAIN AG was paid with shares in the company equivalent to an amount of € 3,919 thousand. These have been deferred and will be recognized as revenue until November 2021 in the amount of the other shareholders' interests, as BRAIN AG will be closely involved in the approval process until then and will render further services. Unrealized results of intra-group transactions are eliminated in the consolidated financial statements as part of consolidation, resulting in the recognition in the current financial statements of an amount of EUR 1,372 thousand (previous year: € 1,292 thousand). In connection with the license, a service agreement was also concluded with an anticipated total volume of around € 3.9 million. In the 2018/19 financial year, revenue was generated with the company in the context of the transaction described above in the amount of EUR 2,060 thousand. In the previous, other income € 232 thousand was generated in another connection, and revenue of € 42 thousand in the context of the aforementioned transaction.

No receivables were due from directors of BRAIN AG or individuals related to these directors as at 30 September 2019. As at the 30 September 2019 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: € 279 thousand (previous year: € 200 thousand);
- Payments to the Management Board: € 227 thousand (previous year: € 110 thousand);
- Deferrals for outstanding vacation (Management Board): € 94 thousand (previous year: € 67 thousand).

No other obligations exist in relation to the key management personnel of BRAIN AG.

Contingencies and other financial commitments

As at the balance sheet date, contingent liabilities in an amount of € 281 thousand (previous year: € 267 thousand) exist which are attributable to the acquisition of the Biocatalysts Group and put options agreed in this connection. In the event that the put options are exercised, BRAIN is obligated to make payments to a transaction adviser. When they are incurred, these expenses are classified as subsequent costs, and consequently as transaction costs to be adjusted in EBITDA. As at the balance sheet date, no further contingent liabilities existed relation to third parties.

Other financial commitments (operating leases) relate inter alia to telecommunication systems whose contract terms are extended automatically by one year unless terminated, technical storage systems, and working attire rental services with a six-month contractual notice period as at the calendar year-end. In addition, land and buildings are leased at the company sites of AnalytiCon GmbH and WeissBioTech GmbH. The rental contracts have remaining terms of between 0.3 and 5.3 years. The minimum rent payments and lease payments have the following terms:

€ thousand	30.09.2019	30.09.2018
Remaining term of up to 1 year	303	314
Remaining term between 1 and 5 years	1,344	1,064
Remaining term of more than 5 years	66	593
	1,714	1,971

The total amount of rent and lease payments expensed in the financial year under review stands at € 319 thousand (previous year: € 336 thousand).

As at the 30 September 2019 balance sheet date, obligations of € 0 thousand (previous year: € 49 thousand) exist from contracts entered into due to third-party work conducted in the research and development contract area.

As was the case at the end of the previous financial year, as at 30 September 2019 no obligations exist arising from investment projects that have been commenced.

Contingent purchase price obligations exist for intangible assets that depend on the achievement of specific future revenue using these intangible assets up to a maximum amount of € 160 thousand (previous year: € 160 thousand).

As part of a lending facility with a term until 31 December 2019 that is not fully utilized, Enzymicals AG was granted the right to draw down a further € 40 thousand of short-term loans from BRAIN AG.

The Management Board is not aware of other facts or circumstances that could lead to material additional financial commitments.

Employees

The number of employees reports the following changes:

	2018/19	2017/18
Total employees, of whom	281	247
Salaried employees	256	230
Industrial employees	25	17

The BRAIN Group also employs grant recipients (4, previous year: 6), temporary help staff (12, previous year: 11) and trainees (7, previous year: 6).

Statement of conformity to the German Corporate Governance Code

The statement of conformity to the German Corporate Governance Code as required by Section 161 of the German Stock Corporation Act (AktG) was issued by the Management and Supervisory boards and published on the company's website.

Events after the reporting date

Change at the top of the Management Board – Adriaan Moelker takes over from Dr. Jürgen Eck

On 2 December 2019, BRAIN AG announced that Management Board Chairman (Chief Executive Officer) Dr. Jürgen Eck would step down from his position on the Management Board with effect from 31 December 2019, and would leave the company by mutual agreement. Dr. Eck will continue to be available to BRAIN as a consultant and will advise it especially on new product development lines. With this announcement, the company also notified that Mr. Adriaan (Aryan) Moelker is to be appointed to the Management Board with effect from 1 February 2020 and was appointed to be the future Chairman of the Management Board (CEO). A specific financial impact on the company's financial position and performance cannot be gauged. However, the Management Board assumes that Mr. Moelker's expertise will make an important contribution to the industrial scaling of the product development lines.

Conclusion of a long-term loan facility

On 11 December 2019, the company concluded a loan facility that gives the Management Board greater flexibility in investing in the company's own development projects. Under this loan agreement, BRAIN AG can draw down an amount of up to € 7.0 million over a period of up to 3.5 years.

Since the 30 September 2019 reporting date, no further significant events and developments of particular importance for the company's financial position and performance have occurred.

Zwingenberg, 20 December 2019

Dr. Jürgen Eck	**Manfred Bender**	**Ludger Roedder**
CEO	CFO	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 2019, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the fiscal year from 1 October 2018 to 30 September 2019, 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 2018 to 30 September 2019. In accordance with the German legal requirements, we have not audited the content of the "Corporate governance statement of conformity pursuant to Section 289f and Section 315d of the German Commercial Code (HGB)" section included in the Group management report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB ["Handelsgesetzbuch": German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 30 September 2019, and of its financial performance for the fiscal year from 1 October 2018 to 30 September 2019, and
- the accompanying Group management report as a whole provides an appropriate view of the Group's position. In all material respects, this Group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the Group management report does not cover the content of the corporate governance statement referred to above.

Pursuant to Sec. 322 (3) Sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the Group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and examination of the Group management report in accordance with Sec. 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and the Group management report" section of our auditor's report. We are independent of the Group businesses in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Art. 10 (2) f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Art. 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the Group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consol-

idated financial statements for the fiscal year from 1 October 2018 to 30 September 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.
Below, we describe what we consider to be the key audit matters:

Impairment testing of goodwill

Reasons why the matter was determined to be a key audit matter

The goodwill impairment test performed annually by the Management Board is based on a valuation model that uses the discounted cash flow method. Against the background of the complexity and judgment exercised during this valuation, the goodwill impairment test was a key audit matter. The goodwill impairment test is based on assumptions that are derived from corporate planning and influenced by the expected future market and economic conditions. The recoverable amount of goodwill is mainly dependent on the estimated future net cash flows in the business plan as well as the assumed discount and growth rate. Defining these parameters is the responsibility of the executive directors and is subject to judgment. There is a risk that amendments to these judgments entail significant changes to the impairment testing of goodwill.

Auditor's response

We assessed the suitability of the valuation process for identifying the potential need to recognize impairment losses. During our audit, we also evaluated the valuation model used to determine the recoverable amounts with the help of our valuation experts, especially in terms of its methodical applicability and clerical accuracy.
We tested the executive directors' forecasts regarding the estimated future net cash flows by comparing the plan adopted by the Management Board and approved by the Supervisory Board for consistency with information from the management accounts as well as the general and industry-specific market expectations. In addition, the plans were compared for consistency with other internal expectations, such as the forecast information provided in the management report. We also compared the plans drawn up in the prior periods with the actual results in order to analyze the accuracy of the forecasts.
We examined the calculation of the inputs used, especially the discount rate applied, for substantive and arithmetical accuracy by comparing them with external market expectations.
We also performed sensitivity analyses in order to assess the potential impact of changes in the inputs used on the recoverable amount.
In addition, we assessed the disclosures in the notes to the financial statements.
Our procedures did not lead to any reservations relating to the valuation of goodwill.

Reference to related disclosures

With regard to impairment testing of goodwill, we refer to the disclosures in the section entitled "Impairment tests" of the notes to the consolidated financial statements.

Other information

The Supervisory Board is responsible for the Report from the Supervisory Board in chapter 1 of the Annual Report 2018/19. In all other respects, the executive directors are responsible for the other information.
The other information, of which we received a version prior to issuing this auditor's report, includes:

- the report from the Supervisory Board in chapter 1 of the Annual Report 2018/19;
- the corporate governance report in chapter 3 of the Annual Report 2018/19;
- the responsibility statement of the executive directors in chapter 4 of the Annual Report 2018/19.

Our opinions on the consolidated financial statements and on the Group management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information

- is materially inconsistent with the consolidated financial statements, with the Group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

Responsibilities of the executive directors and the supervisory board for the consolidated financial statements and the Group management report

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB, and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.
In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.
Furthermore, the executive directors are responsible for the preparation of the Group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the Group management report.
The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and the Group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the Group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the Group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the Group management report.
Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Sec. 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this Group management report.
We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the Group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the Group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the Group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Sec. 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the Group management report. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the Group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.
We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence and where applicable, the related safeguards.
From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial state-

ments of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

Other legal and regulatory requirements

Further information pursuant to Art. 10 of the EU Audit Regulation

We were elected as Group auditor by the Annual General Meeting on 7 March 2019 and were engaged by the Supervisory Board on 3 September 2019 to audit the consolidated financial statements as at 30 September 2019. We have been the Group auditor of B.R.A.I.N. Biotechnology Research and Information Network AG without interruption since fiscal year 2016/17.

We declare that the opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Art. 11 of the EU Audit Regulation (long-form audit report).

German Public Auditor responsible for the engagement

The German public auditor responsible for the engagement is Helge-Thomas Grathwol.

Mannheim, 20 December 2019

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Grathwol	**Hällmeyer**
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

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Financial calendar

28.02.2020	**Publication of the quarterly report as at 31 December 2019 (3M)**
05.03.2020	**Annual General Meeting, Zwingenberg**
29.05.2020	**Publication of the interim report as at 31 March 2020 (6M)**
31.08.2020	**Publication of the quarterly report as at 30 June 2020 (9M)**

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