

# EUROPEAN ACCESS TO SPACE



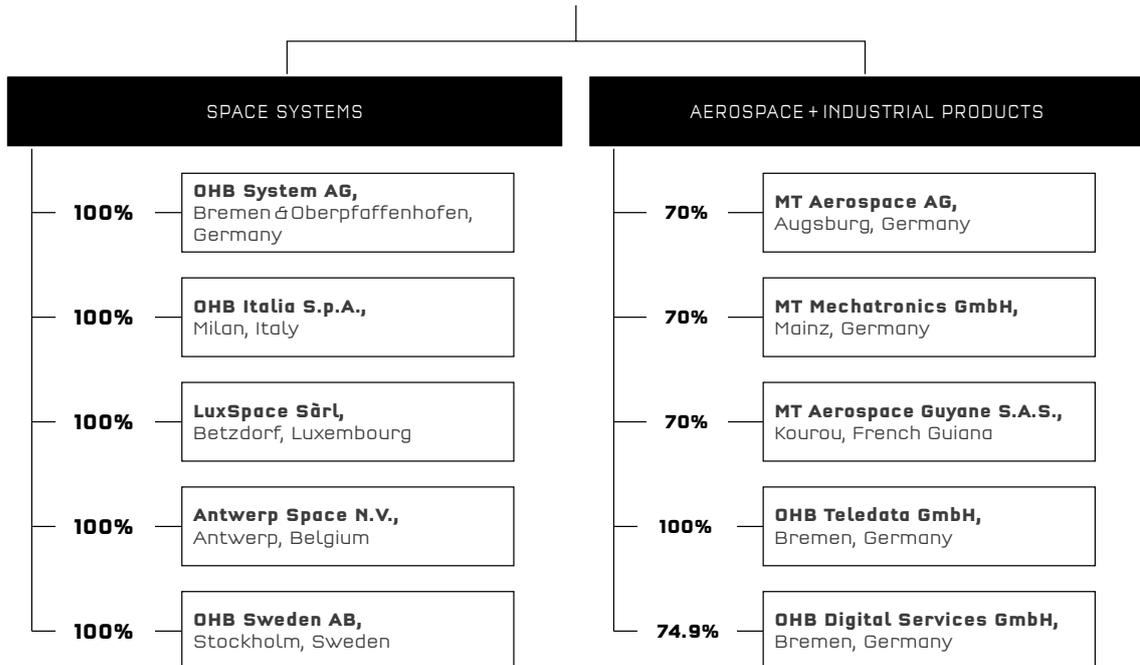
# OHB SE AT A GLANCE

**OHB SE is a European aerospace and technology group** and one of the most important independent forces in the European space industry. With more than 35 years of experience in developing and executing innovative space technology systems and projects and its range of specific aviation/aerospace and telematics products, the OHB Group is superbly positioned to face international competition.

Over the last few years, it has broadened its geographic footprint within Europe and now has facilities in many important ESA member countries. These strategic decisions on locations allow the Group to participate in numerous European programs and missions. The two "Space Systems" and "Aerospace + Industrial Products" business units reflect the convergence of these activities and the focus on specific core skills.

**The "Space Systems" business unit** focuses on developing and executing space projects. In particular, it is responsible for developing and manufacturing of low-orbiting and geostationary satellites for navigation, science, communications, earth and weather observation and reconnaissance including scientific payloads. Reconnaissance satellites and broadband wireless transmission of image data form core technologies for security and reconnaissance. The exploration segment works on studies and models for exploring our solar system, primarily the Moon, asteroids and Mars. Its human space flight activities chiefly entail projects for the payloads and operations of the International Space Station ISS.

**The "Aerospace + Industrial Products" business unit** is primarily responsible for manufacturing aviation and space products as well as engaging in other industrial activities. In this area, OHB has established itself as a leading supplier of aerospace structures for the aviation and space industry; among other things, it is the largest German supplier of components for the Ariane program and an established producer of structural elements for satellites. In addition, OHB is an experienced provider of mechatronic systems for antennas and telescopes and is involved in several major radio telescope projects. OHB telematics systems serve the logistics industry around the world by offering efficient transport management and consignment tracking facilities.



# SUBSIDIARIES OF OHB SE IN EUROPE

**OHB** SYSTEM AG  
Bremen



**MT** AEROSPACE AG  
Bremen



**LUXSPACE**  
SÀRL  
Luxembourg



**OHB**  
SWEDEN AB  
Stockholm



**MT**  
MECHATRONICS  
GMBH  
Mainz



**ANTWERP**  
SPACE N.V.  
Antwerp



**MT**  
AEROSPACE  
GUYANE S.A.S.  
Kourou



**MT**  
MECATRÓNICA  
LIMITADA  
Santiago de Chile

**MT**  
AEROSPACE AG  
Augsburg



**OHB**  
SYSTEM AG  
Oberpfaffenhofen



**OHB ITALIA** S.P.A.  
Milan



# OHB SE FIGURES

## THE GROUP

in EUR 000	2017	2016	2015	2014	2013
1. Revenues	825,894	699,184	719,706	728,147	680,121
2. Total revenues	859,689	728,386	730,368	772,954	700,063
3. EBITDA	58,809	55,081	52,135	53,416	52,803
4. EBIT	44,223	42,700	40,214	40,400	36,353
5. EBT	42,238	38,009	36,698	33,874	29,728
6. Share of OHB SE shareholders in net profit for the year	23,355	22,212	20,975	25,713	19,436
7. Earnings per share (EUR)	1.34	1.28	1.21	1.48	1.12
8. Total assets	719,698	682,914	638,725	640,613	585,407
9. Equity	207,280	183,590	168,751	145,402	132,705
10. Cash flow from operating activities	34,977	72,726	3,591	-35,020	-34,111
11. Equity investments	44,885	50,200	24,616	25,048	23,632
12. thereof capital spending	245	1,966	39	40	1,046
13. Employees on December 31	2,420	2,298	2,056	2,086	2,412

## THE SHARE

in EUR	2017	2016	2015	2014	2013
1. Closing price	44.61	18.54	20.97	19.70	17.55
2. Year high	47.47	20.78	23.60	25.06	18.63
3. Year low	18.26	17.02	16.59	17.45	14.76
4. Market capitalization at year-end (in EUR million)	779	324	366	344	307
5. Number of shares	17,468,096	17,468,096	17,468,096	17,468,096	17,468,096
6. Dividend (EUR)	0.40*	0.40	0.40	0.37	0.37

\* Subject to approval by the shareholders

# 860

**EUR MILLION**  
Consolidated total revenue

# 59

**EUR MILLION**  
EBITDA

# 44

**EUR MILLION**  
EBIT

**20**  
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## LETTER TO THE SHAREHOLDERS



**LETTER TO  
THE SHARE-  
HOLDERS**

**DEAR READERS,**

Last year was a very successful time for the space industry in many respects. In our industry, transportation plays a key role as the availability of a reliable launcher system forms the basis for the successful positioning of satellites and the assembly of systems in orbit. In the United States, private-sector companies have had growing success in launching privately funded rockets. These launches have met with great interest on the part of the general public. In Europe, private-sector companies are engineering the new flexible and less expensive Ariane 6 on behalf of the European Space Agency ESA to safeguard Europe's continued independent access to space. One of the companies involved in these activities is MT Aerospace, a member of the OHB Group, which signed a contract with system contractor Ariane Group for the development of tank and structural components last year. The preliminary components for testing the fuel tanks have already been fabricated in Augsburg, while the tanks are to be shipped this year for the maiden flight planned for 2020. At the same time, Group company MT Mechatronics is supplying the mechanical structures for the necessary launch pad facilities at the European space center in Kourou (French Guiana) and will be providing local launching services in the future. After a two-year transitional period, the new launcher will replace the current Ariane 5.

**MANAGEMENT BOARD**

**DR. FRITZ MERKLE,**  
Born in 1950, degree in physics, Member of the Management Board of OHB SE since 2014

**MARCO R. FUCHS,**  
Born in 1962, attorney at law, Chief Executive Officer of OHB SE since 2000

**KLAUS HOFMANN,**  
Born in 1960, degree in business administration, Member of the Management Board of OHB SE since 2015



LETTER TO THE SHAREHOLDERS



## LETTER TO THE SHAREHOLDERS

Space has recently evolved into a closely observed discipline with practical applications from which nearly all citizens benefit today. The OHB Group companies' broad range of products and services address the various requirements and needs of institutional and commercial customers. The high degree of innovation in some of these activities is accompanied by standardization in some aspects of satellite engineering. In the telecommunications segment, OHB System AG has developed its own modular satellite platform (SmallGEO) with ESA's support. On this basis, it has designed, developed, integrated and tested its first communications satellite together with other Group companies. This was done in close consultation with ESA and the customer, Spanish satellite operator HISPASAT, S.A. Known as H36W-1, the satellite was successfully launched in January and, following extensive testing and maneuvers, handed over to the customer in June. This gives the Company a proven satellite platform which it can use as a basis for further satellites for communications and earth observation applications in both the institutional and the commercial market. The teams at OHB System AG are currently already working on firm projects based on the SmallGEO platform, including the Heinrich Hertz project, for which the corresponding contract was entered into with the German Aerospace Center (DLR) in June. In addition to the scientific/technical mission component on behalf of the German Federal Ministry for Economic Affairs and Energy, this

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**MARCO FUCHS**  
Chief Executive Officer

telecommunications satellite will also be carrying an operational communications payload for the German federal armed forces under a partnership with the German Federal Ministry of Defense.

The two contracts awarded by the European Commission in conjunction with the European Space Agency ESA for a further twelve Galileo full-operational-capability satellites for the Galileo European navigation system are of particular significance for the Company. With the decision to award these contracts to OHB System AG, the Company remains the sole principal contractor for the total of 34 FOC Galileo satellites. In this way, it has been able to additionally reinforce its strong competitive position. Currently, 18 satellites supplied by OHB

are in orbit. All of them are operating perfectly and have been providing initial services since December 2016. A further four satellites will be launched from Kourou in July this year. The system is being continuously expanded until all the satellites ordered from OHB System AG are in operation.

At the end of November 2017, OHB System AG signed a contract with the Federal Republic of Germany for the installation of a satellite system for global electro-optical reconnaissance. This contract testifies to the confidence that the German authorities hold in the Company following the award of the order for the SAR-Lupe reconnaissance system and the follow-up SARah system. The radar-based SAR-Lupe system has been a perfectly

## LETTER TO THE SHAREHOLDERS

functioning part of the capabilities of the German federal armed forces for more than ten years.

The Management Board and the Supervisory Board will be asking the shareholders to approve a dividend of EUR 0.40 (previous year: EUR 0.40) per share at this year's annual general meeting.

### OUTLOOK

In 2018, OHB is concentrating on competently fusing the innovative ideas from research and development with new production technologies to create leading global space applications. Based on the sharp rise in order backlog to around EUR 2.4 billion (previous year: around EUR 1.6 billion, as of December 31 in both cases), the Management Board expects consolidated total revenues to increase to around EUR 1.0 billion in 2018 as a whole. At EUR 65 million and EUR 47 million, respectively, EBITDA and EBIT should also exceed the previous year once again.

There are two changes to the Company's Management Board effective April 1, 2018: Dr. Lutz Bertling has been appointed to OHB SE's Management Board effective April 1 and will be overseeing corporate development, space services and digitization. In addition, Kurt Melching, who is already a member of the Management Board of OHB System AG and director of finance and controlling of OHB SE, has also been appointed to OHB SE's Management Board effective April 1, 2018 and will be in charge of financial matters. I look forward to working with the two new members of the Management Board and welcome them on behalf of the entire Management Board. The new appointments to the Management Board are related to the retirement of Mr. Ulrich Schulz on July 31, 2017 as well as the upcoming retirement of Dr. Fritz Merkle on June 30, 2018.

OHB SE has lost a long-standing management expert in Ulrich Schulz, who has now reached retirement age. I have always greatly appreciated his experience, enthusiasm and loyalty and wish to thank him most sincerely for his 35 years of service for the OHB Group. We really appreciate that Ulrich Schulz will be available as a consultant for OHB in the future.

The Management Board would particularly like to thank all the employees at all of the OHB SE companies for their services, dedication, innovative ideas and untiring search for innovative ideas last year. The Group's success rests on their shoulders. Going forward, we will jointly continue our European success story with enthusiasm and spirit.



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Bremen, March 20, 2018  
**MARCO R. FUCHS**  
Chief Executive Officer

REPORT OF THE SUPERVISORY BOARD



## SUPERVISORY BOARD

**PROF. HEINZ STOEBER,**

Member of the Supervisory Board of OHB SE since 2005, Born in 1940, degree in engineering, Professor em. Space Systems Engineering, Technical University of Delft, Netherlands, Managing director of Space Associates GmbH, Munich

**CHRISTA FUCHS,**

Chairwoman of the Supervisory Board of OHB SE, Member of the Supervisory Board since 2002, Born in 1938, business woman, Managing shareholder of VOLPAIA Beteiligungsgesellschaft mbH, Bremen

**ROBERT WETHMAR,**

Member of the Supervisory Board of OHB SE since 2012, Born in 1961, attorney at law, LL.M., Partner at law firm Taylor Wessing, Hamburg



**DEAR SHAREHOLDERS,**

In 2017, the Supervisory Board performed its duties with due care in accordance with the applicable statutory requirements, the provisions of the Company's bylaws and its rules of conduct and monitored the activities of the Management Board in the management of the Company. The Supervisory Board is responsible for overseeing the Management Board by monitoring its activities and exerting influence. This latter function plays a decisive role in the Company's success not only in the short term but also on a medium and long-term basis.

The Management Board briefed the Supervisory Board regularly and comprehensively on the status of the tendering processes, order intake, the relevant financial indicators and capacity utilization at OHB SE as well as within the individual business units. The Management Board answered all of the Supervisory Board's questions in full and comprehensively. The Supervisory Board sought and received ongoing information on corporate planning, strategic development and the main acquisition projects and advised the Management Board on individual matters relating to corporate acquisitions and project tenders.

The Supervisory Board held five ordinary meetings at which it deliberated on the Group's performance, the reports submitted by the Management Board, the status of current projects, pending tender processes, planned acquisitions and the corporate budget for 2018–2020. Ordinary meetings of the Supervisory Board in 2017 were held on February 13, March 20, May 16, September 6 and December 13 at the Company's headquarters in Bremen. An extraordinary meeting of the Supervisory Board was held on August 17, 2017 to discuss a letter received from the US

## REPORT OF THE SUPERVISORY BOARD

shareholder activist and investor Wyser-Pratte Management Co., Inc. All six meetings were attended in full by the Supervisory Board and the Management Board. Two members of the Supervisory Board attended two meetings (February 13 and August 17) via a remote telephone link. The Company's legal counsel took the minutes of all six meetings.

The main items of the agenda of the meeting on February 13, 2017 included the presentation of the provisional annual financial statements for 2016 and the status of the ongoing audit, which was performed by PricewaterhouseCoopers Wirtschaftsprüfungsgesellschaft GmbH for the first time. At each of the meetings of the Supervisory Board, the Management Board reported on the Group's current business performance, tender processes and Group funding as well as the individual subsidiaries including CGS, which had been renamed OHB Italia S.p.A. effective January 1, 2017.

The Supervisory Board unanimously passed a resolution to renew until June 30, 2018 Dr. Fritz Merkle's appointment to OHB SE's Management Board, which was expiring on August 31, 2017. This gave the Company sufficient time to arrange a successor for Dr. Fritz Merkle ahead of his planned retirement.

The meeting held on March 20, 2017 was chiefly devoted to the Management Board's report on the Group's performance in the period commencing January 1, 2016 and ending December 31, 2016, the current state of business as well as the forecasts for 2017. For this purpose, the Management Board submitted the annual financial statements, the consolidated financial statements, the management report for OHB SE and the Group management report for 2016. The statutory auditor from PricewaterhouseCoopers Wirtschaftsprüfungsgesellschaft GmbH, Bremen, personally presented the audit report and elaborated on it at this meeting. The consolidated financial statements and the annual financial statements of OHB SE were unanimously approved and, consequently, duly adopted. The Report of the Supervisory Board including the

declaration of consent of the Related Parties Report prepared by the Management Board was also approved. The Supervisory Board took note of and adopted the Management Board's proposal for the allocation of the unappropriated surplus and the distribution of a dividend of EUR 0.40 per share, which was unchanged over the previous year, for approval by the shareholders.

The fully worded invitation to OHB SE's annual general meeting on May 16, 2017 and the agenda for the meeting were approved in a likewise unanimous resolution.

A further matter dealt with at this meeting concerned BaFin's new guidelines on the penalties payable in the event of any breach of disclosure duties. With the European Market Abuse Directive now taking effect, BaFin as the competent authority has raised the penalties payable for individual breaches drastically. The Supervisory Board and Management Board took note of the new rules and jointly stressed the particular importance of observing the statutory disclosure duties.

At the meeting on May 16, 2017, the Supervisory Board and the Management Board confirmed their satisfaction with the annual general meeting that had been held that morning. In addition, the Management Board reported on the Group's business performance in the first quarter of 2017, the current state of business and possible Brexit-related project challenges. The situation of the European market for telecommunications satellites and further institutional orders were discussed in detail.

On July 31, 2017, Mr. Ulrich Schulz stepped down from OHB SE's Management Board for age-related reasons. Responsibility for IT/infrastructure and the coordination of the telematics companies was transferred to Mr. Marco Fuchs and responsibility for compliance to Mr. Klaus Hofmann.

The sole matter discussed at the extraordinary meeting of the Supervisory Board held on August 17, 2017 was the letter from the US

shareholder activist and investor Wyser-Pratte Management Co., Inc. addressed to the Chief Executive Officer, Mr. Marco Fuchs. In this letter, the investor stated that he held or represented a substantial number of OHB shares and asked critical questions concerning OHB SE's corporate governance, organizational structures and orientation. This letter was sent to selected media on the morning of August 17, 2017 and reported on in these media. OHB published an ad-hoc bulletin in the morning to inform all shareholders of this matter. The Management Board and Supervisory Board agreed that the questions raised in the letter were to be answered appropriately and objectively by the Management Board and that these answers were to be likewise published.

The main business conducted at the Supervisory Board's meeting of September 6, 2017 entailed analyses and reports on the various project plans within the Group and individual subsidiaries as well as status reports on the progress of the main domestic and foreign activities. In addition, the Management Board of OHB SE reported on business performance in the first half of the year as well as the current state of business in 2017. Mr. Fuchs provided an up-to-date overview of the leases in force between the OHB operating companies and the Fuchs family's real estate companies. He also reported on the second letter received from Wyser-Pratte Management Co., Inc. The Supervisory Board confirmed that the previous communications strategy was to be retained.

**THE 69<sup>TH</sup>  
INTERNATIONAL  
ASTRONAUTICAL  
CONGRESS  
WILL BE TAKING  
PLACE  
ON OCTOBER  
1-5, HIGHLIGHTING  
THE GREAT  
IMPORTANCE  
THAT SPACE  
HAS FOR THE  
ECONOMY OF  
THE CITY OF  
BREMEN.**

**CHRISTA FUCHS**  
Chairwoman of the Supervisory Board

Held on December 13, 2017, the Supervisory Board's final meeting for the year dealt primarily with the Group's business performance in the first nine months of 2017 and expected earnings for 2017. As well as this, the Management Board reported on individual incorporation activities and the performance of the domestic and non-domestic subsidiaries. In addition, the current corporate budget for 2018-2020 was presented in detail. Moreover, the strategy development process for the Group as a whole as well as within OHB System AG was described. In this connection, the planned amendments to the IFRS accounting standards, particularly IFRS 15 (recognition of revenues) and IFRS 16 (leases) were discussed.

The audits conducted by Internal Auditing within the Group in 2017 and the results of these were also discussed at the meeting held on December 13. Generally speaking, the audits performed in 2017 did not indicate the existence of any serious shortcomings or vulnerabilities. Moreover, the

audit schedule for 2018 was submitted and duly approved by the Management Board and Supervisory Board. Legal counsel presented the compliance report for 2017, which the Management Board and Supervisory Board duly approved. The Management Board and the Supervisory Board also jointly issued the declaration of conformity to the German Corporate Governance Code in the updated version of February 7, 2017 stipulated by Section 161 of the German Stock Corporation Act.

## REPORT OF THE SUPERVISORY BOARD

In addition, Mr. Fuchs reported that Wyser-Pratte Management Co., Inc. had written to say that it had sold a large part of its shares. Mr. Wyser-Pratte also confirmed in the press that he had sold his shares in OHB. Accordingly, no further correspondence with him was expected and nothing had been received as of today's date.

Mr. Hofmann presented the model of a learning OHB organization including the challenges posed and the resultant opportunities for the Group on its path to becoming a modern, learning structure. This involved young talent development and career planning, the greater use of internal resources and experience, especially in the field of training and further education, and the structuring of education and study programs. The focus is on possibilities and systems for evaluating and improving employee performance. The Supervisory Board expressly approved the plans and initiatives described and encouraged the Management Board to implement such programs for training staff and for improving flexibility and efficiency.

OHB SE together with its Supervisory Board and Management Board is committed to good and responsible corporate governance. This commitment is shared by the majority shareholders and the Group's entire management. In addition to observing high statutory and ethical standards, employees with their keen sense of responsibility attach top priority to minimizing environmental impact, the achievement of the greatest possible quality as well as the safety, health and equality of all staff. This has resulted in what by industry standards is a high proportion of women in interesting positions in aviation and space technology. It is also being accompanied by a gradual increase in the number of women in management positions.

This year, the 69<sup>th</sup> International Astronautical Congress IAC 2018 will be held in Bremen, the "City of Space" on October 1–5. With the participation of OHB System and MT Aerospace in "Team Germany", it will be highlighting the

key significance that space technology has for the economies of Bremen and Germany as a whole.

### CORPORATE GOVERNANCE

The Management Board also submitted a corporate governance report to the Supervisory Board in accordance with Section 3.10 of the German Corporate Governance Code in connection with the corporate governance declaration stipulated by Section 289 et seq. of the German Commercial Code. The corporate governance declaration can be examined at OHB SE's website. The Supervisory Board regularly discussed the application and further development of the principles of corporate governance within the Company. On December 13, 2017, the Management Board and the Supervisory Board issued an updated declaration of conformity in accordance with Section 161 of the German Stock Corporation Act and made this available permanently to shareholders at the Company's website.

### APPROVAL OF THE ANNUAL FINANCIAL STATEMENTS FOR 2017

The annual financial statements, the consolidated financial statements and the related management reports of OHB SE for 2017 were audited by PricewaterhouseCoopers Wirtschaftsprüfungsgesellschaft GmbH, Bremen, and issued with an unqualified auditor's report.

These documents were made available to all members of the Supervisory Board in sufficient time. At the Supervisory Board's balance sheet meeting held on March 20, 2018, these documents were discussed in the presence and with the involvement of the statutory auditor.

The Supervisory Board did not raise any objections and accepted the results of the audit. It approved the consolidated financial statements, as a result of which they are now deemed to have been duly adopted. The Supervisory Board concurred with the Management Board's proposal for the allocation of the Company's unappropriated surplus. The related

## REPORT OF THE SUPERVISORY BOARD

parties report prepared by the Management Board was audited by PricewaterhouseCoopers Wirtschaftsprüfungsgesellschaft GmbH, Bremen, and given the following unqualified audit certificate:

“Having examined and assessed the related parties report in accordance with our duties, we hereby confirm that

1. the facts stated in the report are correct,
2. the Company’s transactions as detailed in the Report were not unreasonably high.”

The Supervisory Board raises no objections following its own examination and therefore approves the Management Board’s related parties report.

At the same meeting, a decision was made to submit a motion at the annual general meeting of OHB SE to increase the number of members of the Supervisory Board to four. Accordingly, the Supervisory Board will be proposing that Mr. Ingo Kramer, businessman and Chairman of the Federal Alliance of German Employer Associations, be elected to the Supervisory Board.

At this meeting on March 31, 2018, I stepped down from my position as Chairwoman of the Supervisory Board. Mr. Robert Wethmar was elected new Chairman from April 1, 2018.

There are two changes to the Company’s Management Board effective April 1, 2018: Dr. Lutz Bertling has been appointed to OHB SE’s Management Board effective April 1 and will be overseeing corporate development, space services and digitization. In addition, Kurt Melching, who is already a member of the Management Board of OHB System AG and director of finance and controlling of OHB SE, has also been appointed to OHB SE’s Management Board effective April 1, 2018 and will be in charge of financial matters. I look forward to working with the two new members of the Management Board and welcome them on behalf of the entire Supervisory Board. The new

appointments to the Management Board are related to the retirement of Mr. Ulrich Schulz on July 31, 2017 as well as the upcoming retirement of Dr. Fritz Merkle on June 30, 2018.

The Supervisory Board wishes to thank the Management Board, all employees and the employee representatives for the work performed. They have once more made a contribution to a very successful year for OHB SE.

The Supervisory Board wishes to express its particular gratitude to Ulrich Schulz for his 35 years of service for the companies of the OHB Group. He was the first engineer and also one of the first employees to join Otto Hydraulik Bremen GmbH, the company acquired by the Fuchs family in 1982. In 2000, Mr. Schulz was appointed to the Management Board of Teledata AG (precursor to OHB SE) and held this position at OHB SE until retiring on August 1, 2017. I would also like to personally thank Mr. Ulrich Schulz for his untiring and successful dedication to our Company. We were close companions and trusted partners over large stretches of our careers.



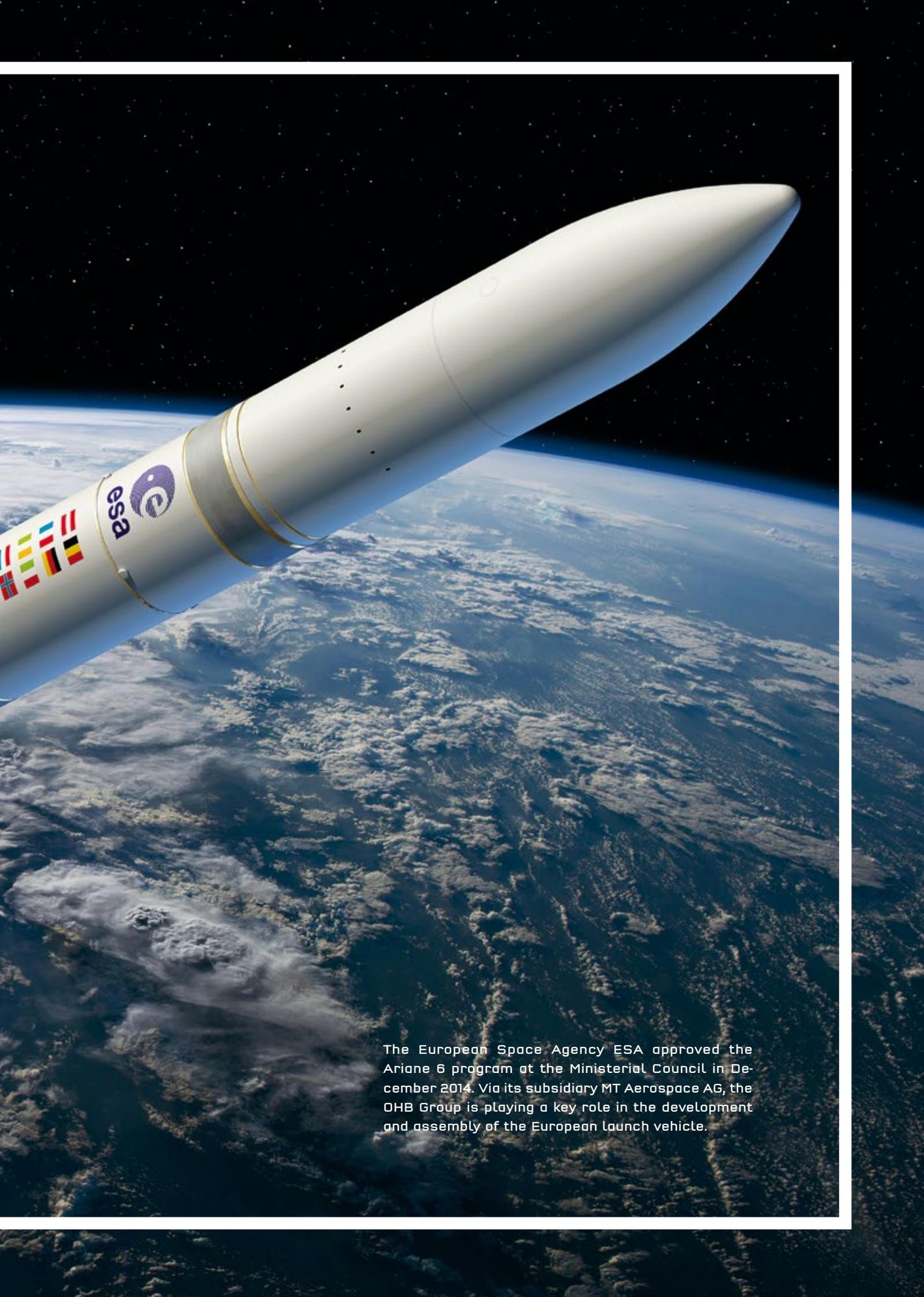
Bremen, March 20, 2018

**CHRISTA FUCHS**

Chairwoman of the Supervisory Board

# THE ARIANE 6 PROGRAM





The European Space Agency ESA approved the Ariane 6 program at the Ministerial Council in December 2014. Via its subsidiary MT Aerospace AG, the OHB Group is playing a key role in the development and assembly of the European launch vehicle.

## INTERVIEW

**MARCO FUCHS, CEO OF OHB SE, AND HANS STEININGER, CEO OF MT AEROSPACE AG**, met at the MT Aerospace hall close to Bremen Airport for the interview on the significance of Ariane 6 for the OHB Group. With a floor area of 4,000 square meters, the hall is directly adjacent to the ArianeGroup facility in Bremen. Here, the upper stage tanks for the new European launcher Ariane 6 are produced and tested before being sent to the ArianeGroup hall for final assembly. A lawyer by training, Marco Fuchs has been at OHB's helm since 2000. Aviation engineer Hans Steininger has been managing MT Aerospace since 2005.

**QUESTION** What significance does the Ariane 6 program have for the MT Aerospace AG?

**HANS STEININGER** For us at MT Aerospace in Augsburg, Ariane 6 guarantees the continued existence of our site for the next ten to 20 years and perhaps even beyond. It is the follow-up product to the Ariane 5, which is being discontinued in 2022 after 26 years of service. As Ariane 6 is expected to have a similarly long life cycle, active production will continue until 2040 at the earliest and perhaps even longer.

**QUESTION** What does this mean in strategic terms for the OHB Group?

**MARCO FUCHS** The Ariane program forms a key element of our product portfolio. Since we acquired MT Aerospace in 2005, the entire Ariane 5 business has performed well. And now we face the challenge of organizing the transition from Ariane 5 to Ariane 6. We are very satisfied with our share in the project. The task now facing us is to implement it.

## THE ARIANE PROGRAM FORMS A KEY ELEMENT OF OUR PRODUCT PORTFOLIO.

**MARCO FUCHS**  
CEO of OHB SE

**LEFT:**

Marco Fuchs has been CEO of OHB SE since 2000 and chairman of the Supervisory Board of MT Aerospace AG since 2012. Aged 55 years, he is an attorney and has been involved in OHB's management since 1995

**RIGHT:**

Hans J. Steininger has been CEO of MT Aerospace AG since 2005. Aged 56 years, he has a degree in aviation engineering and an MBA from the Technical University of Munich





**QUESTION** A lot has been invested in the transition. New halls, machinery and production techniques have been installed. What were the main challenges?

**STEININGER** The greatest challenge was and continues to be the successful development of the new Ariane 6 on a tight budget and schedule. That makes it very important to set up a team with the right development and production skills. At the same time, we have had to invest a lot in the infrastructure, buildings, machinery and, of course, employee training. In total, this involves an amount of more than EUR 200 million primarily financed via ESA for the development and production of the new tanks and structures for Ariane 6.

**QUESTION** Have these investments made it possible to implement "Industry 4.0" aspects in production?

**STEININGER** First of all, all development and production processes are being networked with the transition to Ariane 6 production. Digital platforms are being installed to permit employees to work in "team centers" from

the seed idea to the drafting stage and beyond to production. The second step is MES, which is short for "manufacturing execution system", in which the complete assembly process is replicated digitally. This entails a completely new approach to production. Ariane 5 was developed in the eighties and nineties with the instruments and processes available at that time. With the integration of the various systems, we are now achieving nothing short of a quantum leap in development and production activities. We are indeed seeing a technological advance on a scale of 20 or more years.

**QUESTION** What does this mean?

**STEININGER** The use of these highly digitized development and production processes substantially reduces resource requirements. This enhances our efficiency, allowing us to handle a greater volume of work with roughly the same capacities. This is because our production output is significantly higher: we are currently building around 30 tank domes a year for Ariane 5. In the future, this figure will rise to around 90. We want to build these 90 domes with our current employee numbers. Put simply, Industry 4.0 will allow us to triple our productivity. There are other product groups for which output can be similarly increased and which must be produced using the same number of employees. In addition to new processes, this particularly also calls for good training and further education of our employees.

**QUESTION** You mentioned new machinery that you have installed in Augsburg. One of these is an absolute global first. What can you tell us about it?

**STEININGER** You are referring to the large FSW system. FSW is short for "friction stir welding". The machine is unique in the entire world and was installed at the beginning of 2018. Previously, the welding process took about ten minutes, but the preparation required more than three hours. The new machine reduces the preparation time significantly and this constitutes the technological advance. As well as this, the new process gives us new scope for controlling the process parameters and for monitoring the processes on a real-time basis. The process must be documented and the parts checked by ultrasound. All this is done

by this machine. When the parts leave the machine, they are finished and tested. Previously, the welded product was shunted around the entire factory so that it could be weighed, x-rayed and tested. This was a very time-consuming process which we can now dispense with.

**QUESTION** Does this mean that looking forward digitization will play an ever larger role in production?

**STEININGER** Yes, it does. At the same time, enormous volumes of data will be generated. The aim is to prepare the necessary documents and files at the click of a button. Algorithms will consolidate the data intelligently, doing away with weeks of manual work for all time. A digital twin of the product will be created. Looking forward, we will be able to complete everything that we do today an average of 40 to 50 percent more quickly and, hence, more inexpensively than before in order to assert ourselves in the face of global competition.

**QUESTION** Let's briefly move onto Bremen, where MT Aerospace possesses a production site close to the airport. This is where the upper stage tanks of Ariane 6 will be welded together. What were the reasons for deciding to execute this process in a new hall in Bremen?

**FUCHS** This was related to the decision to complete final assembly of the upper stage tank as closely as possible to the site at which the tank is integrated within the finished upper stage of the launcher. Transporting the upper stage tank from Augsburg to Bremen would have posed a major logistic challenge. So it was simpler to ship the individual parts to Bremen and integrate the tank at the MT hall. The finished tank then only has to be shifted to the ArianeGroup hall next door.

**QUESTION** MT Aerospace has been part of the OHB Group for almost 13 years. What were the



**WE WILL  
COMPLETE  
EVERYTHING  
WITH AN AV-  
ERAGE OF 40  
TO 50 PER-  
CENT MORE  
QUICKLY AND  
INEXPEN-  
SIVELY.**

**HANS STEININGER**  
CEO of MT Aerospace AG

reasons at the time for this acquisition?

**STEININGER** It was a solely business-based and strategic decision to enter the launcher segment. As business people, we were both convinced that independent European access to space must be preserved and continued. And we were proven right. Over the last twelve years, we have more than doubled our revenues and of course want to continue increasing them. We have managed to turn MT into a crucial part of the European launcher industry. This is also the reason why we have received orders for the relevant components for Ariane 6.

**QUESTION** The European launcher industry is very political.

What does success in this field ultimately depend on?

**FUCHS** Access to space is an economic activity but also a politically based necessity. Everywhere in the world, there is a political motivation for a country to enter the space industry.

## IT WAS SIMPLER TO SHIP THE INDIVIDUAL PARTS TO BREMEN.

**MARCO FUCHS**  
CEO of OHB SE

The Ariane program was initially also a strategic decision by various countries to achieve independent access to space for Europe. Arianespace has been able to generate very successful commercial business with the launch of telecommunications satellites. This was a superb achievement. The 80 percent share of private-sector business compared with public-sector business is enormous. In Europe, there are currently substantially fewer government missions than in other space flight nations.

**QUESTION** OHB employees are also stationed at the launch pad in Kourou...

**STEININGER** We have around 65 employees at MT Aerospace Guyane, who have been managing and maintaining the infrastructure for 20 years. However, a number of changes are in store there. This is related to the fact that with the transition from Ariane 5 to Ariane 6 the number of service providers will drop from more than 30 at the moment to fewer than half a dozen to reduce complexity and ultimately also costs. At MT Aerospace our goal is obviously to remain within this handful of operators and to widen our local presence in this way. This will be determined by our skills and our competitiveness.

**QUESTION** What actually makes Ariane 6 better than Ariane 5?

**STEININGER** Ariane 6 is around 40 percent cheaper and it is re-ignitable. The Ariane 62 is designed for launches of individual satellites with a payload of six tons and the Ariane 64 for large geostationary missions with a payload of up to twelve tons, e.g. for two satellites. This results in greater flexibility and, hence, the swifter provision of launch services. In addition, the Ariane 62 will be replacing the Russian Soyuz, which is also launched from Kourou. These are the decisive points: it is cheaper, it will be replacing the Soyuz, can be deployed flexibly and can be re-ignited.





# QUANTUM LEAP TOWARDS INDUSTRY 4.0



# THE ARIANE 6 PRO- GRAM

The Ariane 6 development program being handled by the OHB Group is worth around EUR 250 million (including the Group's own investments). The industrialization phase of the Ariane 6 program has commenced in Augsburg and Bremen with spending on buildings and equipment. To this end, innovative production technologies and processes have been implemented to improve the efficiency and lower the costs of the machinery used by means digitization and networking. This marks the dawning of the Industry 4.0 era. Thus, a fully digitized welding station will be used in Augsburg to substantially shorten the production process.

**Space is no longer just a place people go to in order to prove that they can overcome gravity.**

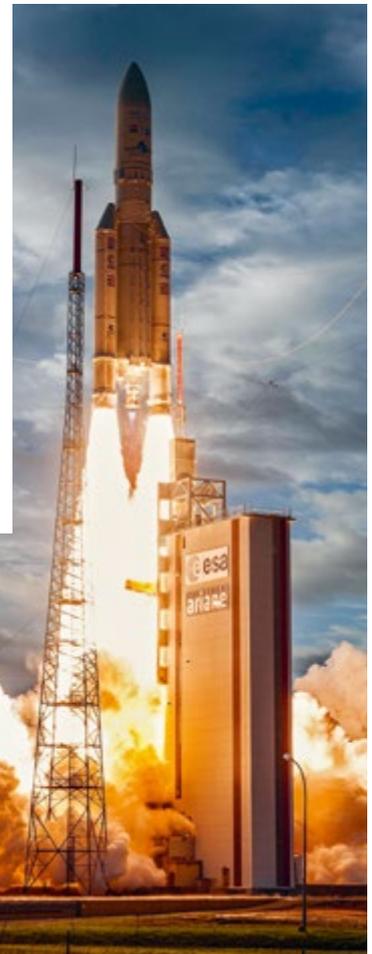
Rather, it has become a major economic segment which is used to provide crucial services on the surface of the earth and in which innovative research and development is being performed to improve living conditions for humanity. Permanent and independent access to space is necessary so that Europe can take part in these developments. Ariane 6 plays a key role in this respect. Development of the Ariane 6 will step up the industrialization of the European launch vehicle program and permit institutional launches at competitive prices. New production technologies will double output while cutting costs almost in half.

**OUR  
COMMITMENT  
TO  
INNOVATIVE  
PRODUCTION  
TECHNOLOGIES  
HAS  
PAID OFF.**

**HANS STEININGER**  
MT Aerospace AG

MT Aerospace is playing a crucial role, accounting for half of the German industrial share in the Ariane 6 program.

MT Aerospace signed a contract for the development of key tank and structural components for the new European Ariane 6 launcher in June 2017. The contract covers all necessary tank and structural development activities.



# SHARE OF ARIANE 6 PRODUCTION ATTRIBUTABLE TO MT AEROSPACE AG

## INTER TANK STRUCTURE

Connection of the tanks, introduction of the booster loads of the booster and carrier for equipment



## ESR FORWARD SKIRT STRUCTURE

Load introduction from the booster (ESR) to the inter tank structure of the lower stage



## VULCAIN AFT BAY

Load-bearing structure between central stage, booster, Vulcain engine and carrier for equipment

## TANK STRUCTURES UPPER STAGE

Propellant tanks for liquid hydrogen and liquid oxygen; inter tank structure



## VINCI HEAT SHIELD

High-temperature-resistant heat shield between the upper stage LOX tank and the Vinci engine



## TANK COMPONENTS LOWER STAGE

Components for the LH2 and LOX tank (bulkheads + cylinder panels)

## ESR REAR SKIRT STRUCTURE

Contains the booster nozzle control system; launcher support structure



# LEAP INTO THE INDUS- TRY 4.0 ERA

**MT Aerospace has invested EUR 35 million of its own funds as a risk-sharing partner for the development of components for the new Ariane 6.** A major portion of this amount has been invested in new buildings, machinery and production facilities.

Production of the tank and structural components is now based on Industry 4.0 applications. In this connection, a new hall has been built and an existing one converted. New welding systems (friction stir process), machine-to-machine communication ("Internet of Things") as well as drilling and riveting robots ensure more efficient and therefore cheaper production processes. Specifically, these new processes improve productivity three times over. The new welding system in particular (photos on the right) forms the core of these productivity gains. It is unique in the world and marks a technological quantum leap forward - not only because it shortens the welding process but also in terms of the scope for controlling and documenting the processes.





**35**  
**EUR MILLION**  
is the amount that the OHB Group has invested in the Ariane 6 program as a risk-sharing partner via its subsidiary MT Aerospace.



**ROBOT CONTROL:**

In the new MT Aerospace facilities in Augsburg, drilling and riveting work is performed by computer-controlled robots (pictures above).

**MT AEROSPACE IS APPLYING DIGITIZED PROCESSES TO LOWER COSTS AND IMPROVE EFFICIENCY IN THE PRODUCTION OF THE ARIANE 6 COMPONENTS.**

# GALILEO FLYING ON BOARD THE ARIANE 6 FROM 2020

From 2020, two satellites out of the remaining total of twelve from Work Order 3 are to be launched on board an Ariane. With a weight of 750 kg each, the satellites from the last batch will be placed in their target orbit 23,222 kilometers above the surface of the earth. The final ten Ariane 5 launchers, for which production orders have already been placed, are to lift off from 2020. MT Aerospace has been awarded an order for ten flight sets, for which it is producing the metallic booster casings, tanks and other light-weight structures. By the time it ships the final set in mid-2020, MT Aerospace will have worked on the assembly of a total of 93 Ariane 5 launch vehicles.

26



**A further four Galileo FOC satellites are to be launched on board another Ariane 5 in July 2018.** This means that a total of 22 satellites from the first two contracts will be in orbit.

## ARIANE 6 LAUNCH

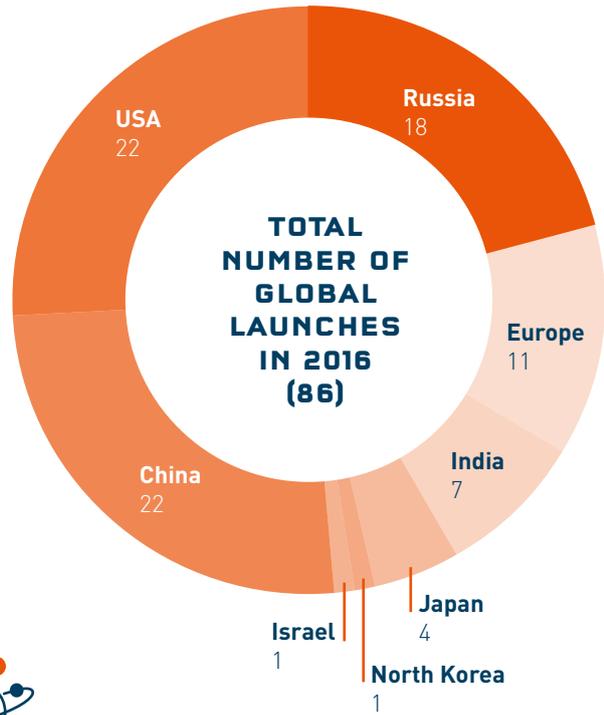
Artist's impression of the launch of the new Ariane 6 from the Kourou space center.

# 98%

Ariane 5 has had a success ratio of 98 percent since its first launch in 1996; making it the

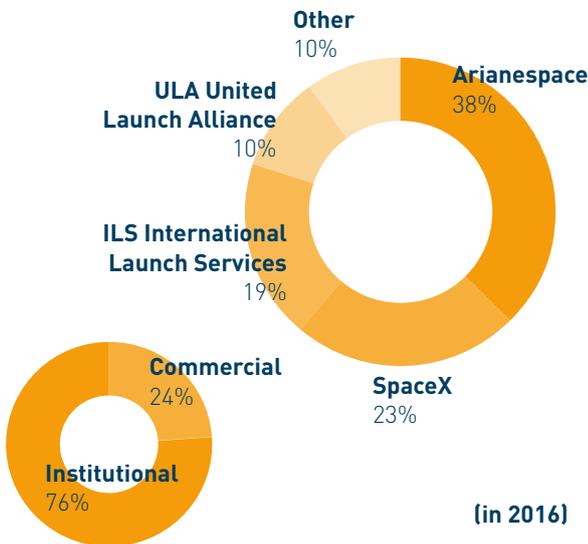
## WORLD'S MOST SUCCESSFUL LAUNCHER.

Ariane launchers have become increasingly more reliable over the years. Whereas Ariane 1 (1979–1986) had a success ratio of 82 percent, this figure increased to 97 percent with the advent of Ariane 4 (1988–2003).



## GLOBAL COMMERCIAL MARKET AND MARKET SHARE

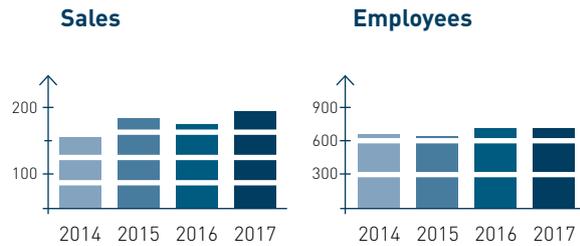
Arianespace, a subsidiary of ArianeGroup, is the world's leading provider of launch services in the open commercial market.



# 10.8 t

Payloads of over 10.8 t transported. This is a gross weight 130 kg more than in the previous record in August 2016.

## DEVELOPMENT OF MT AEROSPACE



ARIANE 62 <b>2 BOOSTER</b>	↔	ARIANE 64 <b>4 BOOSTER</b>
<b>5.0 t</b> GTO		<b>10.5 t</b> GTO
<b>530 t</b> START MASS		<b>860 t</b> START MASS
<b>800 t</b> START PUSH		<b>1,500 t</b> START PUSH



# 82

## SUCCESSFUL STARTS

With 82 fault-free launches as of the end of 2017, Ariane 5 is the world's most successful launch vehicle. Ariane 5 has achieved a success rate of 98 percent since its maiden flight in 1996.

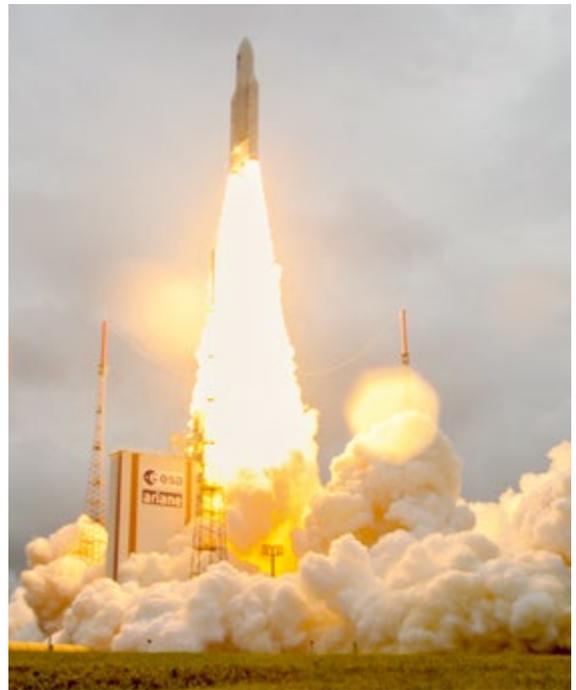
# A LOOK BACK AT 2017

## ESA AND THE EUROPEAN COMMISSION ORDER A FUTURE TWELVE SATELLITES FOR THE EUROPEAN GALILEO NAVIGATION SYSTEM FROM OHB SYSTEM AG

In June 2017, ESA and the European Commission awarded OHB System AG a contract for the assembly of a further eight navigation satellites for the Galileo program. This was followed in October 2017 by a contract for another four satellites. This will increase the number of Galileo FOC satellites supplied by OHB to a total of 34, of which the first 18 are already in orbit. The two new orders are valued at EUR 482 million, bringing the total contract volume for the Galileo project attributable to OHB System AG to EUR 1.3 billion.

At 23:31 CET on December 12, 2017, four Galileo satellites reached their ultimate orbit at an altitude of 23,222 kilometers, after being launched into space by an Ariane 5 which lifted off from the Kourou space center in French Guiana. This brings to 22 the total number of Galileo satellites currently in space. Of these, 18 have been developed, built and tested by OHB System AG. The other four come from an earlier testing program (IOV).

In its capacity as the producer of the satellite platform and the principal contractor, OHB is responsible for the satellite design and platform, integration and verification. In addition, it



## FOUR GALILEO SATELLITES WERE SUCCESSFULLY PLACED IN ORBIT IN DECEMBER 2017.

is providing support during the launch preparations, the system start-up and in-orbit verification.

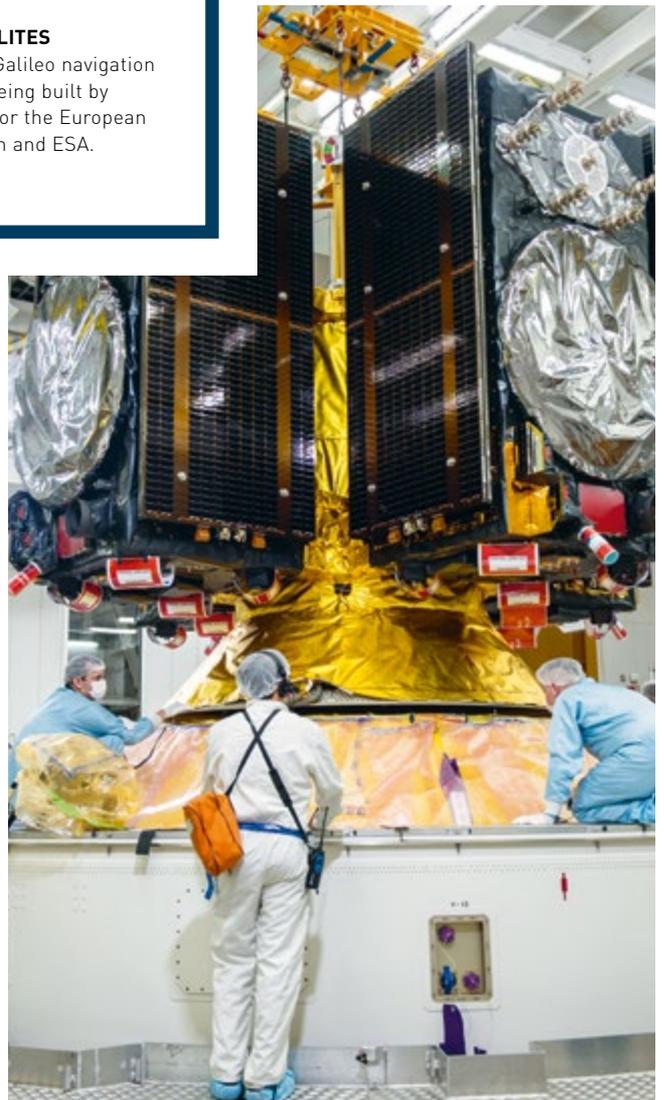
Obviously, OHB wants to continue contributing to this beneficial project in the future. In Bremen, it is already working on designs for the next-generation Galileo satellites. In various studies for ESA and the European Commission, the engineers are exploring new materials and components and further services to be provided by the next generation. Needless to say, they are incorporating the experience gained from engineering and producing the previous navigation satellites. In this way, OHB can contribute proposals for the design of the next-generation satellites and offer the customer the benefits of the unique experience that it has gained from the successful first series.



# 34

## SATELLITES

for the European Galileo navigation system are being built by OHB System AG for the European Commission and ESA.



A LOOK BACK AT 2017

# 2017 AT A GLANCE

## MT MECHATRONICS GMBH AWARDED CONTRACT FOR 40-METER RADIO TELESCOPE

On March 17, 2017, antenna and telescope equipment specialist **MT Mechatronics (MTM)** received a contract from the National Astronomical Research Institute of Thailand (NARIT) for the construction of a 40-meter radio telescope.

The telescope is a turning-head model operating in a frequency range of between 5 and 100 GHz and is to go into operation in 2020 in northern Thailand close to the NARIT headquarters. Alongside the 40-meter telescope that MTM has also assembled for the Instituto Geográfico Nacional in Spain, it is one of the largest and most powerful telescopes of its type. NARIT plans to operate various receivers in the range from 5 to 100 GHz. With this contract award, MTM was able to prevail over the international competition and again demonstrate its position as market leader in large-antenna and telescope engineering.



## OHB SWEDEN: QUALIFICATION MODEL FOR ORION PROPULSION SYSTEM

**OHB Sweden AB successfully completed the integration of the propulsion qualification model (PQM)** for the European service module (ESM) for NASA's Orion space vehicle. In mid-January 2017, the PQM left the company's premises bound for White Sands, New Mexico. This is the site of NASA's testing facilities, where final integration of important components as well as the main propulsion system was executed in mid-February 2017. This was followed by acceptance testing and finally the hot-fire tests.

The ESM is being built by Airbus Defence and Space in Bremen in a contract awarded by the European Space Agency ESA. Located below the crew module, it provides propulsion and attitude control, power generation and conditioning, thermal control and consumable resources for the four astronauts.





## QUARTER 2017

### **NASA SPACE LAUNCH SYSTEM: MT AEROSPACE AG AWARDED CONTRACT BY BOEING**

**MT Aerospace AG** received an order from US space technology group **Boeing** for further development and assembly work for the Space Launch System (SLS). Commissioned by the US space agency NASA, SLS is the most powerful heavy-duty launcher and will be used on manned and unmanned missions to the moon, Mars and the depths of outer space. MT Aerospace has been developing and fabricating large aluminum segments for the propellant tanks fitted to the SLS main stage since mid 2013. With a diameter of 8.4 meters and a length of some 65 meters, these tanks hold almost 1,000 tons of liquid hydrogen and oxygen and are 30% larger than the exterior tank fitted to the old Space Shuttle. MT Aerospace delivered the components for the second SLS flight set at the beginning of April 2016. Thanks to this successful development work, the Augsburg-based space technology company has now also been selected for the delivery of the upper stage dome components.



MT Aerospace has achieved gold ranking status as a reliable partner to Boeing and has qualified as a components supplier for all upcoming SLS flights.

A LOOK BACK AT 2017

# OHB PLACES H36W-1 IN ORBIT

**OHB SYSTEM AG WITH A SUCCESSFUL LAUNCH INTO A GEOSTATIONARY ORBIT**

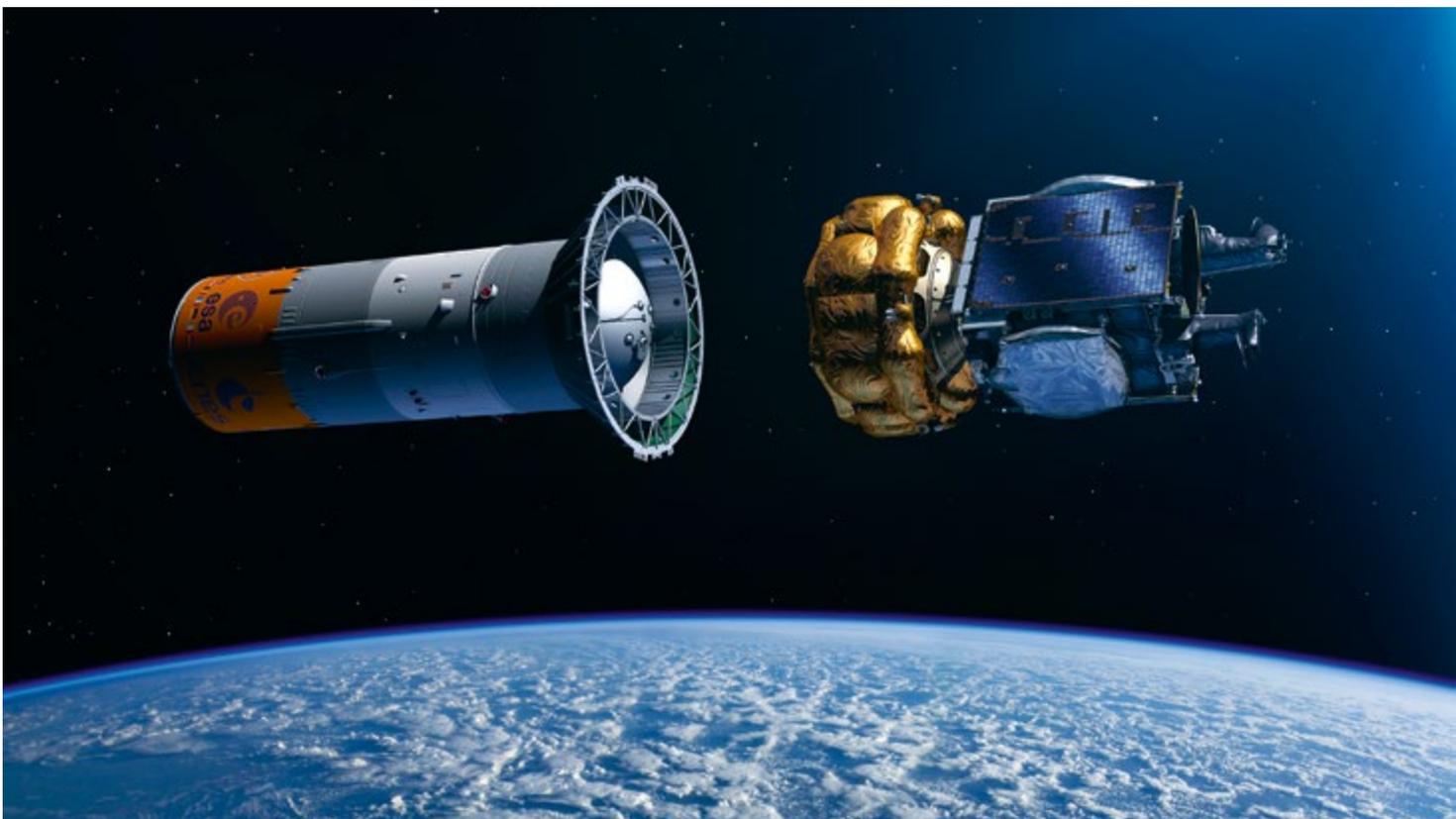
On January 28, 2017, a Russian Soyuz launch vehicle lifted off on schedule from the European space center in Kourou, French Guiana, releasing the 3.2-ton telecommunications satellite H36W-1 into its geostationary transfer orbit. From there, the satellite shifted to its geostationary target orbit 36,000 kilometers above the earth. Twelve days later, the H36W-1 reached its geostationary test position. Following a voyage of a further nine days, the satellite reached

its final position above 36 degrees longitude west, where it will be providing flexible broadband services for Spain, Portugal, the Canary Islands and South America for Spanish operator HISPASAT over a period of more than 15 years.

The successful launch of the first satellite from the SmallGEO range marks a milestone in OHB's history. SmallGEO is the first telecommunications satellite to be developed, integrated and tested in Germany in more than 20 years. Germany's return to system capability in the commercial market for telecommunications satellites has its roots in the close partnership between OHB System AG, the German Aerospace Center (DLR), the German Federal Ministry for Economic Affairs and Energy and the European Space Agency (ESA). The development of SmallGEO is expressly included in the German space strategy and

**H36W-1 RELEASED INTO ORBIT**

In January 2017, a Soyuz launch vehicle successfully released the H36W-1 telecommunications satellite into orbit for its Spanish operator HISPASAT, S.A.





## H36W-1

is the first telecommunications satellite to have been fully developed, integrated, tested and put into operation in space in Germany since 1992.

underscores the country's wish to act independently and flexibly in the small satellite segment. Developed by OHB as part of the ESA ARTES program (Advanced Research in Telecommunications Systems), the SmallGEO is a flexible geostationary satellite platform which can be tailored for different mission goals such as telecommunications, earth observation and technology testing. With its modular structure, the SmallGEO satellite platform can be modified flexibly to meet specific customer requirements. Customers can select a classic, hybrid or electric propulsion system for the satellite. Depending on the type, SmallGEO satellites have a launch mass of between 2,500 and 3,500 kg, with a possible payload mass of between 450 and 900 kg.

### SMALLGEO PLATFORM

Developed by OHB as part of the ARTES program, SmallGEO is a flexible geostationary satellite platform which can be tailored for different mission goals such as telecommunications, earth observation and technology testing.



A LOOK BACK AT 2017

# FLEXIBILITY IN ORBIT

## OHB SYSTEM AG AND DLR SIGN CONTRACT FOR HEINRICH HERTZ

The German "Heinrich Hertz" satellite communications mission has achieved its final stage: On June 28, 2017, Dr. Gerd Gruppe, a member of the Management Board of the German Aerospace Center (DLR) responsible for space administration, and Marco Fuchs, Chief Executive Officer of OHB System AG, signed a contract for the assembly, testing and launch of the national satellite. Work is now commencing on the detail design, production and testing of the hardware and software for the entire satellite communications system - i.e. the space and the ground segment - and the launch preparations. Scheduled for launch in 2021, the "Heinrich Hertz" mission will lay the foundations for securing future

satellite communications. In times of "big data" and digitalization, ever growing data volumes must be transported quickly and reliably. This gives rise to new technologies which will be tested in orbit on board the "Heinrich Hertz". With this mission, Germany is demonstrating its core capabilities in payload and platform technologies for geostationary satellites at an international level, thus reinforcing its system capabilities. An important secondary mission for the Heinrich Hertz satellite expands the satellite communication capabilities for the German federal armed forces, for which a dedicated payload will also be on board.

In addition to these new technologies, which are to be tested under extreme conditions in orbit with enormous temperature fluctuation, gravity-free conditions and a vacuum, the satellite will be accommodating around 20 communications, antenna and satellite technology experiments. These experiments will be performed autonomously while the satellite orbits the earth at an altitude of around 36,000 kilometers. The data collected will be sent



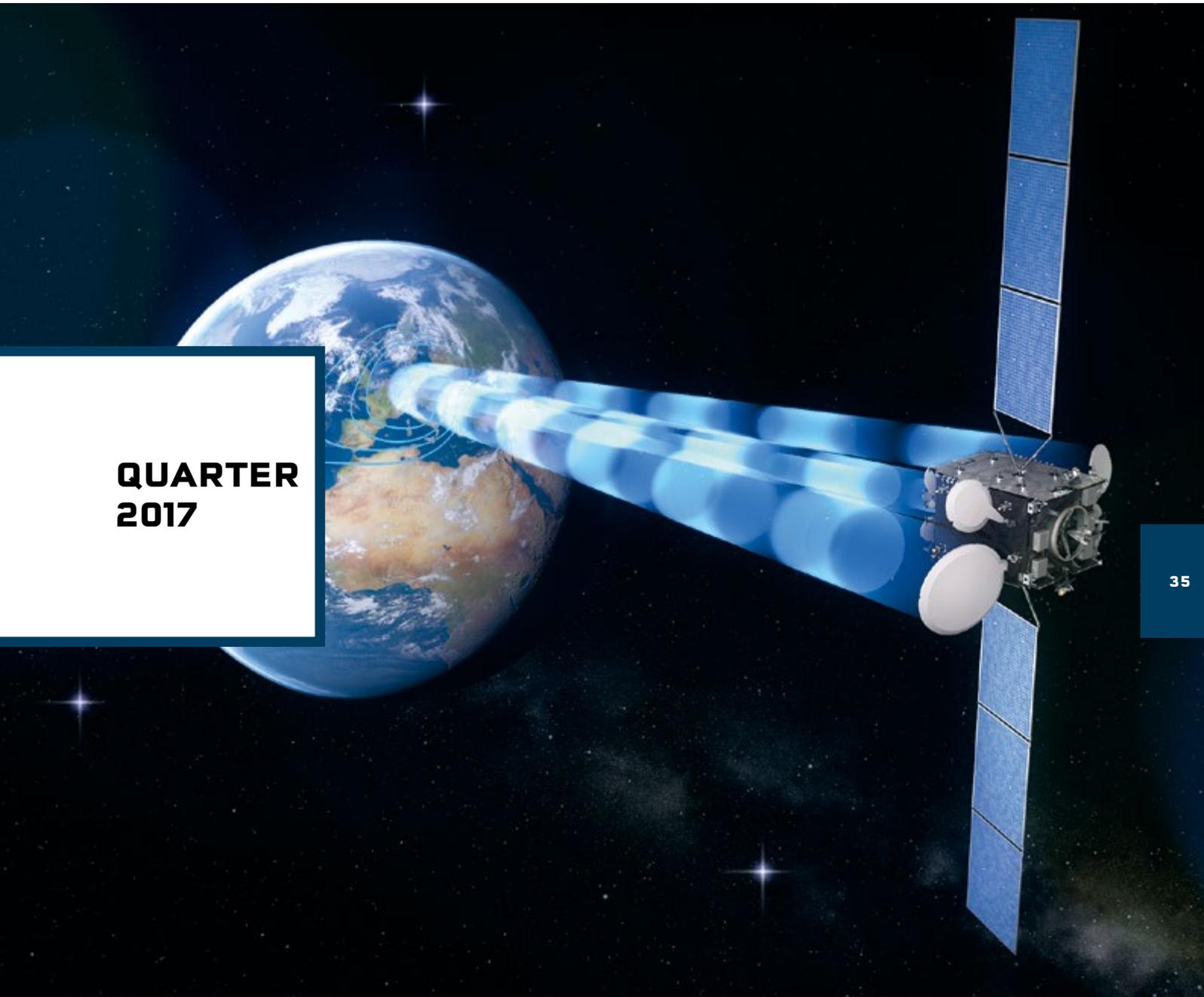
**SIGNING OF HEINRICH HERTZ CONTRACT**



## ASTEROID DAY

OHB sponsored Asteroid Day 2017, joining experts during the official program on June 30, 2017 in Luxembourg.





**QUARTER  
2017**

back to the earth, where it will be evaluated by the participating research institutes and industrial companies.

The new payload design for “Heinrich Hertz” will make it possible to respond flexibly to market requirements for the first time as a basis for continued future viability. Until now, the satellites have been configured on the earth. Subsequent adjustments in the light of market developments were no longer possible once the satellite was in orbit.

“Heinrich Hertz” changes all this: Using various flexible technologies such as small on-board computers, it is possible to constantly reprogram the satellite from the ground station during its 15-year mission in such a way as to modify its signal resources efficiently to allow for any new or changed requirements. This means that “Heinrich Hertz” can keep on learning new things throughout its entire life cycle.

A LOOK BACK AT 2017

# HEAD- ED FOR NEW SPACE



**ULRICH SCHULZ  
LEAVES THE  
MANAGEMENT  
BOARD**

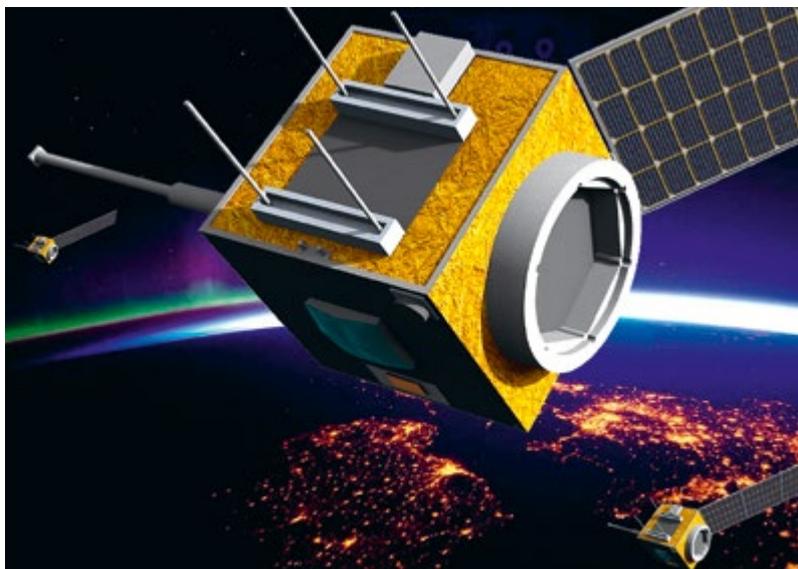
**Having reached retirement age, Ulrich Schulz left OHB SE's Management Board effective July 31, 2017.**

As a pioneer, man of the first hour and OHB's very first engineer, he

was employee number 6 in 1982, the year in which he joined the company known as Otto Hydraulik Bremen (OHB), which Christa Fuchs had acquired in December 1981. In 2000, Ulrich Schulz was appointed to the Management Board of OHB Teledata AG, which was floated on the stock exchange in March 2001. As a member of the holding company's Management Board from 2002, he has overseen OHB's ascent to become a successful space technology company. In the future, Ulrich Schulz will be assisting OHB SE with selected projects in an advisory capacity.

**LUXSPACE DEVELOPS TRITON-X**

**At the beginning of September 2017,** LuxSpace entered into a contract with the European Space Agency ESA for the development of a completely new, inexpensive and versatile micro-satellite platform. The Luxembourg OHB subsidiary is developing a new platform for micro-satellites under the name "Triton-X". Triton-X will be widening the OHB Group's existing range and opening up new possibilities for commercial applications. The micro-satellites will weigh around 100 kg and transport a payload of up to 30 kg to a low orbit around the earth (altitude of 250–700 kilometers). The Triton-X micro-satellite platform is relatively inexpensive, available quickly and versatile. It can be used for commercial applications such as satellite communications, earth observation and the testing of new technologies in space.



## DR. WOLFGANG PAETSCH JOINS THE MANAGEMENT BOARD OF OHB SYSTEM AG

**Dr.-Ing. Wolfgang Paetsch** was appointed to the Management Board of OHB System AG effective July 1, 2017. He is primarily responsible for the space projects that are being executed for the European Space Agency ESA and the European Union. These include navigation, earth observation and weather satellites, science and exploration missions and manned space flight projects. As Director of Navigation, he has overseen the Galileo project over the past four years.

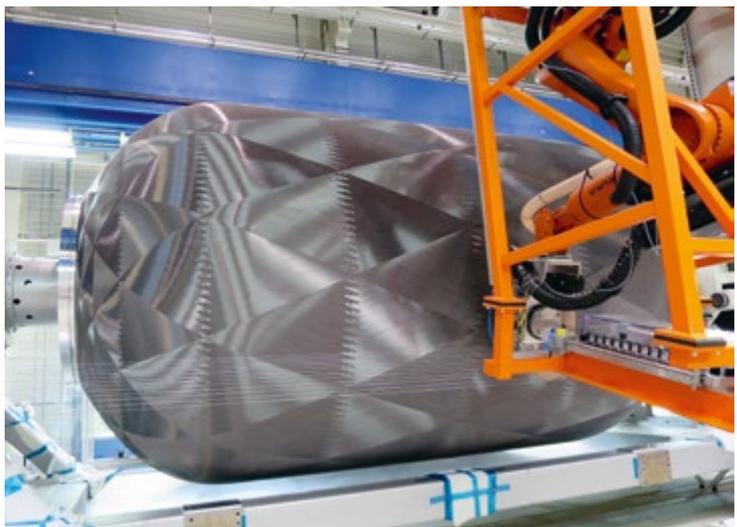


## QUARTER 2017



## PRODUCTION OF UPPER STAGE TANKS

MT Aerospace will be supplying almost all of the tank and structural components for the new Ariane 6 launcher. Construction of the upper stage tank has commenced in a dedicated hall at Bremen Airport. New welding and testing equipment has been installed specifically for this purpose.



## CARBON FIBER-REINFORCED BOOSTER CASING FOR ARIANE 6 SUCCESSFULLY TESTED

**On July 19, MT Aerospace AG successfully** tested a new technology for carbon fiber-reinforced booster casings. With a diameter of 3.5 meters and a length of 6 meters, the booster was tested at the Materials Testing Institute in Stuttgart to determine whether it meets launch requirements. To this end, pressure loads of over 125 bar were simulated. The CFRP booster casing passed all tests successfully. MT Aerospace has been working since summer 2013 on the development of this state-of-the-art production technology for carbon-fiber processing together with the DLR Center for Lightweight Production Technology (DLR-ZLP) on behalf of the European Space Agency ESA (FORC project) and the Bavarian government (DLR-ZLP KOFFER project).

A LOOK BACK AT 2017

# LAUNCH BLOCK FOR ARIANE 6

Composed of representatives from the European Space Agency ESA, ArianeGroup, CNES, Apave and Socotec, the review board approved the detailed design for the launch facilities submitted by MT Aerospace and MT Mechatronics and thus gave the go-ahead for construction to commence in Kourou. The contract covers the 650-ton launch pad with the mobile pallet systems used to bring the solid-matter booster to the launching site as well as the supply tower with a height of roughly 66 meters and the exhaust gas stream deflector.

## MILESTONE REACHED IN THE CONSTRUCTION OF THE ARIANE 6 LAUNCH FACILITIES

**The new European Ariane 6 launch vehicle is to embark on its maiden flight from the Kourou space center in French Guiana in July 2020.** MT Aerospace AG and MT Mechatronics GmbH are constructing the mechanical launch facilities (ELA 4) in the Amazon region in a contract for the French space agency CNES. With the successful completion of the critical design review at the end of November, Europe has come one important step closer to completing the ground facilities for the new launch vehicle.





## QUARTER 2017

### LUXSPACE AWARDED CONTRACT BY ESA FOR STUDY INTO IMPROVED AIRCRAFT POSITIONING AND MONITORING

**Under a contract awarded by the European Space Agency ESA in October 2017**, LuxSpace Sàrl is to conduct research into new and innovative approaches to aircraft positioning and monitoring based on the ADS-B (Automatic Dependent Surveillance-Broadcast) process. Known as "AirTracks", the nine-month study will be developing new services for monitoring manned and unmanned aircraft. They will be used by small and mid-size airports, air traffic controllers and ground staff, allowing them to monitor flight movements more effectively. In this way, it will be possible to monitor airspace more efficiently and particularly also more safely.

### CONTRACT FOR ELECTRO-OPTICAL RECONNAISSANCE SYSTEM

**At the beginning of December 2017**, OHB System AG signed a contract with the Federal Republic of Germany for the installation of a satellite system for global electro-optical reconnaissance. The contract has a budget of up to EUR 400 million. In addition to the SAR-Lupe and SARah radar reconnaissance systems, OHB is now supplying a further satellite-based reconnaissance system for the German government. This makes it a competent technology partner for the Federal Republic of Germany in both radar-based and electro-optical reconnaissance. The valuable experience gained from the SAR-Lupe (which in November 2017 was able to look back on ten years of reliable and successful operations) and the SARah projects provide a solid basis for implementing the electro-optical reconnaissance system.



# OHB SHARE WITH FULL-YEAR GAINS OF 141%

## CONTINUATION OF THE UPWARD TREND IN THE STOCK MARKETS IN 2017

Conditions for a successful stock market year were very good again in 2017: The monetary policies of the European Central Bank (ECB), which kept its reference rate unchanged at 0%, together with the favorable outlook for the main European economies provided a good basis for gains in the equity markets. After a correction phase in the summer, the ECB announced in October that it would be continuing its monthly bond-buying operations until the end of September at the earliest. The benchmark German stock index DAX reached an all-time high of 13,479 points in November. The DAX advanced by 13% in the course of 2017, closing the year at 12,917 points. The TecDAX, which tracks the most important German technology shares below the DAX, closed 2017 at 2,529 points, thus posting gains of almost 40% over the year as a whole.

## VERY STRONG PERFORMANCE FOR THE OHB STOCK PRICE

OHB stock outperformed the benchmark DAX and TecDAX indexes in the year under review. In a favorable environment, the large order receipts (Heinrich Hertz, Galileo, Ariane 6, EO-System) generated an enormous upside push, causing the share to rise by 141% in the

course of the year. It moved in a range of EUR 29.21 between the low for the year of EUR 18.26 on January 23, 2017 and the high for the year of EUR 47.47, which was also the all-time high, on October 16, 2017. Average daily trading volumes of OHB stock (Xetra and Frankfurt floor-trading) rose significantly from 4,752 shares in the previous year to 19,295 shares in the year under review.

## TREASURY STOCK

As of December 31, 2017, OHB SE's treasury stock comprised a total of 80,496 shares, equivalent to 0.46% of its issued capital, i.e. unchanged in number since December 31, 2016.

## INVESTOR RELATIONS ACTIVITIES

OHB SE's annual capital market day was held in February of the year under review at the Group's head office in Bremen. Members of the Management Board and directors provided an overview of the current projects being conducted by OHB SE's subsidiaries and guidance

## OHB STOCK DATA

ISIN	DE0005936124
Ticker	OHB
Trading segment	Prime Standard
Sector	Aerospace, Telecommunication, Information Technology
Indexes	Prime All Share, Tec All Share, CDAX
Designated Sponsor	DZ Bank AG, HSBC Trinkaus & Burkhardt KGaA
Issued capital	EUR 17,468,096

## IR CONTACT

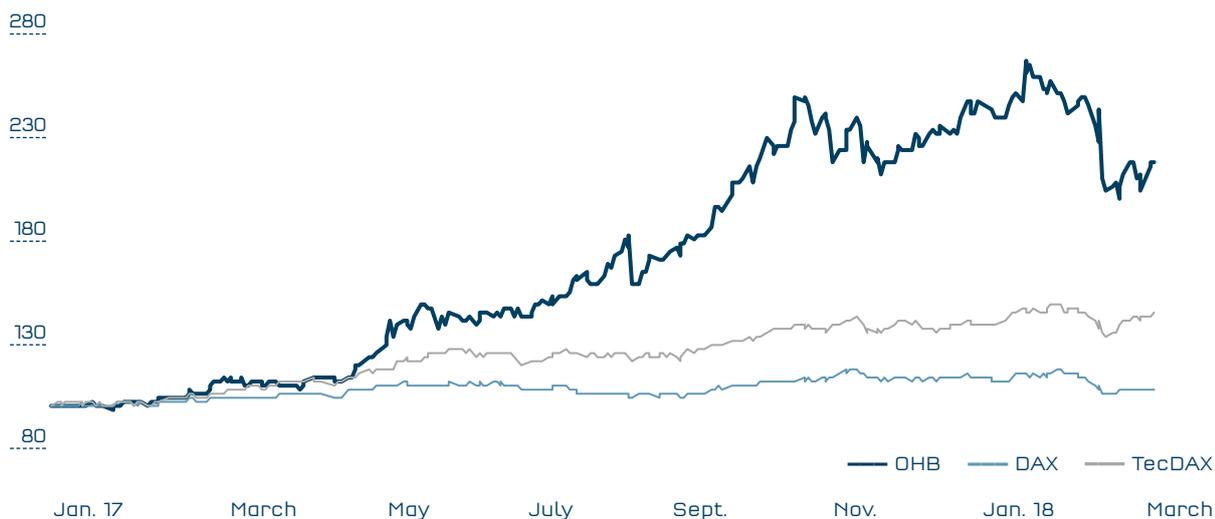
Martina Lilienthal  
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Email: [ir@ohb.de](mailto:ir@ohb.de)

## OHB STOCK

### C01

#### PERFORMANCE OF OHB SHARE PRICE IN COMPARISON TO DAX AND TECDAX

FOR THE PERIOD FROM JANUARY 1, 2017 TO FEBRUARY 28, 2018 (INDEXED)



### OHB STOCK PARAMETERS

in EUR	2017	2016	2015	2014
End-of-year price	44.61	18.54	20.97	19.70
High for the year	47.47	20.78	23.60	25.06
Low for the year	18.26	17.02	16.59	17.45
Market capitalization (end of year) in million	779	324	366	344
Average daily trading volumes (Xetra + floor)	19,295	4,752	9,600	13,771
Price/earnings ratio (P/E) (final trading day of the year)	33.29	14.59	17.33	13.31
Earnings per share (EPS)	1.34	1.28	1.21	1.48
Dividend per share	0.40 *	0.40	0.40	0.37
<b>Dividend yield (end of year)</b>	<b>0.90%</b>	<b>2.16%</b>	<b>1.91%</b>	<b>1.88%</b>

\* Subject to approval by the shareholders

### ANALYST RATINGS

Date	Bank	Target price in EUR	Rating
March 2018	HSBC Trinkaus & Burkhardt	34.00	Reduce
February 2018	Bankhaus Lampe	50.00	Buy
February 2018	Commerzbank AG	31.00	Reduce
February 2018	DZ Bank AG	48.00	Buy
November 2017	Equinet Bank AG	40.00	Neutral

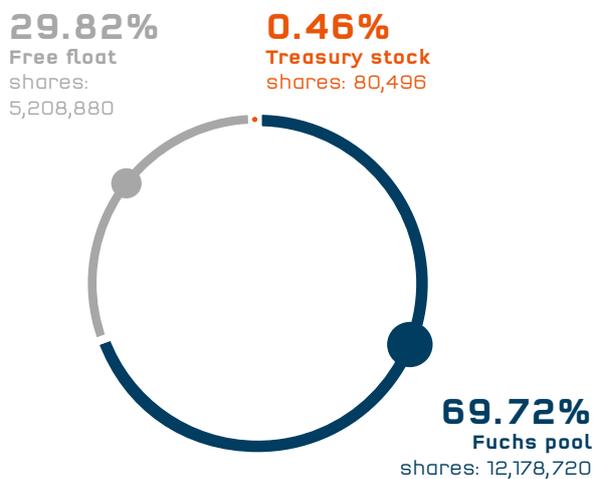
OHB STOCK

for the main Group financials for 2017. The final results for the previous year were announced on the morning of March 21 at the annual press conference held in Bremen and during the analyst conference taking place on the afternoon of the same day in Frankfurt am Main. This was followed by talks with potential investors in a roadshow in Frankfurt. After publication, the quarterly figures for the year under review were presented and discussed in telephone conferences on the same day. During the year, OHB SE actively participated in capital market conferences in Lyon (France), Düsseldorf, Baden-Baden and Frankfurt am Main. In addition, roadshows in Frankfurt and Düsseldorf provided further investors with an insight into the current projects and developments at OHB SE.

**DIVIDEND OF EUR 0.40 APPROVED BY THE SHAREHOLDERS**

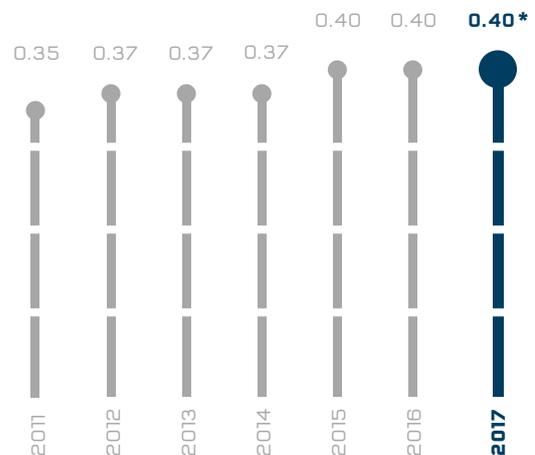
The annual general meeting was held on May 16, 2017 at the Company's offices in Bremen as in earlier years, approving a dividend of EUR 0.40 per dividend-entitled share for 2016 (unchanged over the previous year). Accordingly, the total distribution amount for the 17,387,600 dividend-entitled shares came to EUR 6.96 million. The remaining unappropriated surplus of EUR 7.55 million as shown in the financial accounts prepared in accordance with German GAAP (HGB) was carried forward. The other items of the agenda, specifically the ratification of the actions of the Management Board and Supervisory Board and the election of PricewaterhouseCoopers Wirtschaftsprüfungsgesellschaft GmbH, Bremen, as the independent auditor for the annual and consolidated financial statements for 2017, were also passed with large majorities.

**C02**  
**SHAREHOLDER STRUCTURE OHB SE**  
ON DECEMBER 31, 2017



Issued capital: 17,468,096 shares

**C03**  
**DIVIDEND PERFORMANCE**  
2011-2017



**IN EUR**

\* Subject to approval by the shareholders

# CAPITAL MARKET DAY

# 7

## FEBRUARY



**1** Hans Steininger (MT Aerospace AG) talking to Raimund Wulf (Unicredit Bank AG) **2** View of the stage **3** Venue: MT Aerospace hall in Bremen, where the upper stage tanks for the European launcher Ariane 6 are welded **4** Marco Fuchs and Dr. Fritz Merkle (OHB SE) during the discussion **5** A small-scale version of the Ariane 6

# 1

## GROUP MANAGEMENT REPORT

FOR THE PERIOD FROM  
JANUARY 1, 2017 UNTIL  
DECEMBER 31, 2017

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with section 315a (1)  
of the german commercial code

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Corporate governance declaration

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Corporate governance report

## I. BASIS OF THE GROUP

### A. GROUP BUSINESS MODEL

As a space technology group, OHB SE combines activities from different areas of high technology. Because the individual subsidiaries are spread geographically across different European countries, the Group has facilities in many major countries that are members of the European Space Agency ESA. This is a crucial requirement for successfully taking part in certain space projects. The individual companies are able to retain their individuality and corporate culture within the Group, while still being bound by the decisions made by the Group holding company. OHB SE itself does not engage in any operating business but supports the subsidiaries in their sales and marketing activities and thus assumes the role of an active holding company.

OHB SE comprises two business units:

#### SPACE SYSTEMS

This business unit focuses on developing and executing space projects. In particular, it is responsible for developing and fabricating low-orbiting and geostationary small satellites for navigation, research, communications, earth and weather observation and reconnaissance including scientific payloads. Reconnaissance satellites and broadband wireless transmission of image data form core technologies for security and reconnaissance. The exploration segment works on studies and models for exploring our solar system, primarily the moon, asteroids and Mars. Its human space flight activities chiefly entail projects for the assembly and outfitting of the International Space Station ISS.

#### AEROSPACE + INDUSTRIAL PRODUCTS

This segment is primarily responsible for fabricating and developing aviation and space products as well as performing other industrial activities. In this area, OHB has established itself as a significant supplier of aerospace structures for the aviation and space industry; among other things, it is the largest German supplier of components for the Ariane program and an established producer of structural elements for satellites. In addition, OHB is an experienced vendor of mechatronic systems for antennas and telescopes and is involved in major radio telescope projects. OHB telematics systems serve the logistics industry around the world by offering efficient transport management and consignment tracking facilities.

### B. GOALS AND STRATEGIES

The Group pursues the goal of increasing order intake and total revenues in the medium term. This involves preserving and broadening its employees' expertise and protecting jobs. The profitability margin (EBIT or EBITDA margin relative to total revenues) is being specifically increased in certain areas, while in other areas the good figure already achieved is to be at least maintained. These goals are to be reached by increased business development activities and further technological developments. Generally speaking, a net cash inflow from operating activities is being targeted. No exceptional increase in capital requirements is expected to be required to achieve the medium-term goals.

The Group will continue to focus on the space industry. The growth referred to above is to be generated organically in this sector. Business with institutional customers still forms the basis of OHB SE's activities. In this connection, the Group is clearly oriented to the European market. With the SmallGEO series developed by the Space Systems business unit, the Group will additionally be able to offer satellite products to commercial customers. These activities will not be confined to the European market.

### C. MANAGEMENT PROCESS SYSTEM

OHB SE's overarching goal is to steadily increase its enterprise value by improving its earnings potential on a sustained basis. The Group manages its financial position by reference to the following performance indicators: total revenues, earnings before interest and taxes (EBIT) and earnings before interest, taxes, depreciation and amortization (EBITDA). These parameters are defined in an annual budget and tracked during the year by means of forecasts and reports on actual figures together with deviation analyses on a top-down basis down to individual projects. Cash flows are managed at the project level by means of individual measures taken in consultation with customers and suppliers in order to optimize liquidity. Further management factors include productivity ratios, particularly employee productivity. Other important non-financial performance indicators are employee numbers in the individual companies as well as the fluctuation rate, for which a target of less than 5% has been defined. OHB uses the Organizational Health Index instrument to systematically monitor employee satisfaction and to identify approaches for improving it. This index uses an employee survey format tailored to the specific needs of OHB staff. It is used in regular intervals to achieve the greatest possible leverage in the prioritization of initiatives for structuring monetary and non-monetary incentives.

## D. RESEARCH AND DEVELOPMENT

In the year under review, OHB spent EUR 32.3 million (previous year: EUR 44.6 million) on research and development (R+D). Of this, the Space Systems business unit accounted for EUR 28.5 million (previous year: EUR 42.0 million) and the Aerospace + Industrial Products business unit for EUR 3.8 million (previous year: EUR 2.6 million). Part of the R+D activities (EUR 3.9 million, previous year: EUR 3.7 million) are being funded by various institutions such as the European Union and national government agencies. Subsidies account for between 25% and 75% of the total costs depending on the percentage of completion of the development project.

In the **Space Systems business unit**, one of the main aspects again entailed technological enhancements. In addition to new and enhanced technologies, the focus was particularly on new types of mission designs on the basis of a newly engineered universal platform for low-orbit satellites, economically efficient launch packages for these satellites and human space flight as well as exploration projects. A further important aspect entailed technologies for enhancing and future-proofing the SmallGEO platform particularly in the light of commercial customers' requirements. The significant spending of the last few years on the development of this platform has already resulted in considerable order receipts. OHB System AG has established a task force to explore quantum cryptology and quantum computer to determine the relevance of these technologies for use in space. One particular aspect continues to involve internal studies and design work in the area of "new space" for constellations comprising a large number of low and medium-orbit satellites. In order to ensure the necessary segregation from day-to-day and agency work required for such matters, which primarily involve unconventional technical approaches and processes, coordination and management responsibility in this area was allocated to the OHB SE level. These activities are particularly performed by LuxSpace Sàrl, OHB Sweden AB and OHB Italia S.p.A. Related to this is the successful launch of the Max Vallier satellite in June 2017. This program was executed in close collaboration with the "Max Vallier" high school (TFO) in Bolzano, South Tirol.

Activities in the **Aerospace + Industrial Products business unit** concentrated on support for new launcher technologies, product developments and efficiency-boosting measures. The following projects in particular should be mentioned: Over the last two years, the DLR-funded MeHR project has been working on the further development of production processes for launcher tanks made from aluminum. This project, which supports development work on the Ariane 6 launcher, was successfully completed in autumn 2017. ESA's Future Launcher Preparatory Program (FLPP) is developing the construction of large tank components using flow-turning processes. This promising production technology offers great cost-cutting potential.

The ESA ARTES project entails the development of new large high-pressure xenon tanks for new-generation satellites (Neosat and Electra). These tanks will form the core of a new product for communications satellites powered by electric propulsion systems.

In the aviation sector, research and development work is concentrating on larger fresh-water tanks for the Airbus A350.

## II. BUSINESS REPORT

### A. UNDERLYING CONDITIONS

#### I. MACROECONOMIC ENVIRONMENT

Last year, German gross domestic product (GDP) expanded by 2.2%, thus exceeding the previous two years (1.9% in 2016, 1.7% in 2015). German GDP growth was almost one percentage point above the average of the past ten years (1.3%). On the production side, virtually all segments made a positive contribution to the growth in GDP. All told, price-adjusted gross value increased by 2.2% over the previous year in 2017. At +3.9%, the information and communications sectors recorded above-average growth. The number of domestic employees rose by 1.5% over the previous year, reaching a new high of 44.3 million for the tenth consecutive year. This is the highest rate of growth since 2007. Higher labor market participation as well as immigration from outside Germany made up for the age-related demographic effects. This positive trend in the labor market was accompanied by a rising inflation rate, which increased from an annual average of 0.5% in the previous year to 1.8% in 2017 in Germany.

## II. SECTOR ENVIRONMENT

Measured in terms of direct annual sales, the space industry largely only holds a niche position compared with other industries in Europe and also the rest of the world but is indirectly of crucial importance for the economy as a whole. Navigation, earth observation and communications satellites orbiting in space constitute vital elements of our infrastructure with an importance similar to that of high-voltage power lines, roads, water ways and air transportation. Navigation satellites, for example, allow IT systems to be synchronized globally, providing the basis for international financial transactions to be executed and documented reliably. The data collected by weather satellites ensures safe flying conditions and more frequent flights, improved efficiency in agriculture, the avoidance of poor harvests and more plannable logistics and holiday travel. Space travel makes an important contribution to improving environmental protection, allows the causes of and flows in migration to be observed and thus makes a decisive contribution to civil and military security. Space may be a small industry but one that is of crucial importance for a modern and sustainable economic system. The role played by space activities varies from region to region. However, they are recognized as being a key industry both politically and by society at large in Europe and North America in particular and increasingly also in China and India. Given the long-term nature of the programs and projects, macroeconomic and political conditions in individual countries have only a limited direct impact on current programs and projects. Moreover, depending on the region in question, commercial, civil and military space programs are often linked with each other to very differing extents or are completely independent of each other. In Europe, the programs initiated by the European Space Agency (ESA) and the European Commission as well as national space activities remained stable thanks to their multi-year planning horizons. This can also be seen in the ESA Conference of Ministers held in December 2016 as well as the European Commission's preparations for the next multi-annual financial framework, which commences in 2020.

**SPACE IS OF  
FUNDAMENTAL  
SIGNIFICANCE  
FOR A MODERN,  
EFFICIENT ECO-  
NOMIC SYSTEM.**

In the United States, NASA's budget exceeded USD 19.0 billion in 2017. At this stage, however, it is still not possible to foretell what course the new administration will take. In addition, there is a further budget in the United States for space projects, namely that of the US Department of Defense, which is valued at over EUR 22 billion. The US government's total space budget exceeded USD 44 billion in 2016, with a budget of a similar magnitude expected for 2017. After more than two decades of uncertainty as to their future direction, space activities in the Russian Federation have received a new perspective again. That said, it is not possible to assess the ramifications for space pro-

grams of the current situation in the Russian economy following the Western sanctions and the continued decline in oil prices. In particular, the United States has substantially scaled back joint activities with the Russian Federation but still remains dependent on Russia for the transportation of supplies and astronauts to the International Space Station ISS. Looking forward, it expects to regain the independence which it had prior to the termination of the Shuttle program, when national

commercial operators become available. Japan, China, India, South Korea, Turkey and Brazil are still pursuing ambitions of establishing their own national space flight programs and infrastructures. The establishment of a national space station and a long-term successful lunar landing initially with a rover and later with national astronauts form key elements of the Chinese space program.

Held in December 2016 in Lucerne, the last ESA Conference of Ministers was of crucial importance for the European space industry both economically and in terms of programs. Work on implementing the decisions made at the conference was commenced in 2017 and particularly also includes the development of the new European launch vehicle Ariane 6 and the continued operation of the International Space Station ISS until 2024. Programs worth EUR 10.3 billion, including a German share of around EUR 1.9 billion, were approved. In addition, the budget for the German national space program was valued at

EUR 276 million in 2017. Preparations and the formulation of the agenda for the next Conference of Ministers scheduled to take place in December 2019 have already commenced.

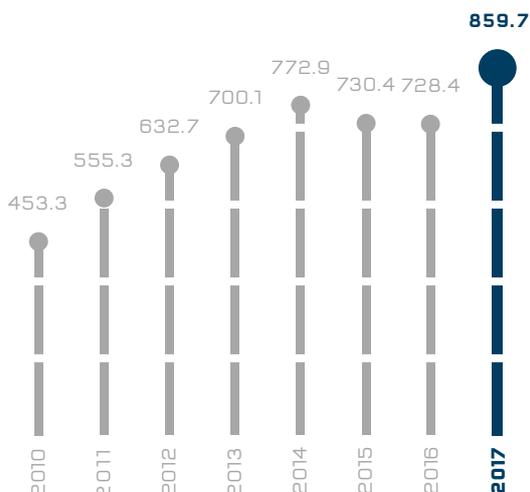
In the launch services market, demand for the European Ariane 5 launch vehicles remains solid. The Ariane 5 program owes its sustained technical success to the unique reliability of this launch vehicle, which is unrivaled anywhere in the world. The last launch for 2017 in December marked the 82<sup>nd</sup> consecutive successful campaign. Six launches are scheduled for 2018. As things currently stand, launches will continue until 2022. The maiden flight of the new-generation Ariane 6 is scheduled for 2020.

### B. OHB SE'S BUSINESS PERFORMANCE IN 2017

The Group's business performance in the year under review and the resultant growth in its performance indicators lived up to the Management Board's positive expectations. In February 2017, the Company published full-year guidance for total revenues, EBITDA and EBIT. At EUR 59 million, EBITDA almost reached the guidance (EUR 60 million), while the EBIT of EUR 44 million exactly matched the forecast of EUR 44 million. Total revenues **SEE CHART 04** in the period under review came to EUR 860 million, thus

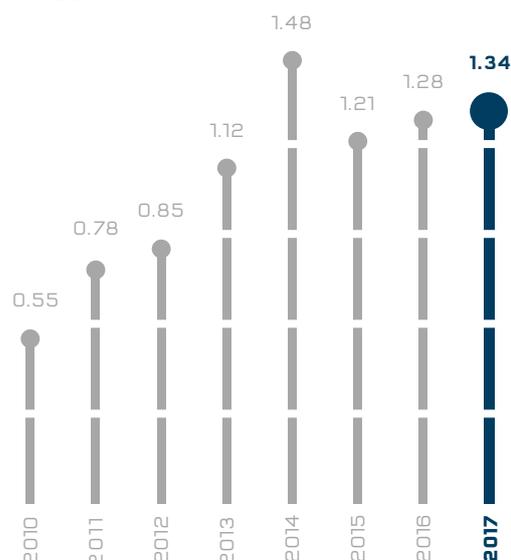
exceeding expectations by 8% (EUR 800 million). This was due to shifts and delays in the recognition of revenues, something which is not unusual given the nature of our business model. The further increase in the relative proportion of subcontractor input in total revenues caused the EBITDA and EBIT margins to fall short of the previous year. The EBITDA margin came to 6.8% in the year under review (previous year: 7.6%), while an EBIT margin of 5.1% was recorded (previous year: 5.9%). Consolidated net profit after non-controlling interests rose from EUR 22.2 million in the previous year to EUR 23.4 million and earnings per share **SEE CHART 05** from EUR 1.28 to EUR 1.34. Order backlog climbed significantly in the year under review from EUR 1,560 million to EUR 2,439 million due to new major contract awards in the Space Systems business unit in particular, translating into high capacity utilization and good forward planning visibility.

**C04**  
**CONSOLIDATED TOTAL REVENUES**  
2010-2017



IN EUR MILLION

**C05**  
**EARNINGS PER SHARE**  
2010-2017



IN EUR

## C. BUSINESS PERFORMANCE

The OHB Group's favorable business performance continued in 2017. Total revenues increased over the previous year (EUR 728 million) by 18% to EUR 860 million. Sales also climbed by 18% to EUR 826 million, up from EUR 699 million in the previous year. The transformation of the space industry from what was once a solely research or political-ly/ideologically driven segment into a user-oriented and economically significant market has formed the basis for Group's continuous and sustained growth over the last one-and-a-half decades. The areas in which it engages via its subsidiaries place it in an excellent position: After the growth of the last few years, the space flight market will continue to expand as new possibilities for utilizing new or existing technologies are yielding new requirements. The existing applications are based on satellite systems already in operation which have a limited life expectancy and must therefore be replaced with new systems offering potentially improved technology or efficiency.

### I. SPACE SYSTEMS BUSINESS UNIT

Business in the Space Systems business unit is chiefly characterized by long-term projects which are generally awarded by public-sector customers. The high order backlog of EUR 2,198 million (December 31, 2017) and the broad potential for generating new project business provide the basis for high forward planning visibility for the targeted deployment of the Group's resources.

#### Earth observation and reconnaissance

Developed and built by OHB System AG and put into operation between 2006 and 2008, the SAR-Lupe system with its five radar satellites, ground segments and the combined German-French reconnaissance satellite system made up of SAR-Lupe (radar images) and Helios 2 (optical images) is still exhibiting a high degree of stability. The contract entered into for the operation of the system by OHB System AG over a period of ten years duly expired on November 30, 2017. The customer (Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support [BAAINBw]) and the German federal armed forces took this opportunity to express their extreme satisfaction with the system and the partnership with OHB System AG. At the same time, the contract was amended to provide for the continuation of system operations until such time as the replacement system SARah goes into operation. This is planned for 2019 or 2020. Work

on the SAR-Lupe successor SARah with substantially improved performance proceeded according to plan. The system comprises three satellites, namely two satellites based on OHB System AG's reflector antenna technology and one satellite using phased-array technology, which has been subcontracted out to Airbus Defence and Space GmbH. OHB System AG has supplied the necessary ground equipment, which has also been used to control the SAR-Lupe satellites since the end of January 2018.



The national optical earth observation program EnMAP (Environmental Mapping and Analysis Program) for the German Aerospace Center is currently in the integration phase at the clean rooms in Oberpfaffenhofen. The satellite platform was transferred from Bremen to Oberpfaffenhofen in 2017. EnMAP is now scheduled for launch in 2020. With its new type of hyperspectral sensors, this environmental satellite is primarily designed to characterize and monitor the condition of the earth. It is an innovative system which can be used for many new applications, e.g. security. Alongside this program, OHB Italia S.p.A. is working on the PRISMA project, an Italian program similar to EnMAP. In June 2017, OHB Italia signed a launch contract for this mission with Arianespace on behalf of the Italian space agency. The PRISMA satellite is expected to be placed in orbit at the end of 2018 or early 2019.

Development and construction of the third-generation European weather satellite Meteosat Third Generation (MTG) are continuing, with the satellites now in the production phase. Three satellite platforms have already been shipped to OHB System AG's clean rooms in Bremen. The first platform will be transported to project partner Thales Alenia Space S.A. in Cannes, France, in the first quarter of 2019 for integration of the imager instrument. This instrument will be supplying the customary images used in weather forecasts but in substantially greater quality. The first sounder instrument in the satellites, which will be collecting additional spectral data on the weather and climate, is currently being integrated at the clean rooms in Oberpfaffenhofen.

At OHB Italia S.p.A., development work on the microwave imager (MWI) for the METOP mission is ongoing. The MWI instrument will provide Europe's national meteorological services as well as international users and the science

community with meteorological and climatic data. OHB Italia is responsible for designing and developing the MWI from Phase B2 through to the final in-orbit verification of three flight models for delivery to a member of the Airbus Group, which is the principal contractor for this mission. In November 2016, OHB System AG was selected by principal contractor Leonardo S.p.A. as a core team partner for ESA's European earth exploration mission FLEX, which is to commence in 2022.

With these activities, OHB SE subsidiaries are active in all areas of earth and weather observation and reconnaissance with products ranging from radar satellites to optical observation systems.

These existing projects have been joined by the award of a contract for an electro-optical reconnaissance system for the Federal Republic of Germany in what was a major success for OHB. With a budget framework of up to EUR 400 million, this system will be used for global electro-optical reconnaissance. Together with the SAR-Lupe and SARah programs, OHB has thus been able to position itself as a multi-competent supplier and partner for space-based reconnaissance systems for the Federal Republic of Germany. The contract for this procurement program was signed only nine months after it was announced.

In August, OHB Italia S.p.A. launched the OPTSAT-3000 satellite on behalf of the Italian government on board a VEGA VV10, which lifted off from Kourou (French Guiana). OHB Italia provided the launch services and engineering support.

Several proposals for studies for new earth observation missions were submitted under the European Commission and ESA Copernicus program in the fourth quarter of 2017 and the first quarter of 2018. In most cases, the OHB SE Group companies are not only overseeing the studies but will also be acting as potential system leads during the implementation phase. However, the decisions on the contract awards for the missions are not expected to be announced before the second half of 2019.

### Communications

OHB System AG developed and built a telecommunications satellite for HISPASAT, S.A. for the first time. Known as H36W-1, the satellite lifted off from the European space center Kourou on board a Soyuz launcher on January 28, 2017. The shift from the transfer orbit to the final geostationary orbit was completed successfully. With its own propulsion system and five combustion phases, the satellite passed its first major test. This satellite marks the first time that the OHB-developed SmallGEO platform is being deployed directly in a satellite operator's commercial system. On June 2, 2017, the satellite completed its 80-day testing phase in which its full functional capabilities were impressively demonstrated and was handed over to the Spanish satellite operator HISPASAT, S.A., which has since integrated it in its satellite fleet. It will be providing flexible broadband services for Spain, Portugal, the Canary Islands and South America over a period of 15 years. ESA also selected the SmallGEO platform as the basis for the European Data Relay Satellite (EDRS-C) within the ARTES-7 program. With integration work now almost completed, the satellite is expected to be shipped to the testing center operated by Industrieanlagen-Betriebsgesellschaft mbH in the second quarter of 2018. The expansion of the SmallGEO model for use as a specialized data relay satellite in ultra-high-speed satellite-to-satellite communications is an important new strategic segment for OHB System AG in both the civilian market and the future military market.

SmallGEO has been chosen by the German Aerospace Center as the basis for the "Heinrich Hertz" national telecommunications mission. This mission will be used to test new types of satellite communications technology under real conditions to safeguard national system competence in geostationary communications satellites. Among other things, it is also to support the military communications of the German federal armed forces. In 2014, the German Federal Ministries of Defense and Economics agreed conclusively on the terms of the joint procurement of the satellite. The contract was awarded in the second quarter of 2017. In December 2017, OHB signed a contract with launch service provider Arianespace SAS for the launch of the "Heinrich Hertz" satellite, which is to be placed in orbit in the fourth quarter of 2021 on board an Ariane 5.

A contract was signed in March 2016 between ESA, the Luxembourg satellite operator SES S.A. and OHB System AG for the development and assembly of the "Electra" satellite, an all-electric spacecraft. As it does not require any chemical propellant, this satellite will be substantially lighter. This will lower the launch costs on the one hand and permit substantially larger payloads on the other.

Development work is progressing according to schedule. Electra marks the commencement of work on the next-generation geostationary satellites at OHB System. At the same time as the SmallGEO geostationary satellite range was established, Group company LuxSpace Sàrl was also selected by ESA to develop microsatellites in the 100-kg class in 2017. With the development and assembly of inexpensive microsatellites known as "Triton-X" at its Luxembourg facility, the Group is readying itself for the "new space" market. Working on behalf of the Swedish space agency SNSB, OHB Sweden AB is developing a platform known as InnoSAT for the 50-kg class, while OHB Italia S.p.A. has developed and assembled the "Eaglet-1" satellite in the under-10-kg class using the QubeSat format. Consequently, OHB SE companies are addressing the entire gamut of platforms for communications and earth observation applications.

#### Navigation

In the year under review, a further four satellites for the European satellite navigation system Galileo lifted off from the Kourou space center on board an Ariane 5 launcher. No problems arose during the launch and activation of these full operational capability (FOC)\* satellites. This means that the first four Lot 2 satellites are now already in orbit. The next four satellites from Lot 2 are expected to be launched on board an Ariane 5 in July 2018.

Some of the FOC satellites as well as those of a competitor under the program preceding Galileo (IOV) exhibited irregularities in certain clock operations. For this reason, the customer took various measures with the support of OHB System AG at the beginning of 2017 to stabilize the satellites still on the ground as well as those already in orbit. These measures have since all been duly completed. This did not have any influence on the commencement of the Galileo initial services. ESA and the European Commission announced on December 15, 2016 that these services had been successfully initiated. In summer 2016, OHB System AG submitted a bid for Galileo FOC Lot 3, which is expected to be composed of four or eight satellites and six additional optional satellites. The European Commission and ESA awarded the contract for an initial eight satellites in April 2017. At the same time, the European Commission ordered a further four satellites in October 2017. Consequently, OHB System AG is the supplier of a total of 34 Galileo satellites worth around EUR 1.3 billion.

A study on the follow-up generation for the current Galileo satellites has been completed, with work on a further study completed in January 2018. The purpose of these studies is to ensure that after the expiry of its planned twelve-year service life the Galileo system will be equipped with new satellites on the basis of an as yet undeveloped technology aimed at preserving its leading position. The European Commission and, working on its behalf, ESA plan to award a contract in 2019 for a transition batch in the form of Lot 4, which will already include part of the new technologies and integrate the expanded capabilities. Preliminary requests for proposals for the preparation phase are expected to be forthcoming at the end of 2018.

OHB System AG is supplying

**34**

**GALILEO SATELLITES.** The contract has a total value of EUR 1.3 billion.

#### Space exploration

The central unit for the Trace Gas Orbiter developed and built in 2016 under the ESA ExoMars 2016 program is continuing to operate free of any faults. The second part of the ExoMars twin mission, for which OHB System is supplying the carrier and the central system for the payload in the Mars Rover is on schedule. Under this mission, Antwerp Space N.V. is building the lander radio instrument, which uses sophisticated communications technologies to

transmit data from Mars to the earth. Antwerp Space is also involved in the Jupiter JUICE mission, for which it is supplying the communications subsystem. The EUCLID space telescope, for which OHB Sweden AB is developing and assembling the chemical propulsion system as well as the fluid part of the micro drive and OHB System AG is supplying key parts of the optical system, is to be used to explore dark energy and dark matter.

#### Space research and robotics

OHB SE companies were again involved in several studies in connection with ESA's next European scientific research missions in 2017. In this way, it is also building up a position for itself in this classic segment of space technology. It is particularly focusing on the mid-sized PLATO mission. The purpose of the PLATO mission is to search for exoplanets, i.e. planets that orbit around other stars, and to determine the extent to which they are comparable to the earth. To this end, OHB System AG submitted a proposal as principal contractor for the satellite in the fourth quarter of 2017. OHB Sweden is continuing to work intensively on subsystems for the ESA Solar Orbiter research satellite. January 2017 saw a further flight of a TEXUS rocket and a MAXUS

rocket from the Esrange launch pad in Kiruna in North Sweden. OHB System AG has been participating in this national DLR program, which conducts research in weightless conditions, since 1976.

**Human spaceflight**

OHB System AG continued to provide extensive support for work on board the ISS International Space Station in 2017. This included the management of experiments as well as maintenance and repair work for the equipment developed and supplied by OHB System AG. OHB System is working on several studies analyzing possible scenarios for transporting supplies to the ISS after the expiry of the ATV program and exploring potential alternatives in microgravitation research following the decommissioning of the ISS in 2024 or later. One key aspect of this is a future major role in the "Deep Space Gateway", a potential international partnership led by NASA. Related to this is the incorporation of the new company Blue Horizon S.à.r.l. in Luxembourg, which will be coordinating the OHB Group's life science activities in space.

**Space situational awareness**

Work on the asteroid impact mission continued. In a possible mission, ESA is to work with NASA on the groundwork for a mission which may become necessary at some time in the more distant future to shield the earth from the impact of an asteroid. To date, no decision has been made on the funding for this program.

In a contract awarded by the Italian space agency ASI and ESA, OHB Italia S.p.A. developed and patented the core technology for a new and innovative telescope for detecting space debris in low and geostationary orbits. Known as the "Fly Eye", the telescope combines a very large field of view with very high resolution. ESA is currently designing an assembly for a global optical network comprising up to 27 telescopes to monitor space.

**Ground stations**

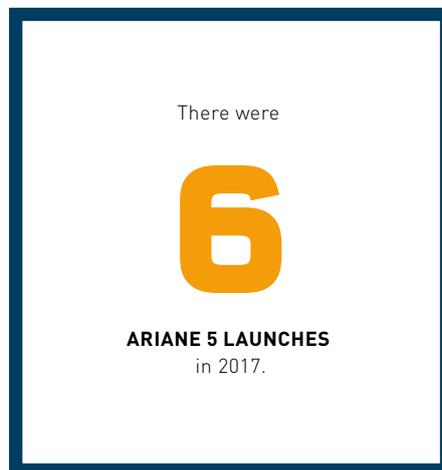
The SAR-Lupe operations handled by OHB System AG came to their contractual end in late November 2017. A contract for the continuation of the activities was signed in good time with BAAINBw to avoid any disruptions in the satellite operations. The SARah ground facilities were activated at the end of January 2018 and are already handling the operation of the SAR-Lupe satellites.

**II. AEROSPACE + INDUSTRIAL PRODUCTS BUSINESS UNIT**

Business in the Aerospace + Industrial Products business unit is chiefly characterized by long-term projects. The order backlog of EUR 241 million (December 31, 2017) together with projects that have already been approved but not yet awarded ensures forward planning visibility. This particularly applies to the development and production of the Ariane 6 launcher approved at the ESA Conference of Ministers.

There were six Ariane 5 launches in 2017. The scheduled production and shipment of six flight sets by MT Aerospace AG also kept capacity utilization stable in 2017. In the course of the year, the presumably final order for Ariane 5 comprising ten flight sets was received.

At the same time, ESA and Arianespace came to an agreement with MT Aerospace AG on the activities and budget for the maintenance of the production facilities until production of the Ariane 5 is discontinued. Development of the next-generation Ariane 6, which is scheduled to replace the current Ariane 5 in 2020, is continuing to advance. MT Aerospace AG holds around 50% of the German portion of a total of 23% in the development and production of the Ariane 6 and is thus well positioned. The company holds system responsibility for the metallic structural components and tanks. In the first half of 2017, a contract was signed with the principal contractor ArianeGroup for the development of the Ariane 6 launcher with a budget of EUR 169 million on the basis of the resolution passed by the ESA Conference of Ministers in December 2014. The contract covers the components of the



upper and central stage tanks and the metallic structures. An important milestone was reached in July 2017 with the preliminary design review. Work on building new production facilities and modifying existing ones in Augsburg has been completed. In February 2018, production of the main and upper stage tanks as well as the structural components of the Ariane 6 was transferred to new machinery. The FORC (fiber-optimized reinforced booster casing) ESA research project was completed in September. The design, technical functionality and the adhesion of the valance to the pressure hull of the CFRP booster casing were duly demonstrated in the very successful bursting test campaign. Development work was continued and various bodies successfully tested under the development contract for the Ariane 6 P120 development contract. In addition to the Ariane booster activities, a DLR-funded project was commenced in 2016 for the purpose of configuring and building three solid-fuel booster casings for the Brazilian VLM launcher (CaSSIS). On October 7, 2017, MT Aerospace AG together with its subsidiary MT Mechatronics GmbH was awarded a contract worth over EUR 23 million by the French space agency CNES for the management of the mechanical lot for the Ariane 6 launch paid in Kourou (French Guiana). MT Mechatronics is also handling the installation of the mobile booster pallet systems and the jet deflector. The facilities are to be handed over to CNES and ESA in May 2019.

In the aviation segment, volume production of the fresh and waste water tanks for the Airbus A320/330 continued according to plan in terms of schedule, budget and quality. The single-source contract for the A320 and A330 fresh-water tanks was renewed for a further six years. The 20% price reduction was accepted and will be accommodated via the cost-optimization program completed in 2017 for the A320 and A330 fresh-water tanks. The A350 program underwent an intensive recovery phase following delivery delays caused by technical adjustments. However, it was completed to the customer's satisfaction in October 2017. The program is expected to be continued with a nominal delivery performance.

MT Mechatronics GmbH was awarded a contract in the first quarter of 2017 for a new large radio telescope in Thailand. With a reflector diameter of 40 meters, this turning-head telescope is one of the world's largest of its type alongside the IGN telescope installed in Yebes, Spain, in 2006. A 13-meter VLBI antenna was assembled and placed in operation in the vicinity of Johannesburg. MT Mechatronics has now successfully installed the tenth antenna from this series, while number eleven for Finnish geodata has successfully completed acceptance testing at a components supplier's facilities. All the components for the two 15-meter prototypes have been produced for what will be the world's largest radio telescope project, the Square Kilometer Array (SKA). After a one-year testing phase of the prototypes, 133 series antennas are to be installed in an initial batch in the Karoo semi-desert in South Africa. This telescope array will be by far the most sensitive instrument for astronomy in this frequency anywhere in the world. A new generation of the LEO Ka-band ground stations for earth observation purposes was successfully installed and tested in Spitzbergen, Norway, for the European space agency ESA. A further antenna of this type was assembled. MT Mecatronica SpA is performing the existing service contract for the ESO observatory in Chile to the customer's full satisfaction. In 2017, it signed a service contract for the APEX observatory in Chile. Over the next few years, MT Mecatronica will be providing support for the operation and technical maintenance of the observatory.

In the telematics market, OHB Logistic Solutions GmbH has been registering steadily rising demand since the market launch in February of its visioboxx container-monitoring product. An order for an initial batch of 3,000 units for the logistics system of a large automotive OEM was awarded.

#### D. RESULTS OF OPERATIONS

In 2017, the OHB Group's total revenues rose by EUR 131.3 million or 18% over the previous year to EUR 859.7 million. Consolidated sales came to EUR 825.9 million (previous year: EUR 699.2 million), primarily underpinned by the further ramp-up of satellite system contracts and the simultaneous production activities for Ariane 5 and the development work on the Ariane 6. Non-consolidated total revenues **SEE CHART 06 (PAGE 54)** in the Space Systems business unit reached EUR 661.3 million in 2017 (previous year: EUR 559.5 million). Non-consolidated sales increased significantly to EUR 635.3 million (previous year: EUR 524.6 million). At EUR 211.9 million in 2017, non-consolidated total revenues in the Aerospace + Industrial Products

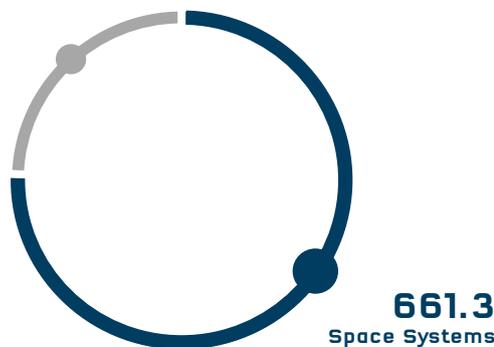
business unit were up EUR 35.9 million on the previous year. Non-consolidated sales rose from EUR 181.7 million in the previous year to EUR 203.9 million. All in all, the increase of 122 in employee numbers to 2,420 left traces on personnel expenses, which increased by 9.2%. Reflecting the increase in total revenues, the cost of services purchases, which is reported within the cost of materials, climbed by 22.5% over the previous year. Other operating expenses climbed by 12.2%. Among other things, this was due to higher rental expense as a result of capacity expansion.

With a value of EUR 2,439 million as of the reporting date (previous year: EUR 1,560 million), the OHB Group's order backlog **SEE CHART 07** was significantly higher than in the previous year. Of this, the Space Systems business unit accounted for EUR 2,198.1 million (previous year: EUR 1,341.2 million) due, among other things, to the award of contracts for a further twelve Galileo navigation satellites, a telecommunications satellite and a satellite system for the electro-optical earth observation. Order backlog in the Aerospace + Industrial Products business unit stood at EUR 240.7 million as of the reporting date (previous year: EUR 218.4 million).

In the period under review, the OHB Group generated EBITDA **SEE CHART 08** of EUR 58.8 million (previous year: EUR 55.1 million) and EBIT **SEE CHART 09** of EUR 44.2 million (previous year: EUR 42.7 million). Net profit after tax and non-controlling interests stood at EUR 23.4 million in the year under review (previous year: EUR 22.2 million), while earnings per share equaled EUR 1.34 in 2017, up from EUR 1.28 in 2016. EBIT before consolidation in the Space Systems business unit **SEE CHART 10 (PAGE 56)** dropped slightly from EUR 25.5 million in the previous year to EUR 24.1 million due, among other things, to the scheduled commencement of amortization on capitalized development activities. Development work on the "SmallGEO" satellite platform, which is already being used as a basis for various satellite programs, has resulted in greater capitalized development activities over the last few years. These stood at EUR 20.2 million at the Group level in the year under review. EBIT in the Aerospace + Industrial Products business unit rose from EUR 17.2 million to EUR 20.2 million. The OHB Group recorded net finance expense of EUR 2.0 million in 2017 (previous year: EUR 4.7 million). This includes finance expense of EUR 5.6 million (previous year: EUR 7.5 million) chiefly comprising interest expense of EUR 1.8 million (previous year: EUR 2.2 million) on

**C06**  
**TOTAL REVENUES BY BUSINESS UNITS BEFORE CONSOLIDATION AND HOLDING 2017**

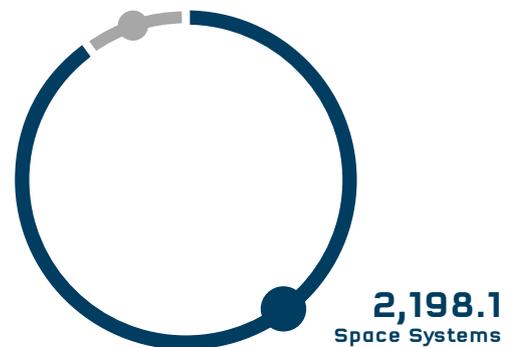
**211.9**  
 Aerospace +  
 Industrial Products



**IN EUR MILLION**

**C07**  
**ORDER BACKLOG BY BUSINESS UNITS AS OF DEC. 31, 2017**

**240.7**  
 Aerospace +  
 Industrial Products



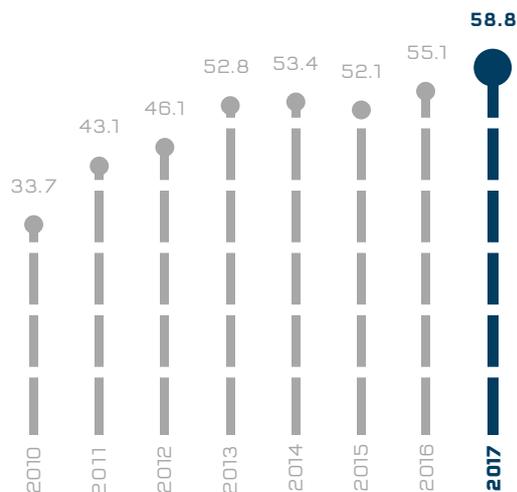
**IN EUR MILLION**  
 Total order backlog: 2,438.8

pension provisions and interest of EUR 3.0 million (previous year: EUR 3.4 million) on financial liabilities. The parent-company financial statements prepared according to German GAAP (HGB) for OHB SE carry an unappropriated surplus of EUR 12.9 million for 2017. The Management Board and Supervisory Board will be asking the shareholders to approve a dividend of EUR 0.40 per share for 2017 at this year's annual general meeting. The Management Board considers the year under review to be generally successful.

## E. FINANCIAL CONDITION AND NET ASSETS

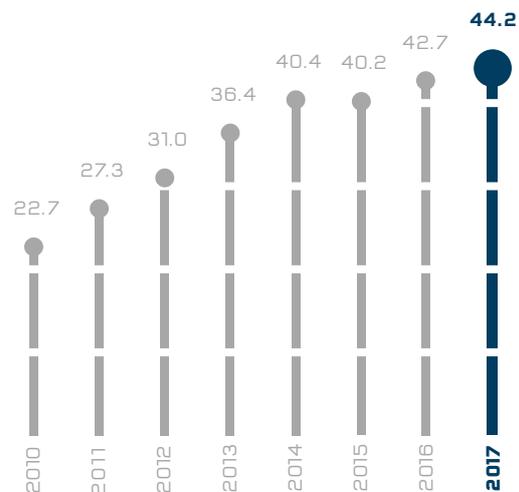
In the year under review, the OHB Group's total assets **SEE CHART 11 (PAGE 56)** widened from EUR 682.9 million to EUR 719.7 million. Equity rose by EUR 23.7 million over the previous year, standing at EUR 207.3 million as of December 31, 2017 (previous year: EUR 183.6 million). This translated into an equity ratio of 28.8%, marking an increase over the previous year (26.9%). Group capital spending on property, plant and equipment and intangible assets totaled EUR 44.6 million in 2017 (previous year: EUR 50.2 million). Of this, the Space Systems business unit accounted for EUR 23.3 million. This includes a sizeable amount of EUR 18.4 million for capitalized development activities, primarily in connection with the telecommunications platforms. The Aerospace + Industrial Products business unit accounted for EUR 21.3 million, with a substantial part of this attributable to production capacities for components for launchers. Capital spending is expected to drop to around EUR 30 million in 2018 due to the completion of work on expanding production capacities in the Aerospace + Industrial Products business unit together with a decline in the capitalized development activities in the Space Systems business unit. Inventories dropped from EUR 50.2 million to EUR 48.8 million. Prepayments received for various

**C08**  
**EBITDA**  
2010–2017



IN EUR MILLION

**C09**  
**EBIT**  
2010–2017



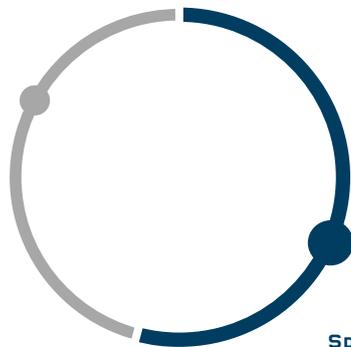
IN EUR MILLION

major projects climbed to EUR 148.1 million as of the reporting date (previous year: EUR 139.8 million). Cash and cash equivalents including securities were valued at EUR 59.0 million as of December 31, 2017, compared with EUR 57.0 million in the previous year. A detailed analysis of the cash flow can be found in the cash flow statement in the consolidated financial statements. At EUR 35.0 million, the net cash inflow from operating activities is primarily due to the consolidated net profit generated and was used to finance capital spending as well as the dividend distribution. The pension provisions of EUR 96.6 million at the end of 2017 continue to constitute a major liability item. Current financial liabilities dropped from EUR 93.1 million to EUR 63.9 million as of the reporting date. These liabilities continue to arise from drawdowns on part of a credit facility obtained in December 2013. This facility was modified in May 2016 and renewed until 2022 in May 2017. At the same time, the original amount was lowered from EUR 250 million to EUR 225 million, thus ensuring that any financial requirements can still be covered inexpensively. The loan facility is related to the timing differences between the services completed under projects measured using the percentage-of-completion method and the corresponding payment schedules for these projects. In addition, a loan for EUR 30 million was provided by the European Investment Bank, Luxembourg, in

March 2017 to finance the Electra project at OHB System AG. The loans are not secured but are subject to three covenants, none of which were breached in the year under review. Trade receivables rose to EUR 328.2 million as of the reporting date (previous year: EUR 318.8 million) for sales-related reasons. Trade payables stood at EUR 83.1 million on the reporting date (previous year: EUR 67.3 million). The cyclical nature of project business in the space industry calls for flexible funding structures. The Company pursues the goal of securing its irregular liquidity requirements to finance current assets by means of corresponding credit facilities on which it can draw at any time. In the light of this goal, the Management Board generally considers OHB SE's net assets and financial condition to be solid.

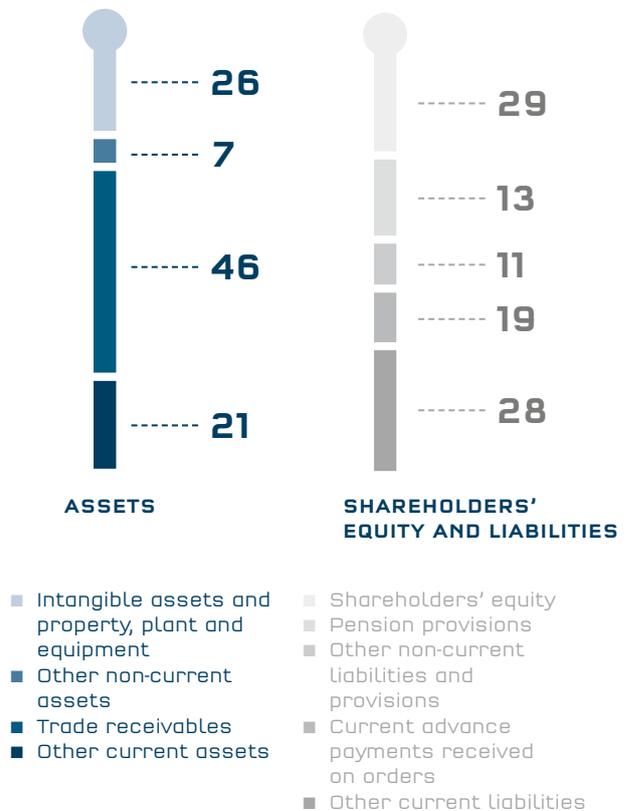
**C10**  
**EBIT** BY BUSINESS UNITS BEFORE CONSOLIDATION AND HOLDING

**20.2**  
 Aerospace + Industrial Products



IN EUR MILLION

**C11**  
**ASSET STRUCTURE**  
 AS OF DEC. 31, 2017



IN A PERCENTAGE OF TOTAL ASSETS

## F. EMPLOYEES

With the addition of 122 new employees in 2017, OHB SE's workforce rose appreciably over the previous year **SEE CHART 12**. The increase was due to the development in the Space Systems business unit and reflects the high capacity utilization arising from the current programs as well as preparations for new ones. All told, 2,420 employees were based at companies in Germany, in other European countries (Italy, Sweden, Belgium, Luxembourg, France), in Chile and in French Guiana as of the reporting date **SEE CHART 13**.

With its good position in key European satellite and launch system programs, OHB is able to attract suitably qualified candidates from within Germany as well as from other European countries despite the tight employment markets. This is reflected in a consistently high proportion of foreign nationals of an average of over 20% as well as a reduction in the average age from 44 to 42.6 years. OHB SE met with employee representatives from all German and non-German business units and subsidiaries in Bremen in the spring of the year under review and in Luxembourg in the autumn as part of its regular dialog with the Group employee representative council.

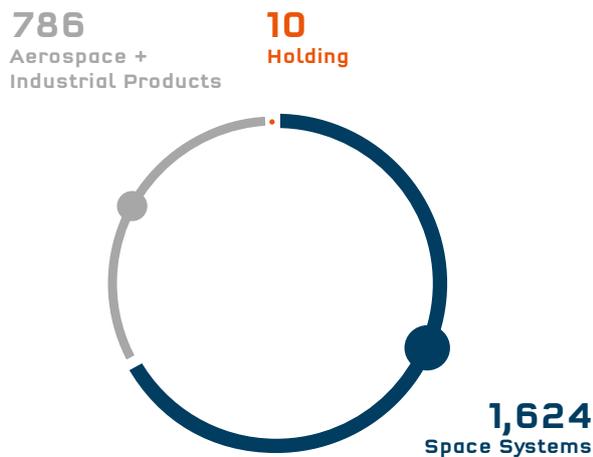
## III. OUTLOOK, RISK AND OPPORTUNITY REPORT

### A. OUTLOOK

#### I. SPACE SYSTEMS BUSINESS UNIT

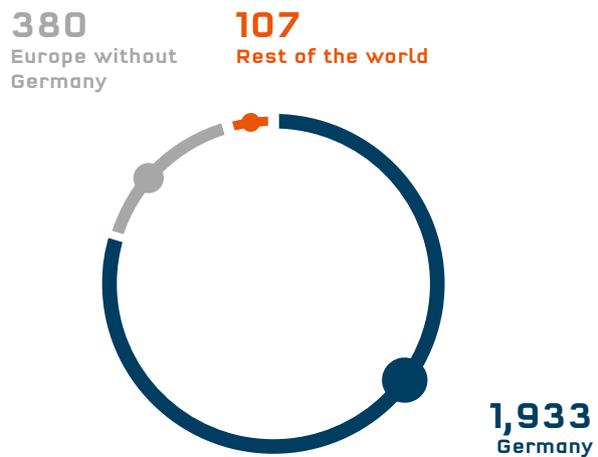
In 2018 and beyond, the Space Systems business unit will be concentrating on the continuation of its successful work on the Galileo, EDRS-C, Electra, Meteosat Third Generation, EnMAP, SARah and Heinrich Hertz projects as well as the electro-optical satellite system. A decision by the European Commission and ESA on the award of the contract for the fourth lot of Galileo satellites is expected to be announced at the end of 2018. A series of requests for proposals for elements of the ESA earth observation and science mission as well as contracts for further studies are expected at the beginning of 2018 for execution in 2018 and 2019. Depending on the program, OHB companies plan to submit proposals either as a principal or subcontractor. With respect to national Italian programs, OHB Italia S.p.A. intends to systematically broaden its role as second player in Italy for satellite missions, both for science and remote sensing. Budgetary decisions on the part of the European Commission, ESA and in the national space programs in Germany and Italy as well as the other

**C12**  
**NUMBER OF EMPLOYEES**  
 BY BUSINESS UNITS  
 AS OF DEC. 31, 2017



Total personnel: 2,420

**C13**  
**NUMBER OF EMPLOYEES**  
 BY REGIONS  
 AS OF DEC. 31, 2017



Total personnel: 2,420

countries in which OHB companies are located point to largely stable underlying conditions and a sufficiently firm basis for future planning. With its current and planned projects and programs, OHB SE's Space Systems business unit is ideally positioned to maintain the level which it has achieved on a sustained basis and to continue growing successfully.

**II. AEROSPACE + INDUSTRIAL PRODUCTS BUSINESS UNIT**

In the launch vehicle segment, the existing order backlog will ensure continued production and delivery of components for the Ariane 5 and thus largely underpin sales performance in 2018 and 2019. The existing cost-optimization program has been enlarged and will be continued with a greater focus on series production of the Ariane 6 launcher. The development of launcher components will continue to be dominated by the ramp-up of the Ariane 6 development program. Acceptance testing and qualification of the production facilities already configured for the Ariane 6 commenced in 2017 and will continue until full discontinuation of Ariane 5 production.

Against the backdrop of the price reduction for the A320/A330 as well as the 25-percent cut in the production cadences for the A400 M, the continued performance of aviation business will hinge materially on the award of the contract for the A350 XXL tanks in 2018.

As the world's only company that operates both in low-frequency astronomy (e.g. Square Kilometer Array) and in the optical segment (Giant Magellan Telescope, one of the largest optical telescopes in the coming decade), MT Mechatronics GmbH expects to receive further contracts for large antenna systems. To supplement the contracts already awarded for the Ariane 6 launch pad, additional orders are being sought for the construction, modernization and conversion of the Ariane 6 preparation facilities and mechanical ground support equipment (MGSE). As well as this, it will be addressing demand for new more complex antennas and ground stations for satellite communications application. This will be done with the Snowbear, SARah and Ka-band geo product range as well as a study on optical terminals.

In the telematics segment, OHB Logistic Solutions expects to receive a further order in 2018 for 20,000 units for an automotive OEM for delivery by mid 2019. In addition to orders from mid-size domestic logistics companies, an order for licensing or the sale of the visioboxx system is likely to be forthcoming from a customer in Egypt.

**III. OUTLOOK**

Given the sharp rise in the order backlog in 2017, the Management Board expects consolidated total revenues in the OHB Group of EUR 1 billion in 2018. EBITDA should come to EUR 65 million and EBIT to EUR 47 million in 2018. One

important non-financial performance indicator is the fluctuation rate, for which a target of less than 5% has been defined. It should be expressly noted in connection with forward-looking statements that actual events may differ materially from expectations of future performance.

**B. RISK AND OPPORTUNITY REPORT**

**I. RISK AND OPPORTUNITY MANAGEMENT SYSTEM**

OHB SE's Management Board permanently monitors the Group's operating, market and financial risks in order to safeguard the

Group's sustained business success. Assisted by the central departments, the Management Board observes and analyzes trends in the sector, markets and economy as a whole on an ongoing basis. In this connection, OHB SE's risk management system controls the uncertainties to which the Group companies are exposed by identifying and evaluating opportunities and risks systematically and regularly and, if necessary, defining and implementing suitable measures and precautions. This applies to operating risks as well project-related and technical risks. In this connection, product and quality assurance officers continuously monitor design, construction and integration activities as well as deliveries received from upstream suppliers.

In addition to the aforementioned systematic identification, evaluation and management of risks, a detailed monthly report for tracking orders and costs provides important input for overall risk management. Reporting also covers all business acquisition, research and development activities and allows potential opportunities and risks to be



identified at an early stage. The subsidiaries submit standardized monthly or quarterly reports to OHB SE covering all processes, opportunities and risks of relevance for the Group. The individual subsidiaries deploy different software systems for generating reports, e.g. SAP or business intelligence solutions. We consider the following types of risk to be relevant for OHB SE's business activities.

## **II. INDIVIDUAL RISKS**

### **Sector risks, risks in underlying conditions**

The Space Systems business unit primarily works for public-sector customers. Order intake is exposed to risks arising from the budgets of public-sector customers (chiefly the European Commission, the European Space Agency ESA, national ministries such as the German Federal Ministries of Economics, Defense and Transportation as well as the national space agencies). However, this situation is becoming increasingly favorable for OHB SE in view of its special standing as a German systems provider for space technology with a special focus on security. Further significant growth is only possible within the confines of this market. Other opportunities beyond this are primarily to be found in the commercial and export markets. This segment has been closely observed and analyzed for a number of years and preliminary activities in this direction are being prepared. The focus is on projects in the areas of telecommunications satellites, radar satellites and electro-optical satellites for earth observation.

In the Aerospace + Industrial Products business unit, the US competition is posing a challenge for ArianeGroup, which held a dominant market position in the launch vehicle segment for a long time. After successful launches, SpaceX in particular has secured a firm position in the market for commercial satellite launch services and is striving for cost and price leadership. With respect to mechatronic systems for antennas and telescopes, a risk arises from the heavy dependence on the global market for scientific radio and optical telescopes, which is subject to strong fluctuation, as the award of such contracts is materially determined by the provision of the necessary funding by the national governments involved. In the aviation segment, market share may be ceded to emerging price-aggressive competitors.

### **Strategic risks**

The Space Systems business unit is exposed to risks related to the scheduled completion of the currently ongoing programs particularly in the principal contractor role with overall responsibility in accordance with the agreed schedule and budget. Advance outlays were made in 2017 for the development of strategically important product segments, the costs of which must be recouped from the development of business in the corresponding applications. Looking ahead, a balanced book-to-bill-ratio is required to maintain the current high order backlog.

The Aerospace + Industrial Products business unit is heavily exposed to the continuation of successful launches as well as the implementation of the cost-cutting initiatives through the introduction of new production technology and processes in the Ariane program.

### **Sourcing risks**

The OHB Group constantly optimizes its supply chain by monitoring the buy-side market continually, auditing local development and production activities and increasingly taking measures to safeguard the local availability of supplies. In addition, efforts are being stepped up to identify alternative procurement sources on a global basis. This must be done in the light of any restrictions which may be stipulated by customers for specific products, reducing the scope for free selection of suppliers. The Space Systems business unit is exposed to sporadic supply-side risks in the sourcing of subsystems. This includes scheduling and development risks. As a rule, there is sufficient advance notice of these risks, meaning that inventories can be duly increased or sourced from additional vendors.

In the Aerospace + Industrial Products business unit, development risks may occur in connection with the sourcing of long-lead items for the Ariane 6 in the absence of any input from the customer, resulting in changes to the definition of the components. Turnaround and sourcing times are defined and tracked carefully to minimize these risks. In this way, the impact of any changes on the schedule are known in good time and can be addressed jointly with the customer if necessary.

### Project risks

The risk management system used for bid-costing and ongoing project management involves regular escalated reporting to the project managers, the management of the operating companies and OHB SE. All projects are integrated in a continuous controlling and monitoring process. Projects exceeding a certain size threshold are additionally subject to regular reviews by the responsible management to specifically monitor and manage technical performance as well as schedule, cost and budget compliance as well as project risks. Given the systems underlying our business model, there are inherent risks in the observance of schedules as well as development risks liable to cause considerable project delays and costs.

### IT risks

The ongoing enhancement process for information services and systems has heightened the standards achieved in data protection and quality in the Space Systems business unit to maximize confidentiality, availability and integrity. In particular, the implementation of a next-generation firewall and a secure e-mail gateway ensures efficient network control and analysis of incoming and outgoing data. The evaluation criteria are constantly fine-tuned in structured processes involving the support of government experts in order to ensure that our information system always incorporates the latest developments. The incremental expansion and modernization of the hardware infrastructure provides effective protection from the rising risk of cyber-crime. The vulnerabilities and risks in the IT environment have risen considerably over the last few years and recent occurrences in the public sector show that IT security must be permanently enhanced at high expense. The Aerospace + Industrial Products companies have been modernizing and expanding the security features of their hardware and software solutions for a number of years now by using best-in-class components sources from renowned OEMs. The optimization of complex IT security systems simultaneously necessitates adjustments to IT processes and systems in order to reduce vulnerability to external attacks and internal risks on a continuous basis. For this reason, IT is working on comprehensive security solutions including dual-step security gateways (next-generation firewalls), end-point protection scenarios, complex segmentation of the enterprise networks, software solutions to avert zero-day exploit attacks and many other aspects to ensure data integrity and to protect the confidentiality of data and, hence, the Group's knowledge.

### Financial risks

Most goods and services procured are invoiced in euro. Foreign-currency transactions in the dollar region may result in translation gains or losses. The Aerospace + Industrial Products business unit hedges dollar-denominated orders and receivables. The securities entail long-term investments with acceptable risks. Working capital requirements can be reduced substantially by means of progress billings. However, as this cannot be achieved continuously in all project phases, liquidity may fluctuate sharply. The credit facility agreement signed in December 2013 with a syndicate of seven banks to avert liquidity risks was expanded in May 2016 and renewed until 2022 in May 2017. In addition, a supplementary loan contract was entered into with the European Investment Bank EIB in Luxembourg in 2017 with a term expiring in 2024. With respect to pension provisions, we do not expect to see any further significant change in interest rates in the future.

### Personnel risks

In a very tight employment market, the OHB Group was able to cover its personnel requirements as planned albeit with substantially higher employer branding expenses. The shortage in the engineering markets of recruitees with experience and knowledge of direct use for the Group is more evident than before. This means that full deployability is only possible after substantially higher spending on training to achieve the necessary space-related qualifications. In 2017, the range of training activities was stepped up substantially to avert the related risk of time losses liable to impact the completion of the ongoing satellite programs. Specific trainee programs, the development of dual degree courses and partnerships with universities together with proactive bonding of students laid the basis for maintaining and expanding knowledge on a long-term basis to support continued business growth.

### Management assessment of the risk situation

Throughout 2017, the OHB Group's exposure was for the most part confined to the risks described. In the light of current market trends in the areas of the greatest relevance for the Company and the outlook for its business, order backlog and financial situation, the Management Board considers future risks to the Group to be manageable. No risks to the Group's going-concern status are currently discernible.

### III. MATERIAL OPPORTUNITIES

The space market offers OHB companies in both business units a fertile basis for continued growth given the constant flow of new applications. Systematic observation of all relevant requests for proposals on a European and also a national level allows the OHB companies to take part in virtually all major bidding processes in Europe. With its European-wide presence and strong national companies specializing in selected technologies and applications in the space industry, OHB additionally has the opportunity of bidding for space contracts which are awarded to individual nations in accordance with the geographic return principle within ESA alongside EU-wide bids. In the individual countries, the Group's national companies are additionally able to bid for contracts and projects awarded by the national space agencies. The high degree of specialization of the individual companies within the OHB Group generally means that when the individual companies bid for a major ESA project they receive the status of lead-manager or subcontractor to the lead-manager. The OHB companies' specific space expertise is based on the long-standing experience of the responsible persons within the Group as well as basic research and development performed in this area allowing promising future areas and developments in space flight to be identified and responses to them adopted. However, in addition to public-sector contracts and development projects, the sharp worldwide rise in the commercialization of space is the main growth driver. Telecommunications, navigation, cartography and the increasing exploration of the earth by means of space technology are of key importance in this connection. OHB also sees good opportunities for entering the nascent "new space economy" market. For this purpose, the Group will also apply its own funds in close consultation with its customers. As with business risks, project management may also generate opportunities from systematic claim management based on the project review process.

### IV. INTERNAL CONTROL AND RISK MANAGEMENT

The control and risk management system forms an integral part of the corporate, planning, accounting and control processes and constitutes a material element of the management system of OHB SE and the Group companies. OHB SE's risk management system addresses the uncertainties to which the Group companies are exposed by identifying and evaluating opportunities and risks systematically and regularly and, if necessary, defining and implementing suitable measures and precautions. This applies to operating risks as well project-related and technical risks. In this connection, product and quality assurance officers continuously monitor design, construction and integration activities as well as deliveries received from upstream suppliers.

Monthly and quarterly reporting forms an integral part of OHB Technology's risk management operations and has been additionally improved. Group-wide controlling instruments supported by business intelligence software are used for reporting purposes. This primarily entails comparisons of the actual/required figures and deviation analyses. Budgeting, regular forecasts and ongoing reporting discussions supplement standardized reporting.

OHB SE secures the process for preparing the consolidated financial statements in several different ways. In addition to an accounting manual which all subsidiaries must observe, this entails regular evaluations of the quarterly and monthly reports and ad-hoc detailed analyses on matters and developments at the level of the individual subsidiaries as well as for the Group as a whole. In addition, the consolidation process as well as the process for preparing the management report and the notes to the consolidated financial statements are reviewed by the finance department and the Management Board. Appropriate precautions are taken in the accounting process to ensure full implementation of the double-sign-off principle. Access restrictions in the information management system ensure a high degree of data security. These and other measures are subject to regular review by Group Internal Auditing. In addition, the accounting system used by subsidiaries complies with the requirements of public-sector contract awarding rules.

Customer payment practices are monitored on an ongoing basis to minimize financial risks. In addition to a multi-level reminder system, controlling methods include regular reports to the responsible management. The OHB Group's customer base comprises a large proportion of public-sector customers both directly and indirectly. For this reason, the risk of payment defaults is very small. Over the past few years, there have been virtually no payment defaults. Prepayments received comprise part payments remitted upon the completion of specific project milestones. In this way, it is possible to minimize liquidity risks and working capital requirements.

## V. COMPENSATION REPORT

The remuneration paid to the members of the Management Board comprises fixed and variable components. The service contracts currently in force with the members of the Management Board (contract for Marco Fuchs expiring on June 30, 2018, contract for Dr. Fritz Merkle expiring on June 30, 2018, contract for Klaus Hofmann expiring on October 31, 2018) provide for variable remuneration to be determined on the basis of a percentage share in profit (percentage of EBT) in the case of Marco Fuchs and Ulrich Schulz (contract for Ulrich Schulz expiring on July 31, 2017). With respect to Dr. Fritz Merkle and Klaus Hofmann, the variable remuneration is based on a combination of agreed personal targets and the Company's business performance. There is currently no provision for any share-based remuneration components or remuneration components with a long-term incentive. In the event of the death of a Management Board member, his surviving dependents are entitled to receive continued payment of that member's fixed remuneration for a further period of six months. The members of the Management Board Marco Fuchs, Dr. Fritz Merkle, Ulrich Schulz and Klaus Hofmann were entitled to the use of a company car in 2017. The remuneration paid to the members of the Management Board breaks down as follows: The total fixed remuneration plus benefits such as an advance towards health and pension insurance as well as private use of a company car paid in 2017 came to EUR 1.038 million (previous year: EUR 1.106 million). Provisions of EUR 0.935 million were recognized for the expected variable remuneration. Variable remuneration of EUR 0.952 million was paid out in 2017 for 2016. Marco Fuchs received a sum of EUR 0.347 million (previous year: EUR 0.347 million) as fixed remuneration plus all benefits such as advances towards health and pension insurance. Variable remuneration is expected to equal EUR 0.600 million in 2017 (previous year: EUR 0.570 million). Ulrich Schulz received a sum of EUR 0.133 million

(previous year: EUR 0.223 million) as fixed remuneration including all benefits such as advances towards health and pension insurance for the period ending on July 31, 2017. Variable remuneration is expected to equal EUR 0.100 million in 2017 (previous year: EUR 0.190 million). Dr. Fritz Merkle received a sum of EUR 0.266 million (previous year: EUR 0.248 million) as fixed compensation including all benefits such as advances towards health and pension insurance. In addition, the variable remuneration accruing to Dr. Fritz Merkle is expected to equal EUR 0.100 million in 2017 (previous year: EUR 60 thousand). Klaus Hofmann received a sum of EUR 0.292 million (previous year: EUR 0.288 million) as fixed remuneration including all benefits such as advances towards health and pension insurance. Variable remuneration for Klaus Hofmann is expected to equal EUR 0.135 million in 2017 (previous year: EUR 0.130 million). Christa Fuchs received surviving-dependents benefits of EUR 22 thousand from OHB System AG for the Management Board member Prof. Manfred Fuchs, who had passed away in 2014. In her capacity as chairwoman of the Supervisory Board, Mrs. Christa Fuchs received a sum of EUR 30 thousand in 2017 for 2016 (previous year: EUR 30 thousand), while Mr. Robert Wethmar received EUR 20 thousand (previous year: EUR 20 thousand) and Prof. Heinz Stoewer EUR 20 thousand (previous year: EUR 20 thousand). Variable remuneration components were dispensed with for the members of the Supervisory Board. Under a contract with the law firm Taylor Wessing, of which Robert Wethmar is a partner, fees of a total of EUR 82 thousand were paid in consideration of the advisory services for Group companies.

## VI. DISCLOSURES IN ACCORDANCE WITH SECTION 315A (1) OF THE GERMAN COMMERCIAL CODE

### A. BREAKDOWN OF SUBSCRIBED CAPITAL (NO. 1)

Issued capital stood at EUR 17,468,096.00 on the balance sheet date and was divided into 17,468,096 no-par-value bearer shares.

## **B. RESTRICTIONS TO VOTING RIGHTS OR THE TRANSFER OF SHARES (NO. 2)**

Prof. Dott. Ing. h.c. Manfred Fuchs, Christa Fuchs and Marco Fuchs, who are also shareholders of VOLPAIA Beteiligungs-GmbH, and VOLPAIA Beteiligungs-GmbH in their capacity as shareholders of OHB Teledata AG (as the Company was then known), entered into a pooling contract on December 20, 2001 providing for the coordinated exercise of voting rights with respect to present and future share holdings.

On February 4, 2009, the parties signed an addendum to this pooling contract imposing on them restrictions with respect to the sale of the shares held in the pooling contract. On July 10, 2009, the parties signed a revised version of the pooling contract. Romana Fuchs Mayrhofer joined this pool in January 2010. A total of 69.72% of the Company's issued capital is held in this pooling contract. There were no changes in the total number of pooled voting rights as a result of Prof. Manfred Fuchs' death in April 2014. The pooling contract between Marco Fuchs, Romana Fuchs Mayrhofer, Christa Fuchs and VOLPAIA Beteiligungs-GmbH was revised on February 21, 2017, although there were no material changes in the main elements outlined above.

### **I. SHARES EXCEEDING 10% OF THE VOTING CAPITAL (NO. 3)**

As of the reporting date, Marco Fuchs held 34.62% of OHB SE's subscribed capital (6,046,610 shares). VOLPAIA Beteiligungs GmbH held a further 21.35% of the Company's shares. Together with the shares held by Christa Fuchs (8.03%, 1,401,940 shares) and Romana Fuchs Mayrhofer (5.72%, 1,000,000 shares), 69.72% (12,178,720 shares) of the Company's shares are subject to a pooling contract providing for the coordinated exercise of voting rights as of the balance sheet date. Romana Fuchs Mayrhofer holds an additional 378,626 shares in OHB SE (2.17%) outside the scope of the pooling contract.

### **II. STATUTORY STIPULATIONS AND PROVISIONS CONTAINED IN THE COMPANY'S BYLAWS WITH RESPECT TO THE APPOINTMENT AND DISMISSAL OF MEMBERS OF THE MANAGEMENT BOARD AND AMENDMENTS TO THE BYLAWS (NO. 6)**

With respect to the appointment and dismissal of members of the Management Board, reference is made to the provisions contained in Article 39 and Article 9 (1) c) ii) of the Statute for a European Company (SE) in connection with Sections 84 and 85 of the German Stock Corporation Act. Under Article 8 (2), the Supervisory Board is empowered to appoint a member of the Management Board as Chairman and further members of the Management Board as

Deputy Chairman. The procedure for amending the bylaws is governed by Sections 133, 179 of the German Stock Corporation Act. Article 21 of OHB SE's bylaws also authorizes the Supervisory Board to make amendments to the bylaws affecting only their wording.

### **III. POWERS OF THE MANAGEMENT BOARD TO ISSUE OR BUY BACK SHARES (NO. 7)**

At the annual general meeting held on May 21, 2015, the shareholders passed a resolution authorizing the Management Board to buy back up to 10% of the Company's share capital in existence as of the date of the resolution on or before May 20, 2020. Authorization was granted to use the Company's shares for all purposes permitted by law including but not limited to:

- the placement of the Company's shares in foreign stock exchanges,
- the acquisition of all or parts of other entities or shares therein,
- offering and transferring shares to the employees of the Company or other related entities in accordance with Sections 15 et seq. of the German Stock Corporation Act,
- redeeming treasury stock without any need for a resolution of the shareholders.

The Company held 80,496 shares as treasury stock as of the balance sheet date. This is equivalent to around 0.46% of the share capital. At the annual general meeting held on May 21, 2015, the shareholders authorized the Management Board to increase with the Supervisory Board's approval the Company's share capital by up to EUR 8,734,048.00 on a cash or non-cash basis by issuing new shares once or several times on or before May 20, 2020. The new shares may also be issued to the Company's employees. In addition, the Company's Management Board was authorized – subject to the Supervisory Board's approval – to exclude the shareholders' subscription rights

- for fractional amounts;
- for part of the authorized capital up to a maximum of EUR 1,746,809.00 provided that the new shares are issued in return for cash capital contributions at a price not materially less than the stock-market price;

- for a part of the authorized capital up to a maximum of EUR 8,734,048.00 provided the new shares are issued as consideration for the acquisition of all or part of other companies or other assets or in return for a cash capital contribution and provided that such acquisition is in the interests of the Company;
- are issued as consideration for cash capital contributions to have the Company's stock listed in a foreign market in which it has previously not been admitted to trading.

The Management Board is additionally authorized subject to the Supervisory Board's approval to determine the extent and nature of the option rights and the other conditions of issue. Please refer to the corresponding parts of the notes on the consolidated financial statements for further information.

## VII. CORPORATE GOVERNANCE DECLARATION

The corporate governance declaration was officially published on OHB SE's website on March 19, 2018.

The Internet address is:

<https://www.ohb.de/en/investor-relations/corporate-governance/corporate-governance-declaration/>

## CORPORATE GOVERNANCE REPORT

In June 2002, a commission installed by the German Federal Government published recommendations known jointly as the "German Corporate Governance Code" setting out standards of conduct and behavior for companies. Corporate governance includes the entire management and supervision system and seeks to make the rules applicable in Germany more transparent to national and international investors in the interests of strengthening confidence in the management of German companies. The Supervisory Board and the Management Board of OHB SE are committed to the principles embodied in the Code as a means of ensuring value-oriented corporate governance and supervision and welcome the adoption of these principles in Germany.

## MANAGEMENT BOARD AND SUPERVISORY BOARD SHAREHOLDINGS

As of the reporting date, Christa Fuchs, Chairwoman of the Supervisory Board, held 1,401,940 shares and Prof. Heinz Stoewer, a member of the Supervisory Board, 1,000 shares. Marco Fuchs, Chief Executive Officer, held 6,046,610 shares. Dr. Fritz Merkle, a member of the Management Board, held 1,000 shares. On December 31, 2017, VOLPAIA Beteiligungs-GmbH held 3,730,170 shares. Christa Fuchs held 20% and Marco Fuchs 60% of this entity's capital as of the reporting date.

## DIRECTORS' DEALINGS

In the year under review, members of the Company's Management Board and Supervisory Board as well as related legal entities did not report any securities transactions.

## OBJECTIVES REGARDING THE COMPOSITION OF THE SUPERVISORY BOARD

OHB SE seeks to implement the principle of diversity in the composition of the Supervisory Board and has formulated the following objectives in this connection. The members of the Supervisory Board as a whole (i.e. in its entirety and not necessarily each individual member of the Supervisory Board) should meet the following requirements:

- knowledge of the aviation/aerospace industry, particularly space technology
- several years of practical experience in industry and public organizations/agencies
- extensive knowledge gained over many years in finance, accounting, bookkeeping and administration.

In addition, the principle of diversity is implemented by ensuring an appropriate degree of female representation on the Supervisory Board. As well as this, a combination of members from technical and commercial backgrounds is sought. The number of independent members as defined in Article 5.4.2 of the Corporate Governance Code is to equal at least one.

## STATUS OF IMPLEMENTATION

A high degree of diversity in terms of gender, expertise and international experience has been achieved with the appointment of Mrs. Christa Fuchs, the founder of OHB System AG and commercial managing director with many years of experience, to the position of chairwoman of the Supervisory Board, Prof. Heinz Stoewer as an internationally renowned space technology expert and former senior manager of ESA and managing director of the German Space Agency and Robert Wethmar as a partner in an internationally active law firm.

## DECLARATION OF CONFORMITY TO THE GERMAN CORPORATE GOVERNANCE CODE BY OHB SE PURSUANT TO SECTION 161 OF THE GERMAN STOCK CORPORATION ACT

The principles of responsible and good corporate governance guide the actions of OHB SE's Management Board and Supervisory Board. They are oriented to achieving sustained business success. For this reason, OHB SE welcomes the German Corporate Governance Code and the fact that it is embodied in statutory law. The Management Board and the Supervisory Board of OHB SE declare that the Company has conformed to the recommendations of the Corporate Governance Code Commission appointed by the German Federal Government and will continue to do so in the future. This declaration of conformity is based on the February 7, 2017 version of the German Corporate Governance Code. OHB SE departs from the recommendations of the German Corporate Governance Code in the following respects:

### DEDUCTIBLE FOR MEMBERS OF THE SUPERVISORY BOARD (3.8)

The D&O insurance cover taken out by OHB SE does not provide for any deductibles for the members of the Supervisory Board.

The D&O cover is a group policy for members of the Company's Management Board and Supervisory Board as well as numerous domestic and non-domestic Group employees. In the past, it was believed that there was no good reason to draw any distinction between employees on the one hand and the members of the Company's Management Board and Supervisory Board on the other. However, in accordance with the Act on the Appropriateness of Management Board Compensation, deductibles for members of the Management Board have now been added to the Company's D&O insurance cover of an amount stipulated by the Act and the Code. On the other hand, the legislation expressly does not stipulate a corresponding deductible

for members of the Supervisory Board. Only the Code contains a recommendation to this effect. For this reason, the Management Board and Supervisory Board continue to see no reason to depart from the previous practice. The reasoning of the Management Board and Supervisory Board in this respect is based on their view that the prime imperative is to encourage suitably qualified persons to serve on the Supervisory Board, enhancing it with their experience for the Company's benefit. These efforts would be adversely affected if the members of the Supervisory Board gained in this way were to enjoy only limited insurance cover for their activities.

For this reason, OHB SE takes the view that the existence of a deductible would not serve to improve the motivation or sense of responsibility of members of the Supervisory Board especially as they would be able to take out cover of their own to override the deductible.

### VARIABLE REMUNERATION - MULTI-YEAR ASSESSMENT BASIS (4.2.3)

The German Corporate Governance Code recommends a multi-year assessment basis for calculating the variable remuneration paid to the Management Board, which should essentially be forward-looking. In view of the Company's origins, the variable remuneration paid to the members of the Management Board is calculated on the basis of its business performance in the previous year. The current service contracts with the members of the Management Board do not provide for the application of a multi-year assessment basis.

### DISCLOSURES ON COMPENSATION OF THE MANAGEMENT BOARD (4.2.5)

OHB SE already discloses the compensation paid to its Management Board in detail in the annual compensation report, which is included in the management report. We do not consider any additional disclosures such as those recommended in 4.2.5 to be appropriate in the light of reporting relevance. In particular, the tables recommended for the presentation of these disclosures do not fit the structure of the components of the compensation paid to the Management Board and have therefore been dispensed with.

### AGE LIMITS FOR THE MANAGEMENT BOARD (5.1.2)

OHB SE does not set a maximum age for members of the Management Board as this would limit the availability of Management Board members for appointment by the Supervisory Board.

**FORMATION OF SUPERVISORY BOARD COMMITTEES (5.3)**

OHB SE's Supervisory Board has not formed any committees on account of the small number of members (three).

**AGE LIMITS FOR THE SUPERVISORY BOARD/ REGULAR LIMIT TO TERM OF SUPERVISORY BOARD MEMBERS' OFFICE (5.4.1)**

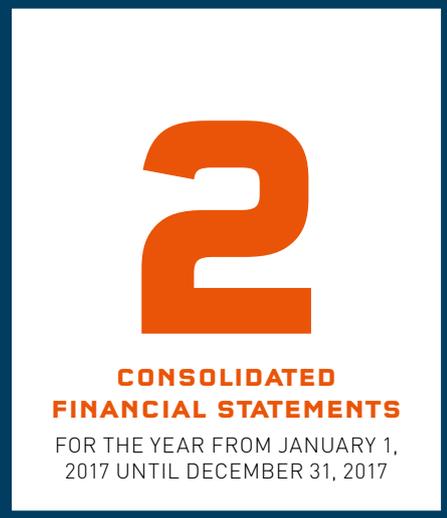
The Corporate Governance Code recommends defining maximum ages as well as a regular limit for the term of the Supervisory Board members' office. The Supervisory Board is elected by the shareholders of OHB SE. An age limit may result in rigid rules and an unwanted exclusion criterion detrimental to the Company's goal of encouraging persons with great experience to serve on the Supervisory Board. For this reason, a more flexible approach, in which a decision is based on the merits of the individual case, is preferred over a rigid rule. The Management Board and Supervisory Board do not consider the introduction of a limit to Supervisory Board members' term of office to be appropriate.

**PROPOSALS FOR THE SUPERVISORY BOARD CHAIR (5.4.3)**

Proposals for the Supervisory Board chair are not disclosed to the shareholders because in accordance with statutory stipulations the Supervisory Board alone is responsible for electing its chair.

Management Board and Supervisory Board of OHB SE

Bremen, December 13, 2017



# 2

## CONSOLIDATED FINANCIAL STATEMENTS

FOR THE YEAR FROM JANUARY 1,  
2017 UNTIL DECEMBER 31, 2017

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## I. CONSOLIDATED INCOME STATEMENT

in EUR 000	Note	2017	2016
Sales	(1)	825,894	699,184
Changes in inventories of finished goods and work in progress	(2)	515	-10,948
Other own work capitalized		20,207	30,019
Other operating income	(3)	13,073	10,131
<b>Total revenues</b>		<b>859,689</b>	<b>728,386</b>
Cost of materials	(4)	542,673	438,426
Staff costs	(5)	196,846	180,211
Amortization of intangible assets and property, plant and equipment	(11), (12)	14,586	12,381
Other operating expenses		61,361	54,668
<b>Earnings before interest and taxes (EBIT)</b>		<b>44,223</b>	<b>42,700</b>
Other interest and similar income	(6)	1,495	2,245
Other financial expenses	(6)	5,240	7,478
Currency translation gains/losses		147	-19
Share of profit of associates	(7), (13)	1,809	558
Result from investments		-196	3
<b>Net finance income / expenses</b>		<b>-1,985</b>	<b>-4,691</b>
<b>Earnings before taxes (EBT)</b>		<b>42,238</b>	<b>38,009</b>
Income taxes	(8)	14,514	12,434
<b>Consolidated net profit for the year</b>		<b>27,724</b>	<b>25,575</b>
Share of OH B SE shareholders in net profit for the year		23,355	22,212
Minority interests	(9)	4,369	3,363
Number of shares		17,387,600	17,387,600
Earnings per share (basic, EUR)	(10)	1.34	1.28
Earnings per share (diluted, EUR)	(10)	1.34	1.28

## II. CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

in EUR 000	Note	<b>2017</b>	2016
<b>CONSOLIDATED NET PROFIT FOR THE YEAR</b>		<b>27,724</b>	<b>25,575</b>
Remeasurement of defined benefit pension plans	(23), (25)	1,529	-5,523
Remeasurement of defined benefit pension plans associated companies	(23), (25)	-93	0
<b>Items that will not be reclassified to profit and loss</b>		<b>1,436</b>	<b>-5,523</b>
Foreign currency translation differences	(23)	-99	-125
Foreign currency translation differences associated companies	(23)	12	0
Net gains and losses from the measurement of financial assets	(14), (23)	1,423	2,656
Cash flow hedges	(23)	155	-35
Cash flow hedges associated companies	(23)	103	0
<b>Items which may be subsequently reclassified to profit and loss</b>		<b>1,594</b>	<b>2,496</b>
<b>Other comprehensive income after tax</b>		<b>3,030</b>	<b>-3,027</b>
<b>Comprehensive income</b>		<b>30,754</b>	<b>22,548</b>
Of which attributable to			
Equity holders of OHB SE		25,938	20,251
Non-controlling interests		4,816	2,297

### III. CONSOLIDATED BALANCE SHEET

in EUR 000	Note	31/12/2017	31/12/2016
<b>ASSETS</b>			
Goodwill	(11)	7,131	7,488
Other intangible assets	(11)	103,217	89,967
Property, plant and equipment	(12)	77,698	60,640
Shares carried at equity	(13)	2,388	558
Other financial assets	(14)	32,610	30,979
Other non-current receivables and assets	(15)	2,152	2,491
Securities	(18)	219	632
Deferred income taxes	(8)	14,134	18,615
<b>Non-current assets</b>		<b>239,549</b>	<b>211,370</b>
Inventories	(16)	48,837	50,215
Trade receivables	(15)	328,247	318,761
Other tax receivables		3,396	328
Other financial and non-financial assets	(17)	40,630	45,288
Securities	(18)	461	385
Cash and cash equivalents	(19)	58,578	56,567
<b>Current assets</b>		<b>480,149</b>	<b>471,544</b>
<b>Total assets</b>		<b>719,698</b>	<b>682,914</b>

in EUR 000	Note	31/12/2017	31/12/2016
<b>EQUITY AND LIABILITIES</b>			
Subscribed capital	(20)	17,468	17,468
Additional paid-in capital	(21)	14,923	14,923
Retained earnings	(22)	521	521
Unrealized gains and losses recognized under equity	(23)	-2,099	-4,682
Own shares	(24)	-781	-781
Consolidated net profit		157,599	141,199
<b>Shareholders' equity excluding minority interests</b>		<b>187,631</b>	<b>168,648</b>
Minority interests	(9)	19,649	14,942
<b>Equity</b>		<b>207,280</b>	<b>183,590</b>
Provisions for retirement benefits and similar obligations	(25)	96,587	100,437
Other non-current provisions	(26)	1,891	1,432
Non-current financial liabilities	(27)	30,414	349
Non-current advance payments received	(28)	8,291	37,398
Deferred income tax liabilities	(8)	36,505	31,775
<b>Non-current liabilities</b>		<b>173,688</b>	<b>171,391</b>
Current provisions	(26)	27,977	28,160
Current financial liabilities	(29)	63,886	93,108
Trade payables		83,141	67,308
Current advance payments received on orders	(30)	139,789	102,389
Income tax liabilities		2,711	7,981
Other financial and non-financial liabilities	(31)	21,226	28,987
<b>Current liabilities</b>		<b>338,730</b>	<b>327,933</b>
<b>Total equity and liabilities</b>		<b>719,698</b>	<b>682,914</b>

## IV. CONSOLIDATED CASH FLOW STATEMENT

in EUR 000	Note	2017	2016
Operating EBIT		44,223	42,700
Income tax paid		-14,047	-2,669
Other non-cash expenses (+)/income (-)		0	-88
Amortization and depreciation	(11), (12)	14,586	12,381
Changes in pension provisions	(25)	-3,650	-3,273
Profit (-)/loss (+) from the disposal of assets		44	72
<b>Gross cash flow</b>		<b>41,156</b>	<b>49,123</b>
Increase (-)/decrease (+) in own work capitalized		-20,207	-29,367
Increase (-)/decrease (+) in inventories		1,378	3,836
Increase (-)/decrease (+) in receivables and other assets including prepaid expenses		-3,991	-9,763
Increase (+)/decrease (-) in liabilities and current provisions		8,348	-19,775
Increase (+)/decrease (-) in advance payments received		8,293	78,672
<b>Cash flow from operating activities</b>		<b>34,977</b>	<b>72,726</b>
Payments for investments in intangible assets and property, plant and equipment	(11), (12)	-24,676	-18,381
Payments received from the disposal of assets		25	31
Interest and other financial income		1,222	1,310
<b>Net cash generated from/used in investing activities</b>		<b>-23,429</b>	<b>-17,040</b>
Dividends distributed		-6,955	-6,955
Payment made for the settlement of financial liabilities	(33)	-37,384	-49,160
Payments received from raising borrowings	(27), (29), (33)	38,227	2,167
Dividend distributed to non-controlling interests		-109	-754
Interest expenses	(6)	-3,029	-3,447
Other financial expenses	(6)	-367	-841
<b>Net cash generated from/used in financing activities</b>		<b>-9,617</b>	<b>-58,990</b>
Cash changes to cash and cash equivalents		1,931	-3,304
Exchange rate-induced change in cash and cash equivalents		80	-78
Cash and cash equivalents at the beginning of the period		56,567	59,949
<b>Cash and cash equivalents at the end of the period</b>	<b>(19)</b>	<b>58,578</b>	<b>56,567</b>

## V. CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

in EUR 000	Sub- scribed capital	Share premium	Retained earnings	Unreal- ized gains and loss- es rec- ognized under equity	Consol- idated profit	Treasury stock	Equity excluding minority interests	Non-con- trolling interests	Total equity
Note	(20)	(21)	(22)	(23)		(24)		(9)	
<b>Balance on January 1, 2016</b>	<b>17,468</b>	<b>14,923</b>	<b>521</b>	<b>-2,721</b>	<b>125,942</b>	<b>-781</b>	<b>155,352</b>	<b>13,399</b>	<b>168,751</b>
Dividend payment (EUR 0.40 per share)	0	0	0	0	-6,955	0	-6,955	0	-6,955
Consolidated comprehensive income	0	0	0	-1,961	22,212	0	20,251	2,297	22,548
Dividend payment to minority shareholders	0	0	0	0	0	0	0	-754	-754
<b>Balance on December 31, 2016</b>	<b>17,468</b>	<b>14,923</b>	<b>521</b>	<b>-4,682</b>	<b>141,199</b>	<b>-781</b>	<b>168,648</b>	<b>14,942</b>	<b>183,590</b>
Dividend payment (EUR 0.40 per share)	0	0	0	0	-6,955	0	-6,955	0	-6,955
Consolidated comprehensive income	0	0	0	2,583	23,355	0	25,938	4,816	30,754
Dividend payment to minority shareholders	0	0	0	0	0	0	0	-109	-109
<b>Balance on December 31, 2017</b>	<b>17,468</b>	<b>14,923</b>	<b>521</b>	<b>-2,099</b>	<b>157,599</b>	<b>-781</b>	<b>187,631</b>	<b>19,649</b>	<b>207,280</b>

## NOTES

### VI. NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

#### GENERAL INFORMATION

The Company has its head office at Karl-Ferdinand-Braun-Str. 8 in 28359 Bremen, Germany. It is registered in the commercial register of the Court of Bremen under the number HRB 30268. OHB SE exercises the function of an active holding company which manages the subsidiaries within the OHB Group. At the same time, it is the ultimate parent company. The Group is primarily engaged in the production and distribution of products and projects as well as the provision of high-technology services particularly in the areas of space and aeronautic technology, telematics and satellite services. OHB SE comprises two business units: Space Systems and Aerospace + Industrial Products.

The Space Systems business unit focuses on developing and executing space projects. In particular, it is responsible for developing and manufacturing of low-orbiting and geostationary small satellites for navigation, science, communications, earth and weather observation and reconnaissance including scientific payloads. Its human space flight activities chiefly entail projects for the payloads and operations of the International Space Station ISS. The exploration segment works on studies and models for exploring our solar system, primarily the moon, asteroids and Mars. Reconnaissance satellites and broadband wireless transmission of image data form core technologies for security and reconnaissance.

The Aerospace + Industrial Products business unit is primarily responsible for fabricating aerospace products as well as other industrial activities. In this area, OHB has established itself as a significant supplier of aerospace structures for the aeronautic and space industry; among other things, it is the largest German supplier of components for the Ariane 5 program and an established producer of structural elements for satellites. In addition, OHB is an experienced vendor of mechatronic systems for antennas and telescopes and is involved in major radio telescope projects. OHB telematics systems serve the logistics industry around the world by offering efficient transport management and cargo tracking facilities.

#### ACCOUNTING PRINCIPLES AND METHODS

In accordance with Regulation (EC) 1606/2002 issued by the European Parliament and the Council on July 19, 2002, OHB SE is required to prepare consolidated financial statements in accordance with international accounting standards (IFRS/IAS). The consolidated financial statements have been compiled in accordance with the International Financial Reporting Standards (IFRS/IAS) applicable in the EU in the light of the interpretations of the International Financial Reporting Interpretations Committee (IFRIC/SIC) as well as the supplementary provisions contained in Section 315 e of the German Commercial Code.

The consolidated financial statements have been prepared on the basis of the going-concern assumption and the historical cost principle with the exception of derivative financial instruments used for hedging purposes and available-for-sale financial instruments, which are measured at fair value. In addition to the consolidated balance sheet, consolidated income statement and the consolidated statement of comprehensive income, the consolidated annual financial statements include a consolidated cash flow statement and a statement of changes in consolidated equity. The notes contain the declaration required by Section 285 No. 16 of the German Commercial Code confirming that the disclosures stipulated by Section 161 of the German Stock Corporation Act have been duly made. The income statement has been compiled using the total-cost method. The reporting currency is the euro. Unless otherwise stated, all amounts are reported in millions of euros (EUR million). It should be noted that the use of rounded figures and percentages may result in differences due to commercial rounding.

#### CONSOLIDATION METHODS

The purchase method of accounting is used to account for the acquisition of subsidiaries by the Group. All material subsidiaries under the legal or constructive control of OHB SE have been consolidated.

Any remaining positive difference between the cost of acquiring the shareholdings and the net assets calculated at their fair values is recognized as goodwill under IAS 3.32, any negative differences are recognized as losses. The full goodwill method is applied.

Sales, expenses, income as well as receivables and liabilities between consolidated companies are netted and any inter-Group profits eliminated. The carrying amounts of companies consolidated at equity method are adjusted to allow for the proportionate profit/loss attributable to such companies.

#### ACQUISITIONS

No acquisitions were executed during this period.

#### COMPANIES CONSOLIDATED

OHB SE's consolidated financial statements include OHB SE, eight domestic and five non-domestic subsidiaries and a further equity-accounted domestic associate. The table entitled "Companies consolidated" sets out the subsidiaries and associates together with the relative size of the share held.

Compared with the previous year, there was no change in the number of companies consolidated.

In addition, shares were held in other companies (see table entitled "Further investments and financial assets", page 76).

In accordance with the principle of materiality pursuant to the IFRS/IAS framework, the companies stated in the table, which are fundamentally subject to compulsory consolidation (OHB share of greater than 20%), are not consolidated. These companies' cumulative current sales and EBIT are not considered to make any material contributions to consolidated earnings. Subsidiaries with discontinued or minimal business activities which are of only minor importance for obtaining a true and fair view of the OHB Group's net assets, financial condition and results of operations as well as its cash flow are not consolidated. The share holdings shown in the tables entitled "Companies consolidated" and "Further investments and financial assets" correspond to the voting rights held.

OHB SE's consolidated financial statements include the following companies: see table.

#### Companies consolidated

Name of company	Share held (%)	Consolidation
OHB System AG, Bremen (Germany)	100.0	Fully consolidated
ORBCOMM Deutschland Satellitenkommunikation AG, Bremen (Germany) <sup>1</sup>	100.0	Fully consolidated
OHB Italia S.p.A., Milan (Italy)	100.0	Fully consolidated
OHB Sweden AB, Stockholm (Sweden)	100.0	Fully consolidated
Antwerp Space N.V., Antwerp (Belgium)	100.0	Fully consolidated
LuxSpace Sàrl, Betzdorf (Luxembourg)	100.0	Fully consolidated
MT Aerospace Holding GmbH, Bremen (Germany)	70.0	Fully consolidated
MT Aerospace AG, Augsburg (Germany) <sup>2</sup>	100.0	Fully consolidated
MT Aerospace Grundstücks GmbH & Co. KG, Augsburg (Germany) <sup>3</sup>	100.0	Fully consolidated
MT Mechatronics GmbH, Mainz (Germany) <sup>3</sup>	100.0	Fully consolidated
MT Aerospace Guyane S.A.S., Kourou (French Guiana) <sup>3</sup>	100.0	Fully consolidated
Aerotech Peissenberg GmbH & Co. KG, Peissenberg (Germany) <sup>2</sup>	43.3	At equity
OHB Teledata GmbH, Bremen (Germany)	100.0	Fully consolidated
OHB Digital Services GmbH, Bremen (Germany) (former Megatel GmbH)	74.9	Fully consolidated

1 held by OHB System AG

2 held by MT Aerospace Holding GmbH

3 held by MT Aerospace AG

## Further investments and financial assets

Name of company	Percentage share (%)	Size of share EUR 000	Equity EUR 000	Net profit/loss for the year EUR 000	Year of most recent financial statements
OHB France S.A.S., Paris (France)*	100.0	37	12	1	2016
OHB Venture Capital GmbH, Weßling (Germany)*	100.0	126	8	-2	2016
OHB Logistic Solutions GmbH, Bremen (Germany)*	55.0	1,910	2,143	-282	2016
KT Verwaltungsgesellschaft mbH, Bremen (Germany)*	100.0	25	19	-1	2016
MT Dezentrale Energiesysteme GmbH, Augsburg (Germany)*	100.0	1,023	1,022	0	2016
MT Mecatrònica s.r.l., Cagliari (Italy)*	100.0	10	45	20	2017
MT Management Service GmbH, Augsburg (Germany)*	100.0	27	25	266	2016
M2M Europe Network and Solutions Ges.mbH, Bregenz (Austria)*	100.0	35	n/a	n/a	n/a
MT Mecatronica SpA, Santiago de Chile (Chile)*	99.9	530	219	8	2017
MT Satellite Products Ltd., Wolverhampton (Great Britain)*	100.0	161	376	6	2017
MILET Grundstücks-Verwaltungsgesellschaft mbH, Augsburg (Germany)*	100.0	28	27	1	2016
Aerotech Beteiligungs GmbH, Peissenberg (Germany)*	43.0	12	30	1	2015
COSMOS Space Systems AG, Bremen (Germany)*	66.6	40	76	0	2016
COSMOS International Satellitenstart GmbH, Bremen (Germany)*	49.9	13	222	1	2016
RST Radar Systemtechnik GmbH, Salem (Germany)*	22.7	190	558	-652	2016
Antares S.c.a.r.l., San Giorgio Del Sannio (Italy)*	24.0	128	160	-36	2016
beos GmbH, Bremen (Germany)	12.0	60	481	25	2016
Arianespace Participation, Evry (France)	8.3	8,328	n/a	n/a	n/a
ORBCOMM Inc., Rochelle Park NJ (USA)	3.1	18,941	204,634	-34,054	2017
ORBCOMM Europe LLC, Delaware (USA)*	50.0	2	n/a	n/a	n/a
OHB Satellitenbetrieb GmbH, Bremen (Germany)* (former OHB Marine Technologie GmbH)	100.0	25	601	0	2016
Blue Horizon s.à r.l., Betzdorf (Luxembourg)*	100.0	6	n/a	n/a	n/a
ATB Institut für angewandte Systemtechnik Bremen GmbH, Bremen (Germany)	5.0	26	610	22	2016
Nexus Space LLC, Centennial CO (USA)*	45.0	n/a	n/a	n/a	n/a
OHB Uzay, Teknolojileri Limited Sirketi, Ankara (Turkey)*	100.0	88	n/a	n/a	n/a
OHB Czechspace s.r.o., Klatovy (Czech Republic)*	100.0	23	n/a	n/a	n/a
OHB Digital Maritime Services GmbH, Bremen (Germany)*	50.1	25	n/a	n/a	n/a

\* not consolidated in the year under review for materiality reasons

## CURRENCY TRANSLATION

Most outgoing invoices are denominated in euro. Incoming and outgoing invoices denominated in a foreign currency are converted and recognized on the reporting date, respectively any hedges in existence are translated at the hedge rate. Foreign-currency bank balances were translated at the end-of-year exchange rate. The annual financial statements of the independent non-domestic

subsidiary OHB Sweden AB were prepared in its domestic currency (SEK) and translated using the functional currency principle in accordance with IAS 21. The foreign-currency difference arising from translation of the equity capital is recorded in "currency translation differences" within other comprehensive income.

**SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

**Newly issued standards and interpretations**

The International Accounting Standards Board (IASB) and IFRIC have revised the following standards and interpretations which are subject to compulsory application from 2017:

- Disclosure initiative (amendments to IAS 7)
  - IAS 7 requires additional disclosures on changes in liabilities in the balance sheet during the reporting period. The corresponding details can be found in Note (33).
- Recognition of deferred income tax assets on unrealized losses (IAS 12)
  - The amendment clarifies the question of the recognition of deferred income tax assets on temporary differences arising from unrealized losses.

The Group applied all the accounting standards which were mandatory for accounting periods commencing on or after January 1, 2017. This does not have any material effects on the consolidated financial statements.

**Newly issued standards and interpretations that have not yet been applied**

The IASB has issued standards, interpretations and revisions to existing standards which are not yet compulsory and do not become so until future reporting periods and which OHB SE has not adopted on a voluntary early basis.

IFRSs endorsed by the EU	To be applied from (EU)
Clarification of IFRS 15 (Revenue from Contracts with Customers)	01/01/18
Amendments to IFRS 4 (Insurance Contracts) through adoption of IFRS 9 (Financial Instruments)	01/01/18
Annual Improvements to IFRS (2014–2016 cycle) – IFRS 1, IFRS 12, IAS 28	01/01/18
Amendments to IAS 40: Investment property	01/01/18
Amendments to IFRS 2: Classification and evaluation of transaction with share-based payment	01/01/18
Foreign currency transactions and advance consideration on IFRIC 22	01/01/18
Uncertainty over income tax treatments IFRIC 23	01/01/19
Amendments to IFRS 9: Premature refunding option with negative prepayment penalty	01/01/19
Amendments to IAS 28: Long term investments in associates and joint ventures	01/01/19
Annual Improvements to IFRS (2015–2017 cycle) – IFRS 3, IFRS 11, IAS 12, IAS 23	01/01/19
Insurance contracts IFRS 17	01/01/21

The IASB published IFRS 9, Financial Instruments in July 2014. IFRS 9 introduces uniform guidance on the classification and measurement of financial assets. This is based on the characteristics of the cash flow and the business model used to control them. In addition, it provides for a new impairment model based on expected credit losses. IFRS 9 also contains new guidance on the application of hedge accounting to report an entity's risk management activities more accurately particularly in connection with the management of non-financial risks. OHB will apply IFRS 9 for the first time from January 1, 2018. This is not expected to have any material effects on the balance sheet and the income statement.

The IASB published IFRS 15, Revenue from Contracts with Customers in May 2014. Under the new standard, revenues are recognized when the promised goods and services are transferred to the customer at the amount equaling the consideration that the entity expects to receive for these goods and services. Revenues are recognized when control over the goods or services passes to the customer. IFRS 15 also includes guidance on any excess performance or performance obligations on the contractual level. These are assets and liabilities under contracts with customers depending on the ratio of the entity's performance and payment by the customer.

IFRS 15 replaces IAS 11, Construction Contracts, and IAS 18, Revenue as well as the related interpretations. The new standard must be applied for the first time to accounting periods commencing on or after January 1, 2018; earlier adoption is permissible.

The Company will apply the standard from January 1, 2018. The figures for the comparison period will be reported using the modified retrospective method.

The timing of the recognition of revenues will change in the case of certain types of contracts. In the case of one Group company, the application of IFRS 15.21a) will result in a long-term construction contract being split into two separately measured parts in view of a material change of contract. At one Group company, long-term construction contracts previously recognized on a uniform basis as a product group will be measured separately in the future.

On the basis of the analyses performed, it is assumed that the large majority of construction contracts currently recognized using the percentage-of-completion method will continue to meet the requirements of over-time recognition of revenue. In addition, the Company expects changes in the balance sheet (e.g. the separate recognition of contract assets and liabilities) and additional quantitative and qualitative disclosures in the notes. OHB expects an impact of EUR 20–25 million on its consolidated financial statements, which will be reported within equity by deducting the corresponding amount from retained earnings.

The IASB published IFRS 16, Leases in January 2016. IFRS 16 abolishes the distinction between operating and finance leases on the part of the lessee. Instead, IFRS 16 introduces a uniform lessee accounting model under which the lessee is required to recognize assets (for the right of use) and the lease liabilities in the case of leases with a duration of more than twelve months. This means that in the future leases that had previously not been accounted for must be recognized in the balance sheet as a right of utilization in a manner comparable to finance leases under the current system. IFRS 16 must be applied to accounting periods commencing on or after January 1, 2019; an earlier adoption is permissible, if IFRS 15 has already been applied. OHB expects the application of IFRS 16 to have a material impact on its consolidated financial statements due to the inclusion of the leases for real estate used for business purposes, which must be recognized as rights of utilization. At the same time, a lease liability will be recognized.

## **CHANGES IN ACCOUNTING POLICIES**

There have been no changes in the recognition or measurement principles compared with the previous year.

## **RECOGNITION OF REVENUES**

Revenues and other operating income from series production are recognized on the date on which the services or goods are provided or risk passes to the customer. With respect to long-term construction contracts, the percentage-of-completion method provided for in IAS 11 is applied, subject to reasonable discounts to allow for unexpected future risks to the extent that it is possible to calculate the partial profit with adequate precision on the basis of the percentage of completion. For this purpose, the percentage of completion is determined on the basis of the incurred contract costs as of the reporting date relative to the expected total contract costs. Revenues from contracts are calculated by multiplying the percentage of completion with the contractually agreed proceeds including any subsequently agreed contract changes. Long-term projects in progress on the reporting date (remaining durations of between one and seven years) are recognized as revenue on the basis of production costs plus refundable administrative overhead costs provided that a partial profit can not be estimated with a reasonable degree of reliability. Projects for which partial profits have been recognized are reported under revenues pursuant to IAS 11.22. The corresponding contract costs are including in the cost of materials and other costs in the year under review. Moreover, the Group recognizes revenues from transactions under IAS 18, predominantly from the sale of goods and the provision of services, when their amount can be reliably determined and it is sufficiently likely that an economic benefit will flow to the Group. Receivables due for settlement in more than one year are classified as non-current.

#### OWN WORK CAPITALIZED

Development expenditure is capitalized as an asset pursuant to IAS 38.57 if a newly developed product or process can be clearly delineated, is technically feasible and is intended either for the Company's own use or for sale. A further condition is that it must be sufficiently likely for the development expenditure to be amortized from future cash flows. Such expenditure is recognized on the basis of the production costs incurred, primarily development hours multiplied by the applicable hourly rate. In the year under review, research and development costs of EUR 9.7 million (previous year: EUR 11.6 million) were recorded as expense as the criteria provided for in IAS 38.57 were not satisfied. Of the total development costs of EUR 32.9 million (previous year: EUR 44.6 million), an amount of EUR 18.7 million (previous year: EUR 29.3 million) was capitalized. An amount of EUR 3.9 million (previous year: EUR 3.7 million) was received in the form of grants. The income from development grants is recognized upon the occurrence of the related costs. Income from grants is reported gross, i.e. it is not netted with expenses. At the moment, there is no evidence indicating that the conditions imposed by the providers of grants cannot be satisfied.

#### NET FINANCE INCOME/EXPENSES

Net financial income/expense includes the share of profits of associates accounted for at equity as well as other investments including profit from the sale of financial assets, adjustments to the value of financial assets, other interest expenditure on liabilities, dividends, interest income on receivables and currency gains and losses. Interest income is recorded in the income statement in accordance with the effective interest method. Dividends are reported in the income statement upon a dividend distribution resolution. Interest expense on retirement benefit provisions are also reported as other interest expenditure.

#### INTANGIBLE ASSETS

As of each reporting date, OHB reviews the carrying amounts of its intangible assets to identify any evidence of impairment. In this case, the recoverable amount of the asset in question is calculated to determine the amount of any impairment. The recoverable amount is defined as the higher of the fair value less possible costs of sale or the value in use. Intangible assets acquired from third parties primarily comprise software programs and licenses. These are depreciated on a straight-line basis over a period of between one and 15 years. Internally

generated assets are depreciated on a straight-line basis over the expected useful life of four to 15 years. For the purpose of identifying any impairment, goodwill must be allocated to each cash-generating unit within the Group expected to derive any benefit from the synergistic effects of the business combination. Cash-generating units carrying goodwill are tested for impairment at least annually. If the recoverable amount of a cash-generating unit is less than its carrying amount, the impairment loss is initially assigned to the carrying amount of all goodwill allocated to the unit and then on a proportionate basis to the other assets on the basis of the carrying amount of each asset within the unit.

#### PROPERTY, PLANT AND EQUIPMENT

As of each reporting date, OHB reviews the carrying amounts of its property, plant and equipment to identify any evidence of impairment. In this case, the recoverable amount of the asset in question is calculated to determine the amount of any impairment. The recoverable amount is defined as the higher of the fair value less possible costs of sale or the value in use, whichever is the greater. Assets classed as property, plant and equipment are carried at historical cost less scheduled straight-line depreciation over their expected useful lifetime. Subsequent expenditure on assets which does not increase their value or materially extend their useful lives is expensed. Material additions and improvements are recognized as assets. Disposals are reflected in historical acquisition costs as well as accumulative depreciation. Profit and loss from the disposal of assets are recorded within operating income/expenses. The following depreciation periods are applied to property, plant and equipment: between ten and 33 years for buildings, five to ten years for machinery and technical equipment and three to ten years for other equipment as well as operating and business equipment.

#### ASSOCIATES

Shares in associates are reported at cost with due allowance made for the share in their profit/loss for the year. In an impairment test, the carrying amount of the associate is compared with the recoverable amount and, if it is lower than the carrying amount, an impairment equaling the difference recognized.

**OTHER FINANCIAL ASSETS**

Other financial assets are recognized on the date of addition at their fair value on the settlement date less transaction costs. If they are classified as available for sale, they are also measured at their fair value in subsequent periods. The resultant gains or losses are initially recognized within other comprehensive income until the financial asset is derecognized, upon which the cumulative gains or losses are recycled to profit and loss. Other financial assets are classified as available for sale and mostly constitute the shares in ORBCOMM Inc.

**INVENTORIES**

Inventories are recognized at historical cost or the lower net recoverable value prevailing on the reporting date. Production costs comprise the direct costs of material and production, overhead costs of material and production as well as depreciation and amortization expense in connection with the production equipment. They also include overhead administration costs. Part of the inventories are measured using the moving average method.

**RECEIVABLES**

Trade receivables, other financial assets and cash and cash equivalents are initially recognized at their fair value less transaction costs on the settlement date. They are subsequently measured at amortized cost using the effective interest method. They are classified as loans and receivables. If in individual cases there are justified doubts as to whether receivables can be retrieved, they are written down or recorded at the lower recoverable value.

**SECURITIES/FINANCIAL INSTRUMENTS**

The fair values are determined on the basis of the market prices as of the reporting date. Non-current securities are measured in accordance with IAS 39 and IFRS 7 (Reclassification of Financial Assets). Any changes in the value of hedging relationships are reported prior to settlement within comprehensive income and equity from unrealized gains/losses.

**DEFERRED INCOME TAXES**

Pursuant to IAS 12, temporary differences between the carrying amount of assets or liabilities on the balance sheet and their tax base in accordance with IFRS/IAS give rise to deferred income taxes. The OHB Group applies a uniform domestic tax rate of 32% for calculating deferred income taxes. Income taxes in 2017 were calculated in detail using individual tax rates. Deferred tax assets are recognized pursuant to IAS 12.

Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary difference can be utilized. This also applies to deferred income tax assets on carried forward tax losses. If the deferred income tax assets are unlikely to be realized, they are impaired by the appropriate amount.

Deferred income tax assets and liabilities are only offset if they relate to income taxes levied by the same taxation authority and the actual income tax assets can be offset against the actual income tax liabilities.

**EQUITY**

IAS 32 (Financial Instruments: Disclosure and Presentation) stipulates that equity must not include any contractual obligation to deliver cash or any other financial asset to another entity. Equity is defined as subscribed capital, the share premium, unrealized gains and losses recognized within equity, retained earnings and accrued profit carried forward.

**PROVISIONS FOR RETIREMENT BENEFITS AND SIMILAR OBLIGATIONS**

Obligations under defined-benefit plans are calculated using the projected unit credit method in accordance with IAS 19 (Employee Benefits). The expected benefits are deferred over the entire period of service of the employees.

**OTHER PROVISIONS**

Other provisions have been reliably assessed for transactions resulting in an outflow of enterprise resources to settle present obligations in accordance with IAS 37. Estimates are primarily based on detailed calculations. Provisions for which a cash outflow is not expected before twelve months are classified as non-current and recognized at the present value of the future cash outflows.

**FINANCIAL LIABILITIES**

Liabilities comprise financial liabilities, trade payables and other liabilities and are classified as financial liabilities at amortized cost ("FLAC"). Financial liabilities are recognized at amortized cost using the effective interest method. They are initially recognized at their fair value including transaction costs.

## **LEASES**

A lease is an agreement whereby the lessor conveys to the lessee the right to use an asset for an agreed period of time in return for a payment or series of payments. A distinction is made between operating leases and finance leases.

The assets used under operating leases are not recognized. Lease payments are recorded through profit and loss on an accrual basis.

A finance lease is a lease that transfers substantially all the risks and rewards incidental to ownership of an asset. The Company did not have any finance leases in the year under review.

## **ESTIMATES**

Preparation of the consolidated financial statements requires to some degree the use of estimates and assumptions, which affect the assets and liabilities reported, the disclosure of contingent liabilities and receivables on the balance sheet and the income and expenses recognized. The actual amounts may vary from these estimates and assumptions in individual cases. Any adjustments are taken to the income statement upon further knowledge becoming available.

Internally funded development expenses are assessed on the basis of estimated future cash flows. The value of goodwill is determined in an annual impairment test. This test involves estimates of future cash inflows. Future changes in the general economic environment and the conditions within the sector or the Company may result in a reduction in net cash inflows and, hence, impair the value of the goodwill. Technical progress, deterioration in the market situation or damage may necessitate non-scheduled depreciation of property, plant and equipment. A sensitivity analysis can be found in the disclosures on impairment testing [see Note 11].

The percentage-of-completion method is applied to long-term construction contracts provided that the applicable conditions are satisfied. For this purpose, the costs incurred are divided by the total costs to calculate the percentage of completion. Direct changes may arise from changed estimates with respect to hours or costs or as a result of contractual change.

Retirement benefit provisions are calculated on the basis of a number of assumptions and assumed trends, the application of biometric probabilities as well as generally accepted approximation methods to determine pension obligations. Actual payment obligations arising over time may vary from these (see Note 25) on retirement benefits for possible changes).

Tax provisions and impairment testing of deferred tax assets are also based on estimates. In determining the value of deferred tax assets, uncertainty may arise with respect to the interpretation of complex tax legislation as well as the amount and timing of future taxable income.

Other provisions are recognized in the light of available knowledge and using the customary scope for discretion.

In view of the current conditions in the economy and the financial markets, it is not possible at this stage to make any reliable assumptions on the range of possible adjustments which may need to be made to the estimates in 2018.

## VII. NOTES ON THE CONSOLIDATED INCOME STATEMENT

### (1) SALES

Revenues from construction contracts as defined in IAS 11 came to EUR 738.997 million in the year under review (previous year: EUR 574.687 million). The related contract costs amount at EUR 705.215 million (previous year: EUR 539.818 million).

Sales break down by product group and service as follows:

in EUR 000	2017	2016
Space technology	792,567	660,168
Aviation	14,635	16,139
Antennas	9,786	12,113
Other	8,906	10,764
<b>Total</b>	<b>825,894</b>	<b>699,184</b>

Additional disclosures on PoC measurement (IAS 11)

2017 in EUR 000	Net assets	Net Liabilities	Total
Expenses + profit	3,191,918	778,150	<b>3,970,068</b>
Prepayments received	2,934,284	912,128	<b>3,846,412</b>
<b>Amount shown on balance sheet</b>	<b>257,634</b>	<b>-133,978</b>	<b>123,656</b>
2016 in EUR 000	Net assets	Net Liabilities	Total
Expenses + profit	1,845,431	1,015,943	<b>2,861,374</b>
Prepayments received	1,615,728	1,152,016	<b>2,767,744</b>
<b>Amount shown on balance sheet</b>	<b>229,703</b>	<b>-136,073</b>	<b>93,630</b>

### (2) CHANGES IN INVENTORIES OF FINISHED GOODS AND WORK IN PROGRESS

The increase in inventories of finished goods and work in progress primarily relates to the increase of EUR 0.949 million (previous year: EUR -10.857 million) in the Aerospace + Industrial Products business unit. Total inventories rose by EUR 0.515 million (previous year: EUR -10.948 million).

### (3) OTHER OPERATING INCOME

The other operating income of EUR 13.073 million (previous year: EUR 10.131 million) comprises income from grants of EUR 3.921 million (previous year: EUR 3.703 million), income of EUR 4.262 million (previous year: EUR 2.631 million) from the reversal of provisions and insurance compensation of EUR 2.100 million (previous year: EUR 0.066 million).

### (4) COST OF MATERIALS

in EUR 000	2017	2016
Cost of raw materials and supplies and goods purchased	98,886	76,072
Cost of services purchased	443,787	362,354
<b>Total</b>	<b>542,673</b>	<b>438,426</b>

### (5) STAFF COSTS

in EUR 000	2017	2016
Wages and salaries	164,717	150,579
Social security charges and expenditure on old age pensions and support	32,129	29,632
<b>Total</b>	<b>196,846</b>	<b>180,211</b>

Retirement payments amount to EUR 5.139 million (previous year: EUR 4.286 million). In 2017, the Group paid contributions of EUR 10.830 million (previous year: EUR 9.401 million) to the German statutory pension scheme, a defined contribution plan.

**(6) NET FINANCE INCOME/EXPENSE**

in EUR 000	<b>2017</b>	2016
<b>FINANCE INCOME</b>		
Other interest income from loans and receivables	1,222	1,313
Other financial income	273	932
	<b>1,495</b>	<b>2,245</b>
<b>FINANCIAL EXPENSES</b>		
Interest expense from liabilities at amortized cost	2,948	3,447
Interest expenses on retirement benefit provisions	1,878	2,162
Other borrowing costs	414	1,869
	<b>5,240</b>	<b>7,478</b>

**(7) SHARE OF PROFIT OF ASSOCIATES**

The at-equity result of Aerotech Peissenberg GmbH & Co. KG stands at EUR 1.809 million in 2017 (previous year: EUR 0.558 million). This associate contributed EUR 0.022 million (previous year: EUR 0) to other comprehensive income.

**(8) INCOME TAXES**

**Reconciliation of tax expense**

in EUR 000	<b>2017</b>	2016
Expected taxes at a tax rate of 32.00% (previous year: 32.00%)	13,516	12,291
Reductions to tax expenses as a result of partially tax-exempt income	-766	-382
Tax losses utilized	-298	-383
Non-deductible operating expenses	822	936
Other tax effects	205	21
Recognition of deferred income taxes due to changes in tax rates	718	0
Off-period tax expense	242	158
Differences in foreign tax rates	75	-207
<b>Total</b>	<b>14,514</b>	<b>12,434</b>

Tax expense breaks down as follows:

in EUR 000	<b>2017</b>		2016	
	Actual taxes	Deferred income taxes	Actual taxes	Deferred income taxes
Domestic	5,565	8,279	7,314	4,893
Non-domestic	144	525	315	-88
	<b>5,709</b>	<b>8,804</b>	<b>7,629</b>	<b>4,805</b>

No deferred income tax assets were recognized on carried forward tax losses of EUR 8.697 million (previous year: EUR 9.848 million). The carried forward tax losses do not expire.

The change in deferred income taxes recognized through equity stands at EUR -0.407 million (previous year: EUR 2.342 million).

## Analysis of deferred income taxes and assets:

in EUR 000	31/12/2017		31/12/2016		2017	2016
	Deferred income tax assets	Deferred income tax liabilities	Deferred income tax assets	Deferred income tax liabilities	Cash change	Cash change
Intangible assets and property, plant and equipment	0	26,089	7	22,883	-3,213	-6,883
Financial assets	116	552	116	439	-90	-270
Current assets	0	21,539	0	14,671	-6,796	-60
Provisions	15,777	172	15,110	49	856	412
Liabilities	3,698	0	508	0	3,190	181
Unused tax losses and tax credits	6,730	340	9,483	342	-2,751	1,815
Netting	-12,187	-12,187	-6,609	-6,609	0	0
<b>Total</b>	<b>14,134</b>	<b>36,505</b>	<b>18,615</b>	<b>31,775</b>	<b>-8,804</b>	<b>-4,805</b>
Of which current	611	2,643	0	14,671		

## (9) NON-CONTROLLING INTERESTS

Non-controlling interests in the net profit for the year are valued at EUR 4.369 million (previous year: EUR 3.363 million) and mainly relate to MT Aerospace Holding GmbH.

The non-controlling interests of EUR 19.649 million (previous year: EUR 14.942 million) primarily relate to the co-shareholders in the MT Aerospace subgroup. The non-controlling interests received dividends of EUR 0.109 million in the year under review (previous year: EUR 0.754 million).

in EUR 000	OHB Digital Services GmbH	MT Aerospace Holding GmbH (subgroup)
<b>ASSETS</b>		
Non-current assets	699	78,397
Current assets	2,376	179,812
<b>Total</b>	<b>3,075</b>	<b>258,209</b>
<b>EQUITY AND LIABILITIES</b>		
Equity	2,571	46,302
Non-current liabilities	234	108,443
Current liabilities	270	103,464
<b>Total</b>	<b>3,075</b>	<b>258,209</b>
<b>EBIT</b>	<b>11</b>	<b>19,711</b>

## (10) EARNINGS PER SHARE UNDER IFRS/IAS

Undiluted earnings per share are calculated by dividing the post-tax earnings attributable to the shares in question by the total number of shares with dividend entitlement. This indicator may be diluted by so-called potential shares – particularly option and subscription rights. There were no comparable rights as of the reporting date. Accordingly, there is no difference between undiluted and diluted earnings per share. The Company's share capital stands at EUR 17,468,096.00. As in the previous year, the calculations were based on 17,387,600 shares as the Company held 80,496 treasury shares. In the absence of any change in the number of outstanding shares, this equals the weighted average of the outstanding shares. The consolidated net profit of EUR 23.355 million (previous year: EUR 22.212 million) net of non-controlling interests was used for calculation purposes.

Earnings per share for 2017 came to EUR 1.34 (previous year: EUR 1.28).

VIII. NOTES ON THE CONSOLIDATED  
BALANCE SHEET

**(11) GOODWILL AND OTHER INTANGIBLE ASSETS**

**Goodwill**

in EUR 000	<b>2017</b>	2016
<b>GOODWILL FROM CONSOLIDATION OF</b>		
OHB System AG	5,684	5,684
OHB Italia S.p.A.	801	801
OHB Digital Services GmbH	646	646
ORBCOMM Deutschland Satellitenkommunikation AG	0	357
<b>Total</b>	<b>7,131</b>	<b>7,488</b>

**Statement of changes in intangible assets -  
historical cost**

in EUR 000	Goodwill	Concessions and industrial property rights	Intangible as- sets acquired	Internally generated intangible assets	<b>Total</b>
<b>Balance on January 1, 2016</b>	<b>8,957</b>	<b>2,067</b>	<b>12,841</b>	<b>103,415</b>	<b>127,280</b>
Currency translation changes	0	0	0	0	<b>0</b>
Additions	0	2	4,637	29,367	<b>34,006</b>
Disposals	0	0	179	14,302	<b>14,481</b>
Reclassified	0	0	0	0	<b>0</b>
<b>Balance on December 31, 2016 / January 1, 2017</b>	<b>8,957</b>	<b>2,069</b>	<b>17,299</b>	<b>118,480</b>	<b>146,805</b>
Currency translation changes	0	0	0	0	<b>0</b>
Additions	0	0	1,305	18,720	<b>20,025</b>
Disposals	0	0	70	10	<b>80</b>
Reclassified	0	0	0	0	<b>0</b>
<b>Balance on December 31, 2017</b>	<b>8,957</b>	<b>2,069</b>	<b>18,534</b>	<b>137,190</b>	<b>166,750</b>

**Statement of changes in intangible assets -  
cumulative amortization**

in EUR 000	Goodwill	Concessions and industrial property rights	Intangible as- sets acquired	Internally generated intangible assets	<b>Total</b>
<b>Balance on January 1, 2016</b>	<b>1,270</b>	<b>2,002</b>	<b>10,693</b>	<b>44,571</b>	<b>58,536</b>
Currency translation changes	0	0	0	0	<b>0</b>
Additions	199	3	1,717	3,366	<b>5,285</b>
Disposals	0	0	178	14,293	<b>14,471</b>
Reclassified	0	0	0	0	<b>0</b>
<b>Balance on December 31, 2016 / January 1, 2017</b>	<b>1,469</b>	<b>2,005</b>	<b>12,232</b>	<b>33,644</b>	<b>49,350</b>
Currency translation changes	0	0	0	0	<b>0</b>
Additions	357	3	1,940	4,822	<b>7,122</b>
Disposals	0	0	70	0	<b>70</b>
Reclassified	0	0	0	0	<b>0</b>
<b>Balance on December 31, 2017</b>	<b>1,826</b>	<b>2,008</b>	<b>14,102</b>	<b>38,466</b>	<b>56,402</b>
Net carrying amount on December 31, 2017	7,131	61	4,432	98,724	<b>110,348</b>
Net carrying amount on December 31, 2016	7,488	64	5,067	84,836	<b>97,455</b>

Goodwill was tested for impairment at the level of the cash-generating units as designated in the above table. Goodwill underwent impairment testing as of December 31, 2017. In addition, stable business performance in the light of the expected inflation effects on earnings and expenses was assumed during the forecast period. The recoverable amount was calculated on the basis of the value in use, which in turn was determined by using a discounted cash flow method. This was based on the forecasts covering a period of five years approved by management for the companies concerned. This indicated an impairment of EUR 0.357 million of the goodwill of ORBCOMM Deutschland Satellitenkommunikation AG due to its weaker business performance. In the case of OHB Italia S.p.A., a growth rate of 1% based on historical data and applying a risk discount was assumed for the period after the forecast horizon. The application of a growth rate was dispensed with for all the other cash-generating units for materiality reasons. A pre-tax weighted average cost of capital (WACC) of 8.08% (previous year: 7.89%) was applied to domestic goodwill and of 11.13% (previous year: 11.70%) to non-domestic goodwill. An increase of 1 percentage point in the WACC and for possible changes in the other assumptions would not result in any further impairment.

Other intangible assets primarily comprise capitalized expense for the development of a product group of geostationary communications satellites (carrying amount: EUR 64.252 million, previous year: EUR 46.412 million), which was partially completed on schedule in 2017, as well as purchased software.

**(12) PROPERTY, PLANT AND EQUIPMENT****Statement of changes in property, plant and equipment – historical cost**

in EUR 000	Operating and business equipment	Land and buildings	<b>Total</b>
<b>Balance on January 1, 2016</b>	<b>100,861</b>	<b>46,637</b>	<b>147,498</b>
Currency translation changes	0	0	<b>0</b>
Additions	11,726	1,960	<b>13,686</b>
Disposals	2,233	2	<b>2,235</b>
Reclassified	-22	22	<b>0</b>
<b>Balance on December 31, 2016/ January 1, 2017</b>	<b>110,332</b>	<b>48,617</b>	<b>158,949</b>
Currency translation changes	0	0	<b>0</b>
Additions	21,191	3,425	<b>24,616</b>
Disposals	2,774	107	<b>2,881</b>
Reclassified	-3,460	3,460	<b>0</b>
<b>Balance on December 31, 2017</b>	<b>125,289</b>	<b>55,395</b>	<b>180,684</b>

**Statement of changes in property, plant and equipment – cumulative depreciation**

in EUR 000	Operating and business equipment	Land and buildings	<b>Total</b>
<b>Balance on January 1, 2016</b>	<b>68,688</b>	<b>24,622</b>	<b>93,310</b>
Currency translation changes	66	0	<b>66</b>
Additions	6,099	997	<b>7,096</b>
Disposals	2,162	1	<b>2,163</b>
Reclassified	0	0	<b>0</b>
<b>Balance on December 31, 2016/ January 1, 2017</b>	<b>72,691</b>	<b>25,618</b>	<b>98,309</b>
Currency translation changes	33	0	<b>33</b>
Additions	6,374	1,090	<b>7,464</b>
Disposals	2,713	107	<b>2,820</b>
Reclassified	0	0	<b>0</b>
<b>Balance on December 31, 2017</b>	<b>76,385</b>	<b>26,601</b>	<b>102,986</b>
Net carrying amount on December 31, 2017	48,904	28,794	<b>77,698</b>
Net carrying amount on December 31, 2016	37,641	22,999	<b>60,640</b>

Additions in the year under review primarily entailed technical/electronic laboratory equipment, technical equipment and machinery, hardware, operating and business equipment and minor-value assets. There are unrestricted ownership rights to the remaining assets classed as property, plant and equipment with the exception of land charges which currently have no value.

**(13) SHARES IN ASSOCIATES**

This item comprises the share in the equity of associated company Aerotech Peissenberg GmbH & Co. KG, Peissenberg (ATP), which is recognized at amortized cost. The majority shareholder exercises a controlling influence on this entity's business model. It is recognized at equity. ATP recorded total revenues of EUR 137.203 million (previous

year: EUR 130.397 million), EBIT of EUR 3.907 million (previous year: EUR 4.924 million) and EBITDA of EUR 7.528 million (previous year: EUR 9.005 million) in 2017. It had non-current assets of EUR 29.633 million (previous year: EUR 28.903 million) and current assets of EUR 46.647 million (previous year: EUR 43.180 million) as of December 31, 2017. Non-current and current liabilities stood at EUR 72.752 million (previous year: EUR 70.794 million). As of the reporting date, the item was valued at EUR 2.388 million (previous year: EUR 0.558 million).

#### **(14) OTHER FINANCIAL ASSETS**

The increase is primarily due to the fair value recognized within equity of EUR 1.447 million (previous year: EUR 2.699 million) in connection with the remeasurement of the shares held in ORBCOMM Inc. It was remeasured on the basis of the stock market price of ORBCOMM Inc. as of December 31, 2017 and the USD/EUR exchange rate as of the same date.

#### **(15) RECEIVABLES AND OTHER ASSETS (CURRENT AND NON-CURRENT)**

Receivables of EUR 257.634 million (previous year: EUR 229.704 million) relate to construction contracts recognized using the percentage-of-completion method. The other financial receivables and security deposits are not subject to any material interest-rate or credit risks. Receivables were predominantly denominated in euros as of the reporting date. The maximum default risk equals the carrying amount of the receivables reported on the face of the balance sheet.

Reasonable adjustments are made to receivables that are overdue by more than 180 days to allow for discernible risks.

in EUR 000	31/12/2017		31/12/2016	
	Current	Non-current	Current	Non-current
Trade receivables	71,505		89,327	
PoC receivables	257,634		229,704	
Other financial receivables		257		535
Deposits		1,895		1,956
	<b>329,139</b>	<b>2,152</b>	<b>319,031</b>	<b>2,491</b>
less impairments	-892	0	-270	0
	<b>328,247</b>	<b>2,152</b>	<b>318,761</b>	<b>2,491</b>
		<b>2017</b>		<b>2016</b>
Impairments January 1		270		235
Added		892		270
Derecognition of receivables		-28		-235
Reversed		-242		0
<b>Amount on December 31</b>		<b>892</b>		<b>270</b>

The following table analyzes the trade receivables. Trade receivables are not overdue up to 30 days. No impairments were recognized for trade receivables between 31 and 180 days as historical data and customer credit ratings suggest that there is only a low risk of default.

in EUR 000	Up to 30 days	31–60 days	61–90 days	91–180 days	More than 180 days
Trade receivables	39,035	8,870	166	737	5,884

#### (16) INVENTORIES

Inventories decreased over the previous year to EUR 48.837 million (previous year: EUR 50.215 million). Prepayments received are not netted with inventories.

in EUR 000	31/12/17	31/12/16
Raw materials and supplies	18,637	18,316
Unfinished goods and services	23,484	22,430
Finished goods and merchandise	591	788
Advance payments made	6,125	8,681
<b>Total</b>	<b>48,837</b>	<b>50,215</b>

Prepayments made were allocated to inventories due to their close relationship.

Impairments of inventories came to EUR 1.856 million at the end of the year (previous year: EUR 3.776 million). Impairments of EUR 0.521 million are reported as expense.

#### (17) CURRENT FINANCIAL AND NON-FINANCIAL OTHER ASSETS

in EUR 000	31/12/17	31/12/16
<b>NON-FINANCIAL ASSETS</b>		
VAT receivables	999	3,437
Deferrals	956	3,410
Others	8,858	3,869
<b>FINANCIAL ASSETS</b>		
Loans to associates	27,700	27,175
Derivatives in hedging relationships	346	0
Other financial assets	1,771	7,397
<b>Total</b>	<b>40,630</b>	<b>45,288</b>

#### (18) SECURITIES

As of the reporting date, the securities portfolio was valued at EUR 0.680 million (previous year: EUR 1.017 million). This breaks down as follows: financial assets at fair value through profit or loss EUR 0.461 million (previous year: EUR 0.385 million) and loans and receivables EUR 0.219 million (previous year: EUR 0.632 million). The maximum default risk equals the carrying amount reported on the face of the balance sheet.

**(19) CASH AND CASH EQUIVALENTS**

Cash and cash equivalents were valued at EUR 58.578 million on the reporting date (previous year: EUR 56.567 million) and primarily comprise cash in hand and cash at banks. The cash at banks is due within three months and is exposed to only a minimal risk of any change in value. Cash and cash equivalents are the same as the cash and cash equivalents included in the cash flow statement.

**(20) SUBSCRIBED CAPITAL**

Since September 30, 2009, the Company's issued capital has equaled EUR 17,468,096.00 and is divided into 17,468,096 no-par-value ordinary bearer shares equivalent to a notional share of EUR 1.00 each in the Company's issued capital. Of the total of 17,468,096 shares, OHB SE holds treasury stock comprising 80,496 shares, meaning that 17,387,600 shares have been issued and are fully paid up. Of these shares, an unchanged number of 5,208,880 shares compared with the previous year is free float. There is one vote for each share held.

**(a) Contingent capital**

At their annual general meeting held on January 23, 2001, the Company's shareholders increased the Company's share capital by approving the issue of a total of EUR 516,404.00 in the form of up to 516,404 bearer shares on a contingent basis. The contingent capital increase is to be used for granting options to entitled persons under a staff compensation system. No such staff compensation systems are currently in operation. The contingent capital increase may only be implemented if the holders of such options exercise these. The new shares are dividend-entitled for the first time in the year in the course of which they are issued. The Management Board is authorized subject to the Supervisory Board's approval to determine the specific conditions for such contingent capital increase. In the event that options are granted to members of the Company's Management Board, the Supervisory Board is authorized to determine the specific conditions for such contingent capital increase.

**(b) Authorized capital**

At their annual general meeting held on May 21, 2015, the shareholders passed a resolution authorizing the Company's Management Board – with the Supervisory Board's approval – to raise the share capital once or repeatedly by a total of up to EUR 8,734,048.00 on a cash or non-cash basis on or before May 20, 2020 (authorized capital 2015). The new shares may also be issued to the Company's employees. The Company's Management Board was authorized – subject to the Supervisory Board's approval – to exclude the shareholders' subscription rights in the following cases:

(1) for fractional amounts;

(2) for part of authorized capital 2015 up to a maximum of EUR 1,746,809.00 provided that the new shares are issued in return for cash capital contributions at a price not materially less than the stock-market price (Section 186 (3) Sentence 4 of the German Stock Corporation Act);

(3) for a part of authorized capital 2015 up to a maximum of EUR 8,734,048.00 provided the new shares

- are issued as consideration for the acquisition of all or part of other companies or entities or other assets and such acquisition is in the interests of the Company; or
- or are issued as consideration for cash capital contributions to have the Company's stock listed in a foreign market in which it has previously not been admitted to trading.
- The Management Board is additionally authorized subject to the Supervisory Board's approval to determine the extent and nature of the option rights and the other conditions of issue.

**(c) Authorization to acquire and sell treasury stock**

At the annual general meeting held on May 21, 2015, the shareholders authorized the Company to buy back treasury stock of up to a total of 10% of the Company's share capital on or before May 20, 2020.

- a) The Company is authorized to buy back a total of up to 10% of its own share capital in the amount existing as of the date on which the resolution was passed. At no time may the shares acquired by the Company together with other treasury stock already acquired or still held by it or attributable to it in accordance with Sections 71d, 71e of the German Stock Corporation Act exceed more than ten percent (10%) of its share capital. The authorization may be exercised by the Company in full or in part, once or repeatedly or for different purposes and may also be exercised by dependent companies or companies in which OHB SE holds a majority stake for their account or for third-party account.
- b) The acquisition of shares must comply with the equal treatment principle (Section 53a of the German Stock Corporation Act) and is executed at the

Management Board's discretion either via the stock market (1) or in a public offering addressed to all shareholders (2). In the second case, the provisions of the Securities Acquisition and Transfer Act must be observed where applicable.

- (1) If the Company buys back its own shares via the stock market, the purchase price paid per share (net of transaction costs) may not be any more than 10% above or below the average closing price of the stock in Xetra trading (or an equivalent replacement system) on the Frankfurt stock exchange on the last three trading days prior to acquisition of the shares.
- (2) If the Company buys back its own shares in a public offering addressed to all shareholders, the purchase price paid per share (net of transaction costs) may not be any more than 10% above or below the average closing price of the stock in Xetra trading (or an equivalent replacement system) on the Frankfurt stock exchange on the fifth, fourth and third trading days prior to the publication of the offer. If such a public offering is oversubscribed, the shares must be bought back on a quota system. Provision may be made for the preferred acceptance of a lower volume of up to 100 shares offered per shareholder and rounding in accordance with commercial provisions.
- c) The Management Board is authorized to utilize the treasury stock acquired through the exercise of the authorization mentioned above for all purposes permitted by law, including but not limited to the following:
- (1) Subject to the approval of the Supervisory Board it may use the treasury stock to have the Company's stock traded on foreign stock exchanges to which it has hitherto not been admitted.
- (2) Subject to the approval of the Supervisory Board, it may offer or transfer the treasury stock to third parties for the purpose of acquiring companies, parts of companies or equity interests including but not limited to additions to existing equity interests.
- (3) It may offer the treasury stock to the employees of the Company or other entities related to it in accordance with the definition in Sections 15 et seq. of the German Stock Corporation Act as employee shares.
- (4) Subject to the approval of the Supervisory Board, it may also redeem the treasury stock without any need for a resolution of the shareholders approving such redemption or related activities.
- d) The Management Board is authorized – subject to the approval of the Supervisory Board and without any obligation for a further resolution to be passed by the shareholders – to sell the treasury stock acquired in accordance with the above authorization or in any other manner either publicly or in the form of an offer to the shareholders provided that the sale is for cash and the price offered is not materially less than the price at which equivalent stock issued by the Company is trading on the stock market on the date of the sale. For the purposes of the above rule, the stock market price is defined as the arithmetic mean of the price fixed for the Company's stock in the closing auctions in Xetra trading (or an equivalent replacement system) on the Frankfurt/Main stock exchange on the last five trading days before the date of the sale. This authorization is limited to a total of 10% of the Company's share capital. The maximum of 10% is reduced by the prorated share in the share capital accounted for by shares which are issued during the term of this authorization as part of an equity issue in which pre-emptive shareholder rights are excluded in accordance with Section 186 (3) Sentence 4 of the German Stock Corporation Act. The volume covered by the authorization is also reduced by an amount equaling the prorated share in the share capital accounted for by conversion and/or option rights under bonds issued on or after the date on which this authorization takes effect in connection with which pre-emptive shareholder rights are excluded in accordance with Section 186 (3) Sentence 4 of the German Stock Corporation Act.
- e) The aforementioned authorizations may be utilized once or repeatedly, in part or in full, individually or jointly.
- f) The shareholders' pre-emptive subscription rights with respect to the Company's treasury stock are excluded in cases in which it is used in accordance with the authorizations described in c) (1) – (3) and d) above.

**(21) SHARE PREMIUM**

The share premium primarily comprises the cash proceeds from the stock-market flotation.

**(22) RETAINED EARNINGS**

Retained earnings includes the negative goodwill arising from the consolidation of newly acquired companies up until 2002.

**(23) UNREALIZED GAINS AND LOSSES RECOGNIZED UNDER EQUITY**

This equity item primarily relates to actuarial losses from the measurement of retirement benefit obligations and the fair-value measurement of the shares held in ORBCOMM Inc. on the basis of the stock price on the reporting date net of the carrying amounts.

In the period under review, cash flow hedges of USD 3.891 million (EUR 3.613 million) were due. It also includes the foreign currency translation differences arising in connection with independent subsidiaries.

## Changes in equity not recognized in profit and loss

in EUR 000	2017			2016		
	Before tax	Tax effect	Net	Before tax	Tax effect	Net
Currency translation differences	-99	0	-99	-125	0	-125
Net gains/losses from the measurement of financial assets recorded under equity	1,447	-24	1,423	2,699	-43	2,656
Cash flow hedges	227	-72	155	-51	16	-35
Actuarial gains/losses	1,842	-313	1,529	-7,892	2,369	-5,523
from associates:						
Currency translation differences	12	0	12	0	0	0
Cash flow hedges	151	-48	103	0	0	0
Actuarial gains/losses	-137	44	-93	0	0	0
<b>Total</b>	<b>3,443</b>	<b>-413</b>	<b>3,030</b>	<b>-5,369</b>	<b>2,342</b>	<b>-3,027</b>

**(24) TREASURY STOCK**

On September 13, 2011, the Management Board of OHB SE decided to implement a stock buyback program and to acquire up to 250,000 of the Company's shares in accordance with a resolution passed by the shareholders at the annual general meeting on May 19, 2010. This authorization expired on May 18, 2015. The purpose of the treasury stock was to place the Company's shares in foreign stock markets, to pay for the acquisition of other companies, parts of companies or shares in such companies and to issue shares to the Company's employees. The Company had been buying back shares on the stock market floor since September 14, 2011. Since the beginning of the buyback program, a total of 13,542 shares had been acquired at an average price of EUR 11.0145. As of December 31, 2017, OHB SE's treasury stock comprised a total of 80,496 shares, equivalent to 0.46% of its issued capital.

**(25) PROVISIONS FOR PENSIONS AND SIMILAR OBLIGATIONS**

Provisions for pensions and similar obligations break down as follows:

in EUR 000	31/12/17	31/12/16
Retirement benefits	91,233	94,620
Similar obligations	5,354	5,817
<b>Retirement benefit obligations</b>	<b>96,587</b>	<b>100,437</b>

The similar obligations primarily comprise lifetime work accounts and the "Unterstützungskasse" (pension funding scheme under German law) at OHB System AG.

OHB Group has made arrangements for post-retirement benefits for entitled employees in both business units. The

amount of the future benefits is generally based on the length of service, amount of remuneration and position held within the Company. The retirement age stipulated in the contracts is 65 years. The direct and indirect obligations encompass those under existing pensions and entitlement to future pensions and retirement benefits. Reinsurance has been taken out to cover retirement benefit obligations. Not all of these reinsurance policies qualify as plan assets. The latter are reported within other non-current assets. The reinsurance policies which qualify as plan assets are netted with the retirement benefit obligations. In addition there are plan assets of EUR 2.744 million (previous year: EUR 2.355 million) to cover the lifetime working accounts in the form of fixed-income securities which are netted against the pension-like obligations. There were no extraordinary expenses or income as a result of the termination of any plans or on account of the curtailment or transfer of benefits in the year under review. The calculation of post-retirement benefit obligations takes account of market interest rates as well as trends in wages and salaries, pensions and fluctuations on the basis of the following actuarial assumptions:

- Discount rate: 2.00% (previous year: 1.80%)
- Wage/salary trend: 2.75% (previous year: 2.75%)
- Wage drift: 0.00% (previous year: 0.00%)
- Pension trend: 1.40% (previous year: 1.25%)

In some cases, differing assumptions were made for small volumes in foreign subsidiaries. These parameters are also applied in the following year to the calculation of the cost of the entitlement acquired. The total cost of defined benefit commitments breaks down as follows:

in EUR 000	2017	2016
Current service cost	895	1,201
Interest expense	1,878	2,247
Expected income (-) from plan assets	-163	-179
<b>Total</b>	<b>2,610</b>	<b>3,269</b>

The present values of the defined benefit obligations changed as follows:

in EUR 000	2017	2016
Present value of the defined benefit obligations on January 1	107,086	100,053
Present value of the entitlement acquired in the year	895	1,201
Interest expenditure on entitlement already acquired	1,878	2,247
Payments from provisions	-5,139	-4,286
Actuarial gains (-)/losses (+)	-1,657	7,871
<b>Present value of the defined benefit obligations on December 31</b>	<b>103,063</b>	<b>107,086</b>

The plan assets break down as follows:

in EUR 000	2017	2016
Value of plan assets on January 1	6,649	6,478
Payments received	124	124
Payments made	-644	-111
Expected income	164	179
Actuarial gains (-)/losses (+)	183	-21
<b>Value of plan assets on December 31</b>	<b>6,476</b>	<b>6,649</b>

Of the remeasurements, EUR 0 (previous year: EUR 0.273 million) is due to changes in demographic assumptions, EUR -1.189 million (previous year: EUR 6.644 million) to changes in financial assumptions, EUR -0.658 million

(previous year: EUR 0.954 million) to changes as a result of historical data and EUR -0.183 million (previous year: EUR 0.021 million) to the remeasurement of returns on plan assets.

The plan assets (EUR 4.928 million, previous year: EUR 5.295 million) chiefly comprise savings plans with insurance companies that are classified by the Belgian Financial Services and Markets Authority (FSMA) as Class 21 and Class 23 insurance policies and a "Unterstützungskasse" (pension funding scheme under German law) (EUR 1.382 million, previous year: EUR 1.199 million).

Actual income from plan assets came to EUR 0.347 million (previous year: EUR 0.105 million). The present value is reconciled with the defined benefit (defined benefit liability (+)/defined benefit asset (-)) as follows:

in EUR 000	31/12/17	31/12/16
Actual present value of the defined benefit obligation	103,063	107,086
Fair value of plan assets	-6,476	-6,649
<b>Retirement benefit obligations recorded on the balance sheet</b>	<b>96,587</b>	<b>100,437</b>

The retirement benefit obligation breaks down into a defined benefit liability and defined benefit asset as follows:

in EUR 000	31/12/17	31/12/16
Defined benefit asset	0	0
Defined benefit liability	96,587	100,437

Contributions of EUR 0.827 million are expected to be paid in 2018. The following cash outflows are expected in the following periods:

Year(s)	in EUR 000
2018	5,259
2019	4,760
2020	4,776
2021	5,229
2022	5,444
2023-2027	25,621

The present value of the defined benefit obligations of EUR 0.436 million (previous year: EUR 0.426 million) was calculated in accordance with the entry age normal method.

The fractional values are computed using actuarial principles based on the 2005 G biometric tables compiled by Klaus Heubeck and an interest rate of 3.68%. With respect to these provisions, it is assumed that the application of the projected unit credit method provided for in IAS 19 would not result in any major differences in this item. If the discount rate were 0.25% lower, the present value of the retirement benefit obligations would increase by EUR 3.494 million. If the discount rate were 0.25% higher, the present value of the retirement benefit obligations would decrease by EUR 3.292 million. If the rate by which retirement benefits rise were 0.25% higher, the present value of the retirement benefit obligations would increase by EUR 2.523 million. If the rate by which retirement benefits rise were 0.25% lower, the present value of the retirement benefit obligations would decrease by EUR 2.429 million.

#### **(26) OTHER PROVISIONS (CURRENT AND NON-CURRENT)**

Non-current personnel-related provisions primarily comprise provisions for phased retirement scheme obligations in the Aerospace + Industrial Products business unit. The phased retirement agreements expire in 2019. Plan assets in the form of funds (EUR 1.384 million, previous year: EUR 2.415 million) were netted with the provisions for phased retirement obligations (EUR 0.538 million, previous year: EUR 1.305 million), resulting in a netted figure of EUR 0.846 million. Other personnel-related provisions primarily relate to obligations towards employees of EUR 15.758 million (previous year: EUR 13.400 million) under recurring wage and salary obligations. An outflow in the personnel-related provisions is expected in the first quarter of 2018.

#### **Statement of changes in provisions**

in EUR 000	01/01/2017	Additions	Utilized	Reversed	Other changes	31/12/2017	Of which non-current
Pending losses and risks	4,731	599	2,756	0	4,021	5,397	80
Remaining work on fully invoiced projects	6,041	3,584	587	0	1,237	3,107	0
Other provisions	4,310	2,899	919	0	4,268	4,760	965
Personnel-related provisions	14,510	14,649	0	43	16,786	16,604	846
	<b>29,592</b>	<b>21,731</b>	<b>4,262</b>	<b>43</b>	<b>26,312</b>	<b>29,868</b>	<b>1,891</b>

#### **(27) NON-CURRENT FINANCIAL LIABILITIES**

This mostly entails non-current liabilities towards banks owed by the subsidiary OHB System AG in an amount of EUR 30 million (previous year: EUR 0 million). In addition OHB Italia S.p.A. has bank borrowings of EUR 0.414 million (previous year: EUR 0.349 million). These liabilities are due

for settlement in more than twelve months after the reporting date.

The loan contract for OHB System AG provides for three covenants, which were duly observed in the year under review.

**(28) NON-CURRENT PREPAYMENTS RECEIVED**

This entails prepayments made by customers for contracts under construction which are due for completion in more than twelve months. They are measured at their nominal amounts.

**(29) CURRENT FINANCIAL LIABILITIES**

This entails current liabilities towards banks held by OHB SE (EUR 33 million, previous year: EUR 33 million), OHB System AG (EUR 15.212 million, previous year: EUR 52.009 million), OHB Italia S.p.A. (EUR 15.601 million, previous year: EUR 8.097 million) and OHB Teledata GmbH (EUR 0.073 million, previous year: EUR 0).

The syndicated loan, which was used with a value of EUR 48 million as of the reporting date (previous year: EUR 85 million), provides for two covenants, which were duly observed in the year under review.

**(30) CURRENT PREPAYMENTS RECEIVED ON ORDERS**

This item comprises prepayments made by customers for contracts under construction due for completion in less than twelve months.

**(31) CURRENT FINANCIAL AND NON-FINANCIAL OTHER LIABILITIES**

The other non-financial liabilities primarily comprise staff cost liabilities as well as outstanding invoices of EUR 8.668 million (previous year: EUR 9.096 million).

in EUR 000	<b>31/12/17</b>	31/12/16
<b>NON-FINANCIAL LIABILITIES</b>		
Value added tax	819	7,693
Social security and payroll tax liabilities	3,714	3,946
Others	12,432	14,169
<b>FINANCIAL LIABILITIES</b>		
Hedged derivatives	48	250
Other financial liabilities	4,213	2,929
<b>Total</b>	<b>21,226</b>	<b>28,987</b>

**(32) ADDITIONAL DISCLOSURES ON FINANCIAL INSTRUMENTS**

Originated financial assets primarily comprise other financial assets, trade receivables, securities available for sale and held to maturity and cash and cash equivalents. The available-for-sale and held-for-trading financial assets are reported at their fair value and equity investments that are not measured at fair value and the other financial assets are reported at amortized cost. Originated financial liabilities primarily comprise liabilities measured at amortized cost. Adjustments are made for all discernible risks of default in financial assets.

**Measurement hierarchy for financial assets at fair value through profit and loss**

**Level 1:** Financial instruments traded in active markets, the listed prices of which are applied for measurement purposes.

**Level 2:** Financial instruments are measured using methods with parameters which are derived directly or indirectly from observable market data.

**Level 3:** Financial instruments are measured using methods with parameters which are not based solely on observable market data.

in EUR 000	31/12/2017			31/12/2016		
	Level 1	Level 2	Level 3	Level 1	Level 2	Level 3
<b>AVAILABLE-FOR-SALE FINANCIAL ASSETS</b>						
Equity interest in ORBCOMM	18,941	0	0	17,495	0	0
<b>FINANCIAL ASSETS HELD FOR TRADING</b>						
Securities	461	0	0	385	0	0

The fair value of the securities is derived from their listed market price. There were no transfers between the individual hierarchical levels in the year under review.

#### Loan settlement periods

in EUR 000	31/12/2017				
	Less than one year	One to two years	Three to five years	More than five years	Total
Non-current financial liabilities*	0	1,078	20,719	10,111	<b>31,908</b>
Current financial liabilities	63,886	0	0	0	<b>63,886</b>
Trade payables	84,141	0	0	0	<b>84,141</b>
Other current financial liabilities	4,213	0	0	0	<b>4,213</b>
<b>Total</b>	<b>152,240</b>	<b>1,078</b>	<b>20,719</b>	<b>10,111</b>	<b>184,148</b>

\* including borrowing costs

in EUR 000	31/12/2016				
	Less than one year	One to two years	Three to five years	More than five years	Total
Non-current financial liabilities	0	349	0	0	<b>349</b>
Current financial liabilities	93,108	0	0	0	<b>93,108</b>
Trade payables	67,308	0	0	0	<b>67,308</b>
Other current financial liabilities	2,929	0	0	0	<b>2,929</b>
<b>Total</b>	<b>163,345</b>	<b>349</b>	<b>0</b>	<b>0</b>	<b>163,694</b>

### Additional disclosures on financial instruments

in EUR 000	31/12/2017		31/12/2016	
	Non-current	Current	Non-current	Current
Available-for-sale financial assets	32,610		30,979	
Financial assets held for trading		461		385
Loans and receivables				
Trade receivables and PoC		328,247		318,761
Securities	219		632	
Other financial assets	2,152	29,472	2,491	34,572
Cash and cash equivalents		58,578		56,567
	<b>2,371</b>	<b>416,297</b>	<b>3,123</b>	<b>409,900</b>
	<b>34,981</b>	<b>416,758</b>	<b>34,102</b>	<b>410,285</b>
Historical cost				
Trade payables	0	83,141	0	67,308
Financial liabilities	30,414	63,886	349	93,108
Other financial liabilities	0	4,261	0	2,929
	<b>30,414</b>	<b>151,288</b>	<b>349</b>	<b>163,345</b>

It is assumed that the carrying amount of the other financial assets, the trade receivables, the PoC receivables and cash and cash equivalents equals their fair value due to their short-term status.

The carrying amount of the non-current assets classified as loans and receivables (LaR) (EUR 2.152 million, previous year: EUR 2.491 million) approximates their fair value. These chiefly comprise non-interest-bearing deposits. However, in view of the current low interest rates, there is virtually no difference.

The shares in ORBCOMM Inc. are classified as available for sale (AfS) and recognized at their fair value (EUR 18.941 million, previous year: EUR 17.494 million) as determined by the price of the shares quoted on the New York Stock Exchange. As in the previous year, the shares in Ariane-space Participation (EUR 8.328 million), MAN Dezentrale Energiesysteme GmbH (EUR 1.022 million), MT Mecatrònica SpA (EUR 0.530 million) and other small shares are recognized at their carrying amount as it was not possible to reliably calculate a fair value.

The securities classified as financial assets held for trading (FAHfT) are recognized at their fair value, meaning that the carrying amount equals the fair value. The fair value was derived from the listed stock exchange price on the reporting date.

The carrying amount of current financial liabilities measured at amortized cost (FLAC) as well as financial liabilities and trade payables equals their fair value due to their short-term nature.

Other financial liabilities include a loan of EUR 1.382 million (previous year: EUR 1.199 million) received from the "Unterstützungskasse" (pension funding scheme under German law) which is subject to interest of 5%. As the loan can be terminated at any time, the carrying amount is close to its fair value. The loan must be repaid in a single sum upon termination at the latest.

Non-current financial liabilities measured at amortized cost (FLAC) have a carrying amount of EUR 30.414 million (previous year: EUR 0.349 million), which is close to their fair value. It would currently be possible to raise a loan on the same terms.

Net earnings do not include any interest income or interest expense. These are described in the section on net finance income/expense.

**Net gains/losses by type**

in EUR 000	2017	2016
Assets held for trading	0	0
Available-for-sale financial assets	1,251	2,699
Loans and receivables	-650	7
of which impaired	-650	7
Financial liabilities at amortized cost	0	0

**(33) CASH FLOW STATEMENT****RECONCILIATION OF FINANCIAL LIABILITIES**

in EUR 000	Non-current financial liabilities	Current financial liabilities	Total financial liabilities
January 1, 2017	349	93,108	93,457
Cash flows			
Payments received from raising borrowings	30,650	7,577	38,227
Payments made for the settlement of financial liabilities	-585	-36,799	-37,384
<b>December 31, 2017</b>	<b>30,414</b>	<b>63,886</b>	<b>94,300</b>

**CREDIT RISKS**

Credit risks are generally considered to be small. However, general risks of default may always occur as a result of specific economic conditions. Receivables comprise a large proportion of amounts owed by public-sector customers free of any credit risk, while there is no risk clustering with respect to the other amounts owed. For this reason, the Group as a whole does not take out any credit insurance for receivables.

**CURRENCY RISKS**

A small volume of sales is denominated in foreign currencies (USD, GBP, NOK). As of the reporting date, these mainly comprise receivables denominated in USD equaling EUR 3.388 million (previous year: EUR 2.600 million). Purchases in a foreign currency (USD, GBP) are of a negligible amount. The USD/EUR exchange rate influences income and expenses in aeronautic business. All orders and receivables denominated in US dollars have been hedged by means of currency forwards for 2017.

As of the reporting date, currency forwards with a nominal value of USD 8.152 million (EUR 7.064 million) had been transacted to cover the exports of two Group companies. Of this, cash flow hedges account for USD 4.762 million (EUR 4.059 million). An amount of USD 4.056 million (EUR 3.473 million) falls due in the second half of 2018. Other liabilities includes currency forwards in ZAR (cash flow hedges) with a fair value of EUR 48 thousand. Of this, currency forwards with a nominal value of ZAR 6.1 million (EUR 0.402 million) fall due in the first half of 2018. Other financial assets include currency forwards with a fair value of EUR 0.197 million (previous year: EUR -0.130 million) for fair value hedges and EUR 0.149 million (previous year: EUR -0.120 million) for cash flow hedges.

The fair value of the derivatives was calculated on the basis of forward prices on the reporting date.

### INTEREST RISKS

Investments with low risks are preferred so as to avert interest risks and are subject to normal market fluctuation. Short-term loans are raised to cover requirements of working capital arising from project payment cycles. For this purpose, funds under a loan facility agreement with a market-based floating interest rate component depending on the observance of covenants are used. A 1% change in the interest rate on such drawings would result in additional expense of around EUR 0.940 million. Any further decline in interest rates is not expected. The non-current financial liabilities expiring in 2024 are subject to fixed interest rates.

### CAPITAL RISK MANAGEMENT

One of the OHB Group's most important financial targets is to achieve sustained growth in enterprise value and to ensure solvency at all times in the interests of protecting its going-concern status and to achieve an optimum capital structure. In this connection, the creation of adequate liquidity reserves, while preserving the Company's ability to pay out a dividend, is of crucial importance. These goals are achieved by means of an integrated controlling system which provides the management with various data on balance sheet positions as part of a monthly analysis. This provides information on trends in the Company's equity and serves as a basis for management decisions. The equity ratio stood at 28.8% as of December 31, 2017 (previous year: 26.9%). The equity ratio was calculated relative to the Group's total assets. The Company is targeting an equity ratio of above 25%. The overall strategy pursued by the Group was unchanged over 2016.

## IX. OTHER INFORMATION

### SEGMENT REPORTING

IFRS 8 stipulates that operating segments are to be defined on the basis of internal segment reporting which is regularly reviewed by the Company's chief operating decision maker with respect to the allocation of resources to these segments and the assessment of their profitability. The main management indicators used within the OHB Group are total revenues, EBIT and EBITDA. Information reported to the Management Board as the chief operating decision maker for the purposes of allocating resources to the Company's segments as well as the assessment of their profitability mostly covers the types of goods and services which are produced or provided. The Group comprises the following reportable segments as defined in IFRS 8:

- Space Systems
- Aerospace + Industrial Products

The Space Systems segment chiefly develops and executes space projects. The Aerospace + Industrial Products segment is primarily responsible for fabricating aviation and space products as well as other industrial activities. The segments are described in detail in the Group management report. Segment income, expenses and earnings also entail business relations between the business units. These transfers were netted in full. The measurement principles applied in segment reporting are identical to those applied in the preparation of the consolidated financial statements. The holding company is shown separately as most of the equity interests are held on this level. OHB SE exercises the function of an active holding company. Sales break down by product group and region as follows:

#### Sales by product group

in EUR 000	<b>2017</b>	2016
Space technology	792,567	660,168
Aviation	14,635	16,139
Antennas	9,786	12,113
Others	8,906	10,764
<b>Total</b>	<b>825,894</b>	<b>699,184</b>

#### Sales by region

in EUR 000	<b>2017</b>	2016
Germany	301,604	240,726
Rest of Europe	519,221	453,211
Rest of the world	5,069	5,247
<b>Total</b>	<b>825,894</b>	<b>699,184</b>

With sales of EUR 184.222 million, EUR 132.286 million and EUR 128.516 million, respectively, three customers each account for more than 10% of the OHB Group's total sales. Non-current assets with a carrying amount of EUR 196.407 million (previous year: EUR 179.999 million) are located in Germany and those with a carrying amount of EUR 42.087 million (previous year: EUR 41.372 million) are located in other countries.

## Segment reporting

in EUR 000	Space Systems		Aerospace + Industrial Products	
	2017	2016	2017	2016
Sales	635,322	524,636	203,943	181,681
of which internal sales	272	233	13,099	6,900
Total revenues	661,252	559,451	211,876	175,943
Cost of materials and services purchased benefits	451,776	368,204	102,290	75,665
<b>EBITDA</b>	<b>32,977</b>	<b>33,060</b>	<b>25,468</b>	<b>21,861</b>
Depreciation/amortization	8,911	7,569	5,314	4,636
<b>EBIT</b>	<b>24,066</b>	<b>25,491</b>	<b>20,154</b>	<b>17,225</b>
Intangible assets, property, plant and equipment and financial assets	122,924	110,356	74,308	57,467
Current assets	325,439	338,184	196,054	174,377
<b>Total assets</b>	<b>448,363</b>	<b>448,540</b>	<b>270,362</b>	<b>231,844</b>
Equity	115,790	106,864	55,498	40,160
Liabilities	332,573	341,676	214,864	191,684
<b>Total assets</b>	<b>448,363</b>	<b>448,540</b>	<b>270,362</b>	<b>231,844</b>
Investments net of financial assets	23,317	35,408	21,294	14,766

## OTHER FINANCIAL OBLIGATIONS

in EUR 000	2017			
	Less than one year	One to five years	More than five years	Total
Rental contracts (operating leases)	11,867	28,851	27,509	68,227
Leases (operating leases)	852	1,599	0	2,451
<b>Total</b>	<b>12,719</b>	<b>30,450</b>	<b>27,509</b>	<b>70,678</b>

in EUR 000	2016			
	Less than one year	One to five years	More than five years	Total
Rental contracts (operating leases)	11,963	33,830	33,945	79,738
Leases (operating leases)	730	1,317	0	2,047
<b>Total</b>	<b>12,693</b>	<b>35,147</b>	<b>33,945</b>	<b>81,785</b>

There are no purchase options. As of the reporting date, there were obligations under guarantees of EUR 37.487 million (previous year: EUR 46.517 million). The participating companies have assumed joint and several liability for obligations under the credit facility.

There were obligations under guarantees of EUR 3.874 million (previous year: EUR 5.337 million) for the loan liabilities of an associate.

Reconciliation						
Holding		Consolidation			Total	
<b>2017</b>	2016	<b>2017</b>	2016	<b>2017</b>	2016	
0	0	-13,371	-7,133	825,894	699,184	
0	0	-13,371	-7,133	0	0	
7,889	7,562	-21,330	-14,570	859,689	728,386	
0	0	-11,393	-5,443	542,673	438,426	
<b>364</b>	<b>160</b>	<b>0</b>	<b>0</b>	<b>58,809</b>	<b>55,081</b>	
25	27	336	149	14,586	12,381	
<b>339</b>	<b>133</b>	<b>-336</b>	<b>-149</b>	<b>44,223</b>	<b>42,700</b>	
63,110	61,497	-37,298	-39,688	223,044	189,632	
42,545	53,410	-67,384	-72,689	496,654	493,282	
<b>105,655</b>	<b>114,907</b>	<b>-104,682</b>	<b>-112,377</b>	<b>719,698</b>	<b>682,914</b>	
62,854	64,974	-26,862	-28,408	207,280	183,590	
42,801	49,933	-77,820	-83,969	512,418	499,324	
<b>105,655</b>	<b>114,907</b>	<b>-104,682</b>	<b>-112,377</b>	<b>719,698</b>	<b>682,914</b>	
30	42	0	0	44,641	50,216	

#### EMPLOYEES

The average head count stood at 2,368 in the year under review (previous year: 2,220). As of December 31, 2017, there were 1,624 employees in the Space Systems business unit (previous year: 1,500), 786 employees in the Aerospace + Industrial Products business unit (previous year: 789) and 10 employees in the holding company (previous year: 9).

## X. MANAGEMENT BOARD AND SUPERVISORY BOARD

The Company's Management Board comprises:

- Mr. Marco Fuchs, Lilienthal; Chief Executive Officer
- Dr. Fritz Merkle, Eching/Freising; business development and marketing
- Mr. Ulrich Schulz (until July 31, 2017), Bremen
- Mr. Klaus Hofmann, Bremen; Chief Human Resources Officer

The Company's Supervisory Board comprises:

- Mrs. Christa Fuchs, Bremen, managing shareholder of VOLPAIA Beteiligungs-GmbH, Bremen; chairwoman
- Prof. Heinz Stoewer, Munich, Professor em. Space Systems Engineering, Technical University of Delft, Netherlands, managing director of SAC Space Associates Beratungs GmbH, Munich
- Mr. Robert Wethmar, Hamburg, partner at law firm Taylor Wessing

Offices held by members of the Company's Management Board and Supervisory Board in other supervisory boards and management bodies in 2017:

- Mr. Marco Fuchs

Group mandates:

- MT Aerospace AG, Augsburg, chairman of the supervisory board
- ORBCOMM Inc., Rochelle Park, NJ, United States, member of the board of directors
- OHB Italia S.p.A., Milan, Italy, chairman of the board of directors
- OHB Sweden AB, Stockholm, Sweden, chairman of the board of directors
- Antwerp Space N.V., Antwerp, Belgium, chairman of the board of directors
- LuxSpace Sàrl, Betzdorf, Luxembourg, chairman of the board of directors

Non-group mandates:

- SV Werder Bremen GmbH & Co. KGaA., Bremen, deputy chairman of the supervisory board
- ZARM Technik AG, Bremen, chairman of the supervisory board
- Jacobs University Bremen gGmbH, Bremen, member of the supervisory board
- Mr. Ulrich Schulz
- ATB Institut für angewandte Systemtechnik Bremen GmbH, Bremen, member of the supervisory board (Group mandate)
- Mrs. Christa Fuchs
- ORBCOMM Deutschland Satellitenkommunikation AG, Bremen, chairwoman of the supervisory board (Group mandate)
- COSMOS Space Systems AG, Bremen, chairwoman of the supervisory board (Group mandate)
- OHB System AG, Bremen, chairwoman of the supervisory board (Group mandate)

### Securities held by members of the Company's Management Board and Supervisory Board

as of December 31, 2017	Shares	Changes 2016/17
Christa Fuchs, Chairwoman of the Supervisory Board	1,401,940	-
Professor Heinz Stoewer, member of the Supervisory Board	1,000	-
Marco Fuchs, Chairman of the Management Board	6,046,610	-
Dr. Fritz Merkle, member of the Management Board	1,000	-
Ulrich Schulz, member of the Management Board until July 31, 2017	54	-

**EXEMPTION FROM THE DUTY TO DISCLOSE THE FINANCIAL STATEMENTS OF THE GROUP COMPANIES**

At their meeting of March 20, 2017, the shareholders of OHB System AG passed a resolution to adopt the exemption provisions in Section 264 (3) of the German Commercial Code with respect to disclosure of the annual financial statements.

**RELATED PARTIES DISCLOSURES**

Related parties as defined in IAS 24 comprise Christa Fuchs, Romana Fuchs Mayrhofer, Marco Fuchs, Ulrich Schulz, Dr. Fritz Merkle, Klaus Hofmann, Prof. Heinz Stoewer and Robert Wethmar. The following companies are related parties:

- OHB Grundstücksgesellschaft, Achterstraße GmbH & Co. KG, Bremen
- OHB Grundstücksgesellschaft, Kitzbühler Straße GmbH & Co. KG, Bremen
- OHB Grundstücksgesellschaft, Universitätsallee GmbH & Co. KG, Bremen
- OHB Grundstücksgesellschaft, Karl-Ferdinand-Braun-Straße GmbH & Co. KG, Bremen
- VOLPAIA Beteiligungs-GmbH, Bremen
- Apollo Capital Partners GmbH, Munich
- Immobiliare Gallarate S.r.l., Milan
- KT Grundstücksverwaltungs GmbH & Co. KG, Munich
- Schloß Annaberg GmbH, Latsch, Italy
- Aerotech Peissenberg GmbH & Co. KG, Peissenberg

Business transactions with related parties are conducted on arm's length terms. In the year under review, sales and other income of EUR 0 million (previous year: EUR 0 million) arose from transactions with related parties, while expenditure on goods and services purchased and rentals came to around EUR 7.342 million (previous year: EUR 7.154 million) at Group companies. Under a contract with the law firm Taylor Wessing, of which Robert Wethmar is a partner, fees of a total of EUR 82 thousand were paid in consideration of the advisory services for Group companies. Outstanding receivables as of the reporting date were valued at EUR 0 (previous year: EUR 0). As of December 31, 2017, there were liabilities of EUR 0 million (previous year: EUR 0 million).

There were pension obligations towards related parties of EUR 0.215 million (previous year: EUR 0.205 million) as of the reporting date. No contributions were made to the plan.

Benefits for surviving dependents of EUR 22 thousand were paid.

As of the reporting date, there were receivables of EUR 0.025 million (previous year: EUR 0.025 million) and liabilities of EUR 0.460 million (previous year: EUR 0.968 million) against related parties.

There are loans with a carrying amount of EUR 27.700 million (previous year: EUR 27.175 million) for associates subject to a fixed interest rate of 3–5%. These loans are automatically renewed unless they are terminated before the expiry date. Interest of EUR 1.060 million (previous year: EUR 1.076 million) was recognized. All loans expire within one year. The outstanding loan amount is payable in a single amount upon termination. No collateral has been provided for the loans.

**DECLARATION OF CONFORMITY WITH THE CORPORATE GOVERNANCE CODE PURSUANT TO SECTION 161 OF THE GERMAN STOCK CORPORATION ACT**

The Management Board and the Supervisory Board have published the declaration required pursuant to Section 161 of the German Stock Corporation Act confirming that save for a few small exceptions (see Corporate Governance Report on page 64) the Group already conforms to the German Corporate Governance Code and will continue to do so in the future. The declaration of conformance is available on the Internet at:

<https://www.ohb.de/en/investor-relations/corporate-governance/declaration-of-compliance/>

**ALLOCATION OF EARNINGS**

OHB SE exercises the function of an active holding company. Its main assets comprise investments which were carried at a value of EUR 44.785 million on the reporting date. OHB SE's equity stood at EUR 52.121 million on December 31, 2017. The Company's single-entity financial statements carry cash and cash equivalents of EUR 1.812 million. Income of EUR 6.767 million under profit transfer agreements particularly made a contribution to net profit of EUR 5.338 million for 2017. The single-entity financial statements prepared by OHB SE pursuant to German GAAP (HGB) for the year ending December 31, 2017 carry an unappropriated surplus of EUR 12,883,039.53. The Management Board will be asking the shareholders to pass a resolution providing for the allocation of the Company's unappropriated surplus of EUR 12.833 million for 2017 as specified in the table entitled "Allocation of unappropriated surplus". The figures stated for the total dividend and the amount to be carried

forward are based on the number of dividend-entitled shares as of the date of the Management Board's allocation proposal. Pursuant to Section 71 b of the German Stock Corporation Act, the Company's treasury stock (80,496 shares) as of the reporting date is not dividend-entitled. If the number of shares held as treasury stock on the date on which the shareholders pass a resolution adopting the proposal for the allocation of the Company's unappropriated surplus is greater or smaller than on the reporting date, the amount payable to the shareholders will be increased or, as the case may be, decreased by the amount attributable to the difference in the number of shares. The amount to be carried forward will be adjusted accordingly. However, there will be no change in the distributable dividend per dividend-entitled share. If necessary, the shareholders will be presented with a correspondingly modified proposal for the allocation of the Company's unappropriated surplus. The dividend distributed for 2016 came to EUR 0.40 per dividend-entitled share (17,387,600 shares), resulting in a total payout of EUR 6,955,040.00. In addition, an amount of EUR 7,545,252.76 was carried forward. The unappropriated surplus came to EUR 14,500,292.76 in 2016.

#### Allocation of unappropriated surplus

in EUR	2017
Unappropriated surplus	12,883,039.50
Dividend of EUR 0.40 for each dividend-entitled share (17,387,600 shares)	6,955,040.00
Amount to be carried forward	5,927,999.50

#### REMUNERATION

As a matter of principle, the compensation paid to the members of the Management Board comprises fixed and variable components. There is currently no provision for any share-based compensation components or compensation components with a long-term incentive. In the event of the death of a Management Board member, his surviving dependents are entitled to receive continued payment of that member's fixed compensation for a further period of six months. The principles of the compensation system as well as the individualized compensation paid to the Management Board are described in detail in the compensation report, which forms part of the management report (page 62). The total compensation paid to the members of the Management Board for 2017 came to EUR 1.973 million (previous year: EUR 2.056 million). Of this, an amount of EUR 0.935 million (previous year: EUR 0.950 million) comprises variable remuneration, EUR 1.038 million (previous year: EUR 1.106 million) fixed remuneration components plus benefits such as an advance towards health and

pension insurance as well as private use of a company car. The total compensation paid to members of the Supervisory Board for 2017 came to EUR 70 thousand (previous year: EUR 70 thousand). Of this, the chairwoman of the Supervisory Board received EUR 30 thousand (previous year: EUR 30 thousand) and the other members of the Supervisory Board a total of EUR 40 thousand (previous year: EUR 40 thousand). Variable compensation components were dispensed with. Under a contract with the law firm Taylor Wessing, of which Robert Wethmar is a partner, fees of a total of EUR 82 thousand were paid in consideration of the advisory services for Group companies.

#### AUDITOR FEES AND SERVICES

In the period under review, the OHB Group recorded the following fees paid to PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Bremen, the auditors of its financial statements:

- Audit of the consolidated and annual financial statements: EUR 0.260 million (previous year: EUR 0.220 million)
- Other services (mainly project-related consulting services): EUR 25 thousand (previous year: EUR 42 thousand)

#### EVENTS AFTER THE BALANCE SHEET DATE

The consolidated financial statements were approved by the Management Board for publication following the Supervisory Board's meeting of March 20, 2018.

The Management Board

Bremen, March 20, 2018



DR. FRITZ MERKLE



MARCO FUCHS



KLAUS HOFMANN

## INDEPENDENT AUDITOR'S REPORT

To OHB SE, Bremen

### REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

#### Audit Opinions

We have audited the consolidated financial statements of OHB SE, Bremen, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at December 31, 2017, and the consolidated statement of comprehensive income, consolidated statement of profit or loss, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1 to December 31, 2017, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of OHB SE for the financial year from January 1 to December 31, 2017. We have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report in accordance with the German legal requirements.

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 § [Article] 315e Abs. [paragraph] 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 December 31, 2017, and of its financial performance for the financial year from January 1 to December 31, 2017, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to §322 Abs. 3 Satz [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 Audit Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with §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 of the Group Management Report" section of our auditor's report. We are independent of the group entities 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 Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

#### Key Audit Matters in the Audit of the Consolidated Financial Statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from January 1 to December 31, 2017. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

- ① Accounting for construction contracts
- ② Recoverability of goodwill and internally generated intangible assets with a definite useful life

Our presentation of these key audit matters has been structured in each case as follows:

- ① Matter and issue
- ② Audit approach and findings
- ③ Reference to further information

Hereinafter we present the key audit matters:

#### ① Accounting for construction contracts

- ① The revenues reported in OHB SE's consolidated financial statements as of December 31, 2017 are attributable in an amount of € 739.0 Mio. to construction contracts for satellites and other long-running construction contracts.

They are measured according to the percentage of completion on the reporting date. For this purpose, the percentage of completion is estimated by comparing the production costs that have arisen as of the reporting date with the total budgeted production costs. The underlying cost estimates and allocation of the costs incurred in orders to the revenues reported in the consolidated financial statements are based on discretionary judgments and assumptions made by the Group's executive directors.

Against this backdrop and in view of the underlying scope for discretionary judgments and estimates by the executive directors and the complexity involved in accounting for construction contracts, this matter was of particular importance in our audit.

- ② In our audit, we assessed the processes and checks implemented by the Group for recording revenues from construction contracts for satellites and other long-running projects in the light of the percentage of completion, taking due account of the fact that the complexity and the scope for discretionary judgments and assessments result in a heightened risk of accounting misstatements.

Moreover, we examined the methods for calculating budgeted and actual costs. We also traced the consistency and continuity of the methods applied to calculate the costs incurred.

As well as this, we issued appropriate instructions to the auditors of subsidiaries of the Group to ensure sufficient, appropriate and consistent auditing activities in order to reasonably address the inherent risk in the audit of these matters.

We were duly satisfied that the executive directors' discretionary judgments and estimates underlying the recognition and measurement of revenues on the basis of the percentage of completion were documented adequately and derived consistently.

- ③ The Company's disclosures pertaining to the revenues from constructions contracts for satellites and other assets can be found in Note 1 "Revenues" of the consolidated financial statements.

#### ② Recoverability of goodwill and internally generated intangible assets with a definite useful life.

- ① In the consolidated financial statements of the company a total amount of € 110.3 Mio. (15,3% of consolidated total assets or 53.1% of equity) in goodwill and internally generated assets is reported under the balance sheet line item "Goodwill" and "Other intangible assets".

Goodwill is tested for impairment by the company on an annual basis or if there are indications that goodwill may be impaired and internally generated intangible assets with a definite useful life if there are indications that they may be impaired in order to determine a potential impairment loss.

The impairment test is performed on the level of those groups of cash-generating units, represented by the subsidiaries, to which the respective goodwill or the internally generated intangible assets is allocated.

As part of the impairment test, the carrying amount of the respective cash-generating units including goodwill or the internally generated intangible assets is compared against the corresponding recoverable amount.

In general, the recoverable amount is calculated on the basis of the value in use.

The basis for this calculation is usually the present value of future cash flows of the respective group of cash-generating units.

The present values are calculated using discounted cash flow models. Thereby, the approved medium-term planning of the Group serves as a starting point which is extrapolated on the basis of assumption about long-term growth rates. In doing so, expectations of future market development and assumptions regarding the development of macroeconomic factors are considered. The discount rate used is the weighted average costs of capital for the respective group of cash-generating

units. After additionally considering the value in use, the goodwill impairment test resulted in the recognition of an impairment loss in the total amount of € 0.4 Mio.

The result of this measurement depends to a large extent on management's assessment of future cash inflows of the respective group of cash-generating units, the discount rate and growth rate applied as well as further management assumptions. Therefore it is subject to considerable uncertainty. Against this background and due to the complexity of the measurement, this matter was of particular importance during our audit.

- ② In the course of our audit, we, among other things, assessed the method used for performing the impairment test. After comparing the future cash inflows used in the calculation with the approved medium-term planning of the Group, we evaluated the appropriateness of the calculation especially through reconciliation with general and industry-specific market expectations. Supplementary adjustments to the medium-term planning for the purpose of the impairment test were assessed and discussed by us with the responsible employees of the company. Furthermore, we also evaluated that the costs for Group functions were considered properly. With the knowledge that even relatively small changes in the discount rate applied can have material effects on the corporate value calculated in this way, we also focused our testing on the parameters used to determine the discount rate applied, and evaluated the measurement model. In order to take into account the forecast uncertainties, we assessed the sensitivity analyses performed by the company.

Taking into consideration the information available, we found that the respective carrying amount of the cash-generating units including goodwill was sufficiently covered by discounted future cash flows.

We consider the measurement parameters and assumptions used by management to be in line with our expectations and to lie also within a range that we consider reasonable.

- ③ The Company's disclosures pertaining to the impairment test as well as goodwill and internally generated intangible assets are contained in Note 11 "Goodwill and other intangible assets" of the consolidated financial statements.

#### Other Information

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- the statement on corporate governance pursuant to § 289 et seq. HGB and § 315d HGB included in section VII. of the group management report
- the corporate governance report pursuant to No. 3.10 of the German Corporate Governance Code.

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report, and the separate non-financial group report pursuant to § 315b Abs. 3 HGB.

The separate non-financial group report pursuant to § 315b Abs. 3 HGB is expected to be made available to us after the date of the auditor's report.

Our audit 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 audit 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 § 315e Abs. 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 of 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 audit 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 §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 audit 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 audit opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue 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 audit 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 §315e Abs. 1 HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit 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 audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

**OTHER LEGAL AND REGULATORY REQUIREMENTS**  
**Further Information pursuant to Article 10 of the EU Audit Regulation**

We were elected as group auditor by the annual general meeting on May 16, 2017. We were engaged by the supervisory board on November 24, 2017. We have been the group auditor of the OHB SE, Bremen, without interruption since the financial year 2016.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the supervisory board pursuant to Article 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 Dr. Thomas Ull.

Bremen, March 20, 2018

PricewaterhouseCoopers GmbH  
 Wirtschaftsprüfungsgesellschaft

Dr. Thomas Ull	ppa. Holger Schreiber
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

## **RESPONSIBILITY STATEMENT**

To the best of our knowledge, and in accordance with the applicable reporting principles for financial reporting, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the Group, and the management report of the Group includes a fair review of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.

Bremen, March 20, 2018

The Management Board



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# GLOS- SARY



## **ARIANE**

Series of European launch vehicles for space launch use, developed on behalf of the European Space Agency (ESA). Ariane 5 is currently used, Ariane 6 will be the follow-up from 2020 on

## **ARTES**

Advanced Research in Telecommunications Systems; technology program initiated by ESA to support research and development in the area of telecommunication

## **ARTES-7**

Long-term ESA plan for developing a European communications satellite network using the latest laser communications

## **ASI**

Agenzia Spaziale Italiana; Italian space agency

## **BAAINBW**

Federal Office of Bundeswehr (German Federal Armed Forces) Equipment, Information Technology and In-Service Support (formerly BWB, German Federal Office of Defense Technology and Procurement)

## **BDLI**

German Federal Aviation and Space Industry Association

## **BMVG**

German Federal Ministry of Defense

## **BMWI**

German Federal Ministry for Economic Affairs and Energy

## **CFRP**

Carbon fiber-reinforced plastic

## **COVENANT**

Undertaking that a borrower makes to the lending bank

## **DAX**

German bluechip share index, tracking the performance of the 30 largest shares listed on the Frankfurt stock exchange

**DIGITALIZATION**

Conversion of analog figures or data into a format that can be used digitally

**DLR**

Deutsches Zentrum für Luft- und Raumfahrt; German Space Agency

**EBIT**

Earnings before interest and taxes

**EBITDA**

Earnings before interest, taxes, depreciation and amortization

**EBT**

Earnings before taxes

**EC**

European Commission

**EDRS**

European Data Relay Satellite System; European system for implementing a data network in space using optical satellite communications

**EDRS-C**

Dedicated satellite for the European Data Relay Satellite System

**ELECTRA**

Fully electrically driven satellite based on the SmallGEO platform

**ENMAP**

Environmental Mapping and Analysis Programme; satellite for hyperspectral terrestrial observation

**EPS**

Earnings per share

**ESA**

European Space Agency

**EU**

European Union

**EXOMARS**

Scientific mission of the European Space Agency and Roscosmos to explore the Mars

**FOC\***

\*) The Full Operational Capability phase of the Galileo programme is managed and fully funded by the European Union (EU). The Commission and ESA have signed a delegation agreement by which ESA acts as design and procurement agent on behalf of the Commission. The views expressed here can in no way be taken to reflect the official opinion of the European Union and/or ESA. "Galileo" is a trademark subject to OHIM application number 002742237 by EU and ESA

**GALILEO**

European global satellite-based navigation system

**GEO**

Geostationary orbit; circular orbit 35,786 kilometres (22,236 miles) above the earth's equator and following the direction of the earth's rotation

**HEINRICH HERTZ**

Satellite mission based on the SmallGEO platform to explore new communications technologies in space

**HGB**

German Commercial Code

**HISPASAT 36W-1**

(formerly Hispasat Advanced Generation 1) Telecommunications satellite for the Spanish satellite operator Hispasat

**IAS**

International Accounting Standards

**IFRS**

International Financial Reporting Standards

**ISS**

International Space Station

**MTG**

Meteosat Third Generation; programme to develop, build and launch third-generation weather satellites

**NASA**

National Aeronautics and Space Administration; US space agency

**PERCENTAGE-OF-COMPLETION METHOD**

Accounting method under which revenues are allocated to a specific reporting period on the basis of the progress made on the completion of the contract in question

**R+D**

Research and development

**ROI**

Return on Investment; the profit from an activity for a particular period compared with the amount invested in it

**SAR-LUPE**

Synthetic Aperture Radar-Lupe; system of small satellites with a process for enhancing the quality of radar images

**SATCOMBW2**

Satellite Communications System of the German Federal Armed Forces which is in full operation mode since end of 2011

**SMALLGEO**

Developed by OHB System AG as part of the ESA ARTES program (Advanced Research in Telecommunications Systems), SmallGEO is a flexible geostationary satellite platform which can be tailored for different mission goals such as telecommunications, earth observation and technology testing

**SOYUZ**

Series of spacecraft (used for medium heavy payloads) designed for the Soviet space programme, since 2011 the rocket has also been launched from the Europe's Spaceport in Kourou

**TECDAX**

German stock index, that tracks the performance of the 30 largest German companies from the technology sector in terms of order book turnover and market capitalization

**TELEMATICS**

A system linking telecommunications and IT

**USD**

US dollar

**VLBI**

Very-long-baseline interferometry; a type of astronomical interferometry used in radio astronomy which allows very precise observations with regard to resolution and positioning

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**MAY 9**

**MAY 24**

**AUGUST 9**

**NOVEMBER 13**

**NOVEMBER 26 - 28**





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